
**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): **April 26, 2022**

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)

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

Not Applicable

(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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$.01 Per Share	MMM	New York Stock Exchange
	MMM	Chicago Stock Exchange, Inc.
0.950% Notes due 2023	MMM23	New York Stock Exchange
1.500% Notes due 2026	MMM26	New York Stock Exchange
1.750% Notes due 2030	MMM30	New York Stock Exchange
1.500% Notes due 2031	MMM31	New York Stock Exchange

Note: The common stock of the Registrant is also traded on the SWX Swiss Exchange.

Securities registered pursuant to section 12(g) of the Act: **None**

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, 2021 ("3M's 2021 Annual Report") to reflect the following changes effective in the first quarter of 2022 for all periods presented:

Business Segment Reporting Changes

Eliminating inclusion of dual credit in measure of segment operating performance

3M business segment operating performance measures were updated to no longer include dual credit to business segments for certain sales and related operating income. Management previously evaluated its business segments based on net sales and operating income performance, including dual credit reporting. 3M reflected 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 was provided by a different business segment. For example, privacy screen protection products are primarily sold by the Display Materials and Systems Division within the Transportation and Electronics business segment; however, certain sales districts within the Consumer business segment provide the customer account activity for sales of the product to particular customers. In this example, the non-primary selling segment (Consumer) previously would also have received credit for the associated net sales initiated through its sales district and the related approximate operating income. The offset to the dual credit business segment reporting was reflected as a reconciling item entitled "Elimination of Dual Credit," such that sales and operating income in total were unchanged.

Reflecting certain litigation-related costs in the Safety and Industrial segment's operating performance measure

3M's business segment operating performance measure with respect to its Safety and Industrial business segment was updated relative to litigation-related charges for respirator mask/asbestos litigation matters. Previously, 3M included these costs, when significant, as a special item within Corporate and Unallocated. 3M now includes all litigation-related costs associated with respirator/mask asbestos litigation matters within the Safety and Industrial business segment. For the periods presented, this change only impacted 2019.

Changes to Non-GAAP Measures - Certain Amounts Adjusted for Special Items

In addition to reporting financial results in accordance with U.S. GAAP, the 3M also provides non-GAAP measures that adjust for the impacts of special items. In the first quarter of 2022, the Company changed the extent of matters and charges/benefits it includes within special items with respect to net costs for significant litigation. Previously, 3M included net costs, when significant, associated with changes in accrued liabilities related to respirator mask/asbestos litigation and PFAS-related other environmental matters, along with associated tax impacts. The non-GAAP measure changes involved including net costs for litigation related to 3M's Combat Arms Earplugs, expanding net costs to include external legal fees and insurance recoveries associated with the applicable matters in addition to changes in accrued liabilities, and to include all such net costs for the applicable matters, not just when considered significant.

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 2021 Annual Report to reflect the changes described above, which were effective during the first quarter of 2022, for all periods presented herein. Updates provided in this Form 8-K are contained in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations", and Part II, Item 8, "Financial Statements and Supplementary Data" (specifically Note 1, Significant Accounting Policies, Note 2, Revenue, and Note 19, Business Segment and Geographic Information).

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 3M's 2021 Annual Report (e.g. new developments in commitments and contingencies). For significant developments since the filing of 3M's 2021 Annual Report, refer to subsequent 2022 Quarterly Reports on Form 10-Q.

Forward-Looking Statements

This Current Report contains forward-looking information about 3M's financial results and estimates and business prospects that involve substantial risks and uncertainties that could cause actual results to differ materially. 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 I and IA.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
23	Consent of Independent Registered Public Accounting Firm
99	Updates, where applicable, to 3M's 2021 Annual Report on Form 10-K include: Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations 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)
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded in the Inline XBRL document).

SIGNATURE

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/ Monish Patolawala

Monish Patolawala,
Executive Vice President, Chief Financial and Transformation Officer (Principal
Financial Officer)

Dated: April 26, 2022

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (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 (Nos. 333-236344, 333-42660, and 333-109211) of 3M Company of our report dated February 9, 2022, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of the changes in segment reporting discussed in Note 1, as to which the date is April 26, 2022, 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
April 26, 2022

3M COMPANY
ANNUAL REPORT ON FORM 10-K
UPDATED BY THIS CURRENT REPORT ON FORM 8-K
For the Year Ended December 31, 2021

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 will be incorporated by reference from the proxy statement.

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3M COMPANY
ANNUAL REPORT ON FORM 10-K
For the Year Ended December 31, 2021
PART I

Note: Item 1 through Item 6 have not been updated for changes since the filing of 3M's 2021 Annual Report, such as updates to legal proceedings. For significant developments since the filing of 3M's 2021 Annual Report, refer to subsequent 2022 Quarterly Reports on Form 10-Q.

Item 1. Business.

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).

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: Safety and Industrial; Transportation and Electronics; Health Care; 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.

Business Segments

3M manages its operations in four business segments. The reportable segments are Safety and Industrial, Transportation and Electronics, Health Care, and Consumer. 3M's four 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. Refer to segment descriptions summarized below (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):

Business Segment	Safety and Industrial	Transportation and Electronics	Health Care	Consumer
Underlying divisions/businesses <i>Refer to Note 2 for disaggregated revenue information</i>	<ul style="list-style-type: none"> • Abrasives • Automotive aftermarket • Closure and masking systems • Electrical markets • Industrial adhesives and tapes • Personal safety • Roofing granules • Other safety and industrial 	<ul style="list-style-type: none"> • Advanced materials • Automotive and aerospace • Commercial solutions • Display materials and systems • Electronics materials solutions • Transportation safety • Other transportation and electronics 	<ul style="list-style-type: none"> • Drug delivery (divested in 2020) • Food safety • Health information systems • Medical solutions • Oral care • Separation and purification sciences • Other health care 	<ul style="list-style-type: none"> • Consumer health and safety • Home care • Home improvement • Stationery and office • Other consumer
Representative revenue-generating activities, products or services	<ul style="list-style-type: none"> • Industrial abrasives and finishing for metalworking applications • Autobody repair solutions • Closure systems for personal hygiene products, masking, and packaging materials • Electrical products and materials for construction and maintenance, power distribution and electrical original equipment manufacturers (OEMs) • Structural adhesives and tapes • Respiratory, hearing, eye and fall protection solutions • Natural and color-coated mineral granules for shingles 	<ul style="list-style-type: none"> • Advanced ceramic solutions • Attachment tapes, films, sound and temperature management for transportation vehicles • Premium large format graphic films for advertising and fleet signage • Light management films and electronics assembly solutions • Packaging and interconnection solutions • Reflective signage for highway, and vehicle safety 	<ul style="list-style-type: none"> • Food safety indicator solutions • Health care procedure coding and reimbursement software • Skin, wound care, and infection prevention products and solutions • Dentistry and orthodontia solutions • Filtration and purification systems 	<ul style="list-style-type: none"> • Consumer bandages, braces, supports and consumer respirators • Cleaning products for the home • Retail abrasives, paint accessories, car care DIY products, picture hanging and consumer air quality solutions • Stationery products <p>Some seasonality impacts this business segment related to back-to-school, generally in the third quarter of each year</p>
Example brands/offering	<ul style="list-style-type: none"> • 3M™ Cubitron™ II abrasives • Scotch-Brite™ Abrasives • Scotch & Temflex Vinyl Tapes, Scotchkote Coatings, Dynatel locators, Scotchcast resins • Collision repair and paint spray products • Reclosable fasteners; tapes and label materials for durable goods • Electrical infrastructure products; medium voltage cable accessories and insulation tapes • 3M™ VHB™ Bonding tapes; Scotch® masking, packaging and filament tapes • Disposable respirators and fall protection products • Scotchgard™ Protector for shingles 	<ul style="list-style-type: none"> • 3M™ Nextel™ Ceramic fibers and textiles • Thinsulate™ Acoustic Insulation products and automotive components • 3M™ Novec™ Engineered Fluids • 3M™ Scotchlite™ graphic films, 3M™ Scotchcal™ and 3M™ Controltac™ Commercial graphics • Electronic display enhancement films and optically clear adhesives • Electronic interconnect products • 3M™ Diamond Grade™ DG3 reflective sheeting for transportation safety 	<ul style="list-style-type: none"> • 3M™ Petrifilm™ and 3M™ Allergen Testing • 3M™ 360 Encompass™ medical coding systems • 3M™ Tegaderm™ wound dressings, V.A.C.® Therapy Systems and disposable respirators in the health care channel • 3M™ Filtek™ and 3M™ RelyX™ dental filing materials and cements; 3M™ Clarity™ aligners • Biopharma and other filtration systems, bags, capsules and components 	<ul style="list-style-type: none"> • ACE™, FUTURO™ and Nexcare™ personal health care products • Scotch-Brite™ cleaning supplies, sponges, brushes, and scouring pads; Scotchgard™ products • Scotch® tapes and other products, Filtrete™ filters and Command™ adhesive products • Post-it® products
Representative market trends or opportunities	<ul style="list-style-type: none"> • Connected safety • Structural bonding • Surface finishing • Respiratory protection • Building components • Automation and robotics • Grid modernization • Automotive electrification • Sustainable packaging 	<ul style="list-style-type: none"> • Automotive electrification • Semiconductor fabrication and assembly • Datacenter thermal management 	<ul style="list-style-type: none"> • Advanced wound care • Population health clinical care improvement platform • Increased food safety • Biopharma industry expansion • Custom orthodontics 	<ul style="list-style-type: none"> • Air quality • Connected filters and other products

Distribution

3M products are sold through numerous distribution channels, including directly to users and through numerous e-commerce and traditional 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.

Resources

Human Capital

On December 31, 2021, the Company employed approximately 95,000 people (full-time equivalents), with approximately 38,000 employed in the United States and 57,000 employed internationally. The ability to recruit, retain, develop, protect, and fairly compensate its global workforce are enablers of 3M's success. This includes four general categories of focus: Health and Safety; Development; Diversity, Equity and Inclusion; and Compensation and Benefits.

Health and Safety

3M is committed to the safety, health, and well-being of its employees. The Company continuously evaluates opportunities to raise safety and health standards, visiting sites to identify and manage environmental health and safety risks; evaluating compliance with regulatory requirements and 3M policy; and maintaining a global security operation for the protection of facilities and people on 3M sites. 3M also promotes a culture of health and well-being through disease prevention programs, on-site clinical services, employee assistance programs, and comprehensive health care benefits.

Development

Developing employees contributes to growing 3M's business. 3M maintains talent and succession planning processes, including regular review by the Company's chief executive officer (CEO) and reporting up through the Board of Directors. The Company has a suite of high-potential leadership development programs which brings a consistent approach to leadership development. 3M also has development programs for managers and supervisors and provides learning opportunities for all employees, in addition to regular coaching and support from their supervisor. With the Company's global online employee learning platform, employees are able to access unique, just-in-time development resources in over 15 languages to support their career aspirations and advance their skills.

Diversity, Equity and Inclusion

A diverse, global workforce and inclusive culture that provides fair and equitable opportunities helps 3M remain competitive, advance its innovation culture, and serve customers. 3M focuses on attracting and advancing top talent and has publicly committed to advance global diversity in management across all dimensions, with additional specific goals to continue advancing pay equity and to increase the Company's diversity with underrepresented groups. 3M supports these values with an internal CEO Inclusion Council, a forum led by senior management to advance diversity, equity, and inclusion initiatives. The Company also plans to invest \$50 million over 2020 to 2025 to address racial opportunity gaps through workforce development initiatives in the communities in which its employees live and 3M business operates.

Compensation and Benefits

3M has a trust-based approach to work that empowers employees to work where and when they can best achieve their goals, which supports attraction and retention of talent around the globe. In addition to a professional and flexible work environment that promotes innovation, well-being, and rewards performance, 3M's total compensation for employees includes a variety of components that support sustainable employment and the ability to build a strong financial future, including competitive market-based pay and comprehensive benefits. In addition to earning a base salary, eligible employees are compensated for their contributions to the Company's goals with both short-term cash incentives and long-term equity-based incentives. Through its global pay philosophy, principles and consistent implementation, 3M is committed to providing fair and equitable pay for employees. Eligible full-time employees in the United States also have access to medical, dental, and vision plans; savings and retirement plans; a 3M employee stock purchase plan; and other resources. Some of these benefits can also be available to regular part-time employees who work at least 20 hours a week. Programs and benefits differ internationally for a variety of reasons, such as local legal requirements, market practices, and negotiations with works councils, trade unions, and other employee representative bodies.

Raw Materials

In 2021, the coronavirus (COVID-19) pandemic caused imbalances within global supply markets. As markets re-opened and demand increased following COVID lockdowns, the Company experienced raw material price inflation and constrained supply. Multiple weather, logistics and other disruptive events worsened global supply chain imbalances and contributed to higher costs.

The Company continued to deploy productivity projects to minimize the impact of raw material inflation and market supply challenges, including input management, reformulations, and multi-sourcing activities. Overall, on a consolidated basis, 3M experienced net raw material price inflation in 2021. To help manage disruption to its manufacturing operations, 3M deploys careful management of existing raw material inventories, strategic relationships with key suppliers, as well as qualification of additional supply sources. It is difficult to predict future shortages of raw materials or the impact any such shortages would have. 3M manages spend category price risks through negotiated supply contracts and price protection agreements. In addition, 3M evaluates suppliers' conformance with environmental and social compliance requirements.

Patents, Trademarks and Licenses

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 or trade secrets. 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 trademarks, patents, and trade secrets 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.

Government Regulation and Environmental Law Compliance

The Company's business operations are subject to various governmental regulations in the U.S. and internationally, including, among others, those related to product liability, antitrust, intellectual property, environmental, tax, the U.S. Foreign Corrupt Practices Act and other anti-bribery laws, U.S. trade sanctions, regulations of the U.S. Food and Drug Administration (FDA) and similar foreign agencies, U.S. federal healthcare program-related laws and regulations, such as the False Claims Act, anti-kickback laws and the Sunshine Act.

3M's manufacturing operations are affected by national, state and local environmental laws and regulations around the world. The Company places consistent emphasis on environmental responsibility. 3M has made, and plans to continue making, necessary expenditures for compliance with applicable laws and regulations. 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 16, 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 2021, 3M expended approximately \$157 million on capital projects for environmental purposes as defined below. Capital projects for environmental purposes include waste reduction and pollution control programs such as, water usage reduction and water quality improvement equipment, scrubbers, containment structures, solvent recovery units and thermal oxidizers. Capital expenditures for similar projects are presently expected to approach approximately \$668 million for 2022 and 2023 in aggregate.

Although an estimate of certain nearer-term capital expenditures is provided above, 3M cannot predict with certainty whether future costs of compliance with government regulations (including environmental regulations) will have a material effect on its capital expenditures, earnings or competitive position.

Information about our 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 9, 2022).

Name	Age	Present Position	Year Elected to Present Position	Other Positions Held during 2017 - 2021
Michael F. Roman	62	Chairman of the Board and Chief Executive Officer	2019	Chief Executive Officer, 2018-2019 Chief Operating Officer and Executive Vice President, 2017-2018 Executive Vice President, Industrial Business Group, 2014-2017
John P. Banovetz	54	Executive Vice President, Chief Technology Officer and Environmental Responsibility	2021	Senior Vice President, Chief Technology Officer and Environmental Responsibility, 2021 Senior Vice President, Innovation and Stewardship and Chief Technology Officer, 2020 Senior Vice President of Research and Development and Chief Technology Officer, 2017-2019
Karina Chavez	48	Senior Vice President and Chief Strategy Officer	2021	Senior Vice President, Customer Operations, 2020-2021 Global Business Director, Home Improvement Business, 2017-2020
Zoe Dickson	48	Executive Vice President and Chief Human Resources Officer	2021	Senior Vice President, Talent, Learning and Insights, 2021 Vice President, Organization Effectiveness and Talent, Human Resources, 2020-2021 Vice President, Organization Effectiveness, Human Resources 2019-2020 Vice President, Global Human Resources Business Operations, Human Resources 2018-2019 HR Director, Consumer Business Group 2016-2018
Peter D. Gibbons	60	Group President, Enterprise Operations	2021	Chief Executive Officer, Tirehub, 2018-2021 Executive Vice President, Global Development and Product Supply & CSCO, Mattel, Inc, 2013-2018
Eric D. Hammes	47	Executive Vice President, Chief Country Governance and Services Officer	2021	Senior Vice President, Manufacturing & Supply Chain, 2019-2021 Vice President, Organization Effectiveness and Talent, Human Resources, 2017-2019 Vice President, Corporate Controller and Chief Accounting Officer, 2014-2017
Ashish K. Khandpur	54	Group President, Transportation & Electronics	2021	Executive Vice President, Transportation & Electronic Business Group, 2019-2021 Executive Vice President, Electronics & Energy Business Group, 2017-2019 Senior Vice President, Research and Development, and Chief Technology Officer, 2014-2017
Jeffrey R. Lavers	58	Group President, Consumer Business Group	2021	Executive Vice President, Consumer Business Group, 2020-2021 Vice President and General Manager, Automotive and Aerospace Solutions Division, 2019-2020 Vice President and General Manager, Construction and Home Improvement Division, 2015-2019
Mark Murphy	53	Executive Vice President, Chief Information and Digital Officer	2021	Chief Information Officer, Abbott Laboratories, 2020-2021 Global Chief Information Officer and Vice President, BTS, Abbott Laboratories, 2018-2020 Medical Devices Chief Information Officer and Divisional VP, Abbott Laboratories, 2017-2018
Monish Patolawala	52	Executive Vice President, Chief Financial and Transformation Officer	2021	Senior Vice President and Chief Financial Officer 2020-2021 Chief Financial Officer, Health Care and Vice President, Operational Transformation, General Electric, 2019-2020 Chief Financial Officer, Health Care, General Electric, 2015-2019
Mojdeh Poul	59	Group President, Health Care Business Group	2021	Executive Vice President, Health Care Business Group, 2019-2021 Executive Vice President, Safety and Graphics Business Group, 2018-2019 President and General Manager, 3M Canada, 2016-2018
Kevin H. Rhodes	59	Executive Vice President, Chief Legal Affairs Officer	2022	Senior Vice President and Deputy General Counsel, 2021 Vice President and Deputy General Counsel, 2019-2021 President and Chief Intellectual Property Counsel, Office of Intellectual Property Counsel and 3M Innovative Properties 2008-2019
Michael G. Vale	55	Group President, Safety & Industrial Business Group	2021	Executive Vice President, Safety & Industrial Business Group, 2019-2021 Executive Vice President, Health Care Business Group, 2016-2019

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:

- worldwide economic, political, regulatory, international trade, capital markets and other external conditions, such as interest rates, financial conditions of our suppliers and customers, trade restrictions such as tariffs in addition to retaliatory counter measures, inflation, and natural and other disasters or climate change affecting the operations of the Company or our suppliers and customers,
- risks related to public health crises such as the global pandemic associated with the coronavirus (COVID-19),
- liabilities related to certain fluorochemicals and the outcome of contingencies,
- the Company’s strategy for growth, future revenues, earnings, cash flow, uses of cash and other measures of financial performance, and market position,
- competitive conditions and customer preferences,
- foreign currency exchange rates and fluctuations in those rates,
- new business opportunities, product development, and future performance or results of current or anticipated products,
- fluctuations in the costs and availability of purchased components, compounds, raw materials and energy,
- Information technology systems including ERP system roll-out and implementations,
- Security breaches and other disruptions to information technology infrastructure,
- the scope, nature or impact of acquisition, strategic alliance and divestiture activities,
- operational execution, including inability to generate productivity improvements as estimated,
- 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 and effects of changes in tax rates, laws or regulations, and
- legal and regulatory proceedings, legal compliance risks (including third-party risks) with regards to environmental, product liability 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.

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 Condition and Results of Operations.”

Risks Related to the Global Economy and Public Health Crises

** The Company's results are impacted by the effects of, and changes in, worldwide economic, political, regulatory, international trade and other external conditions.*

The Company operates in more than 70 countries and derives approximately 60 percent of its revenues from outside the United States, and, accordingly, the Company's business is subject to global competition and geopolitical risks that are beyond its control, such as disruptions in financial markets, economic downturns, government actions impacting international trade agreements, imposing trade restrictions such as tariffs, and retaliatory counter measures, inflation, 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; or adverse changes in the availability and cost of capital, interest rates, or exchange control, ability to expatriate earnings and other regulations in the jurisdictions in which the Company operates. Climate change, as well as related environmental and social regulations, may negatively impact the Company or its customers and suppliers, in terms of availability and cost of natural resources, sources and supply of energy, product demand and manufacturing, and the health and well-being of individuals and communities in which we operate.

** The Company is subject to risks related to public health crises such as the global pandemic associated with the coronavirus (COVID-19).*

3M, as a global company, is impacted by public health crises such as the global pandemic associated with COVID-19. The outbreak has significantly increased economic and demand uncertainty. In addition, public and private sector policies and initiatives to reduce the transmission of COVID-19, such as the imposition of travel restrictions, the adoption of remote working, and government-ordered vaccine mandates, have impacted and will continue to impact 3M's operations. In these challenging and dynamic circumstances, 3M continues to work to protect its employees and the public, maintain business continuity and sustain its operations, including ensuring the safety and protection of approximately 50,000 people who work in our plants and distribution centers across the world, many of whom support the manufacturing and delivery of products that are critical in response to the global pandemic. COVID-19 has impacted 3M's supply chains relative to global demand for products like respirators, surgical masks and commercial cleaning solutions. Within individual regions and countries around the world, 3M is working with governments, distributors and others to prioritize supplies to the most critical customer and public health needs. In addition, trade barriers, export restrictions and other similar measures imposed by national governments also negatively impact the supplies of personal protection equipment including those made by 3M going into the most needed areas. COVID-19 has also affected the ability of suppliers and vendors to provide products and services to 3M. Some of these COVID-related factors have increased demand for certain 3M products, while others have decreased demand from certain end markets or could make it more difficult for 3M to serve customers. 3M has received reports of price gouging, counterfeiting and other illegal or fraudulent activities involving its N95 respirators, has taken legal action in several states and continues to work with state, federal and international law enforcement to protect the public and 3M against those who seek to exploit 3M's brand and reputation and defraud others. Furthermore, COVID-19 has impacted and may further impact the broader economies of affected countries, including negatively impacting economic growth, the proper functioning of financial and capital markets, foreign currency exchange rates, and interest rates. For example, COVID-19 has led to disruption and volatility in the global capital markets, which increases the cost of capital and could adversely impact access to capital. With increasing vaccinations and as economies start to reopen in certain parts of the world, workplace safety, for the Company and others, will increasingly become a focus of concern. As part of the return to work process at the Company, the Company could face additional privacy and data security risks in various countries related to the collection of data regarding employees and contractors with respect to COVID-19 testing, temperature checks, contact tracing, and vaccination status. As the pandemic evolves, demand for personal protection products such as disposable respirators may decline from prior levels. Due to the speed and scope with which the COVID situation is developing and evolving and the uncertainty of its duration and the timing of recovery, 3M is not able at this time to predict the extent to which the COVID-19 pandemic may have a material effect on its consolidated results of operations or financial condition.

** 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.

Risks Related to Legal and Regulatory Proceedings

** The Company faces liabilities related to certain fluorochemicals, which could adversely impact our results.*

As previously reported, the Company has been voluntarily cooperating with various local, state, federal (primarily the U.S. Environmental Protection Agency (EPA)), and international agencies in their review of the environmental and health effects of a broad group of perfluoroalkyl and polyfluoroalkyl substances produced by the Company, collectively known as “PFAS.” The PFAS group contains several categories and classes of durable chemicals and materials with properties that include oil, water, temperature, chemical and fire resistance, as well as electrical insulating properties. The strength of the carbon-fluorine bond also means that these compounds do not easily degrade. These characteristics have made PFAS critical to the manufacture of electronic devices such as cell phones, tablets and semi-conductors. They are also used to help prevent infections in products like surgical gowns and drapes. Commercial aircraft and low-emissions vehicles also rely on PFAS technology. PFAS compounds are currently manufactured by various companies, including 3M, and are used in everyday products. As science and technology evolve and advance, and in response to evolving knowledge and the understanding that PFAS compounds had the potential to build up over time, 3M announced in 2000 that we would voluntarily phase out production of perfluorooctanoate (PFOA) and perfluorooctane sulfonate (PFOS) globally as a precautionary measure. We phased out of materials used to produce certain repellants and surfactant products, with most of these activities in the U.S. completed by the end of 2002. Phased out products included Aqueous Film Forming Foam (AFFF) and coatings for food packaging, for example. 3M currently is defending lawsuits concerning various PFAS-related products and chemistries, and is subject to unasserted and asserted claims and governmental regulatory proceedings and inquiries related to the production and use of PFAS in a variety of jurisdictions, as discussed in Note 16, “Commitments and Contingencies,” within the Notes to Consolidated Financial Statements. An adverse outcome in any one or more of these matters could be material to our financial results. For example, we recorded a pre-tax charge of \$897 million, inclusive of legal fees and other related obligations, in the first quarter of 2018 with respect to the settlement of a matter brought by the State of Minnesota involving the presence of PFAS in the groundwater, surface water, fish or other aquatic life, and sediments in the state. Governmental inquiries or lawsuits involving PFAS could lead to our incurring liability for damages or other costs, civil or criminal proceedings, the imposition of fines and penalties, or other remedies, as well as restrictions on or added costs for our business operations going forward, including in the form of restrictions on discharges at our manufacturing facilities, suspension of their operations, switching costs in seeking alternative sources of supply, potential customer damage claims due to supply disruptions or otherwise.

** The Company’s future results may be affected by various asserted and unasserted legal and regulatory proceedings and legal compliance risks, including those involving product liability, antitrust, intellectual property, environmental, tax, the U.S. Foreign Corrupt Practices Act and other anti-bribery laws, U.S. trade sanctions compliance, regulations of the U.S. Food and Drug Administration (FDA) and similar foreign agencies, U.S. federal healthcare program-related laws and regulations including the False Claims Act, anti-kickback laws, the Sunshine Act, or other matters. Legal compliance risks also include third-party risks where the Company’s suppliers, vendors or channel partners have business practices that are inconsistent with 3M’s Supplier Responsibility Code, 3M performance requirements or with legal requirements.*

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. Although the Company maintains general liability insurance, the amount of liability that may result from certain of these risks may not always be covered by, or could exceed, the applicable insurance coverage. 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. In addition, negative publicity related to product liability, environmental, health and safety or other matters referenced above involving the Company may negatively impact the Company’s reputation. For a more detailed discussion of the legal proceedings involving the Company and the associated accounting estimates, see the discussion in Note 16, “Commitments and Contingencies,” within the Notes to Consolidated Financial Statements.

Risks Related to Our Products and Customer Preferences

** 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; (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; and (v) changes in the business environment related to disruptive technologies, such as artificial intelligence, block-chain, expanded analytics and other enhanced learnings from increasing volume of available data.

** 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 is subject to 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 vulnerability with respect to materials and fluctuations in the costs and availability of purchased components, compounds, raw materials, energy, and labor due to shortages, increased demand and wages, logistics, supply chain interruptions, manufacturing site disruptions, natural disasters and other disruptive 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. Supplier relationships have been and could be interrupted in the future due to supplier material shortage, climate impacts, natural and other disasters and other disruptive events, or be terminated. Any sustained interruption in the Company's receipt of adequate supplies, supply chain disruptions impacting the distribution of products, or disruption to key manufacturing sites' operations due to natural and other disasters or events, such as government actions relating to discharge or emission permits or other legal or regulatory requirements, 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.

Risks Related to Our Business

** The Company employs information technology systems to support its business, including ongoing phased implementation of an enterprise resource planning (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 centralized and local information technology networks and systems, some of which are provided, hosted or managed by vendors and other third parties, to process, transmit and store electronic information, and to manage or support a variety of businesses. Additionally, the Company collects and stores certain data, including proprietary business information, and has access to confidential or personal information in certain of our businesses that is subject to privacy and cybersecurity laws, regulations and customer-imposed controls. Despite our cybersecurity and business continuity 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 are still potentially vulnerable to the security risks of our vendors and third-party service providers, security breaches, damage, disruptions or shutdowns due to attacks by threat actors including nation-state actors, computer viruses, hardware, software, and system vulnerabilities, ransomware, service or cloud provider disruptions or security breaches, employee error or malfeasance, power outages, telecommunication or utility failures, systems failures, natural disasters or other catastrophic events. The Company's adoption of remote working, initially driven by the pandemic, may also introduce additional threats or disruptions to our information technology networks and infrastructure. Despite our cybersecurity measures, it is possible for security vulnerabilities to remain undetected for an extended time period, up to and including several years. While we have experienced, and expect to continue to experience, threats and disruptions to the Company's information technology infrastructure, none of them to date has had a material impact to the Company. Any such threats or disruptions could result in legal claims or proceedings, disclosures to regulators, liability or penalties under privacy laws, interference with the Company's 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 and business continuity risks, there can be no guarantee that all costs or losses incurred will be fully insured.

** 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, including, for example, the acquisition of Acelity, Inc. and its KCI subsidiaries (a leading global medical technology company), 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 by its operational execution, including scenarios where the Company generates fewer productivity improvements than estimated.*

The Company's financial results depend on the successful execution of its business operating plans. 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 ERP system. There can be no assurance that all of the projected productivity improvements will be realized. In addition, the ability to adapt to business model and other changes and agility to respond to customer needs and service expectations are important, which, if not done successfully, could negatively impact the Company's ability to win new business and enhance revenue and 3M's brand. Operational challenges, including those related to customer service, pace of change and productivity improvements, could have a material adverse effect on the Company's business, financial conditions and results of operations.

Risks Related to Financial and Capital Markets and Tax Matters

** 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 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.

** 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 A1 credit rating with a negative outlook from Moody's Investors Service and an A+ credit rating with a negative outlook from Standard & Poor's. 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.

** Changes in tax rates, laws or regulations could adversely impact our financial results.*

The Company's business is subject to tax-related external conditions, such as tax rates, tax laws and regulations, changing political environments in the U.S. and foreign jurisdictions that impact tax examination, assessment and enforcement approaches. In addition, changes in tax laws including further regulatory developments arising from U.S. tax reform legislation and/or regulations around the world could result in a tax expense or benefit recorded to the Company's Consolidated Statement of Earnings. In connection with the Base Erosion and Profit Shifting (BEPS) Integrated Framework provided by Organization for Economic Cooperation and Development (OECD), determination of multi-jurisdictional taxation rights and the rate of tax applicable to certain types of income may be subject to potential change. Due to uncertainty of the regulation changes and other tax-related factors stated above, it is currently not possible to assess the ultimate impact of these actions on our 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 61 manufacturing facilities in 29 states. Internationally, the Company operates 89 manufacturing and converting facilities in 30 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 inter-segment 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 16, "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 2021, 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, 2022, there were 65,295 shareholders of record. 3M’s stock ticker symbol is MMM and 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 \$1.48 and \$1.47 per share for each quarter in 2021 and 2020, respectively. 3M typically declares and pays dividends in the same quarter.

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 November 2018, 3M’s Board of Directors replaced the Company’s February 2016 repurchase program with a new repurchase program. This new program authorizes 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, 2021	582	\$ 176.96	—	\$ 7,753
February 1 - 28, 2021	494,988	177.92	493,702	7,665
March 1 - 31, 2021	669,754	187.05	669,754	7,540
January 1 - March 31, 2021	1,165,324	183.17	1,163,456	
April 1 - 30, 2021	556,060	197.41	556,060	\$ 7,430
May 1 - 31, 2021	844,500	202.50	844,500	7,259
June 1 - 30, 2021	1,097,327	199.03	1,097,327	7,041
April 1 - June 30, 2021	2,497,887	199.84	2,497,887	
July 1 - 31, 2021	387,011	199.54	387,011	\$ 6,964
August 1 - 31, 2021	444,821	197.32	444,821	6,876
September 1 - 30, 2021	2,180,441	181.88	2,180,441	6,479
July 1 - September 30, 2021	3,012,273	186.43	3,012,273	
October 1 - 31, 2021	2,377,664	179.42	2,377,664	\$ 6,053
November 1 - 30, 2021	2,019,599	180.25	2,019,599	5,689
December 1 - 31, 2021	580,634	175.19	580,634	5,587
October 1 - December 31, 2021	4,977,897	179.26	4,977,897	
January 1 - December 31, 2021	11,653,381	185.92	11,651,513	

- (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. [Reserved].

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 business segment changes and non-GAAP measure changes as described in Item 8.01 on page 2 of this Form 8-K. The business segment changes are further discussed in Notes 1 and 19 to the Consolidated Financial Statements. Item 7 has not been updated for other changes since the filing of 3M’s 2021 Annual Report. For significant developments since the filing of 3M’s 2021 Annual Report, refer to subsequent 2022 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).

Additional information about results of operations and financial condition for 2020 and 2019 can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections in the Company’s Annual Report on Form 10-K for the year ended December 31, 2020.

OVERVIEW

3M is a diversified global manufacturer, technology innovator and marketer of a wide variety of products and services. Effective in the first quarter of 2021, 3M made the following changes.

- Change in accounting principle for net periodic pension and postretirement plan cost. See detailed discussion in Note 1.
- Change in measure of segment operating performance used by 3M’s chief operating decision maker—impacting 3M’s disclosed measure of segment profit/loss (business segment operating income). See additional information in Note 19.
- Change in alignment of certain products within 3M’s Consumer business segment—creating the Consumer Health and Safety Division. See additional information in Note 19.

Additionally, effective in the first quarter of 2022, 3M made the following changes:

- Further changes in measure of segment operating performance used by 3M’s chief operating decision maker—impacting 3M’s disclosed measure of segment profit/loss (business segment operating income). See additional information in Note 19. 3M’s disclosed disaggregated revenue was also updated as a result of the changes in segment reporting. See additional information in Note 2.
- Changes to non-GAAP measures - certain amounts adjusted for special items. Refer to the *Certain amounts adjusted for special items - (non-GAAP measures)* section below for additional information.

Information provided herein reflects the impact of these changes for all periods presented.

3M manages its operations in four operating business segments: Safety and Industrial; Transportation and Electronics; Health Care; and Consumer. From a geographic perspective, any references to EMEA refer to Europe, Middle East and Africa on a combined basis. References are made to organic sales (which include both organic volume impacts and selling price impacts) that is defined as the change in net sales, absent the separate impacts on sales from foreign currency translation and acquisitions, net of divestitures. Acquisition and divestiture sales change impacts, if any, are measured separately for the first twelve months post-transaction. 3M believes this information is useful to investors and management in understanding ongoing operations and in analysis of ongoing operating trends.

Consideration of COVID-19:

3M is impacted by the global pandemic and related effects associated with the coronavirus (COVID-19). Risk factors with respect to COVID-19 can be found in Item 1A “Risk Factors” in this document. Given the diversity of 3M’s businesses, some of the factors relative to COVID-19 have increased the demand for 3M products, while others have decreased demand or made it more difficult for 3M to serve customers.

Overall, 3M experienced broad-based organic growth across business segments and all geographies in 2021 despite global supply challenges. 3M’s total sales increased 9.9% for the full year 2021 when compared to 2020. Organic sales increased 8.8% for the full year 2021 when compared to 2020. In 2021, COVID-related respirator sales negatively impacted year-on-year organic sales growth by approximately 0.2% as they grew at a slower rate than the rest of the Company. Given the diversity of 3M’s businesses, the impact of COVID-19 varied across the Company. In 2020, 3M experienced strong sales in personal safety, as well as in other areas such as home improvement, general cleaning, semiconductor, data center, and biopharma filtration while businesses aligned to general industrial applications with strength in abrasives and industrial adhesives and tapes. At the same time, weakness in several end markets, while improving, contributed in part to sales declines in a number of 3M’s businesses such as oral care, automotive and aerospace, advanced materials, commercial solutions, stationery and office, automotive aftermarket. Refer to the Performance by Business Segment section later in MD&A for additional discussion of sales by segment.

3M’s operating income margins decreased 1.5 percentage points year-on-year for the year ending December 31, 2021. Factoring out the impact on operating income of special items as described in the *Certain amounts adjusted for special items - (non-GAAP measures)* section below, operating income margins decreased 0.1 percentage points to 22.2 percent for the year ending December 31, 2021 when compared to 2020. Various COVID-19 implications contributed in part to these results.

Overall, the impact of the COVID-19 pandemic on 3M’s consolidated results of operations was primarily driven by factors related to changes in demand for products and disruption in global supply chains. While it is not feasible to identify or quantify all the other direct and indirect implications on 3M’s results of operations, below are factors that 3M believes have also affected its 2021 results when compared to 2020:

Factors contributing to charges or other impacts:

- Increased raw materials and logistics costs from ongoing COVID-19 related global supply chain challenges further magnified by extreme weather events, such as February 2021 winter storm Uri in the United States.
- Cost management in discretionary spending in areas such as travel, professional services, and advertising/merchandising resulting in lower spending in 2020.
- Government-sponsored COVID-response stimulus and relief initiatives in 2020, including certain employee retention benefits under the Coronavirus Aid, Relief and Economic Security (CARES) Act in the United States.
- Lower incentive compensation and self-insured medical visit/insurance expense in 2020.

Factors providing benefits or other impacts:

- Continued productivity efforts, including year-on-year savings from restructuring actions taken in 2020 and 2021.
- Period expenses of unabsorbed manufacturing costs and increased expected credit losses on customer receivables in 2020.
- Restructuring actions addressing structural enterprise costs and operations in certain end markets as a result of the COVID-19 pandemic and related economic impact resulting in a 2020 charge of \$58 million.
- Committed financial support in 2020 to various COVID-relief and medical research initiatives.
- Charge of \$22 million in 2020 related to equity securities as discussed in the “Assets and Liabilities that are Measured at Fair Value on a Nonrecurring Basis” section of Note 15 that use the measurement alternative described therein in addition to an immaterial pre-tax charge related to impairment of certain indefinite lived tradenames.

Refer to the Financial Condition and Liquidity section below for more information on the Company’s liquidity position.

Due to the speed with which the COVID-19 situation is developing and evolving and the uncertainty of its duration and the timing of recovery, 3M is not able at this time to predict the extent to which the COVID-19 pandemic may have a material effect on its consolidated results of operations or financial condition.

Operating income margin and earnings per share attributable to 3M common shareholders – diluted:

The following table provides the increase (decrease) in operating income margins and diluted earnings per share for 2021 compared to the same period last year, in addition to 2020 compared to 2019. As applicable, certain items in the table reflect specific income tax rates associated therewith.

Year ended December 31,	Percent of net sales		Earnings per diluted share	
	2021	2020	2021	2020
Same period last year	22.3 %	19.2 %	\$ 9.36	\$ 7.72
Net costs for significant litigation	1.0	2.7	0.37	1.12
Gain/loss on sale of businesses	(1.2)	(0.4)	(0.52)	(0.22)
Divestiture-related restructuring actions	0.2	—	0.08	—
Loss on deconsolidation of Venezuelan subsidiary	N/A	N/A	—	0.28
Same period last year, excluding special items	22.3 %	21.5 %	\$ 9.29	\$ 8.90
Increase/(decrease) due to:				
Organic growth/productivity and other	0.7	0.7	1.07	0.06
Selling price and raw material impact	(0.8)	0.7	(0.27)	0.36
Acquisitions/divestitures	—	(0.5)	(0.05)	(0.10)
Foreign exchange impacts	—	(0.1)	0.16	(0.08)
Other expense (income), net	N/A	N/A	0.27	0.15
Income tax rate	N/A	N/A	0.32	(0.05)
Shares of common stock outstanding	N/A	N/A	(0.06)	0.05
Current period, excluding special items	22.2 %	22.3 %	\$ 10.73	\$ 9.29
Net costs for significant litigation	(1.4)	(1.0)	(0.61)	(0.37)
Gain/loss on sale of businesses	—	1.2	—	0.52
Divestiture-related restructuring actions	—	(0.2)	—	(0.08)
Current period	20.8 %	22.3 %	\$ 10.12	\$ 9.36

The Company refers to various “adjusted” amounts or measures on an “adjusted basis”. These exclude special items. These non-GAAP measures are further described and reconciled to the most directly comparable GAAP financial measures in the *Certain amounts adjusted for special items - (non-GAAP measures)* section below.

A discussion related to the components of year-on-year changes in operating income margin and earnings per diluted share follows:

Organic growth/productivity and other:

- In 2021, organic volume growth and ongoing cost management increased operating income margins and earnings per diluted share year-on-year offset by manufacturing headwinds from global supply chain challenges and increased compensation/benefit costs. The following also impacted results or provide additional information:
 - 2021 benefit of \$91 million pre-tax (\$0.12 per share after tax) from a favorable Brazilian Supreme Court decision that concluded on the impact of state value-added tax when determining Brazil’s federal sales-based social tax—essentially lowering the social tax that 3M should have paid in prior periods.
 - 3M continued prioritization of investments in growth and sustainability.
 - 2021 benefit from restructuring actions taken in 2020 and positive/negative impact of year-over-year change in non-divestiture-related restructuring charges, net of adjustments, for respective periods. Note 5 provides additional information relative to restructuring actions.
 - Lower year-on-year net gains related to certain property sales.
 - COVID-impacts recognized on certain assets in 2020.

- In 2020, lower organic volume growth as a result of significant COVID-19 related impacts, in addition to COVID-related net factors described in the preceding Overview—Consideration of COVID-19 section, decreased both earnings per diluted share and operating income margin year-on-year. 3M also experienced certain follow-on accelerated depreciation following some of the restructuring in 2019 and 2020. Partially offsetting these increased costs were year-on-year net gains related to certain property sales (in 2020 within Safety and Industrial and in 2019 within Corporate and Unallocated), lower non divestiture-related restructuring charges year-on-year, in addition to benefits recognized in 2020 related to the restructuring and other actions taken in 2019 (and the adjustments thereto in 2020) along with continued cost management and productivity efforts.
- On a combined basis, higher defined benefit pension and postretirement service cost increased expense year-on-year for both 2021 and 2020.

Selling price and raw material impact:

- In 2021, 3M experienced higher raw material, logistics, and outsourced manufacturing costs from strong end-market demand and ongoing COVID-19 and related global supply chain challenges that were further magnified by extreme weather events, such as February 2021 winter storm Uri in the U.S. These factors were partially offset by higher selling prices in 2021.
- In 2020, higher selling prices in addition to lower raw material cost impacts benefited operating income margins year-on-year.

Acquisitions/divestitures:

- Divestiture impacts in 2021 and 2020 are primarily comprised of the lost income from the divestiture of the Company's drug delivery business (sale completed in May 2020).
- Acquisition impacts, which are measured for the first twelve months post-transaction, relate to the acquisitions of M*Modal (first quarter 2019), and Acelity (fourth quarter 2019). The net impacts related to these acquisitions included income from operations, more than offset by transaction and integration costs. Financing costs related to these acquisitions is also included.

Foreign exchange impacts:

- Foreign currency impacts (net of hedging) increased operating income by approximately \$103 million and decreased operating income by approximately \$62 million (or an increase in pre-tax earnings of approximately \$119 million and a decrease in pre-tax earnings of approximately \$57 million) year-on-year for 2021 and 2020, respectively. These estimates include: (a) the effects of year-on-year changes in exchange rates on translating current period functional currency profits into U.S. dollars and on current period non-functional currency denominated purchases or transfers of goods between 3M operations, and (b) year-on-year changes in transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks. Prior to 2021, for (a) 3M used prior year functional currency profits and non-functional currency purchase/transfer information as the base in determining these amounts. Comparative prior period amounts have been updated to reflect this updated methodology.

Other expense (income), net:

- Higher income related to non-service cost components of pension and postretirement expense decreased expense year-on-year for both 2021 and 2020.
- Interest expense (net of interest income) decreased in 2021 compared to the same periods year-on-year. 2021 interest expense also included an early debt extinguishment pre-tax charge in the first quarter of 2021.
- Interest expense (net of interest income) increased in 2020, as a result of higher U.S. average debt balances and lower year-on-year interest income driven by lower average interest rates on cash balances. 2020 interest expense also included an early debt extinguishment charge in conjunction with the repayment of notes in December 2020.

Income tax rate:

- Certain items above reflect specific income tax rates associated therewith. Overall, the effective tax rates for 2021, 2020, and 2019 were 17.8 percent, 19.7 percent, and 19.7 percent, respectively. These reflect a decrease of 1.9 percentage points from 2020 to 2021 and a flat comparison from 2019 to 2020.
- On an adjusted basis (as discussed below), the effective tax rates for 2021, 2020, and 2019 were 18.1 percent, 20.5 percent, and 20.2 percent, respectively. These reflect a decrease of 2.4 percentage points from 2020 to 2021 and an increase of 0.3 percentage points from 2019 to 2020.
- The primary factors that decreased the Company's effective tax rate in 2021 were geographical income mix and favorable adjustments in 2021 related to impacts of U.S. international tax provisions. Refer to Note 10 for additional details.

Shares of common stock outstanding:

- Higher shares outstanding decreased earnings per share per diluted share for 2021, while lower shares outstanding increased earnings per share diluted share for 2020.

Certain amounts adjusted for special items - (non-GAAP measures):

In addition to reporting financial results in accordance with U.S. GAAP, 3M also provides non-GAAP measures that adjust for the impacts of special items. For the periods presented, special items include the items described below. Operating income, segment operating income, income before taxes, net income, earnings per share, and the effective tax rate are all measures for which 3M provides the reported GAAP measure and a measure adjusted for special items. The adjusted measures are not in accordance with, nor are they a substitute for, GAAP measures. While the Company includes certain items in its measure of segment operating performance, it also considers these non-GAAP measures in evaluating and managing its operations. The Company believes that discussion of results adjusted for special items is useful to investors in understanding underlying business performance, while also providing additional transparency to the special items. Special items impacting operating income are reflected in Corporate and Unallocated, except as described below with respect to net costs for significant litigation. The determination of these items may not be comparable to similarly titled measures used by other companies.

In the first quarter of 2022, the Company changed the extent of matters and charges/benefits it includes within special items with respect to net costs for significant litigation. Previously, 3M included net costs, when significant, associated with changes in accrued liabilities related to respirator mask/asbestos litigation and PFAS-related other environmental matters, along with the associated tax impacts. The non-GAAP measure changes involved including net costs for litigation related to 3M's Combat Arms Earplugs, expanding net costs to include external legal fees and insurance recoveries associated with the applicable matters in addition to changes in accrued liabilities, and to include all such net costs for the applicable matters, not just when considered significant. Information provided herein reflects the impact of these changes for all periods presented.

Special items for the periods presented include:

Net costs for significant litigation:

- These relate to 3M's respirator mask/asbestos, PFAS-related other environmental, and Combat Arms Earplugs matters (as discussed in Note 16). Net costs include the impacts of changes in accrued liabilities, external legal fees, and insurance recoveries, along with the associated tax impacts. Net costs related to respirator mask/asbestos and Combat Arms Earplugs matters are reflected as special items in the Safety and Industrial business segment while those associated with PFAS-related other environmental matters are primarily reflected as corporate special items in Corporate and Unallocated (as discussed in Note 19). With respect to 2019, the after-tax charge includes a reduction in tax expense related to resolution of tax treatment with authorities regarding the previously disclosed 2018 agreement reached with the State of Minnesota that resolved the Natural Resources Damages lawsuit.

Gain/loss on sale of businesses:

- In 2020, 3M recorded a pre-tax gain of \$2 million (\$1 million loss after tax) related to the sale of its advanced ballistic-protection business and recognition of certain contingent consideration and a pre-tax gain of \$387 million (\$304 million after tax) related to the sale of its drug delivery business. Refer to Note 3 for further details.
- In the first quarter of 2019, 3M recorded a gain related to the sale of certain oral care technology comprising a business in addition to reflecting an earnout on a previous divestiture, which together resulted in a net gain of \$8 million (\$7 million after tax). In the second quarter of 2019, as a result of a "held for sale" tax benefit related to the legal entities associated with the pending divestiture of the Company's gas and flame detection business, 3M recorded an after-tax gain of \$43 million. In the third quarter of 2019, 3M recorded a gain related to the divestiture of the Company's gas and flame detection business and an immaterial impact as a result of measuring a disposal group at the lower of its carrying amount or fair value less cost to sell, which in aggregate resulted in a pre-tax gain of \$106 million (\$79 million after tax).

Divestiture-related restructuring actions:

- In 2020, following the divestiture of substantially all of the drug delivery business (see Note 3) management approved and committed to undertake certain restructuring actions addressing corporate functional costs and manufacturing footprint across 3M in relation to the magnitude of amounts previously allocated/burdened to the divested business. As a result, 3M recorded a pre-tax charge of \$55 million (\$46 million after tax) and made a subsequent immaterial adjustment thereto. Refer to Note 5 for further details.

Loss on deconsolidation of Venezuelan subsidiary:

- In 2019, 3M recorded a pre-tax charge of \$162 million related to the deconsolidation of the Company's Venezuelan subsidiary as further discussed in Note 1.

Operating Income

(Dollars in millions, except per share amounts)	Safety and Industrial	Safety and Industrial Margin	Total Company	Total Company Margin	Income Before Taxes	Provision for Income Taxes	Effective Tax Rate	Net Income Attributable to 3M	Earnings Per Diluted Share	Earnings per diluted share percent change
Year ended December 31, 2019 GAAP	\$ 1,866	17.4%	\$ 6,174	19.2 %	\$ 5,643	\$ 1,114	19.7 %	\$ 4,517	\$ 7.72	
Adjustments for special items:										
Net costs for significant litigation	371		851		851	194		657	1.12	
Gain/loss on sale of businesses	—		(114)		(114)	15		(129)	(0.22)	
Loss on deconsolidation of Venezuelan subsidiary	—		—		162	—		162	0.28	
Year ended December 31, 2019 adjusted amounts (non-GAAP measures)	\$ 2,237	20.9%	\$ 6,911	21.5 %	\$ 6,542	\$ 1,323	20.2 %	\$ 5,207	\$ 8.90	
Year ended December 31, 2020 GAAP	\$ 2,588	23.6%	\$ 7,161	22.3 %	\$ 6,795	\$ 1,337	19.7 %	\$ 5,449	\$ 9.36	21 %
Adjustments for special items:										
Net costs for significant litigation	205		353		353	136		217	0.37	
Gain/loss on sale of businesses	—		(389)		(389)	(86)		(303)	(0.52)	
Divestiture-related restructuring actions	—		55		55	9		46	0.08	
Year ended December 31, 2020 adjusted amounts (non-GAAP measures)	\$ 2,793	25.5%	\$ 7,180	22.3 %	\$ 6,814	\$ 1,396	20.5 %	\$ 5,409	\$ 9.29	4 %
Year ended December 31, 2021 GAAP	\$ 2,466	20.6%	\$ 7,369	20.8 %	\$ 7,204	\$ 1,285	17.8 %	\$ 5,921	\$ 10.12	8 %
Adjustments for special items:										
Net costs for significant litigation	249		463		463	104		359	0.61	
Year ended December 31, 2021 adjusted amounts (non-GAAP measures)	\$ 2,715	22.7%	\$ 7,832	22.2 %	\$ 7,667	\$ 1,389	18.1 %	\$ 6,280	\$ 10.73	16 %

Year 2021 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, 2021 and 2020. Refer to the section entitled Performance by Business Segment later in MD&A for additional discussion concerning 2021 versus 2020 results, including Corporate and Unallocated. Refer to Note 19 for additional information on business segments.

(Dollars in millions)	2021			2020			2021 vs 2020 % change	
	Net Sales	% of Total	Oper. Income	Net Sales	% of Total	Oper. Income	Net Sales	Oper. Income
Business Segments								
Safety and Industrial	\$ 11,981	33.9 %	\$ 2,466	\$ 10,972	34.1 %	\$ 2,588	9.2 %	(4.7)%
Transportation and Electronics	9,262	26.2	1,880	8,406	26.1	1,701	10.2	10.6
Health Care	8,597	24.3	2,037	7,832	24.3	1,662	9.8	22.5
Consumer	5,513	15.6	1,162	4,976	15.5	1,119	10.8	3.8
Corporate and Unallocated	2	—	(176)	(2)	—	91		
Total Company	\$ 35,355	100.0 %	\$ 7,369	\$ 32,184	100.0 %	\$ 7,161	9.9	2.9

Worldwide Sales Change by Business Segment	Year ended December 31, 2021				
	Organic sales	Acquisitions	Divestitures	Translation	Total sales change
Safety and Industrial	7.3 %	— %	— %	1.9 %	9.2 %
Transportation and Electronics	8.7	—	—	1.5	10.2
Health Care	10.2	—	(2.0)	1.6	9.8
Consumer	9.8	—	—	1.0	10.8
Total Company	8.8	—	(0.5)	1.6	9.9

Year 2021 sales results by geographic area

Percent change information compares the year ended December 31, 2021 with the same period last year, unless otherwise indicated.

	Year ended December 31, 2021				
	Americas	Asia Pacific	Europe, Middle East & Africa	Other Unallocated	Worldwide
Net sales (millions)	\$ 18,097	\$ 10,600	\$ 6,660	\$ (2)	\$ 35,355
% of worldwide sales	51.2 %	30.0 %	18.8 %	—	100.0 %
Components of net sales change:					
Organic sales	9.8	8.5	6.3		8.8
Acquisitions	—	—	—		—
Divestitures	(0.6)	—	(1.1)		(0.5)
Translation	0.3	2.3	3.8		1.6
Total sales change	9.5 %	10.8 %	9.0 %		9.9 %

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

- In the Americas geographic area, U.S. total sales increased 8 percent which included increased organic sales of 8 percent. Total sales in Mexico increased 18 percent which included increased organic sales of 16 percent. In Canada, total sales increased 18 percent which included increased organic sales of 11 percent. In Brazil, total sales increased 18 percent which included increased organic sales of 22 percent.
- In the Asia Pacific geographic area, China total sales increased 17 percent which included increased organic sales of 11 percent. In Japan, total sales were flat which included increased organic sales of 2 percent.

Year 2020 sales results by geographic area

Percent change information compares the full year 2020 with the full year 2019, unless otherwise indicated.

	Year ended December 31, 2020				
	Americas	Asia Pacific	Europe, Middle East & Africa	Other Unallocated	Worldwide
Net sales (millions)	\$ 16,525	\$ 9,569	\$ 6,109	\$ (19)	\$ 32,184
% of worldwide sales	51.3 %	29.7 %	19.0 %	—	100.0 %
Components of net sales change:					
Organic sales	(0.2)	(3.4)	(2.8)		(1.7)
Acquisitions	5.5	0.7	2.8		3.5
Divestitures	(1.5)	(0.2)	(2.9)		(1.4)
Translation	(1.3)	0.6	1.0		(0.3)
Total sales change	2.5 %	(2.3)%	(1.9)%		0.1 %

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

- In the Americas geographic area, U.S. total sales increased 6 percent which included increased organic sales of 1 percent. Total sales decreased 14 percent in Mexico which included decreased organic sales of 12 percent. In Canada, total sales decreased 1 percent which included decreased organic sales of 4 percent. In Brazil, total sales decreased 17 percent which included increased organic sales of 7 percent.
- In the Asia Pacific geographic area, China total sales increased 4 percent which included increased organic sales of 3 percent. In Japan, total sales decreased 3 percent which included decreased organic sales of 7 percent.

Managing currency risks:

The weaker U.S. dollar had a positive impact on sales in full year 2021 compared to the same period last year. Net of the Company's hedging strategy, foreign currency positively impacted earnings for full year 2021 compared to the same period last year. 3M utilizes a number of tools to manage currency risk related to earnings including natural hedges such as pricing, productivity, hard currency, hard currency-indexed billings, and localizing source of supply. 3M also uses financial hedges to mitigate currency risk. In the case of more liquid currencies, 3M hedges a portion of its aggregate exposure, using a 12, 24 or 36 month horizon, depending on the currency in question. For less liquid currencies, financial hedging is frequently more expensive with more limitations on tenor. Thus, this risk is largely managed via local operational actions using natural hedging tools as discussed above. In either case, 3M's hedging approach is designed to mitigate a portion of foreign currency risk and reduce volatility, ultimately allowing time for 3M's businesses to respond to changes in the marketplace.

Financial condition:

Refer to the section entitled "Financial Condition and Liquidity" later in MD&A for a discussion of items impacting cash flows.

In November 2018, 3M's Board of Directors replaced the Company's February 2016 repurchase program with a new repurchase program. This new program authorizes the repurchase of up to \$10 billion of 3M's outstanding common stock, with no pre-established end date. In 2021, the Company purchased \$2.2 billion of its own stock and \$0.4 billion in 2020. As of December 31, 2021, approximately \$5.6 billion remained available under the authorization. In February 2022, 3M's Board of Directors declared a first-quarter 2022 dividend of \$1.49 per share, an increase of 1 percent. This marked the 64th consecutive year of dividend increases for 3M.

Raw materials:

Refer to the section entitled "Raw materials" in Item 1 for discussion of 3M's sources and availability of raw materials in 2021.

Pension and postretirement defined benefit/contribution plans:

On a worldwide basis, 3M's pension and postretirement plans were 93 percent funded at year-end 2021. The primary U.S. qualified pension plan, which is approximately 67 percent of the worldwide pension obligation, was 97 percent funded and the international pension plans were 101 percent funded. The U.S. non-qualified pension plan is not funded due to tax considerations and other factors. Asset returns in 2021 for the primary U.S. qualified pension plan were 6.7%, 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 2022 is 6.00%. The primary U.S. qualified pension plan year-end 2021 discount rate was 2.89%, up 0.34 percentage points from the year-end 2020 discount rate of 2.55%. The increase in U.S. discount rates resulted in an decreased valuation of the projected benefit obligation (PBO). The primary U.S. qualified pension plan's funded status increased 5 percentage point in 2021 due to the lower PBO resulting from the discount rate increase. Additional detail and discussion of international plan asset returns and discount rates is provided in Note 13 (Pension and Postretirement Benefit Plans).

3M expects to contribute approximately \$100 million to \$200 million of cash to its global defined benefit pension and postretirement plans in 2022. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2022. 3M expects global defined benefit pension and postretirement expense in 2022 to decrease by approximately \$20 million pre-tax when compared to 2021. Refer to "Critical Accounting Estimates" within MD&A and Note 13 (Pension and Postretirement Benefit Plans) for additional information concerning 3M's pension and post-retirement plans.

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)	2021	2020	2021 versus 2020
Cost of sales	53.2 %	51.6 %	1.6 %
Selling, general and administrative expenses (SG&A)	20.4	21.5	(1.1)
Research, development and related expenses (R&D)	5.6	5.8	(0.2)
Gain on sale of businesses	—	(1.2)	1.2
Operating income margin	20.8 %	22.3 %	(1.5)%

Pension and postretirement service cost expense is recorded in cost of sales, SG&A, and R&D. Refer to Note 13 (Pension and Postretirement Plans) for the service cost components of net periodic benefit costs.

The Company is continuing the ongoing deployment of an enterprise resource planning (ERP) system on a worldwide basis, with these investments impacting cost of sales, SG&A, and R&D.

Cost of Sales:

Cost of sales includes manufacturing, engineering and freight costs.

Cost of sales, measured as a percent of sales, increased in 2021 when compared to 2020 due to higher raw material, logistics and outsourced manufacturing costs; manufacturing productivity impacts from global supply chain challenges; increased compensation and benefit costs; increased adjustments to other environmental liabilities; and increased investments in growth, productivity and sustainability. Cost of sales was also impacted by year-over-year changes in restructuring charges, net of restructuring benefits. Year-over-year cost increases were partially offset by lower COVID-related net impacts taken in 2021 versus last year, including period expenses of unabsorbed manufacturing costs taken in 2020.

Selling, General and Administrative Expenses:

SG&A, measured as a percent of sales, decreased in 2021 when compared to 2020. SG&A was impacted by increased litigation-related costs, compensation and benefit costs, and spending on key growth initiatives. SG&A was also impacted by

year-over-year changes in restructuring charges, net of restructuring benefits. Cost increases were partially offset by the impact of the favorable decision of the Brazilian Supreme Court in the second quarter of 2021 regarding the calculation of past social taxes and ongoing general 3M cost management. Prior year also included a number of COVID-related net impacts as described in the *Overview- Consideration of COVID-19* section above.

Research, Development and Related Expenses:

R&D, measured as a percent of sales, decreased in 2021 when compared to 2020. 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.

Gain on Sale of Businesses:

During 2020, the Company recorded a pre-tax gain of \$2 million (\$1 million loss after tax) related to the sale of its advanced ballistic-protection business and recognition of certain contingent consideration. Additionally, in 2020, the Company recorded a pre-tax gain of \$387 million (\$304 after tax) related to the sale of substantially all of its drug delivery business.

Other Expense (Income), Net:

See Note 6 for a detailed breakout of this line item.

Interest expense (net of interest income) decreased during 2021 and increased during 2020. The decrease in 2021 was due to lower U.S. average debt balances and the impact of interest rate swaps placed during the year. 2021 interest expense also included an early debt extinguishment pre-tax charge in the first quarter of 2021. The increase in 2020 was due to higher U.S. average debt balances and lower year-on-year interest income driven by lower average interest rates on cash balances. 2020 interest expense also included an early debt extinguishment charge in conjunction with the repayment of notes in December 2020.

The non-service pension and postretirement net benefit increased \$163 million and \$135 million in 2021 and 2020, respectively. The higher year-on-year benefit in 2021 was primarily due to decreased expense from lower discount rates applicable to 2021. Refer to Note 13 for additional details.

Provision for Income Taxes:

(Percent of pre-tax income)	2021	2020
Effective tax rate	17.8 %	19.7 %

Factors that impacted the tax rates between years are further discussed in the Overview section above and in Note 10.

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, and employee share-based payment accounting; as well as recurring factors, such as the geographic mix of income before taxes.

Refer to Note 10 for further discussion of income taxes.

Income (Loss) from Unconsolidated Subsidiaries, Net of Taxes:

(Millions)	2021	2020
Income (loss) from unconsolidated subsidiaries, net of taxes	\$ 10	\$ (5)

Income (loss) from unconsolidated subsidiaries, net of taxes, is attributable to the Company's accounting under the equity method for ownership interests in certain entities such as Kindeva following 3M's divestiture of the drug delivery business in 2020.

Net Income (Loss) Attributable to Noncontrolling Interest:

(Millions)	2021	2020
Net income (loss) attributable to noncontrolling interest	\$ 8	\$ 4

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

PERFORMANCE BY BUSINESS SEGMENT

Item 1, Business Segments, provides an overview of 3M's business segments. In addition, disclosures relating to 3M's business segments are provided in Note 19. Effective in the first quarters of 2022 and 2021, the measure of segment operating performance used by 3M's chief operating decision maker (CODM) changed and, as a result, 3M's disclosed measure of segment profit/loss (business segment operating income) was updated for all comparative periods presented. The change to business segment operating income aligns with the update to how the CODM assesses performance and allocates resources for the Company's business segments (see Note 19 for additional details).

Information provided herein reflects the impact of these changes for all periods presented. 3M manages its operations in four business segments. The reportable segments are Safety and Industrial; Transportation and Electronics; Health Care; and Consumer.

Corporate and Unallocated:

In addition to these four business segments, 3M assigns certain costs to "Corporate and Unallocated," which is presented separately in the preceding business segments table and in Note 19. Corporate and Unallocated operating income includes "corporate special items" and "other corporate expense-net". Corporate special items include net costs for significant litigation associated with PFAS-related other environmental matters (see Note 16); gain/loss on sale of businesses (see Note 3); and divestiture-related restructuring costs (see Note 5). Other corporate expense-net includes items such as net costs related to limited unallocated corporate staff and centrally managed material resource centers of expertise costs, corporate philanthropic activity, and other net costs that 3M may choose not to allocate directly to its business segments. Other corporate expense-net also includes costs and income from contract manufacturing, transition services and other arrangements with the acquirer of the Communication Markets Division following its 2018 divestiture through 2019 and the acquirer of the former Drug Delivery business following its 2020 divestiture. Items classified as revenue from this activity are included in Corporate and Unallocated net sales. Because Corporate and Unallocated includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

Corporate and Unallocated net operating loss increased in 2021 when compared to 2020 primarily related to the pre-tax gain of \$387 million included in special items in 2020 as a result of 3M's divestiture of its drug delivery business (see Note 3 for additional details).

Corporate Special Items

Refer to the *Certain amounts adjusted for special items - (non-GAAP measures)* section for additional details on the impact of net costs for significant litigation, gain/loss on sale of businesses, and divestiture-related restructuring actions.

Other Corporate Expense - Net

Other corporate operating expenses decreased in 2021 when compared to 2020. The decrease was primarily due to a \$91 million pre-tax benefit from the impact of the favorable decision of the Brazilian Supreme Court in the second quarter of 2021 regarding the calculation of past social taxes, continued lower overall corporate staff spending and first quarter 2020 charges related to equity securities (as discussed in the "Assets and Liabilities that are Measured at Fair Value on a Nonrecurring Basis" section of Note 15).

Operating Business Segments:

Information related to 3M's business segments is presented in the tables that follow with additional context in the corresponding narrative below the tables.

The following discusses total year results for 2021 compared to 2020 and 2020 compared to 2019 for each business segment.

Safety and Industrial Business (33.9% of consolidated sales):

	2021	2020
Sales (millions)	\$ 11,981	\$ 10,972
Sales change analysis:		
Organic sales	7.3 %	4.0 %
Divestitures	—	(0.7)
Translation	1.9	(0.8)
Total sales change	9.2 %	2.5 %
Business segment operating income (millions)	\$ 2,466	\$ 2,588
Percent change	(4.7)%	38.7 %
Percent of sales	20.6 %	23.6 %
Adjusted business segment operating income (millions) (non-GAAP measure)	\$ 2,715	\$ 2,793
Percent change	(2.8)%	24.9 %
Percent of sales	22.7 %	25.5 %

The preceding table also displays business segment operating income information adjusted for special items. For Safety and Industrial these adjustments include net costs for respirator mask/asbestos and Combat Arms Earplugs litigation matters. Refer to the *Certain amounts adjusted for special items - (non-GAAP measures)* section for additional details.

Year 2021 results:

Sales in Safety and Industrial were up 9.2 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in abrasives, industrial adhesives and tapes, automotive aftermarket, electrical markets, roofing granules, and closure and masking systems and decreased in personal safety year-on-year.
- Growth was driven by improving general industrial manufacturing activity and other end-market demand partially offset by prior-year strong pandemic-related respirator mask demand.

Business segment operating income margins decreased year-on-year due to increases in raw materials, logistics and special item costs for significant litigation; lower gain on sale of properties; and manufacturing productivity impacts that were partially offset by sales growth leverage, and benefits from restructuring actions and lower related charges. Adjusting for special item costs for significant litigation (non-GAAP measure), business segment operating income margins decreased year-on-year as displayed above.

Year 2020 results:

Sales in Safety and Industrial were up 2.5 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in personal safety and roofing granules, while industrial adhesives and tapes, electrical markets, closure and masking systems, automotive aftermarket, and abrasives sales decreased year-on-year.
- Strong growth related to unprecedented demand for respirators as a result of the COVID-19 pandemic was partially offset by softness that impacted sales growth across most of the Company's general industrial-related portfolio.

Divestitures:

- 2019 divestitures that impacted 2020 results relate to the August 2019 sale of the gas and flame detection business.

Business segment operating income margins increased 6.2% year-on-year primarily related to strong productivity, continued cost discipline, lower special item costs for significant litigation, benefits from certain property sale, 2019 restructuring and other actions. Adjusting for special item costs for significant litigation (non-GAAP measure), business segment operating income margins increased 4.6 year-on-year.

Transportation and Electronics Business (26.2% of consolidated sales):

	2021	2020
Sales (millions)	\$ 9,262	\$ 8,406
Sales change analysis:		
Organic sales	8.7 %	(7.1)%
Divestitures	—	(1.2)
Translation	1.5	0.2
Total sales change	10.2 %	(8.1)%
Business segment operating income (millions)	\$ 1,880	\$ 1,701
Percent change	10.6 %	(15.4)%
Percent of sales	20.3 %	20.2 %

Year 2021 results:

Sales in Transportation and Electronics were up 10.2 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in advanced materials, commercial solutions, automotive and aerospace, electronics and transportation safety.
- Sales increased in automotive and aerospace from improving automotive-end market activity and increases in car and light truck builds, partially offset by impacts from semiconductor supply chain constraints.
- Sales increased in electronics due to strong demand in data center, semiconductor, interconnect and consumer electronics markets, partially offset by impacts from semiconductor supply chain constraints.
- Sales increased in commercial solutions, advanced materials and transportation safety due to increased advertising spend and return to workplace trends.

Business segment operating income margins increased year-on-year due to sales growth leverage, benefits from restructuring actions and lower related charges, and COVID impacts recognized on certain assets in 2020 that were partially offset by increases in raw materials and logistic costs, manufacturing productivity impacts, and increased compensation and benefit costs.

Year 2020 results:

Sales in Transportation and Electronics were down 8.1 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in electronics, while sales decreased in transportation safety, advanced materials, commercial solutions and automotive and aerospace.
- Electronics-related growth was led by demand for semiconductor, data center, and factory automation end-markets, and was partially offset by softness in the consumer electronics end-market.
- Automotive and aerospace was primarily impacted by the decline in global car and light truck builds. Commercial solutions and transportation safety were impacted by soft-end markets such as hospitality, advertising and highway infrastructure due to social distancing and work-from-home protocols as a result of COVID-19.

Divestitures:

- In January 2020, 3M completed the sale of its advanced ballistic-protection business. Refer to Note 3 for details.

Business segment operating income margins decreased 1.8%, primarily related to lower sales and reduced productivity in key end-markets due to COVID-19 related impacts, partially offset by continued cost discipline and benefits from 2019 restructuring actions.

Health Care Business (24.3% of consolidated sales):

	2021	2020
Sales (millions)	\$ 8,597	\$ 7,832
Sales change analysis:		
Organic sales	10.2 %	(5.1)%
Acquisitions	—	15.7
Divestitures	(2.0)	(3.9)
Translation	1.6	(0.1)
Total sales change	9.8 %	6.6 %
Business segment operating income (millions)	\$ 2,037	\$ 1,662
Percent change	22.5 %	(6.3)%
Percent of sales	23.7 %	21.2 %

Year 2021 results:

Sales in Health Care were up 9.8 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in oral care, separation and purification, food safety, health information systems and medical solutions.
- Sales increased in oral care driven by higher year-on-year dental procedures and in separation and purification from continued high demand for biopharma filtration solutions for COVID-related vaccine and therapeutic development and manufacturing.
- Sales increased in medical solutions from rising elective procedure volumes in the first six months of 2021.
- Sales increased in health information systems due to improving hospital information technology investments.

Divestitures:

- In May 2020, 3M completed the sale of substantially all of its drug delivery business.

Business segment operating income margins increased year-on-year due to sales growth leverage and benefits from restructuring actions and lower related charges that were partially offset by supply chain disruptions, increases in raw materials and logistics costs, deal-related costs associated with the announced divestiture of the food safety business (see Note 3), manufacturing productivity impacts, increased compensation and benefit costs, and increased investments in growth.

Year 2020 results:

Sales in Health Care were up 6.6 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in separation and purification and food safety, while sales decreased in health information systems, medical solutions and oral care.
- Sales declines were primarily due to delays in elective medical procedures and closures of most dental offices across the world as a result of the COVID-19 impact most prevalent in the oral care and medical solutions businesses. In addition, health information systems decreased due to hospitals remaining cautious relative to their information technology investments.

Acquisitions:

- In February 2019, 3M acquired M*Modal, a leading healthcare technology provider of cloud-based, conversational artificial intelligence-powered systems that help physicians efficiently capture and improve the patient narrative.
- In October 2019, 3M completed the acquisition of Acelyty Inc. and its KCI subsidiaries, a leading global medical technology company focused on advanced wound care and specialty surgical applications.

Divestitures:

- In the first quarter of 2019, the Company sold certain oral care technology comprising a business.
- In May 2020, 3M completed the sale of substantially all of its drug delivery business.

Business segment operating income margins decreased 3.0% year-on-year, driven by impacts related to the Acelyty acquisition in addition to significant sales declines in oral care during the second quarter of 2020, partially offset by continued cost discipline and benefits from 2019 restructuring and other costs.

Consumer Business (15.6% of consolidated sales):

	2021	2020
Sales (millions)	\$ 5,513	\$ 4,976
Sales change analysis:		
Organic sales	9.8 %	3.5 %
Translation	1.0	(0.5)
Total sales change	10.8 %	3.0 %
Business segment operating income (millions)	\$ 1,162	\$ 1,119
Percent change	3.8 %	11.8 %
Percent of sales	21.1 %	22.5 %

Year 2021 results:

Sales in Consumer were up 10.8 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in stationery and office, home improvement, consumer health and safety, and home care.
- Sales increased in home improvement driven by continued strength in the market with strong demand for Command[®] adhesives, Filtrete[™] air quality solutions, Meguiars[™] auto care and Scotch Blue[™] painter's tape.
- Sales increased in stationery and office from ongoing strength in demand for packaging and shipping products, Post-it-solutions and Scotch[®] brand office tapes as the business laps last year's COVID-related comparisons.

Business segment operating income margins decreased year-on-year as a result of increases in raw materials, logistics, and outsourced hardgoods manufacturing costs, manufacturing productivity impacts, and increased compensation and benefit costs that more than offset leverage from sales growth and benefits from restructuring actions and lower related charges.

Year 2020 results:

Sales in Consumer were up 3.0 percent in U.S. dollars.

On an organic sales basis:

- Sales increased in home improvement and home care, while consumer health and safety and stationery and office decreased.
- Stationery and office declined year-on-year as a result of many business offices and schools remaining partially or fully closed due to the pandemic.
- Sales showed continued strength in the Company’s Command™, Filtrete™, Scotch Blue™, Scotch Brite™, and Meguiars™ brands.

Business segment operating income margins increased 1.8% year-on-year as a result of strong organic sales growth and continued cost discipline.

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 2 and Note 19.

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

Geographic Area Supplemental Information

(Millions, except Employees)	Employees as of December 31,		Capital Spending		Property, Plant and Equipment - net as of December 31,	
	2021	2020	2021	2020	2021	2020
Americas	56,000	56,000	\$ 1,046	\$ 943	\$ 5,864	\$ 5,752
Asia Pacific	18,000	18,000	216	235	1,582	1,662
Europe, Middle East and Africa	21,000	21,000	341	323	1,983	2,007
Total Company	95,000	95,000	\$ 1,603	\$ 1,501	\$ 9,429	\$ 9,421

Employment:

Employment remained consistent in 2021 when compared to 2020. The above table includes the impact of acquisitions, net of divestitures and other actions.

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. 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 to the consolidated financial statements. As stated in Note 1, the preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make certain estimates and assumptions. Such estimates and assumptions are subject to inherent uncertainties which may result in actual amounts differing from these estimates.

The Company considers the items below to be critical accounting estimates. Critical accounting estimates are those estimates made in accordance with generally accepted accounting principles that involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on the financial condition or results of operations of the Company. 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:

Assessments of lawsuits and claims can involve a series of complex judgments about future events, the outcomes of which are inherently uncertain, and can rely heavily on estimates and assumptions. The Company accrues an estimated liability for legal proceeding claims that are both probable and reasonably estimable in accordance with Accounting Standard Codification (ASC) 450, *Contingencies*. Please refer to the section entitled "Process for Disclosure and Recording of Liabilities Related to Legal Proceedings" (contained in "Legal Proceedings" in Note 16) for additional information about such estimates.

Pension and Postretirement Obligations:

The Company applies certain estimates for the discount rates and expected return on plan assets in determining its defined benefit pension and postretirement obligations and related net periodic benefit costs. The below further describes these estimates. Note 13 provides the weighted averages of these assumptions as of applicable dates and for respective periods and additional information on how the rates were determined.

Discount rate

The defined benefit pension and postretirement 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. Service cost and interest cost are measured 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 the actuarial gains and losses recorded in other comprehensive income. Changes in expected benefit payment and service cost cash flows, as well as ongoing changes in market activity and yields, cause these rates to be subject to uncertainty.

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, 2021 Liability:			
Benefit obligation	2.89 %	1.80 %	2.75 %
2022 Net Periodic Benefit Cost Components:			
Service cost	3.12 %	1.64 %	3.02 %
Interest cost	2.39 %	1.62 %	2.20 %

Expected return on plan assets

The expected return on plan assets for the primary U.S. qualified pension plan 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 2022 is 6.00%, a decrease from 6.50% in 2021. 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 plans is 3.86% for 2022 compared to 4.36% for 2021. Changes in asset allocation and market performance over time, among other factors, cause these estimates to be subject to uncertainty. For the year ended December 31, 2021, the Company recognized consolidated defined benefit pre-tax pension and postretirement service cost expense of \$503 million and a benefit of \$297 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 \$206 million, down from \$322 million in 2020.

In 2022, defined benefit pension and postretirement service cost expense is anticipated to total approximately \$435 million while non-service pension and postretirement net benefit costs is anticipated to be a benefit of approximately \$250 million, for a total consolidated defined benefit pre-tax pension and postretirement expense of \$185 million, a decrease of approximately \$20 million compared to 2021.

The table below summarizes the impact on 2022 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 2021 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	\$ 35	\$ (34)	\$ 40	\$ (40)
International pension plans	14	(7)	19	(19)

Goodwill and Certain Long-Lived Assets:

The Company makes certain estimates and judgments in relation to goodwill and certain long-lived assets. Those include considerations made in the valuation of certain acquired identifiable definite-lived and indefinite-lived assets as a result of business combinations as well as considerations in impairment assessments of goodwill.

Acquisition of certain identifiable definite-lived and indefinite-lived assets

In conjunction with an acquisition of a business, the Company records identifiable definite-lived and indefinite-lived intangible assets acquired at their respective fair values as of the date of acquisition. The corresponding fair value estimates for these assets acquired include projected future cash flows, associated discount rates used to calculate present value, asset life cycles, royalty rates, and customer retention rates. The fair value calculated for indefinite-lived intangible assets such as certain tradenames, in addition to intangible assets that are definite-lived such as patents, customer relationships, tradenames and other technology-based assets may change during the finalization of the purchase price allocation, due to the significant estimates used in determining their fair value. As a result, the Company may make adjustments to the provisional amounts recorded for certain items as part of the purchase price allocation subsequent to the acquisition, not to exceed one year after the acquisition date, until the purchase accounting allocation is finalized. Changes in factors that may impact projected future cash flows, discount rates, customer preferences, and other estimates above, as well as underlying market and overall economic conditions, among other items, cause these estimates to be subject to uncertainty.

Assessments of goodwill

As of December 31, 2021, 3M goodwill totaled approximately \$13.5 billion. Goodwill is tested for impairment annually in the fourth quarter of each year, as further discussed below, and is tested between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. If future non-cash asset impairment charges are taken, 3M would expect that only a portion of the goodwill would 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. 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 based on a market approach using comparable company information such as EBITDA (earnings before interest, taxes, depreciation and amortization) multiples. 3M also performs a discounted cash flow analysis for certain reporting units where the market approach indicates additional review is warranted. Where applicable, the discounted cash flow analysis uses projected cash flows that are based on sales growth and terminal value assumptions, among other factors. Changes in reporting unit earnings, comparable company information, and expected future cash flows, as well as underlying market and overall economic conditions, among other factors, make these estimates subject to uncertainty.

As described in Note 19, effective in the first quarter of 2021, the Company changed its business segment reporting. For 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, the results of which were immaterial. In conjunction with the change in segment reporting, 3M completed an assessment indicating no resulting goodwill impairment existed. The discussion that follows relates to the separate fourth quarter 2021 annual impairment test and is in the context of the reporting unit structure that existed at that time.

Based on the annual test in the fourth quarter of 2021, no goodwill impairment was indicated for any of the reporting units. As of October 1, 2021, 3M had 22 primary reporting units, with ten reporting units accounting for approximately 94 percent of the goodwill. These ten reporting units were comprised of the following divisions: Advanced Materials, Display Materials and Systems, Electronics Materials Solutions, Health Information Systems, Industrial Adhesives and Tapes, Medical Solutions, Oral Care, Personal Safety, Separation and Purification Sciences, and Transportation Safety.

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.

3M will continue to monitor its reporting units and asset groups in 2022 for any triggering events or other indicators of impairment.

Uncertainty in Income Tax Positions:

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*, a subset of which relates to uncertainty in income taxes, to record these liabilities (refer to Note 10 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.

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, provides financial flexibility and enables the Company to invest through business cycles. Investing in 3M's business to drive organic growth and deliver strong returns on invested capital remains the first priority for capital deployment. This includes research and development, capital expenditures, and commercialization capability. The Company also continues to actively manage its portfolio through acquisitions and divestitures to maximize value for shareholders. 3M expects to continue returning cash to shareholders through dividends and share repurchases. To fund cash needs in the United States, the Company relies on ongoing cash flow from U.S. operations, access to capital markets and repatriation of the earnings of its foreign affiliates that are not considered to be permanently reinvested. 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 10 for further information on earnings considered to be reinvested indefinitely.

3M maintains a strong liquidity profile. The company'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, 2021, there was no commercial paper issued and outstanding.

Total Debt:

The strength of 3M's credit profile and significant ongoing cash flows provide 3M proven access to capital markets. Additionally, the Company's debt 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 A1 credit rating with a negative outlook from Moody's Investors Service and an A+ credit rating with negative outlook from Standard and Poor's.

The Company's total debt was lower at December 31, 2021 when compared to December 31, 2020. Decreases in debt are further described in Note 12 and were largely due to the March 2021 early redemption via make-whole call offers of \$450 million in debt and the November 2021 repayment of 600 million euros aggregate principal amount of Eurobonds that matured. For discussion of repayments of and proceeds from debt refer to the following "Cash Flows from Financing Activities" section. As discussed in Note 12, during the second and third quarters of 2021, 3M entered into interest rate swaps that converted part of the Company's \$1.0 billion and \$650 million principal amount of fixed rate notes due 2049 and 2050, respectively, into floating rate debt for the portion of their terms through mid-2028.

In July 2017, the United Kingdom's Financial Conduct Authority announced that it would no longer require banks to submit rates for the London InterBank Offered Rate ("LIBOR") after 2021. In November 2020, the ICE Benchmark Administration (IBA), LIBOR's administrator, proposed extending the publication of USD LIBOR through June 2023. Subsequently, in March of 2021, IBA stated it will cease publication of certain LIBOR rates after December 31, 2021. USD LIBOR rates that do not cease on December 31, 2021 will continue to be published through June 30, 2023. The Company has reviewed its debt securities, bank facilities, and derivative instruments that utilize LIBOR as the reference rate and these agreements contain relevant fallback language. The Company's analysis of its other commercial contracts found that such contracts, as a general practice, do not reference LIBOR. 3M will continue its assessment and monitor regulatory developments during the transition period.

Effective February 10, 2020, 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 February 24, 2017. 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, 2021, the total amount of debt issued as part of the medium-term notes program (Series F), inclusive of debt issued in February 2019 and prior years is approximately \$17.6 billion (utilizing the foreign exchange rates applicable at the time of issuance for the euro denominated debt). Additionally, the August 2019 and March 2020 debt was issued under the WKSI shelf registration, but not as part of the medium-term notes program (Series F). Information with respect to long-term debt issuances and maturities for the periods presented and credit facilities is included in Note 12.

Cash, Cash Equivalents and Marketable Securities:

At December 31, 2021, 3M had \$4.8 billion of cash, cash equivalents and marketable securities, of which approximately \$3.1 billion was held by the Company’s foreign subsidiaries and approximately \$1.7 billion was held by the United States. These balances are invested in bank instruments and other high-quality fixed income securities. At December 31, 2020, 3M had \$5.1 billion of cash, cash equivalents and marketable securities, of which approximately \$2.8 billion was held by the Company’s foreign subsidiaries and approximately \$2.3 billion was held by the United States. The decrease from December 31, 2020 resulted from higher share repurchases of treasury stock, the March 2021 early redemption via make-whole call offers of \$450 million in debt, and the November 2021 repayment of 600 million euros aggregate principal amount, partially offset by strong cash flow from operations.

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, 2021 and 2020.

(Millions)	December 31,		Change
	2021	2020	
Total debt	\$ 17,363	\$ 18,795	\$ (1,432)
Less: Cash, cash equivalents and marketable securities	4,792	5,068	(276)
Net debt (non-GAAP measure)	\$ 12,571	\$ 13,727	(1,156)

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, such as accounts receivable and inventory activity.

Working Capital (non-GAAP measure):

(Millions)	December 31,		Change
	2021	2020	
Current assets	\$ 15,403	\$ 14,982	\$ 421
Less: Current liabilities	9,035	7,948	1,087
Working capital (non-GAAP measure)	\$ 6,368	\$ 7,034	(666)

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 decreased \$0.7 billion compared with December 31, 2020. Balance changes in current assets increased working capital, driven by increases in inventory, partially offset by decreases in marketable securities-current. Balance changes in current liabilities decreased working capital, primarily due to increases in short-term borrowing and the current portion of long-term debt and accounts payable.

Inventory increased from December 31, 2020, primarily as a result of increased underlying operating activity related to increased sales partially offset by foreign currency translation impacts, while marketable securities-current decreased from lower investments in commercial paper and U.S. treasury securities. Current portion of long-term debt increased based on underlying debt maturities while accounts payable also increased as a result of increased operating activity from that of late 2020 partially offset by foreign currency translation impacts.

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.

The increase in ROIC was driven by the increased operating income and the higher non-service pension and postretirement net benefit year-on-year.

Years ended December 31 (Millions)	2021	2020
Return on Invested Capital (non-GAAP measure)		
Net income including non-controlling interest	\$ 5,929	\$ 5,453
Interest expense (after-tax) (1)	400	424
Adjusted net income (Return)	\$ 6,329	\$ 5,877
Average shareholders' equity (including non-controlling interest) (2)	\$ 14,497	\$ 11,507
Average short-term and long-term debt (3)	17,991	20,413
Average invested capital	\$ 32,488	\$ 31,920
Return on invested capital (non-GAAP measure)	19.5 %	18.4 %
(1) Effective income tax rate used for interest expense	17.8 %	19.7 %
(2) Calculation of average equity (includes non-controlling interest)		
Ending total equity as of:		
March 31	\$ 13,828	\$ 10,214
June 30	14,516	10,925
September 30	14,530	11,959
December 31	15,117	12,931
Average total equity	\$ 14,497	\$ 11,507
(3) Calculation of average debt		
Ending short-term and long-term debt as of:		
March 31	\$ 18,187	\$ 22,495
June 30	18,248	20,762
September 30	18,165	19,598
December 31	17,363	18,795
Average short-term and long-term debt	\$ 17,991	\$ 20,413

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)	2021	2020
Net income including noncontrolling interest	\$ 5,929	\$ 5,453
Depreciation and amortization	1,915	1,911
Company pension and postretirement contributions	(180)	(156)
Company pension and postretirement expense	206	322
Stock-based compensation expense	274	262
Gain on sale of businesses	—	(389)
Income taxes (deferred and accrued income taxes)	(410)	(33)
Accounts receivable	(122)	165
Inventories	(903)	(91)
Accounts payable	518	252
Other — net	227	417
Net cash provided by operating activities	\$ 7,454	\$ 8,113

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 2021, cash flows provided by operating activities decreased compared to the same period last year, with this decrease primarily due to working capital changes. The combination of accounts receivable, inventories and accounts payable decreased operating cash flow by \$507 million in 2021, compared to an operating cash flow improvement of \$326 million in 2020. Additional discussion on working capital changes is provided earlier in the “Financial Condition and Liquidity” section.

Cash Flows from Investing Activities:

Years ended December 31, (Millions)	2021	2020
Purchases of property, plant and equipment (PP&E)	\$ (1,603)	\$ (1,501)
Proceeds from sale of PP&E and other assets	51	128
Acquisitions, net of cash acquired	—	(25)
Purchases and proceeds from maturities and sale of marketable securities and investments, net	204	232
Proceeds from sale of businesses, net of cash sold	—	576
Other — net	31	10
Net cash provided by (used in) investing activities	\$ (1,317)	\$ (580)

Investments in property, plant and equipment enable growth across many diverse markets, helping to meet product demand and increasing manufacturing efficiency. In 2020, 3M reduced overall spending in light of uncertainty regarding COVID-19, but continued to invest in expanding the Company’s ability to increase production of respiratory products to meet worldwide demand. The Company expects increased capital spending in 2022 as 3M continues to invest in growth, productivity and sustainability.

3M records capital-related government grants earned as reductions to the cost of property, plant and equipment; and associated unpaid liabilities and grant proceeds receivable are considered non-cash changes in such balances for purposes of preparation of statement of cash flows.

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. Finally, 3M also invests in other initiatives, such as information technology (IT), laboratory facilities, and a continued focus on investments in sustainability.

Refer to Note 3 for information on acquisitions and divestitures. The Company is actively considering additional acquisitions, investments and strategic alliances, and from time to time may also divest certain businesses. Acquisitions, net of cash acquired, in 2020 primarily relate to the payment made for contingent consideration in regards to the Acelity acquisition. Proceeds from sale of businesses in 2020 primarily relate to the sales of the Company’s advanced ballistic-protection business and its drug delivery business.

Purchases of marketable securities and investments and proceeds from maturities and sale of marketable securities and investments are primarily attributable to certificates of deposit/time deposits, commercial paper, and other securities, which are classified as available-for-sale. In 2020 these included the maturity of the held-to-maturity debt security that was purchased to satisfy the redemption of the Third Lien Notes (which matured in May 2020). Refer to Note 11 for more details about 3M’s diversified marketable securities portfolio.

Cash Flows from Financing Activities:

Years ended December 31, (Millions)	2021	2020
Change in short-term debt — net	\$ (2)	\$ (143)
Repayment of debt (maturities greater than 90 days)	(1,144)	(3,482)
Proceeds from debt (maturities greater than 90 days)	1	1,750
Total cash change in debt	\$ (1,145)	\$ (1,875)
Purchases of treasury stock	(2,199)	(368)
Proceeds from issuances of treasury stock pursuant to stock option and benefit plans	639	429
Dividends paid to stockholders	(3,420)	(3,388)
Other — net	(20)	(98)
Net cash used in financing activities	\$ (6,145)	\$ (5,300)

2021 Debt Activity:

Decreases in debt were largely due to the March 2021 early redemption of \$450 million in debt maturing in 2022 via make-whole call offers and the November 2021 repayment of 600 million euros aggregate principal amount of Eurobonds that matured. The Company had no commercial paper outstanding at December 31, 2021 and December 31, 2020. Net commercial paper issuances in addition to repayments and borrowings by international subsidiaries are largely reflected in “Change in short-term debt – net” in the preceding table. 3M’s primary short-term liquidity needs are met through cash on hand and U.S. commercial paper issuances. Refer to Note 12 for more detail regarding debt.

2020 Debt Activity:

Decreases in debt related to the repayment of debt primarily consisting of the aggregate \$445 million principal amount of Third Lien Notes and the 650 million euros and \$500 million aggregate principal amount of floating-rate medium-term notes that matured in May 2020 and August 2020, respectively. During the third quarter of 2020, the Company paid the outstanding balances on their Japanese yen and euro credit facilities. In addition, \$1.0 billion aggregate principal amount of notes maturing in September 2021 were repaid in December 2020 via make-whole-call offers. Increases in debt were related to the March 2020 issuance of \$1.75 billion in registered notes. Outstanding commercial paper decreased \$150 million from December 31, 2019 to December 31, 2020.

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 2021, the Company purchased \$2.2 billion of its own stock. 3M repurchased shares, after having suspended repurchases (with other repurchase activity limited to 3M’s stock compensation plans) in the first quarter of 2020. 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:

3M has paid dividends since 1916. In February 2022, 3M’s Board of Directors declared a first-quarter 2022 dividend of \$1.49 per share, an increase of 1 percent. This is equivalent to an annual dividend of \$5.96 per share and marked the 64th consecutive year of dividend increases.

Other cash flows from financing activities may include various other items, such as cash paid associated with certain derivative instruments, distributions to or sales of noncontrolling interests, changes in cash overdraft balances, and principal payments for finance leases.

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. Free cash flow and free cash flow conversion vary across quarters throughout the year. Below find a recap of free cash flow and free cash flow conversion.

Refer to the preceding “Cash Flows from Operating Activities” and “Cash Flows from Investing Activities” sections for discussion of items that impacted the operating cash flow and purchases of PP&E components of the calculation of free cash flow. Refer to the preceding “Results of Operations” section for discussion of items that impacted the net income attributable to 3M component of the calculation of free cash flow conversion.

Free cash flow conversion decreased in 2021 compared to 2020 as net income attributable to 3M increased while free cash flow decreased.

Years ended December 31, (Millions)	2021	2020
Major GAAP Cash Flow Categories		
Net cash provided by (used in) operating activities	\$ 7,454	\$ 8,113
Net cash provided by (used in) investing activities	(1,317)	(580)
Net cash provided by (used in) financing activities	(6,145)	(5,300)
Free Cash Flow (non-GAAP measure)		
Net cash provided by (used in) operating activities	\$ 7,454	\$ 8,113
Purchases of property, plant and equipment	(1,603)	(1,501)
Free cash flow	5,851	6,612
Net income attributable to 3M	5,921	5,449
Free cash flow conversion	99 %	121 %

Material Cash Requirement from Known Contractual and Other Obligations:

3M’s material cash requirements from known contractual and other obligations primarily relate to following, for which information on both a short-term and long-term basis is provided in the indicated notes to the consolidated financial statements:

- Tax obligations—Refer to Note 10.
- Debt—Refer to Note 12. Future cash payments for interest on long-term debt is approximately \$6 billion.
- Commitments and contingencies—Refer to Note 16.
- Operating and finance leases—Refer to Note 17.

3M purchases the majority of its materials and services as needed, with no unconditional commitments. In limited circumstances, in the normal course of business, 3M enters into unconditional purchase obligations with various vendors that may take the form of, for example, take or pay contracts in which 3M guarantees payment to ensure availability to 3M of certain materials or services or to ensure ongoing efforts on capital projects. The Company expects to receive underlying

materials or services for these purchase obligations. To the extent the limited amount of these purchase obligations fluctuates, it largely trends with normal-course changes in regular operating activities. Additionally, contractual capital commitments represent a small part of the Company's expected capital spending.

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 to offset, in part, the impacts of changes in value of various non-functional currency denominated items including certain intercompany financing balances. 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 and price protection agreements.

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 impact the Company's results of operations and financial condition. 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, 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 de-designate 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 contracts that are not designated in hedging relationships to offset, in part, the impacts of changes in value of various non-functional currency denominated items including certain intercompany financing balances. 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 \$2.6 billion at December 31, 2021. The dollar equivalent gross notional amount of the Company's foreign exchange forward and option contracts not designated as hedging instruments was \$3.7 billion at December 31, 2021. In addition, as of December 31, 2021, the Company had €2.9 billion in principal amount of foreign currency denominated debt designated as non-derivative hedging instruments in certain net investment hedges as discussed in Note 14 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, 2021 was \$800 million. Additional details about 3M's long-term

debt can be found in Note 12, including references to information regarding derivatives and/or hedging instruments, further discussed in Note 14, associated with the Company's long-term debt.

Commodity Prices Risk:

The Company manages commodity price risks through negotiated supply contracts and price protection agreements. 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.

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 debt instruments, interest rate derivatives and underlying foreign exchange and commodity exposures outstanding at December 31, 2021. The model (third-party bank dataset) used a 95 percent confidence level over a 12-month time horizon. This model does not purport to represent what actually will be experienced by the Company. In 2021, the model was expanded to cover all of 3M's currencies and hedging activity versus previously including 3M's nine primary currencies excluding hedges. Prior period amounts have been updated to reflect the current period's revised methodology. 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	
	2021	2020	2021	2020
Foreign exchange rates	\$ (140)	\$ (132)	\$ 147	\$ 141
Interest rates	(2)	(1)	2	2
Commodity prices	(21)	(1)	14	(2)

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 \$90 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 the changes in measure of segment operating performance made effective in the first quarter of 2022 (Note 19), or references thereto. Updates have been made to the following Notes to the Consolidated Financial Statements:

- [Note 1, Significant Accounting Policies](#)
- [Note 2, Revenue](#)
- [Note 19, Business Segments and Geographic Information](#)

Report of Independent Registered Public Accounting Firm (PCAOB ID 238)

Consolidated Financial Statements

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)*. Based on the assessment, management concluded that, as of December 31, 2021, the Company's internal control over financial reporting is effective.

The Company's internal control over financial reporting as of December 31, 2021 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, 2021.

3M Company

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of 3M Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of 3M Company and its subsidiaries (the “Company”) as of December 31, 2021 and 2020, and the related consolidated statements of income, of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 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, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Notes 1 and 8 to the consolidated financial statements, the Company changed the manner in which it accounts for net periodic pension and postretirement plan cost in 2021 and the manner in which it accounts for leases in 2019, respectively.

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.

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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Legal Proceedings

As described in Note 16 to the consolidated financial statements, management records liabilities for legal proceedings in those instances where it can reasonably estimate the amount of the loss and when loss is probable. Where the reasonable estimate of the probable loss is a range, management records as an accrual in its financial statements the most likely estimate of the loss, or the low end of the range if there is no one best estimate. Management 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. Management discloses significant legal proceedings even where liability is not probable or the amount of the liability is not estimable, or both, if management believes there is at least a reasonable possibility that a loss may be incurred.

The principal considerations for our determination that performing procedures relating to legal proceedings is a critical audit matter are the significant judgment by management when assessing the likelihood of a loss being incurred and when estimating the loss or range of loss for each claim, which in turn led to significant auditor judgment, subjectivity, and effort in performing procedures and evaluating management's assessment of the liabilities and disclosures associated with legal proceedings.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's evaluation of the liability related to legal proceedings, including controls over determining the likelihood of a loss and whether the amount of loss can be reasonably estimated, as well as financial statement disclosures. These procedures also included, among others, obtaining and evaluating the letters of audit inquiry with internal and external legal counsel, evaluating the reasonableness of management's assessment regarding whether an unfavorable outcome is reasonably possible or probable and reasonably estimable, and evaluating the sufficiency of the Company's disclosures related to legal proceedings.

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota

February 9, 2022, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of the changes in segment reporting discussed in Note 1, as to which the date is April 26, 2022

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)	2021	2020	2019
Net sales	\$ 35,355	\$ 32,184	\$ 32,136
Operating expenses			
Cost of sales	18,795	16,605	17,136
Selling, general and administrative expenses	7,197	6,929	7,029
Research, development and related expenses	1,994	1,878	1,911
Gain on sale of businesses	—	(389)	(114)
Total operating expenses	27,986	25,023	25,962
Operating income	7,369	7,161	6,174
Other expense (income), net	165	366	531
Income before income taxes	7,204	6,795	5,643
Provision for income taxes	1,285	1,337	1,114
Income of consolidated group	5,919	5,458	4,529
Income (loss) from unconsolidated subsidiaries, net of taxes	10	(5)	—
Net income including noncontrolling interest	5,929	5,453	4,529
Less: Net income (loss) attributable to noncontrolling interest	8	4	12
Net income attributable to 3M	\$ 5,921	\$ 5,449	\$ 4,517
Weighted average 3M common shares outstanding — basic	579.0	577.6	577.0
Earnings per share attributable to 3M common shareholders — basic	\$ 10.23	\$ 9.43	\$ 7.83
Weighted average 3M common shares outstanding — diluted	585.3	582.2	585.1
Earnings per share attributable to 3M common shareholders — diluted	\$ 10.12	\$ 9.36	\$ 7.72

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)	2021	2020	2019
Net income including noncontrolling interest	\$ 5,929	\$ 5,453	\$ 4,529
Other comprehensive income (loss), net of tax:			
Cumulative translation adjustment	(494)	447	211
Defined benefit pension and postretirement plans adjustment	1,345	106	(507)
Cash flow hedging instruments	119	(142)	(72)
Total other comprehensive income (loss), net of tax	970	411	(368)
Comprehensive income (loss) including noncontrolling interest	6,899	5,864	4,161
Comprehensive (income) loss attributable to noncontrolling interest	(7)	(2)	(11)
Comprehensive income (loss) attributable to 3M	\$ 6,892	\$ 5,862	\$ 4,150

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)	2021	2020
Assets		
Current assets		
Cash and cash equivalents	\$ 4,564	\$ 4,634
Marketable securities — current	201	404
Accounts receivable — net of allowances of \$189 and \$233	4,660	4,705
Inventories		
Finished goods	2,196	2,081
Work in process	1,577	1,226
Raw materials and supplies	1,212	932
Total inventories	4,985	4,239
Prepays	654	675
Other current assets	339	325
Total current assets	15,403	14,982
Property, plant and equipment	27,213	26,650
Less: Accumulated depreciation	(17,784)	(17,229)
Property, plant and equipment — net	9,429	9,421
Operating lease right of use assets	858	864
Goodwill	13,486	13,802
Intangible assets — net	5,288	5,835
Other assets	2,608	2,440
Total assets	\$ 47,072	\$ 47,344
Liabilities		
Current liabilities		
Short-term borrowings and current portion of long-term debt	\$ 1,307	\$ 806
Accounts payable	2,994	2,561
Accrued payroll	1,020	747
Accrued income taxes	260	300
Operating lease liabilities — current	263	256
Other current liabilities	3,191	3,278
Total current liabilities	9,035	7,948
Long-term debt	16,056	17,989
Pension and postretirement benefits	2,870	4,405
Operating lease liabilities	591	609
Other liabilities	3,403	3,462
Total liabilities	31,955	34,413
Commitments and contingencies (Note 16)		
Equity		
3M Company shareholders' equity:		
Common stock par value, \$.01 par value; 944,033,056 shares issued	9	9
Shares outstanding - December 31, 2021: 571,845,478		
Shares outstanding - December 31, 2020: 577,749,638		
Additional paid-in capital	6,429	6,162
Retained earnings	45,821	43,821
Treasury stock, at cost:	(30,463)	(29,404)
Accumulated other comprehensive income (loss)	(6,750)	(7,721)
Total 3M Company shareholders' equity	15,046	12,867
Noncontrolling interest	71	64
Total equity	15,117	12,931
Total liabilities and equity	\$ 47,072	\$ 47,344

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, 2018	\$ 9,848	\$ 5,652	\$ 40,684	\$ (29,626)	\$ (6,914)	\$ 52
Impact of adoption of ASU No. 2018-02	—		853		(853)	
Impact of adoption of ASU No. 2016-02	14		14			
Net income	4,529		4,517			12
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	211				212	(1)
Defined benefit pension and post-retirement plans adjustment	(507)				(507)	—
Cash flow hedging instruments - unrealized gain (loss)	(72)				(72)	—
Total other comprehensive income (loss), net of tax	(368)					
Dividends declared (\$5.76 per share, Note 8)	(3,316)		(3,316)			
Stock-based compensation	264	264				
Reacquired stock	(1,381)			(1,381)		
Issuances pursuant to stock options and benefit plans	536		(622)	1,158		
Balance at December 31, 2019	10,126	5,916	42,130	(29,849)	(8,134)	63
Net income	5,453		5,449			4
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	447				449	(2)
Defined benefit pension and post-retirement plans adjustment	106				106	—
Cash flow hedging instruments - unrealized gain (loss)	(142)				(142)	—
Total other comprehensive income (loss), net of tax	411					
Dividends declared (\$5.88 per share, Note 8)	(3,388)		(3,388)			
Purchase of non-controlling interest	(1)					(1)
Stock-based compensation	255	255				
Reacquired stock	(358)			(358)		
Issuances pursuant to stock options and benefit plans	433		(370)	803		
Balance at December 31, 2020	12,931	6,171	43,821	(29,404)	(7,721)	64
Net income	5,929		5,921			8
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	(494)				(493)	(1)
Defined benefit pension and post-retirement plans adjustment	1,345				1,345	—
Cash flow hedging instruments - unrealized gain (loss)	119				119	—
Total other comprehensive income (loss), net of tax	970					
Dividends declared (\$5.92 per share, Note 8)	(3,420)		(3,420)			
Stock-based compensation	267	267				
Reacquired stock	(2,199)			(2,199)		
Issuances pursuant to stock options and benefit plans	639		(501)	1,140		
Balance at December 31, 2021	\$ 15,117	\$ 6,438	\$ 45,821	\$ (30,463)	\$ (6,750)	\$ 71
Supplemental share information			2021	2020	2019	
Treasury stock						
Beginning balance			366,283,418	368,848,221	367,457,888	
Reacquired stock			11,834,681	2,286,109	7,575,647	
Issuances pursuant to stock options and benefit plans			(5,930,521)	(4,850,912)	(6,185,314)	
Ending balance			372,187,578	366,283,418	368,848,221	

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)	2021	2020	2019
Cash Flows from Operating Activities			
Net income including noncontrolling interest	\$ 5,929	\$ 5,453	\$ 4,529
Adjustments to reconcile net income including noncontrolling interest to net cash provided by operating activities			
Depreciation and amortization	1,915	1,911	1,593
Company pension and postretirement contributions	(180)	(156)	(210)
Company pension and postretirement expense	206	322	426
Stock-based compensation expense	274	262	278
Gain on sale of businesses	—	(389)	(111)
Deferred income taxes	(166)	(165)	(273)
Loss on deconsolidation of Venezuelan subsidiary	—	—	162
Changes in assets and liabilities			
Accounts receivable	(122)	165	345
Inventories	(903)	(91)	370
Accounts payable	518	252	(117)
Accrued income taxes (current and long-term)	(244)	132	205
Other — net	227	417	(127)
Net cash provided by (used in) operating activities	<u>7,454</u>	<u>8,113</u>	<u>7,070</u>
Cash Flows from Investing Activities			
Purchases of property, plant and equipment (PP&E)	(1,603)	(1,501)	(1,699)
Proceeds from sale of PP&E and other assets	51	128	123
Acquisitions, net of cash acquired	—	(25)	(4,984)
Purchases of marketable securities and investments	(2,202)	(1,579)	(1,635)
Proceeds from maturities and sale of marketable securities and investments	2,406	1,811	1,443
Proceeds from sale of businesses, net of cash sold	—	576	236
Other — net	31	10	72
Net cash provided by (used in) investing activities	<u>(1,317)</u>	<u>(580)</u>	<u>(6,444)</u>
Cash Flows from Financing Activities			
Change in short-term debt — net	(2)	(143)	(316)
Repayment of debt (maturities greater than 90 days)	(1,144)	(3,482)	(2,716)
Proceeds from debt (maturities greater than 90 days)	1	1,750	6,281
Purchases of treasury stock	(2,199)	(368)	(1,407)
Proceeds from issuance of treasury stock pursuant to stock option and benefit plans	639	429	547
Dividends paid to shareholders	(3,420)	(3,388)	(3,316)
Other — net	(20)	(98)	(197)
Net cash provided by (used in) financing activities	<u>(6,145)</u>	<u>(5,300)</u>	<u>(1,124)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(62)</u>	<u>48</u>	<u>(2)</u>
Net increase (decrease) in cash and cash equivalents	<u>(70)</u>	<u>2,281</u>	<u>(500)</u>
Cash and cash equivalents at beginning of year	<u>4,634</u>	<u>2,353</u>	<u>2,853</u>
Cash and cash equivalents at end of period	<u>\$ 4,564</u>	<u>\$ 4,634</u>	<u>\$ 2,353</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 applicable 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.

Effective in the first quarter of 2021, 3M made the following changes.

- Change in accounting principle for net periodic pension and postretirement plan cost. See below for additional information.
- Change in measure of segment operating performance used by 3M’s chief operating decision maker—impacting 3M’s disclosed measure of segment profit/loss (business segment operating income). See additional information in Note 19.
- Change in alignment of certain products within 3M’s Consumer business segment—creating the Consumer Health and Safety Division. See additional information in Note 19.

Additionally, effective in the first quarter of 2022, 3M made additional changes in the measure of segment operating performance used by 3M’s chief operating decision maker—impacting 3M’s disclosed measure of segment profit/loss (business segment operating income). See additional information in Note 19. 3M’s disclosed disaggregated revenue was also updated as a result of the changes in segment reporting. See additional information in Note 2.

Information provided herein reflects the impact of these changes for all periods presented.

Foreign currency translation: Local currencies generally are considered the functional currencies outside the United States with the exception of 3M’s subsidiaries in Argentina, the economy of which was considered highly inflationary beginning in 2018, and accordingly, the financial statements of these subsidiaries are remeasured as if their functional currency is that of their parent. 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 average monthly currency exchange rates in effect during the period. Cumulative translation adjustments are recorded as a component of accumulated other comprehensive income (loss) in shareholders’ equity.

3M had a consolidating subsidiary in Venezuela, the financial statements of which were remeasured 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 was immaterial as a percent of 3M’s consolidated operating income for the periods presented. In light of circumstances, including the country’s unstable environment and heightened unrest leading to sustained lack of demand, and expectation that these circumstances will continue for the foreseeable future, during May 2019, 3M concluded it no longer met the criteria of control in order to continue consolidating its Venezuelan operations. As a result, as of May 31, 2019, the Company began reflecting its interest in the Venezuelan subsidiary as an equity investment that does not have a readily determinable fair value. This resulted in a pre-tax charge of \$162 million within other expense (income) in the second quarter of 2019. The charge primarily relates to \$144 million of foreign currency translation losses associated with foreign currency movements before Venezuela was accounted for as a highly inflationary economy and pension elements previously included in accumulated other comprehensive loss along with write-down of intercompany receivable and investment balances associated with this subsidiary. Beginning May 31, 2019, 3M’s consolidated balance sheets and statements of operations no longer include the Venezuelan entity’s operations other than an immaterial equity investment and associated loss or income thereon largely only to the extent, that 3M provides support or materials and receives funding or dividends.

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. The Company considered the coronavirus (COVID-19) related impacts on its estimates, as appropriate, within its consolidated financial statements and there may be changes to those estimates in future periods. 3M believes that the accounting estimates are appropriate after giving consideration to the increased uncertainties surrounding the severity and duration of the COVID-19 pandemic. Such estimates and assumptions are subject to inherent uncertainties which may result in actual amounts differing 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 Securities and ASC 326-30, Available-for-Sale Debt Securities, when determining whether a decline in fair value below the amortized cost basis has resulted from a credit loss or other factors. An impairment relating to credit losses is recorded through an allowance for credit losses. The allowance is limited by the amount that the fair value is less than the amortized cost basis. A change in the allowance for credit losses is recorded into earnings in the period of the change. Any impairment that has not been recorded through an allowance for credit losses is recorded through accumulated other comprehensive income as a component of shareholders' equity. The factors considered in determining whether a credit loss exists can include the extent to which fair value is less than the amortized cost basis, changes in the credit quality of the underlying loan obligors, credit ratings actions, as well as other factors. When a credit loss exists, the Company compares the present value of cash flows expected to be collected from the debt security with the amortized cost basis of the security to determine what allowance amount, if any, should be recorded. Amounts are reclassified out of accumulated other comprehensive income and into earnings upon sale or a change in the portions of impairment related to credit losses and not related to credit losses.

Investments: All equity securities that do not result in consolidation and are not accounted for under the equity method are measured at fair value with changes therein reflected in net income. 3M utilizes the measurement alternative for equity investments that do not have readily determinable fair values and measures these investments at cost less impairment plus or minus observable price changes in orderly transactions. The balance of these securities is disclosed in Note 7.

Other assets: Other assets include deferred income taxes, product and other insurance receivables, the cash surrender value of life insurance policies, medical equipment in rental arrangements utilized primarily by hospitals and other medical clinics, prepaid pension and postretirement and other long-term assets. Investments in life insurance policies 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 net realizable value (NRV), which is defined as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Cost is 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. 3M records capital-related government grants earned as reductions to the cost of property, plant and equipment; and associated unpaid liabilities and grant proceeds receivable are considered non-cash changes in such balances for purposes of preparation of statement of cash flows.

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 \$176 million and \$145 million at December 31, 2021 and 2020, 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, not to exceed the carrying value of the reporting unit's goodwill. The estimated fair value of a reporting unit is determined based on a market approach using comparable company information such as EBITDA (earnings before interest, taxes, depreciation and amortization) multiples. 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 five years 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 ten to twenty years, patents largely between seven to thirteen years, other technology-based largely between six to twenty years, definite lived tradenames largely between six and twenty years, and other intangibles largely between five to eight years. Intangible assets are removed from their respective gross asset and accumulated amortization accounts when they are no longer in use. Refer to Note 4 for additional details on the gross amount and accumulated amortization of the Company's intangible assets. Costs related to internally developed intangible assets, such as patents, are expensed as incurred, within "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 exceeds the estimated undiscounted cash flows from the asset's or asset group's ongoing use and eventual disposition. If an impairment is identified, 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 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 in certain circumstances are 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.

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 or significant payment terms extended to customers. The vast majority of 3M's customer arrangements contain a single performance obligation to transfer manufactured goods as the promise to transfer the individual goods is not separately identifiable from other promises in the contracts and, therefore, not distinct. However, to a limited extent 3M also enters into customer arrangements that involve intellectual property out-licensing, multiple performance obligations (such as equipment, installation and service), software with coterminous post-contract support, services and non-standard terms and conditions.

The Company recognizes revenue in light of the guidance of Accounting Standards Codification (ASC) 606, *Revenue from Contracts with Customers*. Revenue is recognized when control of goods has transferred to customers. For the majority of the Company's customer arrangements, control transfers to customers at a point-in-time when goods/services have been delivered as that is generally when legal title, physical possession and risks and rewards of goods/services transfer to the customer. In limited arrangements, control transfers over time as the customer simultaneously receives and consumes the benefits as 3M completes the performance obligation(s).

Revenue is recognized at the transaction price which the Company expects to be entitled. When determining the transaction price, 3M estimates variable consideration applying the portfolio approach practical expedient under ASC 606. The main sources of variable consideration for 3M are customer rebates, trade promotion funds, and cash discounts. These sales incentives are recorded as a reduction to revenue at the time of the initial sale using the most-likely amount estimation method. The most-likely amount method is based on the single most likely outcome from a range of possible consideration outcomes. The range of possible consideration outcomes are primarily derived from the following inputs: sales terms, historical experience, trend analysis, and projected market conditions in the various markets served. Because 3M serves numerous markets, the sales incentive 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. There are no material instances where variable consideration is constrained and not recorded at the initial time of sale. Free goods are accounted for as an expense and recorded in cost of sales. Product returns are recorded as a reduction to revenue based on anticipated sales returns that occur in the normal course of business. 3M primarily has assurance-type warranties that do not result in separate performance obligations. Sales, use, value-added, and other excise taxes are not recognized in revenue. The Company has elected to present revenue net of sales taxes and other similar taxes.

For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using 3M's best estimate of the standalone selling price of each distinct good or service in the contract.

The Company did not recognize any material revenue in the current reporting period for performance obligations that were fully satisfied in previous periods.

The Company does not have material unfulfilled performance obligation balances for contracts with an original length greater than one year in any years presented. Additionally, the Company does not have material costs related to obtaining a contract with amortization periods greater than one year for any year presented.

3M applies ASC 606 utilizing the following allowable exemptions or practical expedients:

- Exemption to not disclose the unfulfilled performance obligation balance for contracts with an original length of one year or less.
- Practical expedient relative to costs of obtaining a contract by expensing sales commissions when incurred because the amortization period would have been one year or less.
- Portfolio approach practical expedient relative to estimation of variable consideration.
- "Right to invoice" practical expedient based on 3M's right to invoice the customer at an amount that reasonably represents the value to the customer of 3M's performance completed to date.
- Election to present revenue net of sales taxes and other similar taxes.
- Sales-based royalty exemption permitting future intellectual property out-licensing royalty payments to be excluded from the otherwise required remaining performance obligations disclosure

The Company recognizes revenue from the rental of durable medical devices in accordance with the guidance of ASC 842, *Leases*. The Company recognizes rental revenue based on the length of time a device is used by the patient/organization, (i) at the contracted rental rate for contracted customers and (ii) generally, retail price for non-contracted customers. The leases are short-term in nature, generally providing for daily or monthly pricing, and are all classified as operating leases.

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, and various other items. The allowances for bad debts and cash discounts are based on the best estimate of the amount of expected credit losses in existing accounts receivable and anticipated cash discounts. The Company determines the allowances based on historical write-off experience by industry and regional economic data, current expectations of future credit losses, and historical cash discounts. The Company reviews the allowances monthly. The allowances for bad debts as well as the provision for credit losses, write-off activity and recoveries for the periods presented are not material. The Company does not have any significant off-balance-sheet credit exposure related to its customers. The Company has long-term customer receivables that do not have significant credit risk, and the origination dates of which are typically not older than five years. These long-term receivables are subject to an allowance methodology similar to other receivables.

Advertising and merchandising: These costs are charged to operations in the period incurred and totaled \$327 million in 2021, \$278 million in 2020 and \$348 million in 2019.

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 \$1.994 billion in 2021, \$1.878 billion in 2020 and \$1.911 billion in 2019. 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 \$1.243 billion in 2021, \$1.146 billion in 2020 and \$1.253 billion in 2019. 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.

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 finance 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, 2021 and 2020, the Company had valuation allowances of \$142 million and \$135 million on its deferred tax assets, respectively. 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 2021, 2020 and 2019 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 (7.8 million average options for 2021, 18.1 million average options for 2020, and 8.9 million average options for 2019). 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)	2021	2020	2019
Numerator:			
Net income attributable to 3M	\$ 5,921	\$ 5,449	\$ 4,517
Denominator:			
Denominator for weighted average 3M common shares outstanding – basic	579.0	577.6	577.0
Dilution associated with the Company's stock-based compensation plans	6.3	4.6	8.1
Denominator for weighted average 3M common shares outstanding – diluted	585.3	582.2	585.1
Earnings per share attributable to 3M common shareholders – basic	\$ 10.23	\$ 9.43	\$ 7.83
Earnings per share attributable to 3M common shareholders – diluted	\$ 10.12	\$ 9.36	\$ 7.72

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. 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.

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 securities, and unrealized gains and losses on cash flow hedging instruments. The Company uses the portfolio approach for releasing income tax effects from accumulated other comprehensive income.

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 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, 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. 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.

Leases: 3M determines if an arrangement is a lease upon inception. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The right to control the use of an asset includes the right to obtain substantially all of the economic benefits of the underlying asset and the right to direct how and for what purpose the asset is used. 3M determines certain service agreements that contain the right to use an underlying asset are not leases because 3M does not control how and for what purpose the identified asset is used. Examples of such agreements include master supply agreements, product processing agreements, warehouse and distribution services agreements, power purchase agreements, and transportation purchase agreements.

Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The discount rate used to calculate present value is 3M's incremental borrowing rate or, if available, the rate implicit in the lease. 3M determines the incremental borrowing rate for leases using a portfolio approach based primarily on the lease term and the economic environment of the applicable country or region.

As a lessee, the Company leases distribution centers, office space, land, and equipment. Certain 3M lease agreements include rental payments adjusted annually based on changes in an inflation index. 3M's leases do not contain material residual value guarantees or material restrictive covenants. Lease expense is recognized on a straight-line basis over the lease term.

Certain leases include one or more options to renew, with terms that can extend the lease term up to five years. 3M includes options to renew the lease as part of the right of use lease asset and liability when it is reasonably certain the Company will exercise the option. In addition, certain leases contain fair value purchase and termination options with an associated penalty. In general, 3M is not reasonably certain to exercise such options.

For the measurement and classification of its lease agreements, 3M groups lease and non-lease components into a single lease component for all underlying asset classes. Variable lease payments primarily include payments for non-lease components, such as maintenance costs, payments for leased assets used beyond their noncancellable lease term as adjusted for contractual options to terminate or renew, additional payments related to a subsequent adjustment in an inflation index, and payments for non-components such as sales tax. Certain 3M leases contain immaterial variable lease payments based on number of units produced.

Change in Accounting Principle for Determining Net Periodic Pension and Postretirement Plan Cost

In the first quarter of 2021, 3M changed the method it uses to calculate the market-related value of fixed income securities included in its pension and other postretirement plan assets. The market-related value is used to determine the expected return on plan assets and the amortization of net unamortized actuarial gains or losses expense components of net periodic benefit cost. The Company previously used the calculated value approach for all plan assets, deferring over three years the impact on these amounts of asset gains or losses that differed from expected returns. 3M changed to the fair value approach for calculating market-related value for the fixed income class of plan assets, which does not involve deferring the impact of excess plan asset gains or losses in the determination of these two components of net periodic benefit cost. 3M considers the use of the fair value approach preferable to the calculated value approach as it results in a more current reflection of impacts of changes in value of these plan assets in the determination of net periodic benefit cost. Additionally, given the plans' liability-driven investment strategy whereby the changes in value of the fixed income plan assets should offset changes in the value of the plans' liabilities, this approach more closely aligns the expected return on plan assets expense component with the value reflected in the plans' funded status. This change was applied retrospectively to all periods presented within 3M's financial statements. The change did not impact consolidated operating income or net cash provided by operating activities but did impact the previously reported portion of pension and postretirement net periodic benefit cost (benefit) that was included within non-operating other expense (income) along with related consolidated income items such as net income and earnings per share. Other impacts included related changes to previously reported consolidated other comprehensive income, retained earnings, accumulated other comprehensive income (loss), and associated line items within the determination of net cash provided by operating activities. For classes of plan assets other than fixed income investments, the Company continues to use the calculated value approach to determine their market-related value.

The adoption of this change impacted previously reported amounts included herein as indicated in the tables below.

Consolidated Statement of Income

(Millions, except per share amounts)	Year ended December 31,			
	2020		2019	
	Under Prior Method	As Adjusted	Under Prior Method	As Adjusted
Other expense (income), net	450	366	462	531
Income before income taxes	6,711	6,795	5,712	5,643
Provision for income taxes	1,318	1,337	1,130	1,114
Income of consolidated group	5,393	5,458	4,582	4,529
Net income including noncontrolling interest	5,388	5,453	4,582	4,529
Net income attributable to 3M	5,384	5,449	4,570	4,517
Earnings per share attributable to 3M common shareholders — basic	9.32	9.43	7.92	7.83
Earnings per share attributable to 3M common shareholders — diluted	9.25	9.36	7.81	7.72

Consolidated Statement of Comprehensive Income

(Millions)	Year ended December 31,			
	2020		2019	
	Under Prior Method	As Adjusted	Under Prior Method	As Adjusted
Net income including noncontrolling interest	5,388	5,453	4,582	4,529
Other comprehensive income (loss), net of tax:				
Defined benefit pension and postretirement plans adjustment	171	106	(560)	(507)
Total other comprehensive income (loss), net of tax	476	411	(421)	(368)
Comprehensive income (loss) including noncontrolling interest	5,864	5,864	4,161	4,161
Comprehensive income (loss) attributable to 3M	5,862	5,862	4,150	4,150

Consolidated Balance Sheet

(Millions)	As of December 31, 2020	
	Under Prior Method	As Adjusted
	Retained earnings	43,761
Accumulated other comprehensive income (loss)	(7,661)	(7,721)

Consolidated Statement of Cash Flows

(Millions)	Year ended December 31,			
	2020		2019	
	Under Prior Method	As Adjusted	Under Prior Method	As Adjusted
Net income including noncontrolling interest	5,388	5,453	4,582	4,529
Company pension and postretirement expense	406	322	357	426
Other — net	398	417	(111)	(127)

The cumulative adjustment as of January 1, 2019, the beginning of the earliest period presented in the consolidated financial statements included herein, was a \$ million reduction to each of retained earnings and accumulated other comprehensive loss.

Related Party Activity:

3M does not have any material related party activity.

New Accounting Pronouncements

The tables below provide summaries of new accounting pronouncements adopted by 3M during 2021 and of pronouncements issued, but not yet adopted by the Company.

Standards Adopted During 2021			
Standard	Relevant Description	Effective Date for 3M	Impact and Other Matters
ASU No. 2019-12, <i>Simplifying the Accounting for Income Taxes (Topic 740)</i>	Eliminates certain existing exceptions related to the general approach in ASC 740 relating to franchise taxes, reducing complexity in the interim-period accounting for year-to-date loss limitations and changes in tax laws, and clarifying the accounting for transactions outside of business combination that result in a step-up in the tax basis of goodwill.	January 1, 2021	Adoption of this ASU did not have a material impact on 3M's consolidated results of operations and financial condition.
ASU No. 2020-01, <i>Clarifying the Interactions between Topic 321, Investments—Equity Securities, Topic 323, Investments—Equity Method and Joint Ventures, and Topic 815, Derivatives and Hedging</i>	Clarifies when accounting for certain equity securities, a Company should consider observable transactions before applying or upon discontinuing the equity method of accounting for the purposes of applying the measurement alternative. Indicates when determining the accounting for certain derivatives, a Company should not consider if the underlying securities would be accounted for under the equity method or fair value option.	January 1, 2021	Adoption of this ASU did not have a material impact on 3M's consolidated results of operations and financial condition.
ASU No. 2020-04, <i>Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting</i> and ASU No. 2021-01, <i>Reference Rate Reform (Topic 848): Scope</i>	Provides temporary optional expedients and exceptions to existing guidance on contract modifications and hedge accounting to facilitate the market transition from existing reference rates, such as LIBOR which is being phased out beginning at the end of 2021, to alternate reference rates, such as SOFR.	Effective upon ASU issuances in 2020 & 2021	3M will apply this guidance to applicable contracts and instruments when/if they are modified. Review of relevant arrangements concluded that implications of these ASUs would not have a material impact on 3M's consolidated results of operations and financial condition.

Standards Issued and Not Yet Adopted			
Standard	Relevant Description	Effective Date for 3M	Impact and Other Matters
ASU No. 2021-08, <i>Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers</i>	Issued in October 2021. Requires acquiring entities to apply ASC 606 to recognize and measure contract assets and liabilities acquired through a business combination.	January 1, 2023	This guidance is applicable to all business combinations occurring after the effective date.
ASU No. 2021-10, <i>Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance</i>	Issued in November 2021. Requires disclosures about certain types of government assistance received. The disclosures include information about the nature of the transactions and related accounting policy used to account for them, the line items on the balance sheet and income statement affected by the transactions and the amounts applicable to each financial statement item, and the significant terms and conditions of the transaction.	January 1, 2022	As this ASU relates to disclosures only, there will be no impact to 3M's consolidated results of operations and financial condition.

NOTE 2. Revenue

Contract Balances:

Deferred revenue primarily relates to revenue that is recognized over time for one-year software license contracts. Refer to Note 7 for deferred revenue balances at December 31, 2020 and 2021. Approximately \$470 million of the December 31, 2020 balance was recognized as revenue during the year ended December 31, 2021, while approximately \$410 million of the December 31, 2019 balance was recognized as revenue during the year ended December 31, 2020.

Operating Lease Revenue:

Net sales includes rental revenue from durable medical devices as part of operating lease arrangements (reported within the Medical Solutions Division), which was \$82 million and \$586 million for the year ended December 31, 2021 and December 31, 2020, respectively. Applicable rental revenue for the year ended December 31, 2019 was not material.

Disaggregated revenue information:

The Company views the following disaggregated disclosures as useful to understanding the composition of revenue recognized during the respective reporting periods:

Net Sales (Millions)	Year ended December 31,		
	2021	2020	2019
Abrasives	\$ 1,296	\$ 1,077	\$ 1,280
Automotive Aftermarket	1,164	1,028	1,152
Closure and Masking Systems	1,033	993	1,111
Electrical Markets	1,229	1,093	1,180
Industrial Adhesives and Tapes	2,353	2,000	2,114
Personal Safety	4,470	4,408	3,472
Roofing Granules	428	389	366
Other Safety and Industrial	8	(16)	29
Total Safety and Industrial Business Segment	11,981	10,972	10,704
Advanced Materials	1,200	1,029	1,236
Automotive and Aerospace	1,756	1,522	1,806
Commercial Solutions	1,717	1,486	1,733
Electronics	3,673	3,497	3,446
Transportation Safety	907	880	932
Other Transportation and Electronics	9	(8)	(6)
Total Transportation and Electronics Business Segment	9,262	8,406	9,147
Drug Delivery	—	146	371
Food Safety	368	337	337
Health Information Systems	1,220	1,140	1,177
Medical Solutions	4,632	4,288	3,361
Oral Care	1,420	1,071	1,320
Separation and Purification Sciences	956	848	784
Other Health Care	1	2	(5)
Total Health Care Business Group	8,597	7,832	7,345
Consumer Health and Safety	588	540	583
Home Care	1,074	1,043	968
Home Improvement	2,548	2,260	2,001
Stationery and Office	1,306	1,132	1,286
Other Consumer	(3)	1	(7)
Total Consumer Business Group	5,513	4,976	4,831
Corporate and Unallocated	2	(2)	109
Total Company	\$ 35,355	\$ 32,184	\$ 32,136

Net Sales (Millions)	Year ended December 31,		
	2021	2020	2019
Americas	\$ 18,097	\$ 16,525	\$ 16,124
Asia Pacific	10,600	9,569	9,796
Europe, Middle East and Africa	6,660	6,109	6,226
Other Unallocated	(2)	(19)	(10)
Worldwide	\$ 35,355	\$ 32,184	\$ 32,136

Americas included United States net sales to customers of \$15.0 billion, \$13.9 billion and \$13.2 billion in 2021, 2020 and 2019, respectively. Asia Pacific included China/Hong Kong net sales to customers of \$4.0 billion, \$3.5 billion and \$3.3 billion in 2021, 2020 and 2019, respectively.

NOTE 3. 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.

2021 acquisitions:

There were no acquisitions that closed during the year ended December 31, 2021.

2020 acquisitions:

There were no acquisitions that closed during the year ended December 31, 2020.

2019 acquisitions:

In February 2019, 3M completed the acquisition of the technology business of M*Modal for \$0.7 billion of cash, net of cash acquired, and assumption of \$0.3 billion of M*Modal's debt. Based in Pittsburgh, Pennsylvania, M*Modal is a leading healthcare technology provider of cloud-based, conversational artificial intelligence-powered systems that help physicians efficiently capture and improve the patient narrative. The allocation of purchase consideration related to M*Modal was completed in the fourth quarter of 2019. Net sales and operating loss (inclusive of transaction and integration costs) of this business included in 3M's consolidated results of operations in 2019 were approximately \$300 million and \$25 million, respectively. M*Modal is reported within the Company's Health Care business.

In October 2019, the Company completed the acquisition of all of the ownership interests of Acelyt Inc. and its KCI subsidiaries. Acelyt is a leading global medical technology company focused on advanced wound care and specialty surgical applications marketed under the KCI brand. In the first quarter of 2020, the Company paid certain considerations previously accrued under the terms of related agreements. Adjustments in 2020 to the purchase price allocation were approximately \$34 million and related to identification and valuation of certain acquired assets and liabilities. The change to provisional amounts did not result in material impacts to results of operations in 2020 or any portion related to earlier quarters in the measurement period. The allocation of purchase consideration related to Acelyt was completed in the third quarter of 2020. Net sales and operating loss (inclusive of transaction and integration costs) of this business included in 3M's consolidated results of operations in the fourth quarter of 2019 were approximately \$350 million and \$45 million, respectively. Acelyt is reported within the Company's Health Care business.

Proforma information related to these acquisitions has not been included as 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 the 2019 acquisitions and assigned finite-lived asset weighted average lives.

(Millions) Asset (Liability)	2019 Acquisition Activity			Finite-Lived Intangible-Asset Weighted-Average Lives (Years)
	M*Modal	Acelity	Total	
Accounts receivable	\$ 75	\$ 295	\$ 370	
Inventory	—	186	186	
Other current assets	2	65	67	
Property, plant, and equipment	8	147	155	
Purchased finite-lived intangible assets:				
Customer related intangible assets	275	1,760	2,035	18
Other technology-based intangible assets	160	1,390	1,550	10
Definite-lived tradenames	11	485	496	16
Purchased goodwill	517	2,952	3,469	
Other assets	58	73	131	
Accounts payable and other liabilities	(127)	(438)	(565)	
Interest bearing debt	(251)	(2,322)	(2,573)	
Deferred tax asset/(liability) and accrued income taxes	(24)	(288)	(312)	
Net assets acquired	\$ 704	\$ 4,305	\$ 5,009	
Supplemental information:				
Cash paid	\$ 708	\$ 4,486	\$ 5,194	
Less: Cash acquired	4	206	210	
Cash paid, net of cash acquired	\$ 704	\$ 4,280	\$ 4,984	
Consideration payable	—	25	25	
Cash paid and consideration payable, net of cash acquired	\$ 704	\$ 4,305	\$ 5,009	

Purchased identifiable finite-lived intangible assets related to acquisitions which closed in 2019 totaled \$0.81 billion. The associated finite-lived intangible assets acquired will be amortized on a systematic and rational basis (generally straight line) over a weighted-average life of 14 years (lives ranging from 6 to 19 years).

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. As discussed in Note 19 (Business Segments), gains/losses on sale of businesses are reflected in Corporate and Unallocated.

2021 divestitures and announced divestitures:

There were no divestitures that closed during the year ended December 31, 2021.

In December 2021, 3M entered into a binding offer to sell its floor products business in Western Europe, part of the Consumer business. This business has annual sales of less than \$30 million. The transaction is expected to close in the first quarter of 2022, subject to customary closing conditions and regulatory requirements. 3M expects an immaterial pre-tax gain as a result of this divestiture.

In December 2021, 3M entered into agreements with NEOGEN Corporation pursuant to which 3M will separate its Food Safety Division business (part of the Health Care business) and combine it with NEOGEN in a transaction that is intended to be tax-efficient to 3M and its shareholders for U.S. federal income tax purposes. Under the terms of the agreements, which involve a tax-free Reverse Morris Trust, the Food Safety business will be spun-off or split-off to 3M shareholders and simultaneously merged with NEOGEN. Existing NEOGEN shareholders will continue to own approximately 49.9% of the combined company and 3M shareholders will receive approximately 50.1% of the combined company. In connection with the transaction, the Food Safety business will incur new debt and fund to 3M consideration valued at approximately \$1 billion, subject to closing and other adjustments. The transaction is expected to close by the end of the third quarter of 2022, subject to approval by NEOGEN shareholders, receipt of required regulatory approvals and the satisfaction of other customary closing conditions. Net sales information relative to the Food Safety Division is included in Note 2. Due to factors such as the potential nature of the transaction and underlying approvals, the Food Safety business is not considered held for sale as of December 31, 2021.

2020 divestitures:

In January 2020, 3M completed the sale of its advanced ballistic-protection business, formerly part of the Transportation and Electronics business, to Avon Rubber p.l.c for \$6 million in cash and recognized certain contingent consideration from the outcome of pending tenders. Further contingent consideration of less than \$25 million may be recognized depending on outcomes in the future. The business, with annual sales of approximately \$85 million, consists of ballistic helmets, body armor, flat armor and related helmet-attachment products serving government and law enforcement. 3M reflected immaterial impacts in the third quarter of 2019 as a result of measuring this disposal group at the lower of its carrying amount or fair value less cost to sell and in the first quarter 2020 related to completion of the divestiture and recognition of contingent consideration.

In May 2020, 3M completed the sale of substantially all of its drug delivery business, formerly part of the Health Care business, to an affiliate of Altaris Capital Partners, LLC for \$617 million in consideration including \$487 million of cash, approximately \$70 million in the form of an interest-bearing security, and approximately \$60 million in the form of a 17 percent noncontrolling interest in the new company, Kindeva Drug Delivery (Kindeva). Non-cash consideration was valued at time of initial recognition on an income-based approach using relevant estimated future cash flows and applicable market interest rates while considering impacts of restrictions related to transferability. The divested business had annual sales of approximately \$380 million. 3M retained its transdermal drug delivery components business. 3M reflected a pre-tax gain of \$87 million as a result of the divestiture. The Company reflects its ownership interest in Kindeva using the equity method of accounting incorporating the recording of 3M's share of earnings/losses on a lag-basis based on availability of Kindeva financial statements. As a result, income/loss from this unconsolidated subsidiary began to be reflected in 3M's financial statements in the third quarter of 2020. Kindeva and 3M entered into certain limited-term agreements related to post-divestiture transition and supply services.

In the third quarter of 2020, 3M completed the sale of a small dermatology products business, formerly part of the Health Care business, for immaterial proceeds that approximated the business's book value.

2019 divestitures:

During the first quarter of 2019, the Company sold certain oral care technology comprising a business and reflected an earnout on a previous divestiture resulting in an aggregate immaterial gain.

In August 2019, 3M closed on the sale of its gas and flame detection business, a leader in fixed and portable gas and flame detection, to Teledyne Technologies Incorporated. 3M's gas and flame business was part of the overall October 2017 acquisition of underlying legal entities and associated assets of Scott Safety. This business has annual sales of approximately \$120 million. The transaction resulted in a pre-tax gain of \$112 million.

Operating income and held for sale amounts

The aggregate operating income of these businesses, including the announced divestitures, was approximately \$120 million, \$160 million and \$160 million in 2021, 2020 and 2019, respectively. The amounts of major assets and liabilities associated with disposal groups classified as held-for-sale as of December 31, 2021 were not material.

NOTE 4. Goodwill and Intangible Assets**Goodwill**

There was no goodwill recorded from acquisitions during 2021 and 2020. 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 decreased goodwill by \$34 million during 2020. 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:

(Millions)	Safety and Industrial	Transportation and Electronics	Health Care	Consumer	Total Company
Balance as of December 31, 2019	\$ 4,621	\$ 1,830	\$ 6,739	\$ 254	\$ 13,444
Acquisition activity	—	—	(34)	—	(34)
Divestiture activity	—	(10)	(19)	—	(29)
Translation and other	66	38	306	11	421
Balance as of December 31, 2020	4,687	1,858	6,992	265	13,802
Translation and other	(65)	(33)	(206)	(12)	(316)
Balance as of December 31, 2021	\$ 4,622	\$ 1,825	\$ 6,786	\$ 253	\$ 13,486

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 19, effective in the first quarter of 2021, the Company changed its business segment reporting. 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, the results of which were immaterial. Goodwill balances reported above reflect these business segment reporting changes in the earliest period presented. The Company also completed its annual goodwill impairment test in the fourth quarter of 2021 for all reporting units and determined that no impairment existed. In addition, the Company had no impairments of goodwill in 2020, 2019 or cumulatively.

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)	2021	2020
Customer related intangible assets	\$ 4,216	\$ 4,280
Patents	513	537
Other technology-based intangible assets	2,111	2,114
Definite-lived tradenames	1,171	1,178
Other amortizable intangible assets	105	104
Total gross carrying amount	8,116	8,213
Accumulated amortization — customer related	(1,616)	(1,422)
Accumulated amortization — patents	(500)	(512)
Accumulated amortization — other technology-based	(839)	(638)
Accumulated amortization — definite-lived tradenames	(447)	(385)
Accumulated amortization — other	(79)	(79)
Total accumulated amortization	(3,481)	(3,036)
Total finite-lived intangible assets — net	4,635	5,177
Non-amortizable intangible assets (primarily tradenames)	653	658
Total intangible assets — net	\$ 5,288	\$ 5,835

Certain tradenames acquired by 3M are not amortized because they have been in existence for over 60 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. As discussed in Note 15, 3M reflected an immaterial charge related to impairment of certain indefinite-lived assets in the first quarter of 2020.

Amortization expense for the years ended December 31 follows:

(Millions)	2021	2020	2019
Amortization expense	\$ 529	\$ 537	\$ 341

Expected amortization expense for acquired amortizable intangible assets recorded as of December 31, 2021 follows:

(Millions)	2022	2023	2024	2025	2026	After 2026
Amortization expense	\$ 514	\$ 485	\$ 457	\$ 427	\$ 420	\$ 2,332

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 5. Restructuring Actions

2021 and 2020 Restructuring Actions:

Operational/Marketing Capability Restructuring

In late 2020, 3M announced it would undertake certain actions to further enhance its operations and marketing capabilities to take advantage of certain global market trends while de-prioritizing investments in slower-growth end markets. During the fourth quarter of 2020, management approved and committed to undertake associated restructuring actions impacting approximately 2,100 positions resulting in a pre-tax charge of \$137 million. In 2021, management approved and committed to undertake additional actions under this initiative resulting in a pre-tax charge of \$124 million. Remaining activities related to the restructuring actions approved and committed under this initiative are expected to be largely completed through the third quarter of 2022. 3M expects to commit to further actions under this initiative through early 2022. This aggregate initiative, begun in 2020 and continuing through early 2022, is expected to impact approximately 3,100 positions worldwide with an expected pre-tax charge approaching \$300 million over that period. The related restructuring charges were recorded in the income statement as follows:

(Millions)	2021	2020
Cost of sales	\$ 19	\$ 51
Selling, general and administrative expenses	88	79
Research, development and related expenses	17	7
Total operating income impact	\$ 124	\$ 137

The business segment operating income impact of these restructuring charges is summarized as follows:

(Millions)	2021		2020	
	Employee Related	Employee Related	Asset-Related and Other	Total
Safety and Industrial	30	\$ 36	\$ 7	\$ 43
Transportation and Electronics	24	16	12	28
Health Care	21	23	3	26
Consumer	7	10	1	11
Corporate and Unallocated	42	16	13	29
Total Operating Expense	\$ 124	\$ 101	\$ 36	\$ 137

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

(Millions)	Employee-Related		Asset-Related and Other		Total	
Expense incurred in the fourth quarter of 2020	\$	101	\$	36	\$	137
Non-cash changes		—		(36)		(36)
Accrued restructuring action balances as of December 31, 2020		101		—		101
Incremental expense incurred in 2021		124		—		124
Cash Payments		(127)		—		(127)
Adjustments		(11)		—		(11)
Accrued restructuring action balances as of December 31, 2021	\$	87	\$	—	\$	87

Divestiture-Related Restructuring

During the second quarter of 2020, following the divestiture of substantially all of the drug delivery business (see Note 3) management approved and committed to undertake certain restructuring actions addressing corporate functional costs and manufacturing footprint across 3M in relation to the magnitude of amounts previously allocated/burdened to the divested business. These actions affected approximately 1,300 positions worldwide and resulted in a second quarter 2020 pre-tax charge of \$55 million, within Corporate and Unallocated. The divestiture-related restructuring actions were recorded in the income statement as follows:

(Millions)	2020
Cost of sales	\$ 42
Selling, general and administrative expenses	12
Research, development and related expenses	1
Total operating income impact	\$ 55

Divestiture-related restructuring actions, including cash and non-cash impacts, follow:

(Millions)	Employee-Related	Asset-Related and Other	Total
Expense incurred in the second quarter of 2020	\$ 32	\$ 23	\$ 55
Non-cash changes	—	(14)	(14)
Cash payments	(14)	—	(14)
Adjustments	(3)	—	(3)
Accrued restructuring action balance as of December 31, 2020	15	9	24
Cash Payments	(5)	—	(5)
Adjustments	(1)	—	(1)
Accrued restructuring action balance as of June 30, 2021	\$ 9	\$ 9	\$ 18

Remaining activities related to this divestiture-related restructuring were largely completed in the third quarter of 2021.

Other Restructuring

Additionally, in the second quarter of 2020, management approved and committed to undertake certain restructuring actions addressing structural enterprise costs and operations in certain end markets as a result of the COVID-19 pandemic and related economic impacts. These actions affected approximately 400 positions worldwide and resulted in a second quarter 2020 pre-tax charge of \$58 million. The restructuring charges were recorded in the income statement as follows:

(Millions)	2020
Cost of sales	\$ 13
Selling, general and administrative expenses	37
Research, development and related expenses	8
Total operating income impact	\$ 58

The business segment operating income impact of these restructuring charges is summarized as follows:

(Millions)	2020		
	Employee-Related	Asset-Related and Other	Total
Safety and Industrial	\$ 7	\$ —	\$ 7
Transportation and Electronics	11	—	11
Health Care	12	—	12
Consumer	5	—	5
Corporate and Unallocated	—	23	23
Total Operating Expense	\$ 35	\$ 23	\$ 58

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

(Millions)	Employee-Related	Asset-Related	Total
Expense incurred in the second quarter of 2020	\$ 35	\$ 23	\$ 58
Non-cash changes	—	(23)	(23)
Cash payments	(2)	—	(2)
Adjustments	(9)	—	(9)
Accrued restructuring action balances as of December 31, 2020	24	—	24
Cash Payments	(4)	—	(4)
Adjustments	(9)	—	(9)
Accrued restructuring action balances as of March 31, 2021	\$ 11	\$ —	\$ 11

Remaining activities related to this restructuring were largely completed in the second quarter of 2021.

2019 Restructuring Actions:

During the second quarter of 2019, in light of slower than expected 2019 sales, management approved and committed to undertake certain restructuring actions. These actions impacted approximately 2,000 positions worldwide, including attrition. The Company recorded second quarter 2019 pre-tax charges of \$148 million. Additionally, during the fourth quarter of 2019, to realign 3M's organizational structure and operating model to improve growth and operational efficiency, management approved and committed to undertake certain restructuring actions. These actions impacted approximately 1,500 positions worldwide. The Company recorded fourth quarter 2019 pre-tax charges of \$134 million. These restructuring charges were recorded in the income statement as follows:

(Millions)	2019
Cost of sales	\$ 72
Selling, general and administrative expenses	137
Research, development and related expenses	37
Total operating income impact	246
Other expense (income), net	36
Total income before income taxes impact	\$ 282

The second quarter 2019 actions included a voluntary early retirement incentive initial charge (further discussed in Note 13), the charge for which is included in other expense (income), net above.

The operating income impact of these restructuring charges are summarized by business segment as follows:

(Millions)	2019		
	Employee-Related	Asset-Related	Total
Safety and Industrial	\$ 50	\$ —	\$ 50
Transportation and Electronics	31	—	31
Health Care	17	—	17
Consumer	8	—	8
Corporate and Unallocated	100	40	140
Total Operating Expense	\$ 206	\$ 40	\$ 246

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

(Millions)	Employee-Related	Asset-Related	Total
Expense incurred in the second quarter and fourth quarter of 2019	\$ 242	\$ 40	\$ 282
Non-cash changes	(36)	(40)	(76)
Cash payments	(52)	—	(52)
Adjustments	(14)	—	(14)
Accrued restructuring action balances as of December 31, 2019	140	—	140
Cash Payments	(51)	—	(51)
Adjustments	(59)	—	(59)
Accrued restructuring action balances as of December 31, 2020	30	—	30

Adjustments in the table above reflect changes in estimates from factors such as additional natural attrition and redeployment as COVID-19 delayed the start of plan execution and update of costs associated with the mix of impacted roles. Remaining activities related to this restructuring were largely completed through early 2021.

NOTE 6. Supplemental Income Statement Information

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

(Millions)	2021	2020	2019
Interest expense	\$ 488	\$ 529	\$ 448
Interest income	(26)	(29)	(80)
Pension and postretirement net periodic benefit cost (benefit)	(297)	(134)	1
Loss on deconsolidation of Venezuelan subsidiary	—	—	162
Total	\$ 165	\$ 366	\$ 531

Interest expense includes early debt extinguishment pre-tax charges of approximately \$11 million and \$10 million in 2021 and 2020, respectively.

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. Pension and postretirement net periodic benefit costs for 2019 included a second quarter charge related to the voluntary early retirement incentive program announced in May 2019 in addition to U.S. non-qualified pension plan settlement charges of \$32 million recognized in the fourth quarter of 2019. Refer to Note 13 for additional details on the voluntary early retirement incentive program in addition to the components of pension and postretirement net periodic benefit costs.

In 2019, the Company incurred a charge of \$162 million related to the deconsolidation of its Venezuelan subsidiary. Refer to Note 1 for additional details.

NOTE 7. Supplemental Balance Sheet Information

Additional supplemental balance sheet information is provided in the table that follows.

(Millions)	2021	2020
Other current assets		
Derivative assets-current	\$ 78	\$ 34
Insurance related (receivables, prepaid expenses and other)	110	125
Other	151	166
Total other current assets	\$ 339	\$ 325
Property, plant and equipment - at cost		
Land	\$ 312	\$ 338
Buildings and leasehold improvements	8,086	8,021
Machinery and equipment	17,305	16,866
Construction in progress	1,510	1,425
Gross property, plant and equipment	27,213	26,650
Accumulated depreciation	(17,784)	(17,229)
Property, plant and equipment - net	\$ 9,429	\$ 9,421
Other assets		
Deferred income taxes	\$ 581	\$ 871
Prepaid pension and post retirement	943	630
Insurance related receivables and other	51	49
Cash surrender value of life insurance policies	261	258
Equity method investments	129	134
Equity and other investments	133	80
Other	510	418
Total other assets	\$ 2,608	\$ 2,440
Other current liabilities		
Accrued rebates	\$ 731	\$ 639
Deferred revenue	529	498
Derivative liabilities	23	81
Employee benefits and withholdings	219	192
Contingent liability claims and other	487	556
Property, sales-related and other taxes	326	308
Pension and postretirement benefits	78	71
Other	798	933
Total other current liabilities	\$ 3,191	\$ 3,278
Other liabilities		
Long term income taxes payable	\$ 1,324	\$ 1,511
Employee benefits	400	410
Contingent liability claims and other	872	815
Finance lease obligations	93	93
Deferred income taxes	458	333
Other	256	300
Total other liabilities	\$ 3,403	\$ 3,462

NOTE 8. Supplemental Equity and Comprehensive Income Information

Common stock (\$.01 par value per share) of 3 billion shares is authorized, with 944,033,056 shares issued as of December 31, 2021, 2020 and 2019. Preferred stock, without par value, of 10 million shares is authorized but unissued.

Cash dividends declared and paid totaled \$1.48, \$1.47, and \$1.44 per share for each quarter in 2021, 2020 and 2019, respectively, which resulted in total year declared and paid dividends of \$5.92, \$5.88, and \$5.76 per share, respectively.

In connection with 3M's January 1, 2019 adoption of ASU No. 2018-2, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, and ASU No. 2016-2, Leases, the Company recorded an increase in retained earnings of approximately \$0.9 billion (with offsetting increase to accumulated other comprehensive loss for the same amount) and \$14 million, respectively.

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, 2018, net of tax:	\$ (2,098)	\$ (4,880)	\$ 64	\$ (6,914)
Impact of Adoption of ASU No. 2018-02	(13)	(817)	(23)	(853)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	102	(1,205)	(26)	(1,129)
Amounts reclassified out	142	505	(70)	577
Total other comprehensive income (loss), before tax	244	(700)	(96)	(552)
Tax effect	(32)	193	24	185
Total other comprehensive income (loss), net of tax	212	(507)	(72)	(367)
Balance at December 31, 2019, net of tax:	(1,899)	(6,204)	(31)	(8,134)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	387	(582)	(113)	(308)
Amounts reclassified out	—	619	(71)	548
Total other comprehensive income (loss), before tax	387	37	(184)	240
Tax effect	62	69	42	173
Total other comprehensive income (loss), net of tax	449	106	(142)	413
Balance at December 31, 2020, net of tax:	\$ (1,450)	\$ (6,098)	\$ (173)	\$ (7,721)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	(428)	1,223	108	903
Amounts reclassified out	—	658	47	705
Total other comprehensive income (loss), before tax	(428)	1,881	155	1,608
Tax effect	(65)	(536)	(36)	(637)
Total other comprehensive income (loss), net of tax	(493)	1,345	119	971
Balance at December 31, 2021, net of tax:	\$ (1,943)	\$ (4,753)	\$ (54)	\$ (6,750)

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 subsequently 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,			
	2021	2020	2019	
Cumulative translation adjustment				
Deconsolidation of Venezuelan subsidiary	\$ —	\$ —	\$ (142)	Other (expense) income, net
Total before tax	—	—	(142)	
Tax effect	—	—	—	Provision for income taxes
Net of tax	—	—	(142)	
Defined benefit pension and postretirement plans adjustments				
Gains (losses) associated with defined benefit pension and postretirement plans amortization				
Transition asset	(2)	(2)	—	Other (expense) income, net
Prior service benefit	60	62	69	Other (expense) income, net
Net actuarial loss	(689)	(659)	(524)	Other (expense) income, net
Curtailments/Settlements	(27)	(20)	(48)	Other (expense) income, net
Deconsolidation of Venezuelan subsidiary	—	—	(2)	Other (expense) income, net
Total before tax	(658)	(619)	(505)	
Tax effect	160	148	121	Provision for income taxes
Net of tax	(498)	(471)	(384)	
Cash flow hedging instruments gains (losses)				
Foreign currency forward/option contracts	(38)	80	74	Cost of sales
Interest rate contracts	(9)	(9)	(4)	Interest expense
Total before tax	(47)	71	70	
Tax effect	11	(17)	(17)	Provision for income taxes
Net of tax	(36)	54	53	
Total reclassifications for the period, net of tax	\$ (534)	\$ (417)	\$ (473)	

NOTE 9. Supplemental Cash Flow Information

(Millions)	2021	2020	2019
Cash income tax payments, net of refunds	\$ 1,695	\$ 1,351	\$ 1,198
Cash interest payments	472	524	370

Cash interest payments include interest paid on debt and finance lease balances. Cash interest payments exclude the cash paid for early debt extinguishment costs. Additional details are described in Note 12.

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

NOTE 10. Income Taxes

Income Before Income Taxes

(Millions)	2021	2020	2019
United States	\$ 3,716	\$ 3,795	\$ 2,954
International	3,488	3,000	2,689
Total	\$ 7,204	\$ 6,795	\$ 5,643

Provision for Income Taxes

(Millions)	2021	2020	2019
Currently payable			
Federal	\$ 756	\$ 720	\$ 534
State	104	123	59
International	597	632	673
Deferred			
Federal	(219)	(44)	(43)
State	(25)	(17)	(28)
International	72	(77)	(81)
Total	\$ 1,285	\$ 1,337	\$ 1,114

Components of Deferred Tax Assets and Liabilities

(Millions)	2021	2020
Deferred tax assets:		
Accruals not currently deductible		
Employee benefit costs	\$ 237	\$ 232
Product and other claims	257	338
Miscellaneous accruals	157	153
Pension costs	351	849
Stock-based compensation	249	231
Advanced payments	286	—
Net operating/capital loss/state tax credit carryforwards	120	148
Foreign tax credits	115	100
Currency translation	—	90
Lease liabilities	219	227
Product and other insurance receivables	48	—
Inventory	68	54
Other	31	112
Gross deferred tax assets	2,138	2,534
Valuation allowance	(142)	(135)
Total deferred tax assets	1,996	2,399
Deferred tax liabilities:		
Product and other insurance receivables	—	(4)
Accelerated depreciation	(665)	(606)
Intangible amortization	(985)	(1,023)
Right-of-use asset	(222)	(228)
Total deferred tax liabilities	(1,872)	(1,861)
Net deferred tax assets	\$ 124	\$ 538

The net deferred tax assets are included as components of Other Assets and Other Liabilities within the Consolidated Balance Sheet. See Note 7 “Supplemental Balance Sheet Information” for further details.

As of December 31, 2021, the Company had tax effected operating losses, capital losses, and tax credit carryovers for federal (approximately \$15 million), state (approximately \$75 million), and international (approximately \$44 million), with all amounts before limitation impacts and valuation allowances. Federal tax attribute carryovers will expire after one to 10 years, the state after one to 11 years, and the international after one year to an indefinite carryover period. As of December 31, 2021, the Company has provided \$142 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

	2021	2020	2019
Statutory U.S. tax rate	21.0 %	21.0 %	21.0 %
State income taxes - net of federal benefit	0.9	1.2	0.5
International income taxes - net	(1.2)	(1.2)	0.2
Global Intangible Low Taxed Income (GILTI)	0.7	0.8	1.8
Foreign Derived Intangible Income (FDII)	(3.1)	(1.8)	(2.9)
U.S. research and development credit	(0.7)	(1.0)	(1.7)
Reserves for tax contingencies	0.6	0.5	2.3
Employee share-based payments	(0.6)	(0.5)	(1.3)
All other - net	0.2	0.7	(0.2)
Effective worldwide tax rate	17.8 %	19.7 %	19.7 %

The effective tax rate for 2021, 2020, and 2019 were 17.8 percent, 19.7 percent, and 19.7 percent, respectively. These reflect a decrease of 1.9 percentage points from 2020 to 2021 and a flat comparison from 2019 to 2020. The primary factors that decreased the effective tax rate for 2021 were geographical income mix and favorable adjustments in 2021 related to impacts of U.S. international tax provisions.

The 2017 Tax Cuts and Jobs Act (TCJA) involved a transition tax that is payable over eight years beginning in 2018. As of December 31, 2021 and December 31, 2020, 3M reflected \$508 million and \$584 million, respectively, in long term income taxes payable. As of December 31, 2021 and December 31, 2020, 3M reflected \$8 million and \$69 million, respectively, payable within one year associated with the transition tax.

The IRS has completed its field examination of the Company’s U.S. federal income tax returns through 2018, but the years 2005 through 2017 have not closed as the Company is in the process of resolving issues identified during those examinations. In addition to the U.S. federal examination, there is also audit activity in several U.S. state and foreign jurisdictions where the Company is subject to ongoing tax examinations and governmental assessments, which could be impacted by evolving political environments in those jurisdictions. As of December 31, 2021, no taxing authority proposed significant adjustments to the Company’s tax positions for which the Company is not adequately reserved.

It is reasonably possible that the amount of unrecognized tax benefits could significantly change within the next 12 months. The Company has ongoing federal, state and international income tax audits in various jurisdictions and evaluates uncertain tax positions that may be challenged by local tax authorities and not fully sustained. These uncertain tax positions are reviewed on an ongoing basis and adjusted in light of facts and circumstances including progression of tax audits, developments in case law and closing statutes of limitation. At this time, the Company is not able to estimate the range by which these potential events could impact 3M’s unrecognized tax benefits within the next 12 months.

The Company recognizes the amount of tax benefit that has a greater than 50 percent likelihood of being ultimately realized upon settlement. A reconciliation of the beginning and ending amount of gross unrecognized tax benefits (UTB) is as follows:

Federal, State and Foreign Tax

(Millions)	2021	2020	2019
Gross UTB Balance at January 1	\$ 1,113	\$ 1,167	\$ 647
Additions based on tax positions related to the current year	91	74	76
Additions for tax positions of prior years	22	106	132
Additions related to recent acquisitions	—	—	396
Reductions for tax positions of prior years	(60)	(173)	(56)
Settlements	(57)	(8)	(4)
Reductions due to lapse of applicable statute of limitations	(38)	(53)	(24)
Gross UTB Balance at December 31	\$ 1,071	\$ 1,113	\$ 1,167
Net UTB that would impact the effective tax rate at December 31	\$ 1,112	\$ 1,145	\$ 1,178

The total amount of UTB, if recognized, would affect the effective tax rate by \$1,112 million as of December 31, 2021, \$1,145 million as of December 31, 2020, and \$1,178 million as of December 31, 2019. The ending net UTB results from adjusting the gross balance for 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 \$14 million of expense, \$21 million of expense, and \$33 million of expense in 2021, 2020, and 2019, 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, 2021, and December 31, 2020, accrued interest and penalties in the consolidated balance sheet on a gross basis were \$140 million and \$126 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.

As a result of certain employment commitments and capital investments made by 3M, income from certain foreign operations in the following countries is subject to reduced tax rates or, in some cases, is exempt from tax for years through the following: China (2022), Switzerland (2026), Brazil (2029) and Singapore (2032). The income tax benefits attributable to the tax status of these subsidiaries are estimated to be \$204 million (36 cents per diluted share) in 2021, \$163 million (28 cents per diluted share) in 2020, and \$127 million (22 cents per diluted share) in 2019.

As of December 31, 2021, the Company has approximately \$17.7 billion of undistributed earnings in its foreign subsidiaries. Approximately \$5.5 billion of these earnings are no longer considered permanently reinvested. The incremental tax cost to repatriate these earnings to the US is immaterial. The Company has not provided deferred taxes on approximately \$12.2 billion of undistributed earnings from non-U.S. subsidiaries as of December 31, 2021 which are indefinitely reinvested in operations. Because of the multiple avenues by 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 11. Marketable Securities**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)	2021	2020
Corporate debt securities	\$ —	\$ 7
Commercial paper	109	237
Certificates of deposit/time deposits	14	31
U.S. treasury securities	75	125
U.S. municipal securities	3	4
Current marketable securities	\$ 201	\$ 404
U.S. municipal securities	\$ 27	\$ 30
Non-current marketable securities	\$ 27	\$ 30
Total marketable securities	\$ 228	\$ 434

At December 31, 2021 and 2020, gross unrealized, gross realized, and net realized gains and/or losses (pre-tax) were not material.

The balance at December 31, 2021, 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)	2021
Due in one year or less	\$ 201
Due after one year through five years	15
Due after five years through ten years	12
Total marketable securities	\$ 228

NOTE 12. 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, 2021. 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

Description / 2021 Principal Amount (Millions)	Currency/ Fixed vs. Floating	Effective Interest Rate	Final Maturity Date	Carrying Value	
				2021	2020
Eurobond (repaid in 2021)	EUR Fixed	— %	2021	—	367
Eurobond (repaid in 2021)	EUR Floating	— %	2021	—	374
Medium-term note (repaid in 2021)	USD Fixed	— %	2021	—	449
Medium-term note (€500 million)	EUR Fixed	0.45 %	2022	567	612
Medium-term note (\$600 million)	USD Fixed	2.17 %	2022	599	598
Medium-term note (€600 million)	EUR Fixed	1.14 %	2023	679	731
Registered note (\$500 million)	USD Fixed	1.86 %	2023	499	498
Medium-term note (\$650 million)	USD Fixed	2.26 %	2023	649	649
Medium-term note (\$300 million)	USD Fixed	3.30 %	2024	299	299
Medium-term note (\$500 million)	USD Fixed	2.98 %	2024	501	502
Medium-term note (\$300 million)	USD Floating	0.42 %	2024	300	299
Medium-term note (\$550 million)	USD Fixed	3.04 %	2025	548	548
Registered note (\$750 million)	USD Fixed	2.12 %	2025	746	744
Registered note (\$500 million)	USD Fixed	2.67 %	2025	498	498
Medium-term note (€750 million)	EUR Fixed	1.65 %	2026	842	908
Medium-term note (\$650 million)	USD Fixed	2.37 %	2026	645	644
Medium-term note (\$850 million)	USD Fixed	2.95 %	2027	844	843
Floating rate note (\$19 million)	USD Floating	— %	2027	19	19
30-year debenture (\$220 million)	USD Fixed	6.44 %	2028	224	225
Floating rate note (\$250 million)	USD Floating	2.07 %	2028	240	—
Floating rate note (\$150 million)	USD Floating	2.02 %	2028	144	—
Floating rate note (\$100 million)	USD Floating	2.11 %	2028	96	—
Medium-term note (\$600 million)	USD Fixed	3.62 %	2028	598	598
Floating rate note (\$150 million)	USD Floating	2.53 %	2028	147	—
Floating rate note (\$150 million)	USD Floating	2.48 %	2028	147	—
Registered note (\$1 billion)	USD Fixed	2.50 %	2029	988	986
Medium-term note (\$800 million)	USD Fixed	3.38 %	2029	797	796
Medium-term note (€500 million)	EUR Fixed	1.90 %	2030	560	604
Registered note (\$600 million)	USD Fixed	3.09 %	2030	596	595
Medium-term note (€500 million)	EUR Fixed	1.54 %	2031	563	608
30-year bond (\$555 million)	USD Fixed	5.73 %	2037	551	551
Floating rate note (\$52 million)	USD Floating	— %	2040	52	51
Floating rate note (\$96 million)	USD Floating	— %	2041	96	96
Medium-term note (\$325 million)	USD Fixed	4.05 %	2044	315	315
Floating rate note (\$54 million)	USD Floating	— %	2044	53	53
Medium-term note (\$500 million)	USD Fixed	3.37 %	2046	477	476
Medium-term note (\$500 million)	USD Fixed	3.68 %	2047	492	492
Medium-term note (\$650 million)	USD Fixed	4.07 %	2048	638	637
Medium-term note (\$500 million)	USD Fixed	3.78 %	2048	505	505
Registered note (\$500 million)	USD Fixed	3.37 %	2049	485	969
Registered note (\$350 million)	USD Fixed	3.72 %	2050	346	642
Other borrowings	Various	0.19 %	2022-2029	2	2
Total long-term debt				17,347	18,783
Less: current portion of long-term debt				1,291	794
Long-term debt (excluding current portion)				\$ 16,056	\$ 17,989

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

(Millions)	2021		2020	
	Carrying Value	Effective Interest Rate	Carrying Value	Effective Interest Rate
Fixed-rate debt	\$ 16,053	2.80 %	\$ 17,889	2.80 %
Floating-rate debt	1,294	1.43 %	894	0.06 %
Total long-term debt, including current portion	\$ 17,347		\$ 18,783	

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

(Millions)	Effective Interest Rate	Carrying Value	
		2021	2020
Current portion of long-term debt	1.20 %	\$ 1,291	\$ 794
U.S. dollar commercial paper	— %	—	—
Other borrowings	4.10 %	16	12
Total short-term borrowings and current portion of long-term debt		\$ 1,307	\$ 806

Other short-term borrowings primarily consisted of bank borrowings by international subsidiaries.

Future Maturities of Long-term Debt

Maturities of long-term debt in the table below reflect the impact of put provisions associated with certain debt instruments and are net of the unaccreted debt issue costs such that total maturities equal the carrying value of long-term debt as of December 31, 2021. The maturities of long-term debt for the periods subsequent to December 31, 2021 are as follows (in millions):

2022	2023	2024	2025	2026	After 2026	Total
\$ 1,291	\$ 1,923	\$ 1,100	\$ 1,792	\$ 1,487	\$ 9,754	\$ 17,347

As a result of put provisions associated with certain debt instruments, long-term debt payments due in 2022 include floating rate notes totaling \$24 million (classified as current portion of long-term debt) and \$95 million due in 2023.

Credit Facilities

3M has an amended and restated \$3.0 billion five-year revolving credit facility expiring in November 2024. The revolving credit agreement includes a provision under which 3M may request an increase of up to \$1.0 billion (at lender's discretion), bringing the total facility up to \$4.0 billion. In addition, 3M entered into a \$1.25 billion 364-day credit facility, which was renewed in November 2021 with an expiration date of November 2022. The 364-day credit agreement includes a provision under which 3M may convert any advances outstanding on the maturity date into term loans having a maturity date one year later. These credit facilities were undrawn at December 31, 2021. Under both the \$3.0 billion and \$1.25 billion credit agreements, 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, 2021, this ratio was approximately 20 to 1. Debt covenants do not restrict the payment of dividends.

In December 2021, 3M entered into a \$1 billion debt financing commitment related to the intended Food Safety Division spin-off or split-off transaction discussed in Note 3. This commitment provides potential bridge financing for the Food Safety business's payment of approximately \$1 billion of consideration, subject to closing and other adjustments, to 3M under the terms of the transaction. Amounts outstanding under this facility have a term of 364 days following the borrowing date and are required to be repaid when certain conditions are met, including upon completion of permanent financing. This commitment was undrawn at December 31, 2021. Upon the close of the spin-off or split-off transaction, outstanding obligations under the commitment transfer with the Food Safety business and become those of the separate newly combined company.

Other Credit Facilities

Apart from the committed credit facilities described above, in September 2019, 3M entered into a credit facility initially expiring in July 2020 that was further extended to August 2021 in the amount of 80 billion Japanese yen. In November 2019, 3M entered into a credit facility expiring in November 2020 in the amount of 50 million euros. During the third quarter of 2020, the Company paid the outstanding balances and closed these credit facilities.

The Company also had an additional \$266 million in stand-alone letters of credit and bank guarantees issued and outstanding at December 31, 2021. These instruments are utilized in connection with normal business activities.

Long-Term Debt Issuances and Fixed-to-Floating Interest Rate Swaps

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.

During the second and third quarters of 2021, 3M entered into interest rate swaps with an aggregate notional amount of \$800 million. These swaps converted \$500 million and \$300 million of 3M's \$1.0 billion and \$650 million principal amount of fixed rate notes due 2049 and 2050, respectively, into floating rate debt for the portion of their terms through mid-2028 with an interest rate based on a three-month LIBOR index.

In March 2020, 3M issued \$1.75 billion aggregate principal amount of fixed rate registered notes. These were comprised of \$500 million of 5-year notes due 2025 with a coupon rate of 2.65%, \$600 million of 10-year notes due 2030 with a coupon rate of 3.05%, and \$650 million of 30-year notes due 2050 with a coupon rate of 3.70%.

In February 2019, 3M issued \$2.25 billion aggregate principal amount of fixed rate medium-term notes. These were comprised of \$450 million of 3-year notes due 2022 with a coupon rate of 2.75%, \$500 million of remaining 5-year notes due 2024 with a coupon rate of 3.25%, \$800 million of 10-year notes due 2029 with a coupon rate of 3.375%, and \$500 million of remaining 29.5-year notes due 2048 with a coupon rate of 4.00%. Issuances of the 5-year and 29.5-year notes were pursuant to a reopening of existing securities issued in September 2018.

In August 2019, 3M issued \$3.25 billion aggregate principal amount of fixed rate registered notes. These were comprised of \$500 million of 3.5-year notes due 2023 with a coupon rate of 1.75%, \$750 million of 5.5-year notes due 2025 with a coupon rate of 2.00%, \$1.0 billion of 10-year notes due 2029 with a coupon rate of 2.375%, and \$1.0 billion of 30-year notes due 2049 with a coupon rate of 3.25%.

Long-Term Debt Maturities and Extinguishments

In November 2021, 3M repaid 600 million euros aggregate principal amount of Eurobonds that matured.

In March 2021, 3M, via a make-whole-call offer, redeemed \$450 million principal amount of 2.75% notes due 2022. The Company recorded an early debt extinguishment pre-tax charge of approximately \$11 million within interest expense. This charge reflected the differential between the carrying value and the amount paid to reacquire the notes and related expenses. In December 2020, 3M, via make-whole-call offers, repaid \$1 billion aggregate principal amount of its outstanding notes. This included \$400 million aggregate principal amount of 3.00% notes and \$600 million aggregate principal amount of 1.625% notes, both of which were due to mature in 2021. The Company recorded an early debt extinguishment pre-tax charge of approximately \$10 million within interest expense. This charge reflected the differential between the carrying value and the amount paid to reacquire the notes and related expenses.

In May 2020, 3M repaid 650 million euros aggregate principal amount of floating-rate medium-term notes that matured. In August 2020, 3M repaid \$500 aggregate principal amount of floating rate medium-term notes that matured.

In June 2019, 3M repaid \$625 million aggregate principal amount of fixed-rate medium-term notes that matured.

In 2019, 3M also assumed approximately \$2.6 billion of debt in connection with the acquisitions of Acelity and M*Modal (See Note 3) of which \$2.1 billion was immediately redeemed or paid at close.

In-Substance Defeasance

In conjunction with the October 2019 acquisition of Acelity (see Note 3), 3M assumed outstanding debt of the business, of which \$45 million in principal amount of third lien senior secured notes (Third Lien Notes) maturing in 2021 with a coupon rate of 12.5% was not immediately redeemed at closing. Instead, at closing, 3M satisfied and discharged the Third Lien Notes via an in-substance defeasance, whereby 3M transferred cash equivalents and marketable securities to a trust with irrevocable instructions to redeem the Third Lien Notes on May 1, 2020. The trust assets were restricted from use in 3M's operations and were only used for the redemption of the Third Lien Notes that occurred in May 2020.

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 13. Pension and Postretirement Benefit Plans

As discussed in Note 1, effective in the first quarter of 2021, 3M made a change in accounting principle for net periodic pension and postretirement plan cost. This impacted the expected return on plan assets and the amortization of net unamortized actuarial gains or losses expense components of net periodic benefit cost. This change was applied retrospectively to all periods presented within 3M's financial statements.

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 28 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.

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 \$231 million, \$201 million and \$186 million for 2021, 2020 and 2019, respectively. 3M subsidiaries in various international countries also participate in defined contribution plans. Employer contributions to the international defined contribution plans were \$117 million, \$103 million and \$96 million for 2021, 2020 and 2019, respectively.

In May 2019 (as part of the 2019 restructuring actions discussed in Note 5), the Company began offering a voluntary early retirement incentive program to certain eligible participants of its U.S. pension plans who met age and years of pension service requirements. The eligible participants who accepted the offer and retired by July 1, 2019 received an enhanced pension benefit. Pension benefits were enhanced by adding one additional year of pension service and one additional year of age for certain benefit calculations. Approximately 800 participants accepted the offer and retired before July 1, 2019. As a result, the Company incurred a \$5 million charge related to these special termination benefits in the second quarter of 2019.

In the fourth quarter of 2019, the Company recognized a non-operating \$32 million settlement expense in its U.S. non-qualified pension plan. The charge is related to lump sum payments made to employees at retirement. The settlement expense is an accelerated recognition of past actuarial losses.

In the second quarter of 2020, as a result of the divestiture of the drug delivery business, the Company recognized a curtailment in its United Kingdom Pension Plan. The resulting re-measurement of the pension plan funded status reduced long-term prepaid pension and post retirement assets (located within “other assets” of the Company’s balance sheet) by approximately \$80 million, which was offset within accumulated other comprehensive income (located within the equity section of the Company’s balance sheet). The expense impact of this re-measurement was immaterial for the second quarter of 2020 and subsequent periods.

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 to less than \$40 million as of December 31, 2021 and 2020.

(Millions)	Qualified and Non-Pension Benefits				Postretirement Benefits	
	United States		International			
	2021	2020	2021	2020	2021	2020
Change in benefit obligation						
Benefit obligation at beginning of year	\$ 19,376	\$ 17,935	\$ 8,770	\$ 7,931	\$ 2,397	\$ 2,242
Acquisitions/Transfers	—	—	—	1	—	—
Service cost	286	261	164	152	53	43
Interest cost	360	499	98	117	43	62
Participant contributions	—	—	10	9	—	—
Foreign exchange rate changes	—	—	(325)	427	(4)	(14)
Plan amendments	—	—	1	—	—	—
Actuarial (gain) loss	(588)	1,785	(433)	464	(89)	176
Benefit payments	(1,330)	(1,104)	(298)	(274)	(113)	(107)
Settlements, curtailments, special termination benefits and other	—	—	(45)	(57)	(6)	(5)
Benefit obligation at end of year	\$ 18,104	\$ 19,376	\$ 7,942	\$ 8,770	\$ 2,281	\$ 2,397
Change in plan assets						
Fair value of plan assets at beginning of year	17,127	16,099	8,194	6,923	1,376	1,338
Acquisitions/Transfers	—	—	—	—	—	—
Actual return on plan assets	1,079	2,071	321	1,102	93	147
Company contributions	77	61	100	92	3	3
Participant contributions	—	—	10	9	—	—
Foreign exchange rate changes	—	—	(265)	376	—	—
Benefit payments	(1,330)	(1,104)	(298)	(274)	(113)	(107)
Settlements, curtailments, special termination benefits and other	—	—	(46)	(34)	(6)	(5)
Fair value of plan assets at end of year	\$ 16,953	\$ 17,127	\$ 8,016	\$ 8,194	\$ 1,353	\$ 1,376
Funded status at end of year	\$ (1,151)	\$ (2,249)	\$ 74	\$ (576)	\$ (928)	\$ (1,021)

Amounts recognized in the Consolidated Balance Sheet as of December 31, (Millions)	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International		2021	2020
	2021	2020	2021	2020		
Non-current assets	\$ —	\$ —	\$ 943	\$ 630	\$ —	\$ —
Accrued benefit cost						
Current liabilities	(59)	(52)	(14)	(15)	(5)	(4)
Non-current liabilities	(1,092)	(2,197)	(855)	(1,191)	(923)	(1,017)
Ending balance	\$ (1,151)	\$ (2,249)	\$ 74	\$ (576)	\$ (928)	\$ (1,021)

Amounts recognized in accumulated other comprehensive income as of December 31, (Millions)	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International		2021	2020
	2021	2020	2021	2020		
Net transition obligation (asset)	\$ —	\$ —	\$ 6	\$ 9	\$ —	\$ —
Net actuarial loss (gain)	4,991	6,157	960	1,570	538	702
Prior service cost (credit)	(80)	(104)	3	(2)	(197)	(230)
Ending balance	\$ 4,911	\$ 6,053	\$ 969	\$ 1,577	\$ 341	\$ 472

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 following table summarizes the total accumulated benefit obligations, the accumulated benefit obligations and fair value of plan assets for defined benefit pension plans with accumulated benefit obligations in excess of plan assets, and the projected benefit obligation and fair value of plan assets for defined benefit pension plans with projected benefit obligation in excess of plan assets as of December 31:

(Millions)	Qualified and Non-qualified Pension Plans			
	United States		International	
	2021	2020	2021	2020
Accumulated benefit obligation	\$ 17,305	\$ 18,441	\$ 7,484	\$ 8,181
Plans with accumulated benefit obligation in excess of plan assets				
Accumulated benefit obligation	\$ 514	\$ 18,441	\$ 2,843	\$ 3,119
Fair value of plan assets	—	17,127	2,194	2,199
Plans with projected benefit obligation in excess of plan assets				
Projected benefit obligation	\$ 18,104	\$ 19,376	\$ 3,204	\$ 3,528
Fair value of plan assets	16,953	17,127	2,335	2,322

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 6, 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					
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Net periodic benefit cost (benefit)									
Operating expense									
Service cost	\$ 286	\$ 261	\$ 251	\$ 164	\$ 152	\$ 131	\$ 53	\$ 43	\$ 43
Non-operating expense									
Interest cost	360	499	620	98	117	156	43	62	82
Expected return on plan assets	(1,055)	(1,046)	(1,024)	(326)	(306)	(295)	(78)	(80)	(78)
Amortization of transition asset	—	—	—	2	2	—	—	—	—
Amortization of prior service benefit	(24)	(24)	(24)	(3)	(5)	(12)	(33)	(33)	(33)
Amortization of net actuarial loss	529	491	398	104	121	89	56	47	37
Settlements, curtailments, special termination benefits and other	24	16	70	3	1	10	3	3	5
Total non-operating expense (benefit)	(166)	(64)	40	(122)	(70)	(52)	(9)	(1)	13
Total net periodic benefit cost (benefit)	\$ 120	\$ 197	\$ 291	\$ 42	\$ 82	\$ 79	\$ 44	\$ 42	\$ 56
Other changes in plan assets and benefit obligations recognized in other comprehensive (income) loss									
Amortization of transition asset	\$ —	\$ —	\$ —	\$ (2)	\$ (2)	\$ —	\$ —	\$ —	\$ —
Prior service cost (benefit)	—	—	—	1	—	3	—	—	(171)
Amortization of prior service benefit	24	24	24	3	5	12	33	33	33
Net actuarial (gain) loss	(614)	760	910	(434)	(358)	340	(104)	108	117
Amortization of net actuarial loss	(529)	(491)	(398)	(104)	(121)	(89)	(56)	(47)	(37)
Foreign currency	—	—	—	(71)	79	7	(1)	(7)	(1)
Settlements, curtailments, special termination benefits and other	(23)	(16)	(35)	(1)	(1)	(8)	(3)	(3)	(5)
Total recognized in other comprehensive (income) loss	\$ (1,142)	\$ 277	\$ 501	\$ (608)	\$ (398)	\$ 265	\$ (131)	\$ 84	\$ (64)
Total recognized in net periodic benefit cost (benefit) and other comprehensive (income) loss	\$ (1,022)	\$ 474	\$ 792	\$ (566)	\$ (316)	\$ 344	\$ (87)	\$ 126	\$ (8)

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

	Qualified and Non-qualified Pension Benefits						Postretirement Benefits		
	United States			International					
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Discount rate	2.89 %	2.55 %	3.25 %	1.80 %	1.38 %	1.81 %	2.88 %	2.50 %	3.27 %
Compensation rate increase	3.21 %	3.21 %	3.21 %	2.86 %	2.88 %	2.88 %	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			2021	2020	2019
	2021	2020	2019	2021	2020	2019			
Discount rate - service cost	2.81 %	3.41 %	4.44 %	1.23 %	1.61 %	2.39 %	3.21 %	3.45 %	4.53 %
Discount rate - interest cost	1.92 %	2.87 %	4.02 %	1.13 %	1.61 %	2.26 %	2.20 %	3.00 %	4.15 %
Expected return on assets	6.50 %	6.75 %	7.00 %	4.36 %	4.70 %	4.90 %	6.15 %	6.32 %	6.43 %
Compensation rate increase	3.21 %	3.21 %	4.10 %	2.88 %	2.88 %	2.89 %	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 2.89% for the U.S. pension plans and 2.88% for the postretirement benefit plans as of December 31, 2021, which is an increase of 0.34 percentage points and 0.38 percentage points, respectively, from the rates used as of December 31, 2020. An increase in the discount rate decreases the Projected Benefit Obligation (PBO), the increase in the discount rate as of December 31, 2021 resulted in an approximately \$0.9 billion lower benefit obligation for the U.S. pension and postretirement plans.

The Company 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.

For the primary U.S. qualified pension plan, the Company's assumption for the expected return on plan assets was 6.50% in 2021. 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, 2021, the Company's 2022 expected long-term rate of return on U.S. plan assets is 6.00%. 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 2021 expected long-term rate of return is based on an asset allocation assumption of 22% global equities, 12% private equities, 50% fixed-income securities, and 16% 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 2021 was 6.7%. In 2020 the plan earned a rate of return of 13.6% and in 2019 earned a return of 16.3%. The average annual actual return on the plan assets over the past 10 and 25 years has been 8.6% and 8.7%, 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, 2019, the Company converted to the "Pri-2012 Aggregate Mortality Table". In 2021 the Company updated the mortality improvement scales to the Society of Actuaries Scale MP- 2021. The December 31, 2021 update resulted in an immaterial increase to the U.S. pension PBO and U.S. accumulated postretirement benefit obligations.

During 2021, the Company contributed \$177 million to its U.S. and international pension plans and \$3 million to its postretirement plans. During 2020, the Company contributed \$153 million to its U.S. and international pension plans and \$3 million to its postretirement plans. In 2022, the Company expects to contribute an amount in the range of \$100 million to \$200 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 2022. 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	
2022 Benefit Payments	\$ 1,120	\$ 271	\$ 131
2023 Benefit Payments	1,123	277	137
2024 Benefit Payments	1,122	290	144
2025 Benefit Payments	1,119	305	149
2026 Benefit Payments	1,118	320	155
Next five years	5,461	1,724	796

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 15 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 65% 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:

Asset Class (Millions)	Fair Value Measurements Using Inputs Considered as						Fair Value at December 31,	
	Level 1		Level 2		Level 3		2021	2020
	2021	2020	2021	2020	2021	2020	2021	2020
Equities								
U.S. equities	\$ 1,875	\$ 2,082	\$ —	\$ —	\$ —	\$ —	\$ 1,875	\$ 2,082
Non-U.S. equities	1,465	2,041	—	—	—	—	1,465	2,041
Index and long/short equity funds*							404	433
Total Equities	3,340	4,123	—	—	—	—	3,744	4,556
Fixed Income								
U.S. government securities	1,417	1,301	716	978	—	—	2,133	2,279
Non-U.S. government securities	—	—	89	71	—	—	89	71
Preferred and convertible securities	—	—	54	55	—	—	54	55
U.S. corporate bonds	11	10	4,620	4,501	—	—	4,631	4,511
Non-U.S. corporate bonds	—	—	883	820	—	—	883	820
Derivative instruments	11	(4)	6	7	—	—	17	3
Other*							132	71
Total Fixed Income	1,439	1,307	6,368	6,432	—	—	7,939	7,810
Private Equity								
Growth equity	58	70	—	—	—	—	58	70
Partnership investments*							2,003	1,801
Total Private Equity	58	70	—	—	—	—	2,061	1,871
Absolute Return								
Fixed income and other	1	—	166	134	—	—	167	134
Hedge fund/fund of funds*							1,943	2,046
Partnership investments*							617	567
Total Absolute Return	1	—	166	134	—	—	2,727	2,747
Cash and Cash Equivalents								
Cash and cash equivalents	11	25	9	12	—	—	20	37
Repurchase agreements and derivative margin activity	—	—	—	(6)	—	—	—	(6)
Cash and cash equivalents, valued at net asset value*							678	475
Total Cash and Cash Equivalents	11	25	9	6	—	—	698	506
Total	\$ 4,849	\$ 5,525	\$ 6,543	\$ 6,572	\$ —	\$ —	\$ 17,169	\$ 17,490
Other items to reconcile to fair value of plan assets							(216)	(363)
Fair value of plan assets							\$ 16,953	\$ 17,127

* 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:

Asset Class (Millions)	Fair Value Measurements Using Inputs Considered as						Fair Value at December 31,	
	Level 1		Level 2		Level 3		2021	2020
	2021	2020	2021	2020	2021	2020	2021	2020
Equities								
U.S. equities	\$ 292	\$ 347	\$ —	\$ —	\$ —	\$ —	\$ 292	\$ 347
Non-U.S. equities	80	103	—	—	—	—	80	103
Index and long/short equity funds*							28	31
Total Equities	372	450	—	—	—	—	400	481
Fixed Income								
U.S. government securities	109	95	180	214	—	—	289	309
Non-U.S. government securities	—	—	7	6	—	—	7	6
U.S. corporate bonds	1	1	291	267	—	—	292	268
Non-U.S. corporate bonds	—	—	59	52	—	—	59	52
Derivative instruments	—	—	—	—	—	—	—	—
Other*							7	3
Total Fixed Income	110	96	537	539	—	—	654	638
Private Equity								
Growth equity	3	3	—	—	—	—	3	3
Partnership investments*							107	95
Total Private Equity	3	3	—	—	—	—	110	98
Absolute Return								
Fixed income and other	—	—	9	7	—	—	9	7
Hedge fund/fund of funds*							102	100
Partnership investments*							32	28
Total Absolute Return	—	—	9	7	—	—	143	135
Cash and Cash Equivalents								
Cash and cash equivalents	20	25	—	1	—	—	20	26
Cash and cash equivalents, valued at net asset value*							36	23
Total Cash and Cash Equivalents	20	25	—	1	—	—	56	49
Total	\$ 505	\$ 574	\$ 546	\$ 547	\$ —	\$ —	\$ 1,363	\$ 1,401
Other items to reconcile to fair value of plan assets							(10)	(25)
Fair value of plan assets							\$ 1,353	\$ 1,376

*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. 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.

There were no level 3 assets in the fair values of the U.S. pension and postretirement plans assets for the periods ended December 31, 2021 and 2020.

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 25 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:

Asset Class (Millions)	Fair Value Measurements Using Inputs Considered as						Fair Value at December 31,	
	Level 1		Level 2		Level 3		2021	2020
	2021	2020	2021	2020	2021	2020	2021	2020
Equities								
Growth equities	\$ 315	\$ 547	\$ 181	\$ 209	\$ —	\$ —	\$ 496	\$ 756
Value equities	328	659	15	396	—	—	343	1,055
Core equities	107	46	547	99	5	4	659	149
Equities, valued at net asset value*							2	74
Total Equities	750	1,252	743	704	5	4	1,500	2,034
Fixed Income								
Domestic government	73	71	1,039	1,045	4	5	1,116	1,121
Foreign government	22	33	458	476	—	—	480	509
Corporate debt securities	32	34	2,389	2,470	10	11	2,431	2,515
Fixed income securities, valued at net asset value*							893	563
Total Fixed Income	127	138	3,886	3,991	14	16	4,920	4,708
Private Equity								
Real estate	2	128	58	86	5	5	65	219
Real estate, valued at net asset value*							163	92
Partnership investments*							226	116
Total Private Equity	2	128	58	86	5	5	454	427
Absolute Return								
Derivatives	—	—	20	1	—	—	20	1
Insurance	—	—	—	—	504	555	504	555
Other	7	8	—	—	6	6	13	14
Other, valued at net asset value*							—	1
Hedge funds*							535	410
Total Absolute Return	7	8	20	1	510	561	1,072	981
Cash and Cash Equivalents								
Cash and cash equivalents	145	149	46	51	—	—	191	200
Cash and cash equivalents, valued at net asset value*							1	1
Total Cash and Cash Equivalents	145	149	46	51	—	—	192	201
Total	\$ 1,031	\$ 1,675	\$ 4,753	\$ 4,833	\$ 534	\$ 586	\$ 8,138	\$ 8,351
Other items to reconcile to fair value of plan assets							(122)	(157)
Fair value of plan assets							\$ 8,016	\$ 8,194

*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 various swaps and bond futures 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. In 2021 the aggregate of net purchases and net unrealized gains and losses decreased this balance by \$7 million and the change in currency exchange rates decreased this balance by \$44 million for a net decrease of \$51 million. In 2020 the aggregate net purchases and net unrealized gains decreased this balance by \$1 million and the change in currency exchange rates increased the balance by \$44 million for a net increase to this balance of \$43 million.

NOTE 14. Derivatives

The Company uses interest rate swaps, currency swaps, and forward and option contracts to manage risks generally associated with foreign exchange rate, interest rate and commodity 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 derivatives is included elsewhere as follows:

- Impact on other comprehensive income of nonderivative hedging and derivative instruments is included in Note 8.
- Fair value of derivative instruments is included in Note 15.
- Derivatives and/or hedging instruments associated with the Company's long-term debt are also described in Note 12.

Refer to the section below titled *Statement of Income Location and Impact of Cash Flow and Fair Value Derivative Instruments and Derivatives Not Designated as Hedging Instruments* for details on the location within the consolidated statements of income for amounts of gains and losses related to derivative instruments designated as cash flow or fair value hedges (along with similar information relative to the hedged items) and derivatives not designated as hedging instruments. Additional information relative to cash flow hedges, fair value hedges, net investment hedges and derivatives not designated as hedging instruments is included below as applicable.

Cash Flow Hedges:

For derivative instruments that are designated and qualify as cash flow hedges, 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 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 de-designate 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 included in accumulated other comprehensive income for de-designated 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 de-designation 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: The Company may use forward starting interest rate contracts and treasury rate lock contracts to hedge exposure to variability in cash flows from interest payments on forecasted debt issuances.

During 2019, the Company entered into additional forward starting interest rate swaps with a notional amount of \$743 million. These swaps, as well as \$700 million of notional amount in existing outstanding swaps had been designated as hedges against interest rate volatility associated with forecasted issuances of fixed rate debt. Concurrent with the issuance of the medium-term notes in February 2019 and the additional issuance of registered notes in August 2019, 3M terminated all outstanding interest rate swaps related to forecasted issuances of debt. These terminations resulted in a net loss of \$143 million within accumulated other comprehensive income that will be amortized over the respective lives of the debt.

In March 2020, the Company entered into treasury rate lock contracts with a notional amount of \$500 million that were terminated concurrently with the March 2020 issuance of registered notes as discussed in Note 12. The termination resulted in an immaterial net loss within accumulated other comprehensive income that will be amortized for 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) reclassified from accumulated other comprehensive income into income.

As of December 31, 2021, the Company had a balance of \$54 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 \$100 million (after-tax loss) related to the forward starting interest rate swap and treasury rate lock contracts, which will be amortized over the respective lives of the notes. Based on exchange rates as of December 31, 2021, of the total after-tax net unrealized balance as of December 31, 2021, 3M expects to reclassify approximately \$22 million after-tax net unrealized gain over the next 12 months (with the impact offset by earnings/losses from underlying hedged items).

The amount of pretax gain (loss) recognized in other comprehensive income related to derivative instruments designated as cash flow hedges is provided in the following table.

(Millions)	Pretax Gain (Loss) Recognized in Other Comprehensive Income on Derivative		
	2021	2020	2019
Foreign currency forward/option contracts	\$ 108	\$ (111)	\$ 96
Interest rate contracts	—	(2)	(122)
Total	\$ 108	\$ (113)	\$ (26)

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.

In November 2013, 3M issued a Eurobond which was 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. This interest rate swap matured in conjunction with the repayment of the Eurobond in November 2021.

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 that was due in 2019, 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. This interest rate swap matured in conjunction with the repayment of the \$625 million aggregate principal amount of fixed-rate medium notes that matured in June 2019.

In August 2015, 3M issued \$1.5 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 that matured in August 2018 at which time the associated interest rate swap also matured, and the second converted \$300 million of a five-year fixed rate note that matured in August 2020 at which time the associated interest rate swap also matured.

In the fourth quarter of 2017, the Company entered into an interest rate swap as a fair value hedge with a notional amount of \$200 million that converted the company's fixed-rate medium-term note that matured in August 2020 at which time the associated interest rate swap also matured.

In September 2018, the Company entered into an interest rate swap with a notional amount of \$200 million that converted a portion of the Company's \$400 million aggregate principal amount of fixed rate medium-term notes due 2021 into a floating rate note with an interest rate based on a three-month LIBOR index as a hedge of its exposure to changes in fair value that are attributable to interest rate risk. The Company terminated this interest rate swap in conjunction with the early debt repayment in December 2020 of \$400 million aggregate principal amount of fixed-rate medium notes further described in Note 12.

During the second and third quarters of 2021, 3M entered into interest rate swaps with an aggregate notional amount of \$800 million. These swaps converted \$500 million and \$300 million of 3M's \$1.0 billion and \$650 million principal amount of fixed rate notes due 2049 and 2050, respectively, into floating rate debt for the portion of their terms through mid-2028 with an interest rate based on a three-month LIBOR index.

The following amounts were recorded on the consolidated balance sheet related to cumulative basis adjustments for fair value hedges:

Location on the Consolidated Balance Sheet (Millions)	Carrying Value of the Hedged Liabilities		Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Value of the Hedged Liabilities	
	2021	2020	2021	2020
Short-term borrowings and current portion of long-term debt	\$ —	\$ 373	\$ —	\$ 5
Long-term debt	997	225	(4)	6
Total	\$ 997	\$ 598	\$ (4)	\$ 11

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 de-designated 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 de-designated, 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, 2021, the total notional amount of foreign exchange forward contracts designated in net investment hedges was approximately 150 million euros, along with a principal amount of long-term debt instruments designated in net investment hedges totaling 2.9 billion euros. The maturity dates of these derivative and nonderivative instruments designated in net investment hedges range from 2022 to 2031.

The amount of gain (loss) excluded from effectiveness testing recognized in income relative to instruments designated in net investment hedge relationships is not material. The amount of pretax gain (loss) recognized in other comprehensive income related to derivative and nonderivative instruments designated as net investment hedges are as follows.

(Millions)	Pretax Gain (Loss) Recognized as Cumulative Translation within Other Comprehensive Income		
	2021	2020	2019
Foreign currency denominated debt	\$ 296	\$ (351)	\$ 108
Foreign currency forward contracts	8	(1)	32
Total	\$ 304	\$ (352)	\$ 140

Derivatives Not Designated as Hedging Instruments:

Derivatives not designated as hedging instruments include de-designated 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 contracts that are not designated in hedging relationships to offset, in part, the impacts of changes in value of various non-functional currency denominated items including certain intercompany financing balances. 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.

Statement of Income Location and Impact of Cash Flow and Fair Value Derivative Instruments and Derivatives Not Designated as Hedging Instruments

The location in the consolidated statement of income and pre-tax amounts recognized in income related to derivative instruments designated in a cash flow or fair value hedging relationship and for derivatives not designated as hedging instruments are as follows:

(Millions)	Location and Amount of Gain (Loss) Recognized in Income					
	Cost of sales			Other expense (income), net		
	2021	2020	2019	2021	2020	2019
Information regarding cash flow and fair value hedging relationships:						
Total amounts of income and expense line items presented in the consolidated statement of income in which the effects of cash flow or fair value hedges are recorded	\$ 18,795	\$ 16,605	\$ 17,136	165	366	531
Gain or (loss) on cash flow hedging relationships:						
Foreign currency forward/option contracts:						
Amount of gain or (loss) reclassified from accumulated other comprehensive income into income	(38)	80	74	—	—	—
Interest rate contracts:						
Amount of gain or (loss) reclassified from accumulated other comprehensive income into income	—	—	—	(9)	(9)	(4)
Gain or (loss) on fair value hedging relationships:						
Interest rate contracts:						
Hedged items	—	—	—	16	4	(8)
Derivatives designated as hedging instruments	—	—	—	(16)	(4)	8
Information regarding derivatives not designated as hedging instruments:						
Gain or (loss) on derivatives not designated as instruments:						
Foreign currency forward/option contracts	5	2	2	(11)	43	(13)

Location, Fair Value and Gross Notional Amounts 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.

(Millions)	Gross Notional Amount		Assets				Liabilities			
	2021	2020	Location	Fair Value Amount		Location	Fair Value Amount			
				2021	2020		2021	2020		
Derivatives designated as hedging instruments										
Foreign currency forward/option contracts	1,768	1,630	Other current assets	\$ 54	\$ 14	Other current liabilities	\$ 19	\$ 67		
Foreign currency forward/option contracts	800	669	Other assets	41	10	Other liabilities	1	25		
Interest rate contracts	—	403	Other current assets	—	7	Other current liabilities	—	—		
Interest rate contracts	800	—	Other Assets	—	—	Other liabilities	9	—		
Total derivatives designated as hedging instruments				95	31		29	92		
Derivatives not designated as hedging instruments										
Foreign currency forward/option contracts	3,731	3,166	Other current assets	24	13	Other current liabilities	4	14		
Total derivatives not designated as hedging instruments				24	13		4	14		
Total derivative instruments				\$ 119	\$ 44		\$ 33	\$ 106		

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, 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. 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.

Offsetting of Financial Assets under Master Netting Agreements with Derivative Counterparties

(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					
			Gross Amount of Eligible Offsetting Recognized Derivative Liabilities		Cash Collateral Received		Net Amount of Derivative Assets	
	2021	2020	2021	2020	2021	2020	2021	2020
Derivatives subject to master netting agreements	\$ 119	\$ 44	\$ 25	\$ 11	\$ —	\$ —	\$ 94	\$ 33
Derivatives not subject to master netting agreements	—	—					—	—
Total	\$ 119	\$ 44					\$ 94	\$ 33

Offsetting of Financial Liabilities under Master Netting Agreements with Derivative Counterparties

(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					
			Gross Amount of Eligible Offsetting Recognized Derivative Assets		Cash Collateral Received		Net Amount of Derivative Liabilities	
	2021	2020	2021	2020	2021	2020	2021	2020
Derivatives subject to master netting agreements	\$ 33	\$ 106	\$ 25	\$ 11	\$ —	\$ —	\$ 8	\$ 95
Derivatives not subject to master netting agreements	—	—					—	—
Total	\$ 33	\$ 106					\$ 8	\$ 95

Foreign Currency Effects

3M estimates that year-on-year foreign currency transaction effects, including hedging impacts, decreased pre-tax income by approximately \$05 million in 2021, decreased pre-tax income by approximately \$21 million in 2020, and increased pre-tax income by approximately \$201 million in 2019. These estimates include transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks.

NOTE 15. Fair Value Measurements

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 2021 and 2020.

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 11.

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

3M holds municipal securities with several cities in the United States as of December 31, 2021. Due to the nature of these securities, the valuation method references the carrying value of the corresponding finance lease obligation, and as such, will be classified as level 3 securities separately.

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, 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, 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	Fair Value		Fair Value Measurements Using Inputs Considered as					
			Level 1		Level 2		Level 3	
	2021	2020	2021	2020	2021	2020	2021	2020
At December 31, (Millions)								
Assets:								
Available-for-sale:								
Marketable securities:								
Corporate debt securities	\$ —	\$ 7	\$ —	\$ —	\$ —	\$ 7	\$ —	\$ —
Commercial paper	109	237	—	—	109	237	—	—
Certificates of deposit/time deposits	14	31	—	—	14	31	—	—
U.S. treasury securities	75	125	75	125	—	—	—	—
U.S. municipal securities	30	34	—	—	—	—	30	34
Derivative instruments — assets:								
Foreign currency forward/option contracts	119	37	—	—	119	37	—	—
Interest rate contracts	—	7	—	—	—	7	—	—
Liabilities:								
Derivative instruments — liabilities:								
Foreign currency forward/option contracts	24	106	—	—	24	106	—	—
Interest rate contracts	9	—	—	—	9	—	—	—

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)	2021	2020	2019
Beginning balance	\$ 34	\$ 46	\$ 40
Total gains or losses:			
Included in earnings	—	—	—
Included in other comprehensive income	—	—	—
Purchases and issuances	—	10	9
Sales and settlements	(4)	(22)	(3)
Transfers in and/or out of level 3	—	—	—
Ending balance	30	34	46
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 13.

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 primarily relate to indefinite-lived and long-lived asset impairments, goodwill impairments, and adjustment in carrying value of equity securities for which the measurement alternative of cost less impairment plus or minus observable price changes is used. There were no material long-lived asset impairments for 2019 and 2021. There were no material adjustments to equity securities using the measurement alternative for 2019 and 2021. 3M reflected an immaterial charge related to impairment of certain indefinite-lived assets and a net charge of \$22 million related to adjustment to the carrying value of equity securities using the measurement alternative during the first quarter of 2020.

Fair Value of Financial Instruments:

The Company's financial instruments include cash and cash equivalents, marketable securities, held-to-maturity debt securities, accounts receivable, certain investments, accounts payable, borrowings, and derivative contracts. The fair values of cash equivalents, accounts receivable, held-to-maturity debt securities, 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, 2021		December 31, 2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, excluding current portion	\$ 16,056	\$ 17,601	\$ 17,989	\$ 20,496

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 certain fixed rate Eurobond securities issued by the Company as hedging instruments of the Company's net investment in its European subsidiaries. A number of 3M's fixed-rate bonds were trading at a premium at December 31, 2021 and 2020 due to the lower interest rates and tighter credit spreads compared to issuance levels.

NOTE 16. Commitments and Contingencies

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 \$8 million at December 31, 2021, and \$46 million at December 31, 2020. Further information on product warranties is not disclosed, as the Company considers the balance immaterial to its consolidated results of operations and financial condition. 3M guarantees of loans with third parties and other guarantee arrangements are not material.

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 claims, lawsuits and proceedings include, but are not limited to, products liability (involving products that the Company now or formerly manufactured and sold), intellectual property, commercial, antitrust, federal healthcare program related laws and regulations, such as the False Claims Act and anti-kickback laws, securities, and environmental laws in the United States and other jurisdictions. Unless otherwise stated, the Company is vigorously defending all such litigation and proceedings. From time to time, the Company also receives subpoenas, investigative demands or requests for information from various government agencies. The Company generally responds in a cooperative, thorough and timely manner. These responses sometimes require time and effort and can result in considerable costs being incurred by the Company. Such requests can also lead to the assertion of claims or the commencement of administrative, civil or criminal legal proceedings against the Company and others, as well as to settlements. The outcomes of legal proceedings and regulatory matters are often difficult to predict. Any determination that the Company's operations or activities are not, or were not, in compliance with applicable laws or regulations could result in the imposition of fines, civil or criminal penalties, and equitable remedies, including disgorgement, suspension or debarment or injunctive relief.

Process for Disclosure and Recording of Liabilities Related to Legal Proceedings

Many lawsuits and claims involve highly complex issues relating to causation, scientific evidence, and alleged actual damages, all of which 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. When making determinations about recording liabilities related to legal proceedings, the Company complies with the requirements of ASC 450, *Contingencies*, and related guidance, and records liabilities in those instances where it can reasonably estimate the amount of the loss and when the loss is probable. Where the reasonable estimate of the probable loss is a range, the Company records as an accrual in its financial statements 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.

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. Many of the matters described are at preliminary stages or seek an indeterminate amount of damages. It is not uncommon for claims to be resolved over many years. A future adverse ruling, settlement, unfavorable development, or increase in accruals for one or more of these matters 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. 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.

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

The Company estimates insurance receivables based on an analysis of the terms 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 recognizable and expects to receive in light of the loss recovery and/or gain contingency models under ASC 450, ASC 610-30, and related guidance. For those insured legal proceedings where the Company has recorded an accrued liability in its financial statements, the Company also records receivables for the amount of insurance that it concludes as recognizable from the Company's insurance program. For those insured matters where the Company has not recorded an accrued liability 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 concludes as recognizable for the expense incurred.

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, 2021, the Company is a named defendant, with multiple co-defendants, in numerous lawsuits in various courts that purport to represent approximately 3,876 individual claimants, compared to approximately 2,075 individual claimants with actions pending on December 31, 2020.

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, other malignancies, and black lung disease, will represent a greater percentage of total claims than in the past. Over the past twenty plus years, the Company has prevailed in fifteen of the sixteen cases tried to a jury (including the lawsuits in 2018 described below). In 2018, 3M received a jury verdict in its favor in two lawsuits – one in California state court in February and the other in Massachusetts state court in December – both involving allegations that 3M respirators were defective and failed to protect the plaintiffs against asbestos fibers. In April 2018, a jury in state court in Kentucky found 3M's 8710 respirators failed to protect two coal miners from coal mine dust and awarded compensatory damages of approximately \$2 million and punitive damages totaling \$63 million. In August 2018, the trial court entered judgment and the Company appealed. During March and April 2019, the Company agreed in principle to settle a substantial majority of the then-pending coal mine dust lawsuits in Kentucky and West Virginia for \$340 million, including the jury verdict in April 2018 in the Kentucky case mentioned above. That settlement was completed in 2019, and the appeal has been dismissed. In October 2020, 3M defended a respirator case before a jury in King County, Washington, involving a former shipyard worker who alleged 3M's 8710 respirator was defective and that 3M acted negligently in failing to protect him against asbestos fibers. The jury delivered a complete defense verdict in favor of 3M, concluding that the 8710 respirator was not defective in design or warnings and any conduct by 3M was not a cause of plaintiff's mesothelioma. The plaintiff's appeal is pending. A ruling is expected during the first quarter of 2022.

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 alleging more serious injuries, including mesothelioma, other malignancies, and black lung disease, 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. Since the second half of 2020, the Company has experienced an increase in the number of cases filed that allege injuries from exposures to coal mine dust; that increase represents the substantial majority of the growth in case numbers referred to above.

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. In October 2019, the court granted the State's motion to sever its unfair trade practices claim. In January 2020, the manufacturers filed a petition with the West Virginia Supreme Court, challenging the trial court's rulings; that petition was denied in November 2020. Trial for the unfair trade practices claims has been set for August 2022. No liability has been recorded for this matter because the Company believes that liability is not probable and reasonably 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 assertions of 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 may allocate to each defendant if the case were ultimately tried.

Respirator Mask/Asbestos Liabilities and Insurance Recoverables

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 its review of its respirator mask/asbestos liabilities, of pending and expected lawsuits and of the cost of resolving claims of persons who claim more serious injuries, including mesothelioma, other malignancies, and black lung disease, the Company increased its accruals in 2021 for respirator mask/asbestos liabilities by \$74 million. In 2021, the Company made payments for legal defense costs and settlements of \$96 million related to the respirator mask/asbestos litigation. As previously disclosed, during the first quarter of 2019, the Company recorded a pre-tax charge of \$313 million in conjunction with an increase in the accrual as a result of the March and April 2019 settlements-in-principle of the coal mine dust lawsuits mentioned above and the Company's assessment of other then current and expected coal mine dust lawsuits (including the costs to resolve all then current and expected coal mine dust lawsuits in Kentucky and West Virginia at the time of the charge). As of December 31, 2021, the Company had an accrual for respirator mask/asbestos liabilities (excluding Aearo accruals) of \$640 million. 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, 2021, the Company's receivable for insurance recoveries related to the respirator mask/asbestos litigation was \$ million. The Company continues to seek 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 acquired 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, 2021, 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, coal mine dust, or other occupational dusts found in products manufactured by other defendants or generally in the workplace.

As of December 31, 2021, the Company, through its Aearo subsidiary, had accruals of \$46 million for product liabilities and defense costs related to current and future Aearo-related asbestos, silica-related and coal mine dust 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 Aearo approaching the year 2050. The accrual reflects the Company’s assessment of pending and expected lawsuits, its review of its respirator mask/asbestos liabilities, and the cost of resolving claims of persons who claim more serious injuries. 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.

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 capital investment in pollution control equipment, 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 (CERCLA) 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 for such liabilities.

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 perfluorooctanoate (PFOA), perfluorooctane sulfonate (PFOS), perfluorohexane sulfonate (PFHxS), or other per- and polyfluoroalkyl substances (collectively PFAS). As a result of its phase-out decision in May 2000, the Company no longer manufactures certain PFAS compounds including PFOA, PFOS, PFHxS, and their pre-cursor 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. The Company continues to manufacture a variety of shorter chain length PFAS compounds, including, but not limited to, pre-cursor compounds to perfluorobutane sulfonate (PFBS). These compounds are used as input materials to a variety of products, including engineered fluorinated fluids, fluoropolymers and fluoroelastomers, as well as surfactants, additives, and coatings. 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 review, control or eliminate the presence of certain PFAS in purchased materials or as byproducts in some of 3M's current fluorochemical manufacturing processes, products, and waste streams.

PFAS Regulatory Activity

Regulatory activities concerning PFAS 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. In the European Union, where 3M has manufacturing facilities in countries such as Germany and Belgium, recent regulatory activities have included both preliminary and on-going work on various restrictions under the Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), including the restriction of PFAS in certain usages and a broader restriction of PFAS as a class. As of the second half of 2020, PFOA is subject to broad restrictions under the EU's Persistent Organic Pollutants (POPs) Regulation. Dyneon, a 3M subsidiary that operates a facility at Gendorf, Germany, has a recycling process for a critical emulsifier from which small amounts of PFOA are present after recycling, as an unintended and unavoidable byproduct of certain earlier process steps. The recycling process removes and concentrates the PFOA for incineration in accordance with applicable waste law. With respect to the applicability of the recently enacted POPs, Dyneon proactively consulted with the relevant German regulatory authority regarding process improvements underway that are designed to ensure compliance with the PFOA limits in the recycled material. In October 2021, Dyneon also discussed with the authority technical complexities it had recently discovered in achieving PFOA reductions. The engagement is ongoing.

In addition, as previously disclosed, 3M Belgium, a subsidiary of the Company, has been working with the Public Flemish Waste Agency (OVAM) for several years to investigate and remediate historical PFOA contaminations at and near the 3M Belgium facility in Zwijndrecht, Antwerp, Belgium. In connection with a ring road construction project (the Oosterweel Project) in Antwerp that has involved extensive soil work, an investigative committee with judicial investigatory powers was formed in June 2021 by the Flemish Parliament to investigate PFAS found in the soil and groundwater near the Zwijndrecht facility. The Company testified at Flemish parliamentary committee hearings in June and September 2021 on PFAS-related matters. The Flemish Parliament, the Minister of the Environment, and regulatory authorities have initiated investigations and demands for information related to the release of PFAS from the Zwijndrecht facility. The Company is cooperating with the authorities in the investigations and information requests. Separately, as previously disclosed, the Company is aware that certain residents of Zwijndrecht have filed a criminal complaint with an Antwerp investigatory judge against 3M Belgium, alleging it had unlawfully abandoned waste in violation of its environmental care obligations. 3M Belgium has not been served with any such complaint.

Safety measures – wastewater discharge. In August 2021, the Flemish Government served 3M Belgium with a notice of intent to impose a safety measure (wastewater discharge stoppage) and issued an infraction report alleging permit and/or legal violations in connection with the discharge of certain specific PFAS compounds for alleged lack of specific authorization. Following discussions with the government officials, 3M Belgium implemented a focused safety measure that would allow continued production activities and plans to contest through appeal the underlying legal and factual basis for the safety measure. Separately, the permitting authority has initiated a process to tighten the wastewater discharge limits immediately. In October 2021, the Province of Antwerp adopted lower discharge limits for the nine PFAS compounds specifically identified in the water discharge permit and added a special condition that essentially prohibits discharge of any PFAS chemistry without a specific limit in the permit. The action by the Province was timely appealed and a hearing on the appeal was held in January 2022. The Flemish Regional Environmental Permit Commission subsequently issued a recommendation that the appeal be denied and that lower limits on PFAS compounds be imposed immediately. A decision on the appeal is pending. An adverse ruling on the appeal would restrict the discharge of wastewater under the special condition noted above, which would materially and adversely impact the facility's operations including the possibility of causing the facility to cease operations. While the Company is exploring multiple options to mitigate the impact of an adverse ruling, a prolonged suspension or interruption of the facility's operations could have a significant adverse impact on the Company's businesses that receive products and other materials from the facility, some of which may not be available in similar quantities from other 3M facilities.

Safety measure – emissions. As previously disclosed, in October 2021, the Flemish environmental agency issued a new safety measure that prohibits all emissions of all forms of PFAS from the facility unless and until specifically approved on a process-by-process basis. 3M Belgium thereupon commenced an immediate appeal process to the Council of States, seeking, among other things, urgent suspension of the safety measure during the pendency of the appeal process. At the same time, 3M Belgium initiated efforts to comply with the safety measure by temporarily idling the affected production at the facility. The Council of States declined to grant urgent suspension of the safety measure. An unsuccessful appeal of the safety measure would extend the period the affected production is idled and could have a material negative impact on the Zwijndrecht facility's operations. 3M Belgium has established a regular cadence of meetings with the relevant authorities in connection with the requests to restart specific production processes that may result in emissions to air. The authorities have accepted the third-party experts proposed by 3M Belgium who are required by the safety measure to review and opine on proposals necessary for process restart. Although some limited requests have been approved for testing purposes, and the facility is taking actions to remedy emission issues, a prolonged suspension and idling of the facility's operations could have a significant adverse impact on the Company's businesses that receive products and other materials from the facility, some of which may not be available in similar quantities from other 3M facilities, which could in turn impact these businesses' ability to fulfill supply obligations to their customers.

Administrative measure – soil piles. In September 2021, the Flemish Government served 3M Belgium with a notice of intent to impose an administrative measure related to the removal and potential remediation of soil piles on the Zwijndrecht site. 3M Belgium continues to have discussions with the relevant authorities to explain the timing constraints for certain actions.

Notice of default – environmental law compliance. Also in September 2021, the Flemish Region issued a notice of default alleging violations of environmental laws and seeking PFAS-related information, indemnity and a remediation plan for soil and water impacts due to PFAS originating from the Zwijndrecht facility. In September 2021, 3M responded to the notice of default and announced a plan to invest up to 125 million euros in the next three years in actions related to the Zwijndrecht community, including support for local commercial farmers impacted by restrictions on sale of agricultural products, and enhancements to site discharge control technologies. 3M is also committed to payment for ongoing off-site descriptive soil investigation and appropriate soil remediation.

In the United States, the EPA has developed human health effects documents summarizing the available data studies of both PFOA and PFOS. 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's lifetime health advisory for PFOA and PFOS combined is also 70 ppt. Lifetime health advisories, which are non-enforceable and non-regulatory, provide information about concentrations of drinking water contaminants at which adverse health effects are not expected to occur over the specified exposure duration.

The U.S. Agency for Toxic Substances and Disease Registry (ATSDR) within the Department of Health and Human Services released a draft Toxicological Profile for PFAS for public review and comment in June 2018. In the draft report, ATSDR proposed draft minimal risk levels (MRLs) for PFOS, PFOA and several other PFAS. An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure. MRLs establish a screening level and are not intended to define cleanup or action levels for ATSDR or other agencies. In May 2021, ATSDR released a final toxicological profile for certain PFAS that preserved the draft MRLs. Earlier, in April 2021, EPA released a final toxicity assessment for PFBS.

As periodically required under the Safe Drinking Water Act (SDWA), the EPA published in May 2012 a list of unregulated substances, including six PFAS chemicals, 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 exceeded the level for PFOA and 46 exceeded the level for PFOS (unchanged from the July 2016 EPA summary). 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. In December 2021, EPA published the fifth version of the unregulated contaminant monitoring rule, which requires monitoring for 29 PFAS compounds between 2023 and 2025.

With respect to PFOA and PFOS in groundwater, EPA issued interim recommendations in December 2019, providing guidance for screening levels and preliminary remediation goals for groundwater that is a current or potential drinking water source, to inform final clean-up levels of contaminated sites.

In October 2021, EPA released its "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024," which presents EPA's approach to PFAS, including investing in research to increase an understanding of PFAS, pursuing a comprehensive approach to proactively control PFAS exposures to humans and the environment, and broadening and accelerating the scope of clean-up of PFAS in the environment. The 2021-2024 Roadmap sets timelines by which EPA plans to take specific actions, including, among other items, publishing a national PFAS testing strategy, proposing to designate PFOA and PFOS as CERCLA hazardous substances, restricting PFAS discharges from industrial sources through Effluent Limitations Guidelines, publishing the final toxicity assessment for five additional PFAS compounds, requiring water systems to test for 29 PFAS compounds under the SDWA, and publishing improved analytical methods in eight different environmental matrices to monitor 40 PFAS compounds present in wastewater and stormwater discharges.

EPA previously published its intention to initiate a process to develop a national primary drinking water regulation for PFOA and PFOS; the process is expected to take several years and will include further analyses, scientific review and opportunities for public comment. EPA initiated the first step in the process in November 2021 by referring its proposed approach to developing a Maximum Contaminant Level Goal to the Science Advisory Board and soliciting public comment. The Company submitted initial comments in December 2021. In October 2021, in response to a petition by New Mexico, EPA announced it will initiate a rulemaking to designate four PFAS compounds as hazardous constituents under the Resource Conservation and Recovery Act (RCRA). Further, in January 2022, EPA formally submitted to the Office of Management and Budget (OMB) its plan to designate PFOA and PFOS as hazardous substances under CERCLA.

EPA has also taken several actions to increase reporting and restrictions regarding PFAS under the Toxic Substances Control Act (TSCA) and the Toxics Release Inventory (TRI), which is a part of the Emergency Planning and Community Right-to-Know Act. EPA has added more than 170 PFAS compounds to the list of substances that must be included in TRI reports as of July 2021. In June 2021, EPA published a proposed rule under TSCA that, if adopted, would require certain persons that manufacture (including import) or have manufactured PFAS in any year since 2011 to report information regarding PFAS uses, production volumes, disposal, exposures, and hazards. The Company submitted comments on the proposed rule during the public comment period, which ended in September 2021.

Several state legislatures and state agencies have been evaluating or have taken actions related to cleanup standards, groundwater values or drinking water values for PFOS, PFOA, and other PFAS, and 3M has submitted various responsive comments. Those states include the following:

- Minnesota Department of Health in May 2017 stated that Health Based Values (HBVs) “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.” As of 2021, the current HBVs are 35 ppt for PFOA, 15 ppt for PFOS, 47 ppt for PFHxS and 2 ppb for PFBS. In February 2018, the MDH published reports finding no unusual rates of certain cancers or adverse birth outcomes (low birth rates or premature births) among residents of Washington and Dakota Counties in Minnesota.
- Minnesota Pollution Control Agency (MPCA) and three other state agencies published “Minnesota’s PFAS Blueprint” in February 2021. The Blueprint outlines the State’s plans to manage, investigate, monitor, research and regulate PFAS discharges or releases in Minnesota. In November 2021, MPCA published for public notice its “Draft PFAS Monitoring Plan,” which proposes a system for voluntary PFAS monitoring at solid waste, wastewater and stormwater facilities, facilities with air emissions, and sites in the Superfund or the state’s Brownfield programs.
- California finalized drinking water response levels for PFOA and PFOS in February 2020.
- Vermont finalized drinking water standards for a combination of PFOA, PFOS and three other PFAS compounds in March 2020.
- New Jersey finalized drinking water standards and designated PFOA and PFOS as hazardous substances in June 2020.
- New York established drinking water standards for PFOA and PFOS in July 2020.
- New Hampshire established drinking water standards by legislation for certain PFAS compounds, including PFOS and PFOA, in July 2020.
- Michigan implemented final drinking water standards for certain PFAS compounds, including PFOS and PFOA, in August 2020.
- Massachusetts published final regulations establishing a drinking water standard relating to six combined PFAS compounds in October 2020.

Some other states have also been evaluating or have taken actions relating to PFOA, PFOS and other PFAS compounds in products such as food packaging, carpets and other products. For example, in October 2021, two bills were signed into law in California that prohibit the use of PFAS in children’s products and in food packaging. Additionally, in December 2021, California finalized its listing of PFOS as a carcinogen, and PFNA as a reproductive toxicant under its Proposition 65 law. California has also proposed listing PFOA as a carcinogen and PFDA, PFHxS, and PFUNDA as reproductive toxicants under Proposition 65. In August 2021, Maine became the first state to ban all PFAS compounds in all products, except where use is unavoidable. The ban becomes effective in 2030.

In October 2020, 3M and several other parties filed notices of appeal in the appellate division of the Superior Court of New Jersey to challenge the validity of the New Jersey PFOS and PFOA regulations. In January 2021, the appellate division of the court denied the group’s motion to stay the regulations. The parties completed briefing on the merits in October 2021. In March 2021, 3M filed a lawsuit against the New York State Department of Health, on the grounds that drinking water levels set by the agency for PFOS and PFOA should be vacated because they are arbitrary and did not comply with statutorily required processes. An oral argument on the merits was held in December 2021. In April 2021, 3M also filed a lawsuit against the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to invalidate the drinking water standards EGLE promulgated under an accelerated timeline. EGLE moved to dismiss that lawsuit. In September 2021, the court denied EGLE’s motion in part, and the parties are proceeding to litigation on the merits of the remaining claims.

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

Litigation Related to Historical PFAS Manufacturing Operations in Alabama

As previously reported, a former employee filed a putative class action lawsuit against 3M, BFI Waste Management Systems of Alabama, and others in the Circuit Court of Morgan County, Alabama (the “St. John” case), seeking property damage from exposure to certain perfluorochemicals at or near the Company’s Decatur, Alabama, manufacturing facility. The parties have agreed to repeated stays of the St. John case, to permit ongoing mediation between the parties involved in this case and another case discussed below. Two additional putative class actions filed in the same court by certain residents in the vicinity of the Decatur plant seeking relief on similar grounds (the Chandler case and the Stover case, respectively) are stayed pending the resolution of class certification issues in the St. John case.

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 PFAS compounds 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. This case was also stayed pending ongoing mediation and discussions between the parties in conjunction with the St. John case.

In October 2021, 3M reached agreements in principle to resolve litigation with the Tennessee Riverkeeper organization, as well as the plaintiffs in the *St. John* (including *Stover*, *Owens* and *Chandler*) matters. The agreements, if finalized and approved by the court, will complement the Interim Consent Order that 3M entered with the Alabama Department of Environmental Management (ADEM) in 2020, as described below. Key provisions of these agreements include 3M's continued environmental characterization, including sampling of environmental media, such as soil, ground water, and sediment, regarding the potential presence of PFAS at the 3M Decatur facility and legacy disposal sites, as well as supporting the execution of appropriate remedial actions. In December 2021, the court in the St. John action granted preliminary approval of the class settlement, and a hearing for final approval is scheduled for April 2022. Also in December 2021, the court handling the Tennessee Riverkeeper action administratively closed that case in light of the settlement between the parties.

In October 2015, West Morgan-East Lawrence Water & Sewer Authority (Water Authority) filed a 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. 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 April 2019, 3M and the Water Authority settled the lawsuit for \$35 million, which will fund a new water filtration system, with 3M indemnifying the Water Authority from liability resulting from the resolution of the currently pending and future lawsuits against the Water Authority alleging liability or damages related to 3M PFAS. In October 2021, with respect to the putative class claims brought by the representative plaintiffs who were supplied drinking water by the Water Authority (the "Lindsey" case), the parties reached an agreement in principle, subject to court approval, to resolve the claims for an immaterial amount. In November 2021, the court entered an order of preliminary approval of the class settlement. A hearing on final approval of the settlement is scheduled for March 2022.

In August 2016, a group of over 200 plaintiffs filed a putative 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 (the "Billings" case). Plaintiffs are residents of Lawrence, Morgan and other counties who are or have been customers of the Water Authority. They contend defendants have released PFAS 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. Plaintiffs in the Billings case have amended their complaint numerous times to add additional plaintiffs. There are now approximately 4,500 named plaintiffs. The parties have reached an agreement in principle to resolve the litigation.

In January 2017, several hundred plaintiffs sued 3M, Dyneon and Daikin America in Lawrence and Morgan Counties, Alabama (the "Owens" case). 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 discharges into the Tennessee River. The plaintiffs contend that, as a result of 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. The court denied a motion by co-defendant Daikin to stay this case pending resolution of the St. John case. The parties have reached an agreement in principle to resolve the litigation.

In November 2017, a putative class action (the “King” case) was filed against 3M, 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 and 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, Alabama that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharges into the Tennessee River. The plaintiffs contend that, as a result of 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 November 2019, the King plaintiffs amended their complaint to withdraw all class allegations. Since then, the complaint has been amended several times to add or dismiss plaintiffs, and the case currently involves 42 plaintiffs. The case is scheduled for trial in July 2023. Discovery in this case is proceeding.

In July 2019, 3M announced that it had initiated an investigation into the possible presence of PFAS in three closed municipal landfills in Decatur that accepted waste from 3M’s Decatur plant and other companies in the 1960s through the 1980s. 3M has worked with the City of Decatur and other local and state entities such as Morgan County and Decatur Utilities as it conducted its investigation. In November 2021, 3M and the City of Decatur, Decatur Utilities and Morgan County executed a collaborative agreement under which the Company agreed to contribute approximately \$99 million and also to continue to address certain PFAS-related matters in the area. The contribution relates to initiatives to improve the quality of life and overall environment in Decatur, including community redevelopment and recreation projects by the City, County and Decatur Utilities. It also includes addressing PFAS matters at the Morgan County landfill and reimbursement of costs previously incurred related to PFAS remediation. In addition to the contribution, 3M will continue to address PFAS at certain other closed municipal sites at which the Company historically disposed waste and continue environmental characterization in the area. This work will complement the Interim Consent Order that 3M entered with ADEM in 2020 and includes sampling of environmental media, such as ground water, regarding the potential presence of PFAS at the 3M Decatur facility and legacy disposal sites, as well as supporting the execution of any appropriate remedial actions.

3M is also defending or has received notice of potential lawsuits in state and federal court brought by individual property owners who claim damages related to historical PFAS disposal at former area landfills near their Decatur-area properties. 3M continues to negotiate with property owners and has resolved for an immaterial amount some of the claims brought by them.

In September 2020, the City of Guin Water Works and Sewer Board (Guin WWSB) brought a lawsuit against 3M in Alabama state court alleging that PFAS contamination in the Guin water system stems from manufacturing operations at 3M’s Guin facility and disposal activity at a nearby landfill. In this same month, Guin WWSB dismissed its lawsuit without prejudice and has been working with 3M to further investigate the presence of chemicals in the area. In December 2021, the parties reached a settlement under which 3M agreed to contribute \$30 million that will be used on a new treatment system for Guin’s drinking water and a new wastewater treatment facility.

Litigation Related to Historical PFAS Manufacturing Operations in Minnesota

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 PFAS, including costs to construct alternative sources of drinking water. In April 2019, 3M and the City of Lake Elmo agreed to settle the lawsuit for less than \$5 million.

State Attorneys General Litigation related to PFAS

Minnesota. In December 2010, the State of Minnesota, by its Attorney General, filed a lawsuit in Hennepin County District Court against 3M seeking damages and injunctive relief with respect to the presence of PFAS in the groundwater, surface water, fish or other aquatic life, and sediments in the state of Minnesota (the “NRD Lawsuit”). In February 2018, 3M and the State of Minnesota reached a resolution of the NRD Lawsuit. Under the terms of the settlement, 3M agreed to provide an \$850 million grant to the State for a special “3M Water Quality and Sustainability Fund.” This Fund, which is administered by the State, will enable projects that support water sustainability in the Twin Cities East Metro region, such as continued delivery of water to residents and enhancing groundwater recharge to support sustainable growth. Other purposes of the grant include habitat and recreation improvements, such as fishing piers, trails, and open space preservation. 3M recorded a pre-tax charge of \$897 million, inclusive of legal fees and other related obligations, in the first quarter of 2018 associated with the resolution of this matter.

In connection with the above referenced settlement, the Minnesota Pollution Control Agency and the Department of Natural Resources, as co-trustees of the Fund, released in September 2020 a conceptual drinking water supply plan for the communities in the East Metro area, seeking public comment on three recommended options for utilizing the Fund. In December 2020, 3M submitted preliminary comments on the co-trustees' draft conceptual drinking water supply plan to address legal and technical aspects of the draft plan. The Company and the State continue to discuss those aspects of the draft plan.

New York. The State of New York, by its Attorney General, has filed four lawsuits (in June 2018, February 2019, July 2019, and November 2019) against 3M and other defendants seeking to recover the costs incurred in responding to PFAS contamination allegedly caused by Aqueous Film Forming Foam (AFFF) manufactured by 3M and others. Each of the four suits was filed in Albany County Supreme Court before being removed to federal court, and each has been transferred to the multi-district litigation (MDL) proceeding for AFFF cases, which is discussed further below. The state is seeking compensatory and punitive damages, and injunctive and equitable relief in the form of a monetary fund for the State's reasonably expected future damages, and/or requiring defendants to perform investigative and remedial work.

Ohio. In December 2018, the State of Ohio, by its Attorney General, filed a lawsuit in the Common Pleas Court of Lucas County, Ohio against 3M, Tyco Fire Products LP, Chemguard, Inc., Buckeye Fire Equipment Co., National Foam, Inc., and Angus Fire Armour Corp., seeking injunctive relief and compensatory and punitive damages for remediation costs and alleged injury to Ohio natural resources from AFFF manufacturers. This case was removed to federal court and transferred to the MDL.

New Jersey. In March 2019, the New Jersey Attorney General filed two actions against 3M, DuPont, and Chemours on behalf of the New Jersey Department of Environmental Protection (NJDEP), the NJDEP's commissioner, and the New Jersey Spill Compensation Fund regarding alleged discharges at two DuPont facilities in Pennsville, New Jersey (Salem County) and Parlin, New Jersey (Middlesex County). 3M is included as a defendant in both cases because it allegedly supplied PFOA to DuPont for use at the facilities at issue. Both cases expressly seek to have the defendants pay all costs necessary to investigate, remediate, assess, and restore the affected natural resources of New Jersey. DuPont removed these cases to federal court. In June 2020, the court consolidated the two actions, along with two others brought by the NJDEP relating to the DuPont facilities, for case management and pretrial purposes. In December 2021, the court denied various motions to dismiss that the defendants had filed, including 3M's motions. The parties are conducting discovery.

In May 2019, the New Jersey Attorney General and NJDEP filed a lawsuit against 3M, DuPont, and six other companies, alleging natural resource damages from AFFF products and seeking damages, including punitive damages, and associated fees. This case was removed to federal court and transferred to the AFFF MDL.

New Hampshire. In May 2019, the New Hampshire Attorney General filed two lawsuits alleging contamination of the state's drinking water supplies and other natural resources by PFAS chemicals. The first lawsuit was filed against 3M and seven co-defendants, alleging PFAS contamination resulting from the use of AFFF products at several sites around the state. This case was removed to federal court and transferred to the AFFF MDL. The second suit asserts PFAS contamination from non-AFFF sources and names 3M, DuPont, and Chemours as defendants. In its June 2020 ruling on defendants' motions to dismiss, the court dismissed the state's trespass claim, but allowed several claims to proceed. In October 2020, the state amended its complaint to add a state commission as plaintiff and make a claim related to the state's drinking water and groundwater trust fund statute. In July 2021, the court granted defendants' motions to dismiss these amendments. In September 2021 the state filed its second amended complaint, which 3M answered in October 2021. A hearing on case scheduling has been set for March 2022, and the case remains in early stages of litigation.

Vermont. In June 2019, the Vermont Attorney General filed two lawsuits alleging contamination of the state's drinking water supplies and other natural resources by PFAS chemicals. The first lawsuit was filed against 3M and ten co-defendants, alleging PFAS contamination resulting from the use of AFFF products at several sites around the state. This case was removed to federal court and transferred to the AFFF MDL. The second suit asserts PFAS contamination from non-AFFF sources and names 3M and several entities related to DuPont and Chemours as defendants. This suit is proceeding in state court. In May 2020, the court denied the defendants' motion to dismiss, but dismissed the state's trespass claim as to property the state does not own. The parties are now engaged in discovery and the court has set a trial-ready date in October 2023.

Michigan. In January 2020, the Michigan Attorney General filed a lawsuit in state court against 3M, Dyneon, DuPont, Chemours and others seeking injunctive and equitable relief and damages for alleged injury to Michigan public natural resources and its residents related to PFAS, excluding AFFF. The case was removed to federal court in March 2021 and subsequently transferred to the AFFF MDL. The state has filed a motion to remand the case to state court. In addition, in August 2020, the Michigan Attorney General filed two lawsuits against numerous AFFF manufacturers and distributors, and suppliers of PFAS to AFFF manufacturers. 3M is named a defendant in one of the lawsuits, filed in federal court, and the case has been transferred to the AFFF MDL, where it remains in early stages of litigation.

Guam. In September 2019, the Attorney General of Guam filed a lawsuit against 3M and other defendants relating to contamination of the territory’s drinking water supplies and other natural resources by PFAS, allegedly resulting from the use of AFFF products at several sites around the island. This lawsuit has been removed to federal court and transferred to the AFFF MDL.

Commonwealth of Northern Mariana Islands. In December 2019, the Attorney General of the Commonwealth of Northern Mariana Islands, a U.S. territory, filed a lawsuit against 3M and other defendants relating to contamination of the territory’s drinking water supplies and other natural resources by PFAS, allegedly resulting from the use of AFFF products. This lawsuit has been removed to federal court and transferred to the AFFF MDL.

Mississippi. In December 2020, the Mississippi Attorney General filed an AFFF-related PFAS lawsuit against 3M and other defendants directly with the AFFF MDL court in South Carolina. The lawsuit alleges injuries to the State’s property and natural resources purportedly caused by PFAS contamination from AFFF use and seeks both compensatory and punitive damages.

Alaska. In April 2021, the State of Alaska filed a lawsuit against 3M and other defendants, alleging damages from the release of PFAS into the environment from a variety of products, including AFFF. This lawsuit was removed to federal court and transferred to the AFFF MDL in August 2021. In addition, in July 2021, the State of Alaska named 3M as a third-party defendant in two cases originally brought against the state by plaintiffs alleging property damage from AFFF use. Both of these cases were also removed to federal court and transferred to the AFFF MDL.

North Carolina. In November 2021, the State of North Carolina filed four lawsuits against 3M and other defendants, alleging damages from the release of PFAS into the environment from AFFF use at certain air force bases and a fire training academy. These cases have been removed to federal court and have been transferred to the AFFF MDL.

In addition to the above state attorneys general actions, several other states and the District of Columbia, through their attorneys general, have announced selection processes to retain outside law firms to bring PFAS-related lawsuits against certain manufacturers including the Company. In addition, the Company is in discussions with several state attorneys general and agencies, responding to information and other requests relating to PFAS matters and exploring potential resolution of some of the matters raised.

Aqueous Film Forming Foam (AFFF) Environmental Litigation

3M manufactured and marketed AFFF for use in firefighting at airports and military bases from approximately 1963 to 2002. As of December 31, 2022, 1,043 lawsuits (including 32 putative class actions) alleging injuries or damages by AFFF use have been filed against 3M (along with other defendants) in various state and federal courts. As further described below, a vast majority of these pending cases are in a federal Multi-District Litigation (MDL) court in South Carolina. Additional AFFF cases continue to be filed in or transferred to the MDL. The Company also continues to defend certain AFFF cases that remain in state court and is in discussions with pre-suit claimants for possible resolutions where appropriate.

In December 2018, the U.S. Judicial Panel on Multidistrict Litigation (JPML) granted motions to transfer and consolidate all AFFF cases pending in federal courts to the U.S. District Court for the District of South Carolina to be managed in an MDL proceeding to centralize pre-trial proceedings. The parties in the MDL are currently in the process of conducting discovery. An initial pool of ten water supplier cases was selected in February 2021 for case-specific fact discovery as potential bellwether cases. In October 2021, the parties and the MDL court selected three of these cases for additional fact and expert discovery and for potential trial as bellwether cases. The MDL court in August 2021 issued a scheduling order and set the first bellwether cases to begin trial on or after January 1, 2023. The MDL court has encouraged the parties to negotiate to resolve cases in the MDL. In November 2021, the defendants filed an omnibus motion regarding their government contractor defense. In December 2021, the plaintiffs filed a response.

In June 2019, several subsidiaries of Valero Energy Corporation, an independent petroleum refiner, filed eight AFFF cases against 3M and other defendants, including DuPont/Chemours, National Foam, Buckeye Fire Equipment, and Kidde-Fenwal, in various state courts. Plaintiffs seek damages that allegedly have been or will be incurred in investigating and remediating PFAS contamination at their properties and replacing or disposing of AFFF products containing long-chain PFAS compounds. Two of these cases have been removed to federal court and transferred to the AFFF MDL. Five cases remain pending in state courts where they are in early stages of litigation, after Valero dismissed its Ohio state court action without prejudice in October 2019. The parties in the state court cases have agreed to stay all five cases until March 2022.

As of December 31, 2021, the Company is aware of 15 other AFFF suits originally filed in various state courts in which the Company has been named a defendant. Seven of these cases have been removed to federal court, where defendants have sought transfer to the AFFF MDL.

Two subsidiaries of Husky Energy filed suit in April 2020 against 3M and other AFFF manufacturers in Wisconsin state court relating to alleged PFAS contamination from AFFF use at Husky facilities in Superior, Wisconsin and Lima, Ohio. The parties have entered into a tolling agreement deferring further action on the plaintiffs' claims. The plaintiffs filed a notice of dismissal without prejudice in September 2020.

Separately, the Company is aware of pre-suit claims or demands by other parties related to the use and disposal of AFFF, one of which purports to represent a large group of firefighters. The Company had discussions with certain potential pre-suit claimants and, as a result of such discussions, reached a negotiated resolution for an immaterial amount with the City of Bemidji in March 2021.

Other PFAS-related Product and Environmental Litigation

3M manufactured and sold various products containing PFOA and PFOS, including Scotchgard, for several decades. Starting in 2017, 3M has been served with individual and putative class action complaints in various state and federal courts alleging, among other things, that 3M's customers' improper disposal of PFOA and PFOS resulted in the contamination of groundwater or surface water. The plaintiffs in these cases generally allege that 3M failed to warn its customers about the hazards of improper disposal of the product. They also generally allege that contaminated groundwater has caused various injuries, including personal injury, loss of use and enjoyment of their properties, diminished property values, investigation costs, and remediation costs. Several companies have been sued along with 3M, including Saint-Gobain Performance Plastics Corp., Honeywell International Inc. f/k/a Allied-Signal Inc. and/or AlliedSignal Laminate Systems, Inc., Wolverine World Wide Inc., Georgia-Pacific LLC, E.I. DuPont De Nemours and Co., Chemours Co., and various carpet manufacturers.

In New York, 3M is defending 40 individual cases and one putative class action filed in the U.S. District Court for the Northern District of New York and four additional individual cases filed in New York state court against 3M, Saint-Gobain Performance Plastics Corp. (Saint-Gobain), Honeywell International Inc. and E.I. DuPont De Nemours and Co. (DuPont). Tonaga, Inc. (Taconic) is also a defendant in the state court actions. Plaintiffs allege that PFOA discharged from fabric coating facilities operated by non-3M entities (that allegedly had used PFOA-containing materials from 3M, among others) contaminated the drinking water in the Village of Hoosick Falls, the Town of Hoosick and Petersburg, New York. They assert various tort claims for personal injury and property damage and in some cases request medical monitoring. 3M has answered the complaints in these individual cases, which are now proceeding through discovery. In the federal court individual cases, the parties selected 24 claimants in May 2021 for a pool from which eight plaintiffs will be chosen for expert discovery and dispositive motions. At the conclusion of these motions, the court will determine which case(s) will continue toward trial. In the putative class action, certain parties, including 3M, reached an agreement to resolve litigation among the settling parties. In February 2022, the district court issued an order granting final approval of the settlement. Under the agreement, 3M, Saint-Gobain and Honeywell will collectively contribute to a fixed total amount of approximately \$65 million to resolve the plaintiffs' claims and those of the proposed classes. 3M's contribution is not considered material. 3M is also defending 13 cases in the U.S. District Court for the Eastern District of New York filed by various drinking water providers. The plaintiffs in these cases allege that products manufactured by 3M, DuPont, and additional unnamed defendants contaminated plaintiffs' water supply sources with various PFAS compounds. DuPont's motion to transfer these cases to the AFFF MDL was denied in March 2020. 3M has filed answers in these cases and discovery is ongoing.

In Michigan, one consolidated putative class action is pending in the U.S. District Court for the Western District of Michigan against 3M and Wolverine World Wide (Wolverine). The action arises from Wolverine's allegedly improper disposal of materials and wastes, including 3M Scotchgard, related to Wolverine's shoe manufacturing operations. Plaintiffs allege Wolverine used 3M Scotchgard in its manufacturing process and that chemicals from 3M's product contaminated the environment and drinking water sources after disposal. In June 2021, the court partially denied the defendants' motions to dismiss, by granting the motions to dismiss the negligence claim only insofar as the plaintiffs seek damages for personal injuries, as opposed to property damage. In September 2021, the plaintiffs filed a motion to amend the complaint, including to add four new named plaintiffs and putative class representatives. 3M and Wolverine filed a motion to strike the plaintiffs' motion for class certification and opposed plaintiffs' motion to amend the complaint. The parties also filed several dispositive and expert witness-related Daubert motions in November 2021, and the parties have had ongoing mediation discussions. The court has set a trial date in June 2022. In addition to the consolidated federal court putative class action, as of December 31, 2021, 3M is a defendant in approximately 275 private individual actions in Michigan state court based on similar allegations. These cases are coordinated for pre-trial purposes. Five of these cases were selected over time for bellwether trials. In January 2020, the court issued the first round of dispositive motion rulings related to the first two bellwether cases, including dismissing the second bellwether case entirely and dismissing certain plaintiffs' medical monitoring and risk of future disease claims, and granting summary judgment to the defendants on one plaintiff's cholesterol injury claims. The parties settled the first bellwether case in early 2020 for an immaterial amount. In June 2020, the court denied the plaintiffs' motion to reconsider the dismissal of the second bellwether case, and the plaintiffs have appealed the decision to the state appellate court. In January 2021, the court granted summary judgment in favor of the defendants in one of three remaining bellwether cases. The plaintiffs in this dismissed bellwether case have also appealed the dismissal to the state appellate court. The Company settled both remaining bellwether cases for an immaterial amount. Following mediation, in October 2021, 3M and Wolverine reached a settlement in principle with counsel representing all but three of the remaining private individual actions. At a further mediation in December 2021, 3M and Wolverine reached a settlement in principle to resolve two more of the remaining cases (on behalf of seven plaintiff families). Upon completion of these settlements, only one private individual action will remain pending in Michigan state court.

3M was also a defendant, together with Georgia-Pacific as co-defendant, in a putative class action in federal court in Michigan brought by residents of Parchment, who allege that the municipal drinking water was contaminated from waste generated by a paper mill owned by Georgia-Pacific's corporate predecessor. The defendants' motion to dismiss certain claims in the complaint was denied in January 2021. The parties engaged in mediation and in April 2021 reached a preliminary settlement agreement, subject to court approval, under which 3M and Georgia-Pacific would jointly pay an amount and be released from plaintiffs' putative class action claims. 3M's portion is not considered material. The court approved the settlement in September 2021.

In Alabama and Georgia, 3M, together with multiple co-defendants, is defending three state court cases brought by municipal water utilities, relating to 3M's sale of PFAS-containing products to carpet manufacturers in Georgia. The plaintiffs in these cases allege that the carpet manufacturers improperly discharged PFAS into the surface water and groundwater, contaminating drinking water supplies of cities located downstream along the Coosa River, including Rome, Georgia and Centre and Gadsden, Alabama. The three water utility cases are proceeding through discovery. Another case originally filed in Georgia state court was brought by individuals asserting PFAS contamination by the Georgia carpet manufacturers and seeking economic damages and injunctive relief on behalf of a putative class of Rome and Floyd County water subscribers. This case has been removed to federal court, where 3M filed a motion to dismiss a series of amended complaints, resulting in the dismissal of plaintiffs' negligence claim against 3M. This case is proceeding through discovery. 3M, together with co-defendants, is also defending another putative class action in federal court in Georgia, in which plaintiffs seek relief on behalf of a class of individual ratepayers in Summerville, Georgia who allege their water supply was contaminated by PFAS discharged from a textile mill. In May 2021, the City of Summerville filed a motion to intervene in the lawsuit, which remains pending. 3M has moved to dismiss this case. This case remains in early stages of litigation.

In California, 3M and other defendants were named as defendants in an action brought in federal court by Golden State Water Company, alleging PFAS contamination of certain wells located in its water systems. 3M filed a motion to dismiss in November 2020 and in January 2021, the court granted defendants' motion to dismiss the case for lack of personal jurisdiction. In February 2021, the plaintiffs voluntarily dismissed their action without prejudice and filed a new case in the AFFF MDL court. Separately, in December 2020, the Orange County Water District and ten additional local water providers sued 3M, Decra Roofing and certain DuPont-related entities in California state court, alleging PFAS contamination of the plaintiffs' water sources and also referring to 3M's industrial minerals facility in Corona, California as a potential source of contamination. The plaintiffs filed an amended complaint, and 3M filed a demurrer to the amended complaint in March 2021. In April 2021, the court denied 3M's demurrer, and the case remains in early stages of litigation. In May 2021, the Orange County plaintiffs filed a second amended complaint. In June 2021, the case was removed to the U.S. District Court for the Central District of California where the plaintiffs moved to remand the case back to state court. The court granted plaintiffs' motion to remand. 3M has appealed the remand decision to the U.S. Court of Appeals for the Ninth Circuit, which is hearing the appeal on an expedited basis, with oral argument scheduled in February 2022. Pending that appeal, in September 2021, the state court ordered that discovery can proceed against 3M. In February 2021, the City of Corona and a local utility authority filed a lawsuit in California state court against 3M and other defendants, alleging PFAS contamination from 3M products generally as well as from 3M's Corona facility and roofing granules products. Plaintiffs filed an amended complaint in June 2021. In July 2021, the case was removed to the U.S. District Court for the Central District of California. The federal court granted plaintiffs' motion to remand the action to state court. In October 2021, 3M filed a demurrer to the amended complaint in state court. In October 2021, a lawsuit was filed against 3M in California state court in San Luis Obispo County by the Atascadero Mutual Water Company, a local water supplier. The complaint alleges PFAS contamination from 3M products generally. In November 2021, the case was removed to the U.S. District Court for the Central District of California. The plaintiffs have indicated they intend to amend their complaint.

In Delaware, 3M, together with several co-defendants, is defending one putative class action brought by individuals alleging PFAS contamination of their water supply resulting from the operations of local metal plating facilities. Plaintiffs allege that 3M supplied PFAS to the metal plating facilities. DuPont, Chemours, and the metal platers have also been named as defendants. This case has been removed from state court to federal court, and plaintiffs have withdrawn its motion to remand to state court and filed an amended complaint. 3M has filed a motion to dismiss the amended complaint. In February 2021, the court raised the question whether subject matter jurisdiction under the Class Action Fairness Act was proper, issued an order requiring the parties to brief the issue and denied defendants' motions to dismiss with leave to renew pending the court's ruling on jurisdiction. An oral argument was held in September 2021. In December 2021, the court issued an order retaining jurisdiction over the case and 3M renewed its previous motion to dismiss.

In New Jersey, 3M is a defendant in an action brought in federal court by Middlesex Water Company, alleging PFAS contamination of its water wells. 3M's motion to transfer the case to the AFFF MDL was denied. 3M has moved to dismiss the complaint, and discovery closed in September 2021. The parties are engaged in mediation. In September 2020, 3M was named a defendant in a similar lawsuit brought by the Borough of Hopatcong. In December 2020, 3M filed a motion to dismiss the Hopatcong matter. In January 2021, 3M was named a defendant in another similar lawsuit brought by the Pequannock Township. In March 2021, 3M filed a motion to dismiss the Pequannock matter. Discovery is ongoing in both Hopatcong and Pequannock matters. 3M, together with several co-defendants, is also defending fourteen cases in New Jersey federal court brought by individuals with private drinking water wells near certain DuPont and Solvay facilities that were allegedly supplied with PFAS by 3M. These cases have all been coordinated for discovery, which is ongoing. Plaintiffs in eight of these cases seek medical monitoring and property damages. 3M's motion to dismiss the earliest filed of these cases was largely denied in February 2021, and 3M has since filed answers in all eight cases. Plaintiffs in the six remaining individual cases in federal court allege personal injuries to themselves or their disabled adult children. 3M has moved to dismiss five of these cases, and it has not yet been served in the sixth. In February 2022, 3M's motion to dismiss was largely denied. In December 2021, plaintiffs filed four additional cases in New Jersey state court similar to the personal injury actions filed in federal court. 3M has not yet been served in these cases. Finally, 3M is also defending a putative class action filed in New Jersey federal court in November 2021 by individuals who received drinking water from Middlesex Water Company that was allegedly contaminated with PFAS in excess of state regulatory levels. Middlesex Water Company is also named as a defendant in this action. With respect to 3M, the suit asserts claims for negligence, nuisance, and trespass. Plaintiffs seek an injunction to include bottled water and home treatment systems and alleged damages for diminution-in-property value, among other relief. 3M plans to respond to the complaints. This case remains in early stages of litigation.

In October 2018, 3M and other defendants, including DuPont and Chemours, were named in a putative class action in the U.S. District Court for the Southern District of Ohio brought by the named plaintiff, a firefighter allegedly exposed to PFAS chemicals through his use of firefighting foam, purporting to represent a putative class of all U.S. individuals with detectable levels of PFAS in their blood. The plaintiff brings claims for negligence, battery, and conspiracy and seeks injunctive relief, including an order "establishing an independent panel of scientists" to evaluate PFAS. 3M and other entities jointly filed a motion to dismiss in February 2019. In September 2019, the court denied the defendants' motion to dismiss. In February 2020, the court denied 3M's motion to transfer the case to the AFFF MDL. Briefing on plaintiff's class certification motion is complete, and the court's ruling on class certification is pending.

Other PFAS-related Matters

In July 2019, the Company received a written request from the Subcommittee on Environment of the Committee on Oversight and Reform, U.S. House of Representatives, seeking certain documents and information relating to the Company's manufacturing and distribution of PFAS products. In September 2019, a 3M representative testified before and responded to questions from the Subcommittee on Environment with respect to PFAS and the Company's environmental stewardship initiatives. The Company continues to cooperate with the Subcommittee.

The Company continues to make progress in its work, under the supervision of state regulators, to remediate historic disposal of PFAS-containing waste associated with manufacturing operations at its Decatur, Alabama; Cottage Grove, Minnesota; and Cordova, Illinois plants.

As previously reported, the Illinois EPA in August 2014 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 Minnesota, 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 PFAS compounds 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 PFAS compounds from these sites and proposing response actions; (ii) providing treatment or alternative drinking water upon identifying any level exceeding a 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 PFAS compounds for which a HBV and/or HRL exists as a result of contamination from these sites; (iii) remediating identified sources of other PFAS compounds 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. The Company has completed remediation work and continues with operational and maintenance activities at the Oakdale and Woodbury sites. Remediation work has been substantially completed at the Cottage Grove site, with operational and maintenance activities ongoing.

In Alabama, as previously reported, the Company entered into a voluntary remedial action agreement with ADEM to remediate the presence of PFAS in the soil and groundwater at the Company's manufacturing facility in Decatur, Alabama associated with the historic (1978-1998) incorporation of wastewater treatment plant sludge. With ADEM's agreement, 3M substantially completed installation of a multilayer cap on the former sludge incorporation areas. Further remediation activities, including certain on-site and off-site investigations and studies, will be conducted in accordance with the July 2020 Interim Consent Order described below.

The Company operates under a 2009 consent order issued under the federal Toxic Substances Control Act (TSCA) (the "2009 TSCA consent order") for the manufacture and use of two perfluorinated materials (FBSA and FBSEE) at its Decatur, Alabama site that does not permit release of these materials into "the waters of the United States." In March 2019, the Company halted the manufacture, processing, and use of these materials at the site upon learning that these materials may have been released from certain specified processes at the Decatur site into the Tennessee River. In April 2019, the Company voluntarily disclosed the releases to the U.S. EPA and ADEM. During June and July 2019, the Company took steps to fully control the aforementioned processes by capturing all wastewater produced by the processes and by treating all air emissions. These processes have been back on-line and in operation since July 2019. The Company continues to cooperate with the EPA and ADEM in their investigations and will work with the regulatory authorities to demonstrate compliance with the release restrictions.

The Company is authorized to discharge wastewater from its Decatur plant pursuant to the terms of a Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit issued by ADEM. The NPDES permit requires the Company to report on a monthly and quarterly basis the quality and quantity of pollutants discharged to the Tennessee River. In June 2019, as previously reported, the Company voluntarily disclosed to the EPA and ADEM that it had included incorrect values in certain of its monthly and quarterly reports. The Company has submitted the corrected values to both the EPA and ADEM.

As previously reported, as part of ongoing work with the EPA and ADEM to address compliance matters at the Decatur facility, the Company discovered it had not fully characterized its PFAS discharge in its NPDES permit. In September 2019, the Company disclosed the matter to the EPA and ADEM and announced that it had elected to temporarily idle certain other manufacturing processes at 3M Decatur. The Company is reviewing its operations at the plant, has installed wastewater treatment controls and has restarted idled processes.

As a result of the Company's discussions with ADEM to address these and other related matters in the state of Alabama, as previously reported, 3M and ADEM agreed to the terms of an interim Consent Order in July 2020 to cover all PFAS-related wastewater discharges and air emissions from the Company's Decatur facility. Under the interim Consent Order, the Company's principal obligations include commitments related to (i) future ongoing site operations such as (a) providing certain notices or reports and performing various analytical and characterization studies and (b) future capital improvements; and (ii) remediation activities, including certain on-site and off-site investigations and studies. Obligations related to ongoing future site operations under the Consent Order will involve additional operating costs and capital expenditures over multiple years. As offsite investigation activities continue, additional remediation amounts may become probable and reasonably estimable in the future.

As previously reported, in December 2019, the Company received a grand jury subpoena from the U.S. Attorney's Office for the Northern District of Alabama for documents related to, among other matters, the Company's compliance with the 2009 TSCA consent order and unpermitted discharges to the Tennessee River. The Company is cooperating with this and other inquiries and requests regarding its manufacturing facilities and is producing documents in response to the inquiries.

In addition, as previously reported, as part of its ongoing evaluation of regulatory compliance at its Cordova, Illinois facility, the Company discovered it had not fully characterized its PFAS discharge in its NPDES permit for the Cordova facility. In November 2019, the Company disclosed this matter to the EPA, and in January 2020 disclosed this matter to the Illinois Environmental Protection Agency (IEPA). The Company continues to work with the EPA and IEPA to address these issues from the Cordova facility, including a draft EPA SDWA Administrative Consent Order received in December 2021 proposing that the Company survey and sample proposed private and public drinking water wells within the vicinity of the Cordova facility.

The Company is also reviewing operations at its other plants with similar manufacturing processes, such as the plant in Cottage Grove, Minnesota, to ensure those operations are in compliance with applicable environmental regulatory requirements and Company policies and procedures. As a result of these reviews, as previously reported, the Company discovered it had not fully characterized its PFAS discharge in its NPDES permit for the Cottage Grove facility. In March 2020, the Company disclosed this matter to the Minnesota Pollution Control Agency (MPCA) and the EPA. In July 2020, the Company received an information request from MPCA for documents and information related to, among other matters, the Company's compliance with the Clean Water Act at its Cottage Grove facility. The Company is cooperating with this inquiry and is producing documents and information in response to the request for information. The Company continues to work with the MPCA and EPA to address the discharges from the Cottage Grove facility.

Separately, as previously reported, in June 2020, the Company reported to EPA and MPCA that it had not fully complied with elements of the inspection, characterization and waste stream profile verification process of the Waste and Feedstream Analysis Plan (WAP/FAP) of its Resource Conservation and Recovery Act (RCRA) permit for its Cottage Grove incinerator. In July 2020, the Company received an information request from MPCA related to the June 2020 disclosure, to which the Company responded in September 2020. The Company continues to work with the MPCA to address WAP/FAP implementation issues disclosed in June 2020. In January 2021, the Company received a notice of violation (NOV) from MPCA related to, among other matters, the above-described Clean Water Act and RCRA issues. The Company is cooperating with MPCA to address the issues that are the subject of the NOV and is in discussions with MPCA regarding an assessed penalty. In October 2021, the Company received information requests from MPCA seeking additional toxicological and other information related to certain PFAS compounds. The Company is cooperating with these inquiries and is producing documents and information in response to the requests.

In February 2020, as previously reported, the Company received an information request from EPA for documents and information related to, among other matters, the Company's compliance with the Clean Water Act at its facilities that manufacture, process and use PFAS, including the Decatur, Cordova and Cottage Grove facilities. The Company is cooperating with this inquiry and is producing documents and information in response to the request for information.

The Company continues to work with relevant federal and state agencies (including EPA, the U.S. Department of Justice, state environmental agencies and state attorneys general) as it conducts these reviews and responds to information, inspection and other requests from the agencies. The Company cannot predict at this time the outcomes of resolving these compliance matters, what actions may be taken by the regulatory agencies or the potential consequences to the Company.

Other Environmental Litigation

In July 2018, the Company, along with more than 120 other companies, was served with a complaint seeking cost recovery and contribution towards the cleaning up of approximately eight miles of the Lower Passaic River in New Jersey. The plaintiff, Occidental Chemical Corporation, alleges that it agreed to design and pay the estimated \$65 million cost to remove and cap sediment containing eight chemicals of concern, including PCBs and dioxins. The complaint seeks to spread those costs among the defendants, including the Company. The Company's involvement in the case relates to its past use of two commercial drum conditioning facilities in New Jersey. Whether, and to what extent, the Company may be required to contribute to the costs at issue in the case remains to be determined.

For environmental matters and litigation described above, unless otherwise described below, no liability has been recorded as the Company believes liability in those matters is not probable and reasonably estimable and the Company is not able to estimate a possible loss or range of possible loss at this time. The Company's environmental liabilities and insurance receivables are described below.

Environmental Liabilities and Insurance Receivables

The Company periodically examines whether the contingent liabilities related to the environmental matters and litigation described above are probable and reasonably estimable based on experience and ongoing developments in those matters, including discussions regarding negotiated resolutions. During 2021, as a result of recent developments in ongoing environmental matters and litigation, the Company increased its accrual for PFAS-related other environmental liabilities by \$138 million since December 31, 2020 and made related payments of \$142 million. As previously disclosed, in the first and fourth quarters of 2019, in conjunction with other adjustments as a result of developments in then ongoing environmental matters and litigation, 3M recorded pre-tax charges aggregating to \$449 million. These pre-tax charges were in light of the EPA issuance of its PFAS Action Plan; the Company's settlement of litigation with the Water Authority; updates to evaluation of certain customer-related litigation based on continued, productive settlement discussions with multiple parties; completion of and then ongoing updates to a comprehensive review with the assistance of environmental consultants and other experts regarding environmental matters and litigation related to historical PFAS manufacturing operations; and expanded evaluation of other 3M sites that may have used certain PFAS-containing materials and locations at which they were disposed. As of December 31, 2021, the Company had recorded liabilities of \$412 million for "other environmental liabilities." The accruals represent the Company's best estimate of the probable loss in connection with the environmental matters and PFAS-related litigation described above. The Company is not able to estimate a possible loss or range of possible loss in excess of the established accruals at this time.

As of December 31, 2021, the Company had recorded liabilities of \$29 million for estimated non-PFAS related "environmental remediation" costs to clean up, treat, or remove hazardous substances at current or former 3M manufacturing or third-party sites. The Company evaluates available facts with respect to each individual site each quarter and 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.

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 possible loss in excess of the associated established accruals for the reasons described above.

The Company has both pre-1986 general and product liability occurrence coverage and post-1985 occurrence reported product liability and other environmental coverage for environmental matters and litigation. As of December 31, 2021, the Company's receivable for insurance recoveries related to the environmental matters and litigation was \$8 million. Various factors could affect the timing and amount of recovery of this and future expected increases in the receivable, including (i) delays in or avoidance of payment by insurers; (ii) the extent to which insurers may become insolvent in the future, (iii) the outcome of negotiations with insurers, and (iv) the scope of the insurers' purported defenses and exclusions to avoid coverage.

Product Liability Litigation

Aearo Technologies sold Dual-Ended Combat Arms – Version 2 earplugs starting in about 2003. 3M acquired Aearo Technologies in 2008 and sold these earplugs from 2008 through 2015, when the product was discontinued. In December 2018, a military veteran filed an individual lawsuit against 3M in the San Bernardino Superior Court in California alleging that he sustained personal injuries while serving in the military caused by 3M's Dual-Ended Combat Arms earplugs – Version 2. The plaintiff asserts claims of product liability and fraudulent misrepresentation and concealment. The plaintiff seeks various damages, including medical and related expenses, loss of income, and punitive damages.

As of December 31, 2021, the Company is a named defendant in approximately 3,616 lawsuits (including 14 putative class actions) in various state and federal courts that purport to represent approximately 13,531 individual claimants making similar allegations. In April 2019, the U.S. Judicial Panel on Multidistrict Litigation granted motions to transfer and consolidate all cases pending in federal courts to the U.S. District Court for the Northern District of Florida to be managed in a multi-district litigation (MDL) proceeding to centralize pre-trial proceedings. The plaintiffs and 3M filed preliminary summary judgment motions on the government contractor defense. In July 2020, the MDL court granted the plaintiffs' summary judgment motion and denied the defendants' summary judgment motion, ruling that plaintiffs' claims are not barred by the government contractor defense. The court denied the Company's request to immediately certify the summary judgment ruling for appeal to the U.S. Court of Appeals for the Eleventh Circuit. In December 2020, the court granted the plaintiffs' motion to consolidate three plaintiffs for the first bellwether trial, which began in March 2021.

In April 2021, 3M received an adverse jury verdict in the first bellwether trial. The jury awarded the three plaintiffs less than \$1 million in compensatory damages and \$6 million in punitive damages for a total of \$7 million. 3M has appealed the verdicts, challenging, among other rulings, the MDL court's denial of 3M's motion to assert the government contractor defense. The next two bellwether trials occurred in May and June of 2021. In May 2021, 3M received a verdict in its favor in the second bellwether trial, in which a jury rejected claims that 3M knowingly sold earplugs with design defects. In June 2021, 3M received an adverse verdict in the third bellwether trial. The jury found 3M liable for strict liability failure to warn, but found 3M not liable for design defect or fraud. The jury apportioned fault 62 percent to 3M and 38 percent to the plaintiff for a total damage award of approximately \$1 million. 3M has appealed the verdict. In October 2021, 3M received an adverse verdict in the fourth bellwether trial, in which a jury awarded \$8 million to the plaintiff. 3M plans to appeal the verdict. 3M received verdicts in its favor in the fifth and sixth bellwether trials. 3M received an adverse verdict in the seventh and eighth bellwether trials, in which the juries awarded the plaintiffs \$13 million and \$23 million, respectively. 3M plans to appeal these verdicts. 3M prevailed in the ninth and tenth bellwether cases but received adverse verdicts in the eleventh bellwether case in which the jury awarded each of the two plaintiffs \$15 million in compensatory and \$40 million in punitive damages. 3M plans to appeal these verdicts. The next five bellwether cases are scheduled for trial in March, April and May 2022. These trials will not include several bellwether cases that plaintiffs' counsel dismissed with prejudice either during discovery or after being set for trial. An administrative docket of approximately 240,000 unfiled and unverified claims (after factoring in approximately 50,000 claims in a transitional process as described below) has also been maintained at the MDL court. The MDL court in August 2021 provided notice of an intent to issue forthcoming transition orders requiring all claims be moved off the administrative docket to the active docket on a rolling basis over 12 months. The orders will provide that any case not moved to the active docket will be dismissed without prejudice, and the administrative docket will then be closed. To date approximately 50,000 claims are in the process of being transitioned to the active docket or dismissed. The MDL court also ordered the parties to prepare for trial 1,500 cases in three waves of 500 cases over the next 14 months. After the preparation of these cases is completed, the cases will be remanded to the federal district courts where the cases were originally filed. In November 2021, the judge issued the first wave order of the first 500 cases over the next eight months.

3M is also defending lawsuits brought primarily by non-military plaintiffs in state court in Hennepin County, Minnesota. 3M removed these actions to federal court, and the federal court remanded them to state court in March 2020. On appeal, the U.S. Court of Appeals for the Eighth Circuit ruled in October 2021 that the cases brought by non-military plaintiffs were properly remanded to state court, whereas the cases brought by military contractor plaintiffs who had received the Combat Arms Earplugs from the military should have remained in federal court. In November 2021, the Eighth Circuit granted 3M's unopposed motion to vacate the remand orders in the remaining appeals of military service member cases. The military service member cases are expected to be remanded to federal court and transferred to the MDL. There are approximately 65 lawsuits involving approximately 1,100 plaintiffs pending in the state court, but the number of plaintiffs is expected to decline as cases are remanded to federal court. The cases remaining in state court are subject to a bellwether case selection process. The first trial in Hennepin County is scheduled for no earlier than April 2022.

No liability has been recorded for these matters because the Company believes that any such liability is not probable and reasonably estimable at this time.

As of December 31, 2021, the Company was a named defendant in approximately 5,266 lawsuits in the United States and one Canadian putative class action with a single named plaintiff, alleging that the Bair Hugger™ patient warming system caused a surgical site infection.

As previously disclosed, 3M is a named defendant in lawsuits in federal courts involving over 5,000 plaintiffs alleging that 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 plaintiffs 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.

The U.S. Judicial Panel on Multidistrict Litigation (JPML) consolidated all cases pending in federal courts to the U.S. District Court for the District of Minnesota to be managed in a multi-district litigation (MDL) proceeding. In July 2019, the court excluded several of the plaintiffs' causation experts, and granted summary judgment for 3M in all cases pending at that time in the MDL. Plaintiffs appealed that decision to the U.S. Court of Appeals for the Eighth Circuit. Plaintiffs also appealed a 2018 jury verdict in favor of 3M in the first bellwether trial in the MDL and appealed the dismissal of another bellwether case. The Eighth Circuit court heard oral argument on all pending appeals in March 2021. A panel of the appellate court in August 2021 reversed the district court's exclusion of the plaintiffs' causation experts and the grant of summary judgment for 3M. The Company sought further appellate *en banc* review by the full Eighth Circuit court. In November 2021, the Eighth Circuit court denied 3M's petition for rehearing *en banc*. In February 2022, the Company filed a petition for a writ of certiorari in the U.S. Supreme Court. The MDL court has not yet issued a new case management order. In February 2022, the MDL court ordered the parties to engage in any mediation sessions that a court-appointed mediator deems appropriate. Also, in August 2021, the Eighth Circuit court separately affirmed the 2018 jury verdict in 3M's favor in the only bellwether trial in the MDL.

In addition to the federal cases, there are four state court cases. Three are pending in Missouri state court and combine Bair Hugger product liability claims with medical malpractice claims. Two of the Missouri cases are set for trial; one in September 2022 and one in April 2023. There is also one case in Hidalgo County, Texas that combines Bair Hugger product liability claims with medical malpractice claims. In August 2019, the MDL court enjoined the individual plaintiff from pursuing his claims in Texas state court because he had previously filed and dismissed a claim in the MDL. That plaintiff has appealed the order to the U.S. Court of Appeals for the Eighth Circuit, which heard oral argument on this appeal in March 2021. In May 2021, the Court of Appeals lifted the MDL court's injunction that barred plaintiff from litigating the Texas state court case. The court has set a trial date in December 2022.

As previously disclosed, 3M had been named a defendant in 61 cases in Minnesota state court. In January 2018, the Minnesota state court excluded plaintiffs' experts and granted 3M's motion for summary judgment on general causation. The Minnesota Court of Appeals affirmed the state court orders in their entirety and the Minnesota Supreme Court denied plaintiffs' petition for review and entered the final dismissal in 2019, effectively ending the Minnesota state court cases.

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 that the representative plaintiff claims was 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.

No liability has been recorded for the Bair Hugger™ litigation because the Company believes that any such liability is not probable and reasonably estimable at this time.

For product liability litigation matters described in this section for which a liability has been recorded, 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 possible loss in excess of the established accruals at this time.

Securities and Shareholder Litigation

In July 2019, Heavy & General Laborers' Locals 472 & 172 Welfare Fund filed a putative securities class action against 3M Company, its former Chairman and CEO, current Chairman and CEO, and former CFO in the U.S. District Court for the District of New Jersey. In August 2019, an individual plaintiff filed a similar putative securities class action in the same district. Plaintiffs allege that defendants made false and misleading statements regarding 3M's exposure to liability associated with PFAS and bring claims for damages under Section 10(b) of the Securities Exchange Act of 1934 and SEC Rule 10b-5 against all defendants, and under Section 20(a) of the Securities and Exchange Act of 1934 against the individual defendants. In October 2019, the court consolidated the securities class actions and appointed a group of lead plaintiffs. In January 2020, the defendants filed a motion to transfer venue to the U.S. District Court for the District of Minnesota. In August 2020, the court denied the motion to transfer venue, and in September 2020, the defendants filed a petition for writ of mandamus to the U.S. Court of Appeals for the Third Circuit. In November 2020, the federal Court of Appeals granted 3M's petition for a writ of mandamus and directed the New Jersey federal court to transfer the action to the Minnesota federal court. The defendants filed a motion to dismiss the action in January 2021, and in September 2021, the Minnesota federal court granted 3M's motion to dismiss the securities class action, which judgment is now final.

In October 2019, a stockholder derivative lawsuit was filed in the U.S. District Court for the District of New Jersey against 3M and several of its current and former executives and directors. In November and December 2019, two additional derivative lawsuits were filed in a Minnesota state court. The derivative lawsuits rely on similar factual allegations as the putative securities class action discussed above. The state court cases were consolidated and stayed pending a decision on the motion to dismiss in the securities class action, and the Minnesota state plaintiffs are likely to have until March 2022 to file an amended complaint. In October 2020, the derivative action pending in the U.S. District Court for the District of New Jersey was dismissed, without prejudice, for failure to serve the complaint within the required time period.

In August 2020, a stockholder who had previously submitted a books and records demand filed an additional follow-on derivative lawsuit in the U.S. District Court for the District of New Jersey against 3M and several of its current and former executives and directors. This derivative lawsuit, having been transferred to Minnesota federal court, also relies on similar factual allegations as the putative securities class action discussed above. In February 2021, an additional stockholder derivative lawsuit was filed in the District of Minnesota, making similar factual allegations as the putative securities class action discussed above. The Minnesota federal court consolidated these federal derivative suits and stayed them pending and through any appeal of the securities class action dismissal. The Minnesota federal plaintiffs have until February 16, 2022 to file an amended complaint.

Federal False Claims Act / Qui Tam Litigation

In October 2019, 3M acquired Acelity, Inc. and its KCI subsidiaries, including Kinetic Concepts, Inc. and KCI USA, Inc. As previously disclosed in the SEC filings by the KCI entities, in 2009, Kinetic Concepts, Inc. received a subpoena from the U.S. Department of Health and Human Services Office of Inspector General. In 2011, following the completion of the government's review and its decision declining to intervene in two qui tam actions described further below, the qui tam relator-plaintiffs' pleadings were unsealed.

The government inquiry followed two qui tam actions filed in 2008 by two former employees against Kinetic Concepts, Inc. and KCI USA, Inc. (collectively, the "KCI defendants") under seal in the U.S. District Court for the Central District of California. The complaints contain allegations that the KCI Defendants violated the federal False Claims Act by submitting false or fraudulent claims to federal healthcare programs by billing for V.A.C.[®] Therapy in a manner that was not consistent with the Local Coverage Determinations issued by the Durable Medical Equipment Medicare Administrative Contractors and seek monetary damages. One complaint (the "Godecke case") also contains allegations that the KCI Defendants retaliated against the relator-plaintiff for alleged whistle-blowing behavior.

In October 2016, the KCI Defendants filed counterclaims in the Godecke case, asserting breach of contract and conversion. In August 2017, the relator-plaintiff's fraud claim in the Godecke case was dismissed in favor of the KCI defendants. In January 2018, the district court stayed the retaliation claim and the KCI Defendants' counterclaims pending the relator-plaintiff's appeal. In September 2019, the U.S. Court of Appeals for the Ninth Circuit reversed and remanded the case to the district court for further proceedings. In August 2021, the district court entered a discovery and pretrial schedule with an April 2022 trial date. Relator-plaintiff Godecke and the KCI Defendants reached a settlement, which includes a settlement payment by the KCI Defendants to relator-plaintiff of an agreed amount and a complete dismissal of all claims with prejudice by both parties and

without prejudice to the United States. In January 2022, the district court entered an order dismissing the case with prejudice as to the relator-plaintiff and the KCI Defendants and without prejudice to the United States.

Separately, in June 2019, the district court in the second case (the “Hartpence case”) entered summary judgment in the KCI Defendants’ favor on all of the relator-plaintiff’s claims. The relator-plaintiff then filed an appeal in the U.S. Court of Appeals for the Ninth Circuit. Oral argument in the Hartpence case was held in July 2020. The appellate court’s opinion remains pending.

For the matters described in this section for which a liability has been recorded, the amount recorded is not material to the Company’s consolidated results of operations or financial condition.

Compliance Matter

The Company, through its internal processes, discovered certain travel activities and related funding and record keeping issues raising concerns, arising from marketing efforts by certain business groups based in China. The Company initiated an internal investigation to determine whether the expenditures may have violated the U.S. Foreign Corrupt Practices Act (FCPA) or other potentially applicable anti-corruption laws. The Company has retained outside counsel and a forensic accounting firm to assist with the investigation. In July 2019, the Company voluntarily disclosed this investigation to both the Department of Justice and Securities and Exchange Commission and is cooperating with both agencies. The Company cannot predict at this time the outcome of its investigation or what potential actions may be taken by the Department of Justice or Securities and Exchange Commission.

NOTE 17. Leases

The components of lease expense are as follows:

(Millions)	2021	2020	2019
Operating lease cost	\$ 319	\$ 348	\$ 308
Finance lease cost:			
Amortization of assets	15	21	20
Interest on lease liabilities	2	1	2
Variable lease cost	127	101	93
Total net lease cost	\$ 463	\$ 471	\$ 423

Short-term lease cost and income related to sub-lease activity is immaterial for the Company.

Supplemental balance sheet information related to leases is as follows:

(Millions unless noted)	Location on face of Balance Sheet	2021	2020
Operating leases:			
Operating lease right of use assets	Operating lease right of use assets	\$ 858	\$ 864
Current operating lease liabilities	Operating lease liabilities - current	263	256
Noncurrent operating lease liabilities	Operating lease liabilities	591	609
Total operating lease liabilities		854	865
Finance leases:			
Property and equipment, at cost	Property, plant and equipment	223	225
Accumulated amortization	Property, plant and equipment (accumulated depreciation)	(117)	(106)
Property and equipment, net		106	119
Current obligations of finance leases	Other current liabilities	7	22
Finance leases, net of current obligations	Other liabilities	93	93
Total finance lease liabilities		\$ 100	\$ 115
Weighted average remaining lease term (in years):			
Operating leases		5.5	5.6
Finance leases		6.6	7.6
Weighted average discount rate:			
Operating leases		1.8 %	2.4 %
Finance leases		3.3 %	3.5 %

Supplemental cash flow and other information related to leases is as follows:

(Millions)	2021	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 317	\$ 326	\$ 309
Operating cash flows from finance leases	2	1	2
Financing cash flows from finance leases	19	58	18
Right of use assets obtained in exchange for lease liabilities:			
Operating leases	342	250	326
Finance leases	3	18	61

Sale leased-back activity in 2021 was not material. In the first quarter of 2020, 3M sold and leased-back certain recently constructed machinery and equipment in return for municipal securities, which in aggregate, were recorded as a finance lease asset and obligation of approximately \$10 million. In the first quarter of 2019, 3M sold and leased-back certain recently constructed machinery and equipment in return for municipal securities, which in aggregate, were recorded as a finance lease asset and obligation of approximately \$9 million. During 2019, the Company sold and leased-back an office location and a manufacturing site resulting in a combined gain of \$2 million.

Maturities of lease liabilities were as follows:

(Millions)	December 31, 2021	
	Finance Leases	Operating Leases
2022	\$ 20	\$ 280
2023	19	203
2024	17	134
2025	11	80
2026	9	45
After 2026	31	151
Total	107	893
Less: Amounts representing interest	7	39
Present value of future minimum lease payments	100	854
Less: Current obligations	7	263
Long-term obligations	\$ 93	\$ 591

As of December 31, 2021, the Company has additional operating lease commitments that have not yet commenced of approximately \$8 million. These commitments pertain to 3M's right of use of certain buildings.

NOTE 18. Stock-Based Compensation

At the May 2021 Annual Meeting, the shareholders approved the Amended and Restated 3M Company 2016 Long-Term Incentive Plan (LTIP), which included an increase of 26,633,508 in the number of shares available for issuance. Awards may be issued in the form of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock, restricted stock units, other stock awards, and performance units and performance shares. As of December 31, 2021, the remaining shares available for grant under the LTIP Program are 37 million and there were approximately 8,100 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 annual grant's stock-based compensation expense; 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 by the Company.

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)	2021	2020	2019
Cost of sales	\$ 47	\$ 50	\$ 47
Selling, general and administrative expenses	185	169	185
Research, development and related expenses	42	43	46
Stock-based compensation expenses	274	262	278
Income tax benefits	(100)	(82)	(141)
Stock-based compensation expenses (benefits), net of tax	\$ 174	\$ 180	\$ 137

Stock Option Program

The following table summarizes stock option activity for the years ended December 31:

(Options in thousands)	2021		2020		2019	
	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	35,401	\$ 156.23	33,675	\$ 151.15	34,569	\$ 138.98
Granted	3,612	175.04	4,777	157.25	3,434	200.80
Exercised	(4,163)	110.20	(2,759)	93.23	(4,193)	89.89
Forfeited	(290)	182.63	(292)	181.33	(135)	201.27
December 31	34,560	163.52	35,401	156.23	33,675	151.15
Options exercisable						
December 31	26,956	\$ 161.25	27,537	\$ 149.67	26,487	\$ 136.75

Stock options generally vest over a period from one to three years with the expiration date at 10 years from date of grant. As of December 31, 2021, there was \$48 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, 2021, the weighted-average remaining contractual life was 61 months and the aggregate intrinsic value was \$733 million. For options exercisable at December 31, 2021, the weighted-average remaining contractual life was 50 months and the aggregate intrinsic value was \$662 million.

The total intrinsic values of stock options exercised during 2021, 2020 and 2019 was \$25 million, \$206 million and \$433 million, respectively. Cash received from options exercised during 2021, 2020 and 2019 was \$457 million, \$256 million and \$375 million, respectively. The Company's actual tax benefits realized for the tax deductions related to the exercise of employee stock options for 2021, 2020 and 2019 was \$69 million, \$44 million and \$91 million, respectively.

For the primary annual stock option grant, 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		
	2021	2020	2019
Exercise price	\$ 175.04	\$ 157.24	\$ 201.12
Risk-free interest rate	0.8 %	1.5 %	2.6 %
Dividend yield	2.8 %	2.7 %	2.5 %
Expected volatility	22.6 %	19.7 %	20.4 %
Expected life (months)	83	78	79
Black-Scholes fair value	\$ 25.33	\$ 21.58	\$ 34.19

Expected volatility is a statistical measure of the amount by which a stock price is expected to fluctuate during a period. For the 2021 annual grant date, the Company estimated the expected volatility based upon the following three volatilities of 3M stock: the median of the term of the expected life rolling volatility; the median of the most recent term of the expected life volatility; 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:

(Shares in thousands)	2021		2020		2019	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested balance —						
As of January 1	1,722	\$ 189.78	1,573	\$ 201.11	1,789	\$ 180.02
Granted						
Annual	822	176.82	733	157.29	564	200.41
Other	—	—	45	159.49	15	180.08
Vested	(462)	228.94	(570)	176.20	(732)	149.33
Forfeited	(95)	176.13	(59)	196.31	(63)	192.52
As of December 31	1,987	175.96	1,722	189.78	1,573	201.11

As of December 31, 2021, there was \$94 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 24 months. The total fair value of restricted stock and restricted stock units that vested during December 31, 2021, 2020 and 2019 was \$83 million, \$91 million and \$144 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 2021, 2020 and 2019 was \$16 million, \$17 million and \$28 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. 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 2021 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. When granted, these performance shares are awarded at 100% of the estimated number of shares at the end of the three-year performance period and are reflected under "Granted" in the table below. 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. The 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:

(Shares in thousands)	2021		2020		2019	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Undistributed balance —						
As of January 1	423	\$ 188.61	444	\$ 205.58	562	\$ 188.96
Granted	166	176.79	203	153.16	166	207.49
Distributed	(115)	228.80	(206)	190.84	(210)	162.16
Performance change	40	176.35	25	166.49	(48)	204.73
Forfeited	(33)	171.35	(43)	172.92	(26)	209.96
As of December 31	481	175.12	423	188.61	444	205.58

As of December 31, 2021, there was \$15 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 20 months. The total fair value of performance shares that were distributed were \$2 million, \$35 million, and \$45 million for 2021, 2020 and 2019, respectively. The Company's actual tax benefits realized for the tax deductions related to the distribution of performance shares were \$4 million, \$7 million, and \$9 million per year for 2021, 2020, and 2019, respectively.

General Employees' Stock Purchase Plan (GESPP):

As of December 31, 2021, 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.

The weighted-average fair value per option granted during 2021, 2020 and 2019 was \$7.80, \$23.47 and \$27.14, respectively. The fair value of GESPP options was based on the 15% purchase price discount. The Company recognized compensation expense for GESPP options of \$2 million in 2021, \$31 million in 2020, and \$30 million in 2019.

NOTE 19. Business Segments and Geographic Information

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 four business segments: Safety and Industrial; Transportation and Electronics; Health Care; and Consumer. 3M's four 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.

3M discloses business segment operating income as its measure of segment profit/loss, reconciled to both total 3M operating income and income before taxes. Business segment operating income excludes certain expenses and income that are not allocated to business segments (as described below in "Corporate and Unallocated").

Effective in the first quarters of 2021 and 2022, the measure of segment operating performance used by 3M's chief operating decision maker (CODM) changed and, as a result, 3M's disclosed measure of segment profit/loss (business segment operating income) was updated. The change to business segment operating income aligns with the update to how the CODM assesses performance and allocates resources for the Company's business segments. The changes included the items described below. The financial information presented herein reflects the impact of these business segment reporting changes for all periods presented.

Effective in the first quarter of 2021:

Changes in cost attribution

The extent of allocation and method of attribution of certain net costs were updated to result in fewer items remaining in Corporate and Unallocated and, instead, including them in 3M's business segments' operating performance. See the updated description of Corporate and Unallocated below. Previously, a larger portion of ongoing corporate staff costs and costs associated with centrally managed material resource centers was retained in Corporate and Unallocated. In addition, portions of pension costs and costs associated with certain centrally managed but ongoing business-related legal matters, along with certain insurance-related costs, were retained in Corporate and Unallocated.

Continued alignment of customer account activity

As part of 3M's regular customer-focus initiatives, the Company realigned certain customer account activity ("sales district") to correlate with the primary divisional product offerings in various countries and reduce complexity for customers when interacting with multiple 3M businesses. This impacted the amount of dual credit certain business segments receive as a result of sales district attribution.

Also effective in the first quarter of 2021, within 3M's Consumer business segment, certain safety products formerly within the Construction and Home Improvement Division and the Stationery and Office Division were moved to the newly named Consumer Health and Safety Division (formerly the Consumer Health Care Division).

Effective in the first quarter of 2022:

Eliminating inclusion of dual credit in measure of segment operating performance

3M business segment operating performance measures were updated to no longer include dual credit to business segments for certain sales and related operating income. Management previously evaluated its business segments based on net sales and operating income performance, including dual credit reporting. 3M reflected 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 was provided by a different business segment. For example, privacy screen protection products are primarily sold by the Display Materials and Systems Division within the Transportation and Electronics business segment; however, certain sales districts within the Consumer business segment provide the customer account activity for sales of the product to particular customers. In this example, the non-primary selling segment (Consumer) previously would also have received credit for the associated net sales initiated through its sales district and the related approximate operating income. The offset to the dual credit business segment reporting was reflected as a reconciling item entitled "Elimination of Dual Credit," such that sales and operating income in total were unchanged.

Reflecting certain litigation-related costs in the Safety and Industrial segment's operating performance measure

3M's business segment operating performance measure with respect to its Safety and Industrial business segment was updated relative to litigation-related costs for respirator mask/asbestos litigation matters. Previously, 3M included these costs, when significant, as a special item (as further described below) within Corporate and Unallocated. 3M now includes all litigation-related costs associated with respirator mask/asbestos litigation matters within the Safety and Industrial business segment (along with other Safety and Industrial matters already included therein, such as those related to Combat Arms Earplugs). For the periods presented, this change only impacted 2019.

Business Segment Products

Business Segment	Representative revenue-generating activities, products or services
Safety and Industrial	<ul style="list-style-type: none">○ Industrial abrasives and finishing for metalworking applications○ Autobody repair solutions○ Closure systems for personal hygiene products, masking, and packaging materials○ Electrical products and materials for construction and maintenance, power distribution and electrical OEMs○ Structural adhesives and tapes○ Respiratory, hearing, eye and fall protection solutions○ Natural and color-coated mineral granules for shingles
Transportation and Electronics	<ul style="list-style-type: none">○ Advanced ceramic solutions○ Attachment tapes, films, sound and temperature management for transportation vehicles○ Premium large format graphic films for advertising and fleet signage○ Light management films and electronics assembly solutions○ Packaging and interconnection solutions○ Reflective signage for highway, and vehicle safety
Health Care	<ul style="list-style-type: none">○ Food safety indicator solutions○ Health care procedure coding and reimbursement software○ Skin, wound care, and infection prevention products and solutions○ Dentistry and orthodontia solutions○ Filtration and purification systems
Consumer	<ul style="list-style-type: none">○ Consumer bandages, braces, supports and consumer respirators○ Cleaning products for the home○ Retail abrasives, paint accessories, car care DIY products, picture hanging and consumer air quality solutions○ Stationery products

Business Segment Information

Net Sales (Millions)	2021	2020	2019
Safety and Industrial	\$ 11,981	\$ 10,972	\$ 10,704
Transportation and Electronics	9,262	8,406	9,147
Health Care	8,597	7,832	7,345
Consumer	5,513	4,976	4,831
Corporate and Unallocated	2	(2)	109
Total Company	\$ 35,355	\$ 32,184	\$ 32,136
Operating Performance (Millions)			
Safety and Industrial	\$ 2,466	\$ 2,588	\$ 1,866
Transportation and Electronics	1,880	1,701	2,010
Health Care	2,037	1,662	1,774
Consumer	1,162	1,119	1,001
Total business segment operating income	7,545	7,070	6,651
Corporate and Unallocated			
Corporate special items:			
Net costs for significant litigation	(214)	(148)	(505)
Gain/(loss) on sale of businesses	—	389	114
Divestiture-related restructuring actions	—	(55)	—
Other corporate expense - net	38	(95)	(86)
Total Corporate and Unallocated	(176)	91	(477)
Total Company operating income	7,369	7,161	6,174
Other expense/(income), net	165	366	531
Income before income taxes	\$ 7,204	\$ 6,795	\$ 5,643

(Millions)	Assets		Depreciation & Amortization			Capital Expenditures		
	2021	2020	2021	2020	2019	2021	2020	2019
Safety and Industrial	\$ 11,744	\$ 11,711	\$ 593	\$ 562	\$ 509	\$ 339	\$ 451	\$ 391
Transportation and Electronics	6,999	6,997	419	429	401	453	454	390
Health Care	14,055	14,531	636	626	392	249	251	264
Consumer	2,783	2,567	147	140	134	109	120	130
Corporate and Unallocated	11,491	11,538	120	154	157	453	225	524
Total Company	\$ 47,072	\$ 47,344	\$ 1,915	\$ 1,911	\$ 1,593	\$ 1,603	\$ 1,501	\$ 1,699

Assets subject to attribution to business segments largely include accounts receivable; inventories; property, plant and equipment; goodwill; intangible assets; and certain limited other assets. All other items are reflected in Corporate and Unallocated. Accounts receivable and inventory are attributed based on underlying sales or activity. Property, plant and equipment are attributed to a particular business segment based on that item's primary user while certain items such as corporate-shared headquarters/administrative centers, laboratories, distribution centers and enterprise software systems are reflected in Corporate and Unallocated. Intangible assets and goodwill are largely directly associated with a particular reporting unit and attributed on that basis. Business segment depreciation reflected above is based on the underlying usage of assets (while the particular asset itself may be entirely reflected within a different business segment's asset balance as its primary user). This depreciation also includes allocated depreciation associated with a number of the assets reflected in Corporate and Unallocated as described above.

Corporate and Unallocated

Corporate and Unallocated operating income includes “corporate special items” and “other corporate expense-net”. Corporate special items include net costs for significant litigation associated with PFAS-related other environmental matters (see Note 16); gain/loss on sale of businesses (see Note 3); and divestiture-related restructuring costs (see Note 5). Other corporate expense-net includes items such as net costs related to limited unallocated corporate staff and centrally managed material resource centers of expertise costs, corporate philanthropic activity, and other net costs that 3M may choose not to allocate directly to its business segments. Other corporate expense-net also includes costs and income from contract manufacturing, transition services and other arrangements with the acquirer of the Communication Markets Division following its 2018 divestiture through 2019 and the acquirer of the former Drug Delivery business following its 2020 divestiture. Items classified as revenue from this activity are included in Corporate and Unallocated net sales. Because Corporate and Unallocated includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

Geographic Information

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. Refer to Note 2 for geographic net sales.

(Millions)	Property, Plant and Equipment - net	
	2021	2020
Americas	\$ 5,864	\$ 5,752
Asia Pacific	1,582	1,662
Europe, Middle East and Africa	1,983	2,007
Total Company	\$ 9,429	\$ 9,421

United States net property, plant and equipment (PP&E) was \$5,484 million and \$5,358 million at December 31, 2021 and 2020, respectively. China/Hong Kong net property, plant and equipment (PP&E) was \$578 million and \$583 million at December 31, 2021 and 2020, respectively.

Note: Item 9 has not been updated for changes since the filing of 3M's 2021 Annual Report, such as updates to legal proceedings. For significant developments since the filing of 3M's 2021 Annual Report, refer to subsequent 2022 Quarterly Reports on Form 10-Q.

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, 2021, the Company's internal control over financial reporting is effective. The Company's internal control over financial reporting as of December 31, 2021 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, 2021.

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 various processes/sub-processes in certain subsidiaries/locations, including aspects relative to the United States, 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 its evaluation described in the above paragraphs, that the implementation of the ERP system in these circumstances has not materially affected our internal control over financial reporting.

Item 9B. Other Information.

Disclosure Under Iran Threat Reduction and Syria Human Rights Act of 2012

The Company is making the following disclosure under Section 13(r) of the Exchange Act:

Protection of Intellectual Property Rights in Iran Pursuant to Specific License

As part of its intellectual property ("IP") protection efforts, 3M has obtained and maintains patents and trademarks in Iran. Periodically, 3M pays renewal fees, through IP service providers/counsel located in Germany, Dubai and Iran, to the Iran Intellectual Property Office ("IIPO") for these patents and trademarks and has sought to prosecute and defend such trademarks. On January 15, 2020, OFAC granted 3M a specific license to make payments to IIPO at its account in Bank Melli, which was designated on November 5, 2018 by OFAC under its counter terrorism authority pursuant to Executive Order 13224. As authorized by OFAC's specific license, in the period ended December 31, 2021, 3M paid \$307 to IIPO as part of its intellectual property protection efforts in Iran. 3M plans to continue these activities, as authorized under the specific license.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable

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 a future proxy statement filing.