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

FORM 10-Q

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

For the quarterly period ended March 31, 2019

Commission file number: 1-3285

3M COMPANY

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of
incorporation or organization)

41-0417775

(I.R.S. Employer
Identification No.)

3M Center, St. Paul, Minnesota

(Address of principal executive offices)

55144

(Zip Code)

(651) 733-1110

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

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.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at March 31, 2019
Common Stock, \$0.01 par value per share	576,426,706 shares

3M COMPANY
Form 10-Q for the Quarterly Period Ended March 31, 2019

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3M COMPANY
FORM 10-Q
For the Quarterly Period Ended March 31, 2019
PART I. Financial Information

Item 1. Financial Statements.

3M Company and Subsidiaries
Consolidated Statement of Income
(Unaudited)

	Three months ended March 31,	
	2019	2018
(Millions, except per share amounts)		
Net sales	\$ 7,863	\$ 8,278
Operating expenses		
Cost of sales	4,310	4,236
Selling, general and administrative expenses	1,948	2,573
Research, development and related expenses	477	486
Gain on sale of businesses	(8)	(24)
Total operating expenses	<u>6,727</u>	<u>7,271</u>
Operating income	<u>1,136</u>	<u>1,007</u>
Other expense (income), net	48	42
Income before income taxes	1,088	965
Provision for income taxes	195	359
Net income including noncontrolling interest	<u>\$ 893</u>	<u>\$ 606</u>
Less: Net income attributable to noncontrolling interest	2	4
Net income attributable to 3M	<u>\$ 891</u>	<u>\$ 602</u>
Weighted average 3M common shares outstanding — basic	577.5	596.2
Earnings per share attributable to 3M common shareholders — basic	<u>\$ 1.54</u>	<u>\$ 1.01</u>
Weighted average 3M common shares outstanding — diluted	588.5	612.7
Earnings per share attributable to 3M common shareholders — diluted	<u>\$ 1.51</u>	<u>\$ 0.98</u>

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

3M Company and Subsidiaries
Consolidated Statement of Comprehensive Income
(Unaudited)

(Millions)	Three months ended March 31,	
	2019	2018
Net income including noncontrolling interest	\$ 893	\$ 606
Other comprehensive income (loss), net of tax:		
Cumulative translation adjustment	77	167
Defined benefit pension and postretirement plans adjustment	84	116
Cash flow hedging instruments	6	(61)
Total other comprehensive income (loss), net of tax	167	222
Comprehensive income (loss) including noncontrolling interest	1,060	828
Comprehensive (income) loss attributable to noncontrolling interest	(2)	(3)
Comprehensive income (loss) attributable to 3M	\$ 1,058	\$ 825

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

3M Company and Subsidiaries
Consolidated Balance Sheet
(Unaudited)

<u>(Dollars in millions, except per share amount)</u>	<u>March 31, 2019</u>	<u>December 31, 2018</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 2,938	\$ 2,853
Marketable securities — current	539	380
Accounts receivable — net	5,173	5,020
Inventories		
Finished goods	2,221	2,120
Work in process	1,333	1,292
Raw materials and supplies	984	954
Total inventories	4,538	4,366
Prepays	713	741
Other current assets	473	349
Total current assets	<u>14,374</u>	<u>13,709</u>
Property, plant and equipment	25,124	24,873
Less: Accumulated depreciation	(16,295)	(16,135)
Property, plant and equipment — net	8,829	8,738
Operating lease right of use assets	797	—
Goodwill	10,611	10,051
Intangible assets — net	3,047	2,657
Other assets	1,482	1,345
Total assets	<u>\$ 39,140</u>	<u>\$ 36,500</u>
Liabilities		
Current liabilities		
Short-term borrowings and current portion of long-term debt	\$ 790	\$ 1,211
Accounts payable	2,309	2,266
Accrued payroll	517	749
Accrued income taxes	183	243
Operating lease liabilities — current	255	—
Other current liabilities	3,071	2,775
Total current liabilities	<u>7,125</u>	<u>7,244</u>
Long-term debt	15,580	13,411
Pension and postretirement benefits	2,919	2,987
Operating lease liabilities	531	—
Other liabilities	3,228	3,010
Total liabilities	<u>\$ 29,383</u>	<u>\$ 26,652</u>
Commitments and contingencies (Note 14)		
Equity		
3M Company shareholders' equity:		
Common stock par value, \$.01 par value; 944,033,056 shares issued	\$ 9	\$ 9
Additional paid-in capital	5,755	5,643
Retained earnings	41,159	40,636
Treasury stock, at cost: 367,606,350 shares at March 31, 2019; 367,457,888 shares at December 31, 2018	(29,668)	(29,626)
Accumulated other comprehensive income (loss)	(7,552)	(6,866)
Total 3M Company shareholders' equity	<u>9,703</u>	<u>9,796</u>
Noncontrolling interest	54	52
Total equity	<u>\$ 9,757</u>	<u>\$ 9,848</u>
Total liabilities and equity	<u>\$ 39,140</u>	<u>\$ 36,500</u>

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

3M Company and Subsidiaries
Consolidated Statement of Cash Flows
(Unaudited)

(Millions)	Three months ended March 31,	
	2019	2018
Cash Flows from Operating Activities		
Net income including noncontrolling interest	\$ 893	\$ 606
Adjustments to reconcile net income including noncontrolling interest to net cash provided by operating activities		
Depreciation and amortization	375	382
Company pension and postretirement contributions	(47)	(232)
Company pension and postretirement expense	70	102
Stock-based compensation expense	130	159
Gain on sale of businesses	(5)	(24)
Deferred income taxes	(56)	(103)
Changes in assets and liabilities		
Accounts receivable	(78)	(260)
Inventories	(178)	(209)
Accounts payable	(3)	(88)
Accrued income taxes (current and long-term)	—	212
Other — net	(53)	(402)
Net cash provided by (used in) operating activities	1,048	143
Cash Flows from Investing Activities		
Purchases of property, plant and equipment (PP&E)	(391)	(304)
Proceeds from sale of PP&E and other assets	1	83
Acquisitions, net of cash acquired	(704)	—
Purchases of marketable securities and investments	(511)	(517)
Proceeds from maturities and sale of marketable securities and investments	369	990
Proceeds from sale of businesses, net of cash sold	6	40
Other — net	5	(11)
Net cash provided by (used in) investing activities	(1,225)	281
Cash Flows from Financing Activities		
Change in short-term debt — net	(428)	1,581
Repayment of debt (maturities greater than 90 days)	(246)	(6)
Proceeds from debt (maturities greater than 90 days)	2,265	6
Purchases of treasury stock	(701)	(937)
Proceeds from issuance of treasury stock pursuant to stock option and benefit plans	215	219
Dividends paid to shareholders	(830)	(810)
Other — net	(17)	(7)
Net cash provided by (used in) financing activities	258	46
Effect of exchange rate changes on cash and cash equivalents	4	(32)
Net increase (decrease) in cash and cash equivalents	85	438
Cash and cash equivalents at beginning of year	2,853	3,053
Cash and cash equivalents at end of period	\$ 2,938	\$ 3,491

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

3M Company and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

NOTE 1. Significant Accounting Policies

Basis of Presentation

The interim consolidated financial statements are unaudited but, in the opinion of management, reflect all adjustments necessary for a fair statement of the Company's consolidated financial position, results of operations and cash flows for the periods presented. These adjustments consist of normal, recurring items. The results of operations for any interim period are not necessarily indicative of results for the full year. The interim consolidated financial statements and notes are presented as permitted by the requirements for Quarterly Reports on Form 10-Q. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's consolidated financial statements and notes included in its Annual Report on Form 10-K.

As described in Note 17, effective in the first quarter of 2019, the Company changed its business segment reporting in its continuing effort to improve the alignment of businesses around markets and customers. These changes included the realignment of certain customer account activity in various countries (affecting dual credit reporting), creation of the Closure and Masking Systems and Medical Solutions divisions, and certain other actions that impacted segment reporting. Segment information presented herein reflects the impact of these changes for all periods presented.

Changes to Significant Accounting Policies

The following significant accounting policies have been added or changed since the Company's 2018 Annual Report on Form 10-K.

Leases: As described in the "New Accounting Pronouncements" section, 3M adopted Accounting Standards Update (ASU) No. 2016-02, *Leases*, and other related ASUs (collectively, Accounting Standards Codification (ASC) 842) on January 1, 2019, using the modified retrospective method of adoption. This ASU replaced previous lease accounting guidance. The Company's accounting policy with respect to leases and additional disclosure relative to ASC 842 are included in Note 15.

Income Taxes: As described in the "New Accounting Pronouncements" section, 3M adopted ASU No. 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. The Company's accounting policy for income taxes has been updated to indicate the uses of the portfolio approach for releasing income tax effects from accumulated other comprehensive loss.

Foreign Currency Translation

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

3M has a subsidiary in Venezuela, the financial statements of which are remeasured 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 2018. The Venezuelan government sets official rates of exchange and conditions precedent to purchase foreign currency at these rates with local currency. The government has also operated various expanded secondary currency exchange mechanisms that have been eliminated and replaced from time to time. Such rates and conditions have been and continue to be subject to change. For the periods presented, the financial statements of 3M's Venezuelan subsidiary were remeasured utilizing the rate associated with the secondary auction mechanism, Tipo de Cambio Complementario (DICOM), or its predecessor. During the third quarter of 2018, the Venezuelan government effected a conversion of its currency to the Sovereign Bolivar (VES), essentially equating to its previous Venezuelan Bolivar divided by 100,000.

Note 1 in 3M's 2018 Annual Report on Form 10-K provides additional information the Company considers in determining the exchange rate used relative to its Venezuelan subsidiary as well as factors which could lead to its deconsolidation. The Company continues to monitor these circumstances. Changes in applicable exchange rates or exchange mechanisms may continue in the future.

These changes could impact the rate of exchange applicable to remeasure the Company's net monetary assets (liabilities) denominated in VES. As of March 31, 2019, the Company had a balance of net monetary liabilities denominated in VES of approximately 60 million VES and the DICOM exchange rate was approximately 3,333 VES per U.S. dollar. A need to deconsolidate the Company's Venezuelan subsidiary's operations may result from a lack of exchangeability of VES-denominated cash coupled with an acute degradation in the ability to make key operational decisions due to government regulations in Venezuela. Based upon a review of factors as of March 31, 2019, the Company continues to consolidate its Venezuelan subsidiary. 3M also continues to monitor the macro-economic and operating business environment of Venezuela and may make certain resulting strategic decisions. As of March 31, 2019, the balance of accumulated other comprehensive loss associated with this subsidiary was approximately \$145 million, and the amount of intercompany receivables due from this subsidiary and its total equity balance were not significant.

3M has subsidiaries in Argentina, the operating income of which was less than one half of one percent of 3M's consolidated operating income for 2018. Based on various indices, Argentina's cumulative three-year inflation rate exceeded 100 percent in the second quarter of 2018, thus being considered highly inflationary. As a result, beginning in the third quarter of 2018, the financial statements of the Argentine subsidiaries were remeasured as if their functional currency were that of their parent. As of March 31, 2019, the Company had a balance of net monetary assets denominated in Argentine pesos (ARS) of approximately 190 million ARS and the exchange rate was approximately 43 ARS per U.S. dollar.

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 a result of the dilution associated with the Company's stock-based compensation plans. Certain options outstanding under these stock-based compensation plans 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 (5.2 million average options for the three months ended March 31, 2019 and 1.9 million average options for the three months ended March 31, 2018). The computations for basic and diluted earnings per share follow:

Earnings Per Share Computations

<u>(Amounts in millions, except per share amounts)</u>	<u>Three months ended March 31,</u>	
	<u>2019</u>	<u>2018</u>
Numerator:		
Net income attributable to 3M	\$ 891	\$ 602
Denominator:		
Denominator for weighted average 3M common shares outstanding – basic	577.5	596.2
Dilution associated with the Company's stock-based compensation plans	11.0	16.5
Denominator for weighted average 3M common shares outstanding – diluted	588.5	612.7
Earnings per share attributable to 3M common shareholders – basic	\$ 1.54	\$ 1.01
Earnings per share attributable to 3M common shareholders – diluted	\$ 1.51	\$ 0.98

New Accounting Pronouncements

See the Company's 2018 Annual Report on Form 10-K for a more detailed discussion of the standards in the tables that follow, except for those pronouncements issued subsequent to the most recent Form 10-K filing date for which separate, more detailed discussion is provided below as applicable.

Standards Adopted During the Current Fiscal Year			
Standard	Relevant Description	Effective Date for 3M	Impact and Other Matters
ASU No. 2016-02, <i>Leases</i> (as amended by ASU Nos. 2018-10, 2018-11, 2018-20, and 2019-01)	Provides a lessee model that requires entities to recognize assets and liabilities for most leases, but recognize expenses on their income statements in a manner similar to previous accounting. This ASU does not make fundamental changes to previous lessor accounting.	January 1, 2019	<p>See Note 15 for detailed discussion and disclosures.</p> <p>Adopted using the modified retrospective approach.</p> <p>Impact on January 1, 2019 includes a \$14 million increase in the balance of retained earnings and recording of additional lease assets and liabilities of \$0.8 billion each.</p>
ASU No. 2017-08, <i>Premium Amortization on Purchased Callable Debt Securities</i>	Shortens the amortization period to the earliest call date for the premium related to certain callable debt securities that have explicit, noncontingent call features and are callable at a fixed price and preset date.	January 1, 2019	<p>3M's marketable security portfolio includes limited instances of callable debt securities held at a premium.</p> <p>The adoption of this ASU did not have a material impact.</p>
ASU No. 2017-11, <i>(Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception</i>	Amends (1) the classification of financial instruments with down-round features as liabilities or equity by revising certain guidance relative to evaluating if they must be accounted for as derivative instruments and (2) the guidance on recognition and measurement of freestanding equity-classified instruments.	January 1, 2019	<p>No financial instruments with down-round features have been issued.</p> <p>The adoption of this ASU did not have a material impact.</p>
ASU No. 2017-12, <i>Targeted Improvements to Accounting for Hedging Activities</i> , and related ASU No. 2018-16	<p>Amends previous guidance to simplify application of hedge accounting in certain situations and allow companies to better align their hedge accounting with risk management activities.</p> <p>Simplifies related accounting by eliminating requirement to separately measure and report hedge ineffectiveness.</p> <p>Expands an entity's ability to hedge nonfinancial and financial risk components.</p>	January 1, 2019	<p>See Note 12 for additional details.</p> <p>The adoption of this ASU did not have a material impact.</p>
ASU No. 2018-02, <i>Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income</i>	Permits entities to reclassify, to retained earnings, the one-time income tax effects stranded in accumulated other comprehensive income arising from the change in the U.S. federal corporate tax rate as a result of the Tax Cuts and Jobs Act of 2017.	January 1, 2019	<p>See Note 8 for additional discussion.</p> <p>Impact on January 1, 2019 includes increases of \$0.9 billion in each of retained earnings and accumulated other comprehensive loss.</p> <p>See also the preceding "Changes to Significant Accounting Policies" section.</p>
ASU No. 2018-07, <i>Improvements to Nonemployee Share-Based Payment Accounting</i>	<p>Aligns the measurement and classification guidance for share-based payments to nonemployees with the guidance for share-based payments to employees.</p> <p>Clarifies that any share-based payment issued to a customer should be evaluated under ASC 606, <i>Revenue from Contracts with Customers</i>.</p>	January 1, 2019	The adoption of this ASU did not have a material impact as 3M does not issue share-based payments to nonemployees or customers.

Standards Adopted During the Current Fiscal Year (continued)			
Standard	Relevant Description	Effective Date for 3M	Impact and Other Matters
ASU No. 2018-08, <i>Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made</i>	Clarifies that a contribution is conditional if the arrangement includes both a barrier for the recipient to be entitled to the assets transferred and a right of return for the assets transferred. Recognition of contribution expense is deferred for conditional arrangements and is immediate for unconditional arrangements.	January 1, 2019	Adopted prospectively with no immediate impact.
ASU No. 2018-17, <i>Targeted Improvements to Related Party Guidance for Variable Interest Entities</i>	Changes how entities evaluate decision-making fees under the variable interest guidance. Indirect interests held through related parties under common control will be considered on a proportionate basis rather than in their entirety.	January 1, 2019	Adoption of this ASU did not have a material impact as 3M does not have significant involvement with entities subject to consolidation considerations impacted by variable interest entity model factors.
ASU No. 2018-18, <i>Clarifying the Interaction between Topic 808 and Topic 606</i>	Clarifies that certain transactions between participants in a collaborative arrangement should be accounted for under ASC 606, <i>Revenue from Contracts with Customers</i> , when the counterparty is a customer. Precludes an entity from presenting consideration from a transaction in a collaborative arrangement as revenue from contracts with customers if the counterparty is not a customer for that transaction.	January 1, 2019	Adoption of this ASU did not have a material impact as 3M has limited collaborative arrangements.

Standards Issued and Not Yet Adopted			
Standard	Relevant Description	Effective Date for 3M	Impact and Other Matters
ASU No. 2016-13, <i>Measurement of Credit Losses on Financial Instruments</i> (in conjunction with ASU No. 2018-19)	Introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments and modifies the impairment model for available-for-sale debt securities. Amends the current other-than-temporary impairment model for available-for-sale debt securities. For such securities with unrealized losses, entities will still consider if a portion of any impairment is related only to credit losses and therefore recognized as a reduction in income.	January 1, 2020	Required to make a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. 3M is currently assessing this ASU's impact.
ASU No. 2018-13, <i>Changes to the Disclosure Requirements for Fair Value Measurement</i>	Eliminates, amends, and adds disclosure requirements for fair value measurements, primarily related to Level 3 fair value measurements.	January 1, 2020	As this ASU relates to disclosures only, there will be no impact to 3M's consolidated results of operations and financial condition.
ASU No. 2018-15, <i>Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract</i>	Aligns the accounting for implementation costs incurred in a cloud computing arrangement that is a service arrangement (i.e. hosting arrangement) with the guidance on capitalizing costs in ASC 350-40, <i>Internal-Use Software</i> .	January 1, 2020	ASU permits either prospective or retrospective transition. As 3M utilizes limited cloud-computing services where significant implementation costs are incurred, the Company does not expect this ASU to have a material impact.

Relevant New Standards Issued Subsequent to Most Recent Annual Report

In April 2019, the FASB issued ASU No. 2019-04, *Codification Improvements to Topic 326, Financial Instruments – Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825 – Financial Instruments*. The new ASU provides narrow-scope amendments to help apply these recent standards. The transition requirements and effective date of this ASU for 3M is January 1, 2020 with early adoption permitted for certain amendments. The Company is currently assessing this standard's impact on 3M's consolidated result of operations and financial condition.

NOTE 2. Revenue

Contract Balances:

Deferred revenue (current portion) as of March 31, 2019 and December 31, 2018 was \$619 million and \$617 million, respectively, and primarily relates to revenue that is recognized over time for one-year software license contracts, the changes in balance of which are related to the satisfaction or partial satisfaction of these contracts. The balance also contains a deferral for goods that are in-transit at period end for which control transfers to the customer upon delivery. Approximately \$370 million of the December 31, 2018 balance was recognized as revenue during the three months ended March 31, 2019, while approximately \$280 million of the December 31, 2017 balance was recognized as revenue during the three months ended March 31, 2018. The amount of noncurrent deferred revenue is not significant.

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)	Three months ended March 31,	
	2019	2018
Abrasives	\$ 433	\$ 473
Adhesives and Tapes	807	842
Advanced Materials	312	304
Automotive and Aerospace	500	556
Automotive Aftermarket	390	419
Closure and Masking Systems	278	307
Separation and Purification	214	235
Other Industrial	(5)	(1)
Total Industrial Business Group	\$ 2,929	\$ 3,135
Commercial Solutions	\$ 458	\$ 485
Personal Safety	939	957
Roofing Granules	92	101
Transportation Safety	217	237
Other Safety and Graphics	(2)	(1)
Total Safety and Graphics Business Group	\$ 1,704	\$ 1,779
Drug Delivery	\$ 92	\$ 119
Food Safety	83	81
Health Information Systems	260	205
Medical Solutions	764	777
Oral Care	341	354
Other Health Care	—	(1)
Total Health Care Business Group	\$ 1,540	\$ 1,535
Electronics	\$ 863	\$ 930
Energy	330	420
Other Electronics and Energy	(3)	—
Total Electronics and Energy Business Group	\$ 1,190	\$ 1,350
Consumer Health Care	\$ 98	\$ 102
Home Care	258	269
Home Improvement	462	458
Stationery and Office	294	303
Other Consumer	11	13
Total Consumer Business Group	\$ 1,123	\$ 1,145
Corporate and Unallocated	\$ 21	\$ —
Elimination of Dual Credit	(644)	(666)
Total Company	\$ 7,863	\$ 8,278

Three months ended March 31, 2019

Net Sales (Millions)	United States	Asia Pacific	Europe, Middle East and Africa	Latin America and Canada	Other Unallocated	Worldwide
Industrial	\$ 1,082	\$ 823	\$ 727	\$ 297	\$ —	\$ 2,929
Safety and Graphics	635	469	408	191	1	1,704
Health Care	725	305	378	132	—	1,540
Electronics and Energy	203	840	94	53	—	1,190
Consumer	631	266	130	96	—	1,123
Corporate and Unallocated	19	2	—	3	(3)	21
Elimination of Dual Credit	(249)	(227)	(113)	(55)	—	(644)
Total Company	<u>\$ 3,046</u>	<u>\$ 2,478</u>	<u>\$ 1,624</u>	<u>\$ 717</u>	<u>\$ (2)</u>	<u>\$ 7,863</u>

Three months ended March 31, 2018

Net Sales (Millions)	United States	Asia Pacific	Europe, Middle East and Africa	Latin America and Canada	Other Unallocated	Worldwide
Industrial	\$ 1,100	\$ 937	\$ 787	\$ 312	\$ (1)	\$ 3,135
Safety and Graphics	652	493	436	198	—	1,779
Health Care	702	298	394	141	—	1,535
Electronics and Energy	229	910	145	67	(1)	1,350
Consumer	610	286	143	106	—	1,145
Corporate and Unallocated	(1)	—	—	—	1	—
Elimination of Dual Credit	(248)	(248)	(113)	(57)	—	(666)
Total Company	<u>\$ 3,044</u>	<u>\$ 2,676</u>	<u>\$ 1,792</u>	<u>\$ 767</u>	<u>\$ (1)</u>	<u>\$ 8,278</u>

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.

(Millions) Asset (Liability)	2019 Acquisition Activity		
	M*Modal	Finite-Lived Intangible-Asset	Weighted-Average Lives (Years)
Accounts receivable	\$ 77		
Other current assets		16	
Property, plant, and equipment		9	
Purchased finite-lived intangible assets:			
Customer related intangible assets	290		15
Other technology-based intangible assets	160		6
Definite-lived tradenames	11		6
Purchased goodwill	580		
Other assets	55		
Accounts payable and other liabilities	(113)		
Interest bearing debt	(251)		
Deferred tax asset/(liability)	(130)		
Net assets acquired	\$ 704		
Supplemental information:			
Cash paid	\$ 708		
Less: Cash acquired	4		
Cash paid, net of cash acquired	\$ 704		

Purchased identifiable finite-lived intangible assets related to acquisitions which closed in the three months ended March 31, 2019 totaled \$461 million. 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 12 years (lives ranging from 6 to 15 years).

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 is considered preliminary with provisional amounts primarily related to intangible assets, working capital, certain tax-related and contingent liability amounts. 3M expects to finalize the allocation of purchase price within the one-year measurement-period following the acquisition. Net sales and operating loss (inclusive of transaction and integration costs) of this business included in 3M's consolidated results of operations for the first quarter of 2019 were approximately \$50 million and \$20 million, respectively. Proforma information related to the acquisition has not been included as the impact on the Company's consolidated results of operations was not considered material.

There were no acquisitions that closed during the three months ended March 31, 2018.

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.

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.

2018 divestitures:

During 2018, as described in Note 3 in 3M's 2018 Annual Report on Form 10-K, the Company divested a number of businesses including: certain personal safety product offerings primarily focused on noise, environmental and heat stress monitoring; a polymer additives compounding business; an abrasives glass products business; and substantially all of its Communication Markets Division.

Operating income and held for sale amounts:

The aggregate operating income of these businesses was approximately \$10 million and not material in the first three months of 2018 and 2019, respectively. The approximate amounts of major assets and liabilities associated with disposal groups classified as held-for-sale as of March 31, 2019 and as of December 31, 2018 were not material.

Refer to Note 3 in 3M's 2018 Annual Report on Form 10-K for more information on 3M's acquisitions and divestitures.

NOTE 4. Goodwill and Intangible Assets

Goodwill from acquisitions totaled \$580 million during the first three months of 2019, none of which was deductible for tax purposes. The amounts in the "Translation and other" row in the following table primarily relate to changes in foreign currency exchange rates. The goodwill balance by business segment as of December 31, 2018 and March 31, 2019, follow:

Goodwill

(Millions)	Industrial	Safety and Graphics	Health Care	Electronics and Energy	Consumer	Total Company
Balance as of December 31, 2018	2,614	4,325	1,654	1,250	208	10,051
Acquisition activity	—	—	580	—	—	580
Translation and other	(28)	(4)	(11)	(7)	30	(20)
Balance as of March 31, 2019	<u>\$ 2,586</u>	<u>\$ 4,321</u>	<u>\$ 2,223</u>	<u>\$ 1,243</u>	<u>\$ 238</u>	<u>\$ 10,611</u>

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

As described in Note 17, effective in the first quarter of 2019, the Company changed its business segment reporting in its continuing effort to improve the alignment of its businesses around markets and customers. For any product changes that resulted in reporting unit changes, the Company applied the relative fair value method to determine the impact on goodwill of the associated reporting units. During the first quarter of 2019, the Company completed its assessment of any potential goodwill impairment for reporting units impacted by this new structure and determined that no impairment existed.

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 March 31, 2019, and December 31, 2018, follow:

(Millions)	March 31, 2019	December 31, 2018
Customer related intangible assets	\$ 2,577	\$ 2,291
Patents	539	542
Other technology-based intangible assets	738	576
Definite-lived tradenames	674	664
Other amortizable intangible assets	125	125
Total gross carrying amount	<u>\$ 4,653</u>	<u>\$ 4,198</u>
Accumulated amortization — customer related	(1,034)	(998)
Accumulated amortization — patents	(489)	(487)
Accumulated amortization — other technology-based	(350)	(333)
Accumulated amortization — definite-lived tradenames	(284)	(276)
Accumulated amortization — other	(88)	(88)
Total accumulated amortization	<u>\$ (2,245)</u>	<u>\$ (2,182)</u>
Total finite-lived intangible assets — net	<u>\$ 2,408</u>	<u>\$ 2,016</u>
Non-amortizable intangible assets (primarily tradenames)	639	641
Total intangible assets — net	<u>\$ 3,047</u>	<u>\$ 2,657</u>

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

Amortization expense for the three months ended March 31, 2019 and 2018 follows:

(Millions)	Three months ended March 31,	
	2019	2018
Amortization expense	<u>\$ 69</u>	<u>\$ 64</u>

Expected amortization expense for acquired amortizable intangible assets recorded as of March 31, 2019:

(Millions)	Remainder of 2019 2020 2021 2022 2023 2024 After 2024						
Amortization expense	\$ 215	\$ 276	\$ 267	\$ 252	\$ 222	\$ 196	\$ 980

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 and Exit Activities

2018 Restructuring Actions:

During the second quarter and fourth quarter of 2018, management approved and committed to undertake certain restructuring actions related to addressing corporate functional costs following the Communication Markets Division divestiture. These actions affected approximately 1,200 positions worldwide and resulted in a second quarter 2018 pre-tax charge of \$105 million and a fourth quarter pre-tax charge of \$22 million, net of adjustments for reductions in cost estimates of \$10 million, essentially all within Corporate and Unallocated. The restructuring charges were recorded in the income statement as follows:

(Millions)	Second Quarter 2018	Fourth Quarter 2018
Cost of sales	\$ 12	\$ 15
Selling, general and administrative expenses	89	16
Research, development and related expenses	4	1
Total	<u>105</u>	<u>32</u>

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 2018	\$ 125	\$ 12	\$ 137
Non-cash changes	—	(12)	(12)
Cash payments	(24)	—	(24)
Adjustments	(17)	—	(17)
Accrued restructuring action balances as of December 31, 2018	<u>84</u>	<u>—</u>	<u>84</u>
Cash payments	(13)	—	(13)
Adjustments	(1)	—	(1)
Accrued restructuring action balances as of March 31, 2019	<u>70</u>	<u>—</u>	<u>70</u>

Remaining activities related to this restructuring are expected to be largely completed through 2019.

NOTE 6. Supplemental Income Statement Information

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

(Millions)	Three months ended March 31,	
	2019	2018
Interest expense	\$ 104	\$ 82
Interest income	(20)	(21)
Pension and postretirement net periodic benefit cost (benefit)	(36)	(19)
Total	<u>48</u>	<u>42</u>

Pension and postretirement net periodic benefit costs described in the table above include all components of defined benefit plan net periodic benefit costs except service cost, which is reported in various operating expense lines. Refer to Note 11 for additional details on the components of pension and postretirement net periodic benefit costs.

NOTE 7. Supplemental Equity and Comprehensive Income Information

Cash dividends declared and paid totaled \$1.44 and \$1.36 per share for the first quarter 2019 and 2018, respectively.

Consolidated Changes in Equity

Three months ended March 31, 2019

(Millions)	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	\$ 40,636	\$ (29,626)	\$ (6,866)	\$ 52
Impact of adoption of ASU No. 2018-02 (See Note 1)	—		853		(853)	
Impact of adoption of ASU No. 2016-02 (See Note 1)	14		14			
Net income	893		891			2
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	77				77	—
Defined benefit pension and post-retirement plans adjustment	84				84	—
Cash flow hedging instruments	6				6	—
Total other comprehensive income (loss), net of tax	167					
Dividends declared	(830)		(830)			
Stock-based compensation	112	112				
Reacquired stock	(666)				(666)	
Issuances pursuant to stock option and benefit plans	219		(405)	624		
Balance at March 31, 2019	\$ 9,757	\$ 5,764	\$ 41,159	\$ (29,668)	\$ (7,552)	\$ 54

Three months ended March 31, 2018

(Millions)	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, 2017	\$ 11,622	\$ 5,361	\$ 39,115	\$ (25,887)	\$ (7,026)	\$ 59
Net income	606		602			4
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	167				168	(1)
Defined benefit pension and post-retirement plans adjustment	116				116	—
Cash flow hedging instruments	(61)				(61)	—
Total other comprehensive income (loss), net of tax	222					
Dividends declared	(810)		(810)			
Stock-based compensation	144	144				
Reacquired stock	(972)				(972)	
Issuances pursuant to stock option and benefit plans	227		(454)	681		
Balance at March 31, 2018	\$ 11,039	\$ 5,505	\$ 38,453	\$ (26,178)	\$ (6,803)	\$ 62

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

Three months ended March 31, 2019

	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
(Millions)				
Balance at December 31, 2018, net of tax:	\$ (2,098)	\$ (4,832)	\$ 64	\$ (6,866)
Impact of adoption of ASU No. 2018-02 (See Note 1)	(13)	(817)	(23)	(853)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	103	—	13	116
Amounts reclassified out	—	104	(7)	97
Total other comprehensive income (loss), before tax	103	104	6	213
Tax effect	(26)	(20)	—	(46)
Total other comprehensive income (loss), net of tax	77	84	6	167
Balance at March 31, 2019, net of tax:	\$ (2,034)	\$ (5,565)	\$ 47	\$ (7,552)

Three months ended March 31, 2018

	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
(Millions)				
Balance at December 31, 2017, net of tax:	\$ (1,638)	\$ (5,276)	\$ (112)	\$ (7,026)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	129	—	(82)	47
Amounts reclassified out	—	151	34	185
Total other comprehensive income (loss), before tax	129	151	(48)	232
Tax effect	39	(35)	(13)	(9)
Total other comprehensive income (loss), net of tax	168	116	(61)	223
Balance at March 31, 2018, net of tax:	\$ (1,470)	\$ (5,160)	\$ (173)	\$ (6,803)

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

Reclassifications out of Accumulated Other Comprehensive Income Attributable to 3M

Details about Accumulated Other Comprehensive Income Components (Millions)	Amount Reclassified from Accumulated Other Comprehensive Income		Location on Income Statement	
	Three months ended March 31,			
	2019	2018		
Gains (losses) associated with defined benefit pension and postretirement plans amortization				
Prior service benefit	\$ 16	\$ 19	See Note 11	
Net actuarial loss	(120)	(170)	See Note 11	
Total before tax	(104)	(151)		
Tax effect	20	35	Provision for income taxes	
Net of tax	\$ (84)	\$ (116)		
Cash flow hedging instruments gains (losses)				
Foreign currency forward/option contracts	\$ 7	\$ (34)	Cost of sales	
Total before tax	7	(34)		
Tax effect	(1)	8	Provision for income taxes	
Net of tax	\$ 6	\$ (26)		
Total reclassifications for the period, net of tax	\$ (78)	\$ (142)		

NOTE 8. Income Taxes

The IRS has completed its field examination of the Company's U.S. federal income tax returns for the years 2005 to 2014, and 2016, but the years have not closed as the Company is in the process of resolving open issues. The Company remains under examination by the IRS for its U.S. federal income tax returns for the years 2015, 2017 and 2018. In addition to the U.S. federal examination, there is also audit activity in several U.S. state and foreign jurisdictions. As of March 31, 2019, 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 of 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 in the next 12 months. The total amounts of unrecognized tax benefits that, if recognized, would affect the effective tax rate as of March 31, 2019 and December 31, 2018 are \$679 million and \$655 million, respectively.

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 \$6 million and \$9 million of expense for the three months ended March 31, 2019 and March 31, 2018, respectively. At March 31, 2019 and December 31, 2018, accrued interest and penalties in the consolidated balance sheet on a gross basis were \$75 million and \$69 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.

The provision for income taxes is determined using the asset and liability approach. Under this approach, a valuation allowance is recorded to reduce its deferred tax assets when uncertainty regarding their realizability exists. As of March 31, 2019 and December 31, 2018, the Company had valuation allowances of \$84 million and \$67 million on its deferred tax assets, respectively.

The effective tax rate for the first quarter of 2019 was 17.9 percent, compared to 37.2 percent in the first quarter of 2018, a decrease of 19.3 percentage points. Primary factors that decreased the Company's effective tax rate included significant events such as measurement period adjustments related to TCJA and significant litigation-related charges, in addition to increased benefit from research and development credits. These decreases were partially offset by the composition of geographic mix of income before taxes and the effects of the international tax provisions from U.S. tax reform, which increased the Company's effective tax rate.

The TCJA was enacted in December 2017. Among other things, the TCJA reduced the U.S. federal corporate tax rate from 35 percent to 21 percent beginning in 2018, required companies to pay a one-time transition tax on previously unremitting earnings of non-U.S. subsidiaries that were previously tax deferred and created new taxes on certain foreign sourced earnings. The SEC staff issued Staff Accounting Bulletin 118, which provided a measurement period of up to one year from the TCJA's enactment date for companies to complete their accounting under ASC 740. During the first quarter of 2018, 3M recognized a measurement period adjustment resulting in an additional tax expense of \$217 million to its provisional accounting. Refer to Note 10 in 3M's 2018 Annual Report on Form 10-K for more information on the impact of TCJA.

The Company adopted ASU No. 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, as described in Note 1, on January 1, 2019. The purpose of this ASU was to allow a reclassification to retained earnings of one-time income tax effects stranded in accumulated other comprehensive income (AOCI) arising from the change in the U.S. federal corporate tax rate as a result of TCJA. The effect of this adoption resulted in a reclassification between retained earnings and AOCI, which increased retained earnings by approximately \$0.9 billion, with an offsetting increase to accumulated other comprehensive loss for the same amount.

NOTE 9. 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)	March 31, 2019	December 31, 2018
Corporate debt securities	\$ 16	\$ —
Commercial paper	510	366
Certificates of deposit/time deposits	10	10
U.S. municipal securities	3	3
Asset-backed securities	—	1
Current marketable securities	\$ 539	\$ 380
U.S. municipal securities	\$ 46	\$ 37
Non-current marketable securities	\$ 46	\$ 37
Total marketable securities	\$ 585	\$ 417

At March 31, 2019 and December 31, 2018, gross unrealized, gross realized, and net realized gains and/or losses (pre-tax) were not material.

The balances at March 31, 2019 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)	March 31, 2019
Due in one year or less	\$ 539
Due after one year through five years	13
Due after five years through ten years	24
Due after ten years	9
Total marketable securities	\$ 585

3M does not currently expect risk related to its holding in asset-backed securities to materially impact its financial condition or liquidity.

NOTE 10. Long-Term Debt and Short-Term Borrowings

In February 2019, 3M issued \$450 million aggregate principal amount of 3-year fixed rate medium-term notes due 2022 with a coupon rate of 2.75%, \$500 million aggregate principal amount of remaining 5-year fixed rate medium-term notes due 2024 with a coupon rate of 3.25%, \$800 million aggregate principal amount of 10-year fixed rate medium-term notes due 2029 with a coupon rate of 3.375%, and \$500 million aggregate principal amount of remaining 29.5-year fixed rate medium-term 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.

As of March 31, 2019, the Company had no commercial paper outstanding, compared to \$435 million in commercial paper outstanding as of December 31, 2018.

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 March 31, 2019. The maturities of long-term debt for the periods subsequent to March 31, 2019 are as follows (in millions):

Remainder of 2019	2020	2021	2022	2023	2024	After 2024	Total
\$ 747	\$ 1,318	\$ 1,686	\$ 1,603	\$ 1,315	\$ 1,102	\$ 8,557	\$ 16,328

NOTE 11. Pension and Postretirement Benefit Plans

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. 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 three months ended March 31, 2019 and 2018 follow:

Benefit Plan Information

(Millions)	Three months ended March 31,					
	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States	International	2019	2018	2019	2018
Net periodic benefit cost (benefit)						
Operating expense						
Service cost	\$ 62	\$ 72	\$ 33	\$ 36	\$ 11	\$ 13
Non-operating expense						
Interest cost	\$ 155	\$ 141	\$ 39	\$ 40	\$ 21	\$ 20
Expected return on plan assets	(260)	(272)	(75)	(78)	(20)	(21)
Amortization of prior service benefit	(6)	(6)	(3)	(3)	(7)	(10)
Amortization of net actuarial loss	91	126	20	29	9	15
Total non-operating expense (benefit)	(20)	(11)	(19)	(12)	3	4
Total net periodic benefit cost (benefit)	\$ 42	\$ 61	\$ 14	\$ 24	\$ 14	\$ 17

For the three months ended March 31, 2019, contributions totaling \$46 million were made to the Company's U.S. and international pension plans and \$1 million to its postretirement plans. For total year 2019, the Company expects to contribute approximately \$200 million of cash to its global defined benefit pension and postretirement plans. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2019. Future contributions will depend on market conditions, interest rates and other factors. 3M's annual measurement date for pension and postretirement assets and liabilities is December 31 each year, which is also the date used for the related annual measurement assumptions.

NOTE 12. Derivatives

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

3M adopted ASU No. 2017-12, *Targeted Improvements to Accounting for Hedging Activities* as of January 1, 2019. The disclosures contained within this note have been updated to reflect the new guidance, except for prior period amounts presented, as the disclosure changes were adopted prospectively. For derivative instruments that are designated in a cash flow or fair value hedging relationship, the impact of this accounting standard was to remove the requirement to test for ineffectiveness. Prior to the adoption of this ASU, any gain or loss related to hedge ineffectiveness was recognized in current earnings. For any net investment hedges entered into on or after January 1, 2019, amounts excluded from the assessment of hedge effectiveness, including the time value of the forward contract at the inception of the hedge, are recognized in earnings using an amortization approach over the life of the hedging instrument on a straight-line basis. Any difference between the change in the fair value of the excluded component and the amount amortized into earnings during the period is recorded in cumulative translation within other comprehensive income.

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 7.
- Fair value of derivative instruments is included in Note 13.
- Derivatives and/or hedging instruments associated with the Company's long-term debt are described in Note 12 in 3M's 2018 Annual Report on Form 10-K.

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

Cash Flow Hedges:

For derivative instruments that are designated and qualify as cash flow hedges, the 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 redesignate 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 redesignated 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 redesignation 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 to hedge exposure to variability in cash flows from interest payments on forecasted debt issuances. The amortization of gains and losses on forward starting interest rate swaps is included in the tables below as part of the gain/(loss) recognized in income as a result of reclassification from accumulated other comprehensive income. Additional information regarding previously issued but terminated interest rate contracts, which have related balances within accumulated other comprehensive income being amortized over the underlying life of related debt, can be found in Note 14 in 3M's 2018 Annual Report on Form 10-K.

As of December 31, 2018, the Company had \$700 million of notional amount in outstanding forward starting interest rate swaps as hedges against interest rate volatility with forecasted issuances of fixed rate debt. During the first quarter of 2019, the Company entered into additional forward starting interest rate swaps with a notional amount of \$200 million. Concurrent with the issuance of the

medium-term notes in February 2019, 3M terminated \$550 million of these interest rate swaps. The termination resulted in an immaterial net loss within accumulated other comprehensive income that will be amortized over the respective lives of the debt.

The amortization of gains and losses on forward starting interest rate swaps is included in the tables below as part of the gain/(loss) reclassified from accumulated other comprehensive income into income.

As of March 31, 2019, the Company had a balance of \$47 million associated with the after-tax net unrealized gain associated with cash flow hedging instruments recorded in accumulated other comprehensive income. This includes a remaining balance of \$15 million (after-tax loss) related to the forward starting interest rate swaps, which will be amortized over the respective lives of the notes. Based on exchange rates as of March 31, 2019, 3M expects to reclassify approximately \$40 million, \$37 million, \$22 million of the after-tax net unrealized foreign exchange cash flow hedging gains to earnings over the next 12 months, over the remainder of 2019, in 2020, respectively, in addition to reclassifying approximately \$12 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings after 2020 (with the impact offset by earnings/losses from underlying hedged items).

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

Three months ended March 31, 2019 (Millions)	Pretax Gain (Loss) Recognized in Other Comprehensive Income on Derivative		Pretax Gain (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	
	Amount	Location	Amount	Location
Foreign currency forward/option contracts	\$ 30	Cost of sales	\$ 7	
Interest rate swap contracts	(17)	Interest expense	—	
Total	\$ 13		\$ 7	

Three months ended March 31, 2018 (Millions)	Pretax Gain (Loss) Recognized in Income on Effective Portion of Derivative as a Result of Reclassification from Accumulated Other Comprehensive Income		Ineffective Portion of Gain (Loss) on Derivative and Amount Excluded from Effectiveness Testing Recognized in Income	
	Amount	Location	Amount	Location
Foreign currency forward/option contracts	\$ (79)	Cost of sales	\$ (34)	Cost of sales
Interest rate swap contracts	(3)	Interest expense	—	Interest expense
Total	\$ (82)		\$ (34)	

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. Additional information regarding designated interest rate swaps can be found in Note 14 in 3M's 2018 Annual Report on Form 10-K.

Refer to the section below titled *Statement of Income Location and Impact of Cash Flow and Fair Value Derivative Instruments* for details on the location within the consolidated statements of income for amounts of gains and losses related to derivative instruments designated as fair value hedges and similar information relative to the hedged items for the three months ended March 31, 2019.

The location in the consolidated statements of income and amounts of gains and losses related to derivative instruments designated as fair value hedges and similar information relative to the hedged items are as follows for periods prior to 2019:

Three months ended March 31, 2018 (Millions)	Gain (Loss) on Derivative Recognized in Income		Gain (Loss) on Hedged Item Recognized in Income	
	Location	Amount	Location	Amount
	Interest expense	\$ (11)	Interest expense	\$ 11
Interest rate swap contracts				
Total		\$ (11)		\$ 11

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	Carrying Value of the Hedged Liabilities (in millions)		Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Value of the Hedged Liabilities (in millions)	
	March 31, 2019	December 31, 2018	March 31, 2019	December 31, 2018
Short-term borrowings and current portion of long-term debt	\$ 598	\$ 596	\$ (1)	\$ (4)
Long-term debt	1,272	1,276	20	18
Total	\$ 1,870	\$ 1,872	\$ 19	\$ 14

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. Amounts excluded from the assessment of hedge effectiveness, including the time value of the forward contract at the inception of the hedge, are recognized in earnings using an amortization approach over the life of the hedging instrument on a straight-line basis. Any difference between the change in the fair value of the excluded component and the amount amortized into earnings during the period is recorded in cumulative translation within other comprehensive income. 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 redesignated 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 redesignated, 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 March 31, 2019, the total notional amount of foreign exchange forward contracts designated in net investment hedges was approximately 530 million Euros and approximately 248 billion South Korean Won, along with a principal amount of long-term debt instruments designated in net investment hedges totaling 4.1 billion Euros. The maturity dates of these derivative and nonderivative instruments designated in net investment hedges range from 2019 to 2031.

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

Three months ended March 31, 2019 (Millions)	Pretax Gain (Loss) Recognized as Cumulative Translation within Other Comprehensive Income		Amount Excluded from Effectiveness Testing Recognized in Income
	Amount	Location	
	Location	Amount	
Foreign currency denominated debt	\$ 92	Cost of sales	\$ —
Foreign currency forward contracts	15	Cost of sales	5
Total	\$ 107		\$ 5

Three months ended March 31, 2018 (Millions)	Pretax Gain (Loss) Recognized as Cumulative Translation within Other Comprehensive Income on Effective Portion of Instrument		Ineffective Portion of Gain (Loss) on Instrument and Amount Excluded from Effectiveness Testing Recognized in Income
	Amount	Location	
	Location	Amount	
Foreign currency denominated debt	\$ (128)	Cost of sales	\$ (2)
Foreign currency forward contracts	(6)	Cost of sales	(1)
Total	\$ (134)		\$ (3)

Derivatives Not Designated as Hedging Instruments:

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

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

(Millions)	Three months ended March 31, 2019 Gain (Loss) on Derivative Recognized in Income	
	Location	Amount
	Cost of sales	\$ (2)
Foreign currency forward/option contracts	Interest expense	(8)
Foreign currency forward contracts		
Total		\$ (10)

(Millions)	Three months ended March 31, 2018 Gain (Loss) on Derivative Recognized in Income	
	Location	Amount
	Cost of sales	\$ (3)
Foreign currency forward/option contracts	Interest expense	23
Foreign currency forward contracts		
Total		\$ 20

Statement of Income Location and Impact of Cash Flow and Fair Value Derivative 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 are as follows:

(Millions)	Location and Amount of Gain (Loss) Recognized in Income		
	Three months ended March 31, 2019		
	Cost of sales	Other expense (income), net	
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	\$ 4,310	\$ 48	
The effects of fair value and cash flow hedging:			
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	\$ 7	\$ —	—
Interest rate swap contracts:			
Amount of gain or (loss) reclassified from accumulated other comprehensive income into income	—	—	—
Gain or (loss) on fair value hedging relationships:			
Interest rate swap contracts:			
Hedged items	\$ —	\$ (5)	(5)
Derivatives designated as hedging instruments	—	—	5

Location and Fair Value Amount of Derivative Instruments

The following tables summarize the fair value of 3M's derivative instruments, excluding nonderivative instruments used as hedging instruments, and their location in the consolidated balance sheet. Notional amounts below are presented at period end foreign exchange rates, except for certain interest rate swaps, which are presented using the inception date's foreign exchange rate. Additional information with respect to the fair value of derivative instruments is included in Note 13.

March 31, 2019 (Millions)	Gross Notional Amount	Assets		Liabilities	
		Location	Fair Value Amount	Location	Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,742	Other current assets	\$ 88	Other current liabilities	\$ 11
Foreign currency forward/option contracts	1,100	Other assets	53	Other liabilities	1
Interest rate swap contracts	600	Other current assets	—	Other current liabilities	1
Interest rate swap contracts	1,453	Other assets	19	Other liabilities	31
Total derivatives designated as hedging instruments	\$ 160				\$ 44
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,925	Other current assets	\$ 11	Other current liabilities	\$ 12
Total derivatives not designated as hedging instruments	\$ 11				\$ 12
Total derivative instruments	\$ 171				\$ 56

December 31, 2018 (Millions)	Gross Notional Amount	Assets		Liabilities	
		Location	Fair Value Amount	Location	Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,277	Other current assets	\$ 74	Other current liabilities	\$ 12
Foreign currency forward/option contracts	1,099	Other assets	39	Other liabilities	4
Interest rate swap contracts	1,000	Other current assets	—	Other current liabilities	14
Interest rate swap contracts	1,403	Other assets	19	Other liabilities	17
Total derivatives designated as hedging instruments			\$ 132		\$ 47
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	\$ 2,484	Other current assets	\$ 14	Other current liabilities	\$ 6
Total derivatives not designated as hedging instruments			\$ 14		\$ 6
Total derivative instruments			\$ 146		\$ 53

Credit Risk and Offsetting of Assets and Liabilities of Derivative Instruments

The Company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts. However, the Company's risk is limited to the fair value of the instruments. The Company actively monitors its exposure to credit risk through the use of credit approvals and credit limits, and by selecting major international banks and financial institutions as counterparties. 3M enters into master netting arrangements with counterparties when possible to mitigate credit risk in derivative transactions. A master netting arrangement may allow each counterparty to net settle amounts owed between a 3M entity and the counterparty as a result of multiple, separate derivative transactions. As of March 31, 2019, 3M has International Swaps and Derivatives Association (ISDA) agreements with 17 applicable banks and financial institutions which contain netting provisions. In addition to a master agreement with 3M supported by a primary counterparty's parent guarantee, 3M also has associated credit support agreements in place with 16 of its primary derivative counterparties which, among other things, provide the circumstances under which either party is required to post eligible collateral (when the market value of transactions covered by these agreements exceeds specified thresholds or if a counterparty's credit rating has been downgraded to a predetermined rating). The Company does not anticipate nonperformance by any of these counterparties.

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

Offsetting of Financial Assets under Master Netting Agreements with Derivative Counterparties

	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
March 31, 2019 (Millions)				
Derivatives subject to master netting agreements	\$ 171	\$ 39	\$ —	\$ 132
Derivatives not subject to master netting agreements	—	—	—	—
Total	\$ 171			\$ 132
December 31, 2018 (Millions)				
Derivatives subject to master netting agreements	\$ 146	\$ 38	\$ —	\$ 108
Derivatives not subject to master netting agreements	—	—	—	—
Total	\$ 146			\$ 108

Offsetting of Financial Liabilities under Master Netting Agreements with Derivative Counterparties

	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 Pledged	Net Amount of Derivative Liabilities
March 31, 2019 (Millions)				
Derivatives subject to master netting agreements	\$ 56	\$ 39	\$ —	\$ 17
Derivatives not subject to master netting agreements	—	—	—	—
Total	\$ 56			\$ 17
December 31, 2018 (Millions)				
Derivatives subject to master netting agreements	\$ 53	\$ 38	\$ —	\$ 15
Derivatives not subject to master netting agreements	—	—	—	—
Total	\$ 53			\$ 15

Currency Effects

3M estimates that year-on-year foreign currency transaction effects, including hedging impacts, increased pre-tax income by approximately \$90 million for the three months ended March 31, 2019. These estimates include transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks.

NOTE 13. Fair Value Measurements

3M follows ASC 820, *Fair Value Measurements and Disclosures*, with respect to assets and liabilities that are measured at fair value on a recurring basis and nonrecurring basis. Under the standard, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The standard also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The hierarchy is broken down into three levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar

assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability. Categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

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

Refer to Note 15 in 3M's 2018 Annual Report on Form 10-K for a qualitative discussion of the assets and liabilities that are measured at fair value on a recurring and nonrecurring basis, a description of the valuation methodologies used by 3M, and categorization within the valuation framework of ASC 820.

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

Description (Millions)	Fair Value at March 31, 2019	Fair Value Measurements Using Inputs Considered as			
		Level 1	Level 2	Level 3	
Assets:					
Available-for-sale:					
Marketable securities:					
Corporate debt securities	\$ 16	\$ —	\$ 16	\$ —	
Commercial paper	510	—	510	—	
Certificates of deposit/time deposits	10	—	10	—	
U.S. municipal securities	49	—	—	49	
Derivative instruments — assets:					
Foreign currency forward/option contracts	152	—	152	—	
Interest rate swap contracts	19	—	19	—	
Liabilities:					
Derivative instruments — liabilities:					
Foreign currency forward/option contracts	24	—	24	—	
Interest rate swap contracts	32	—	32	—	

Description (Millions)	Fair Value at December 31, 2018	Fair Value Measurements Using Inputs Considered as			
		Level 1	Level 2	Level 3	
Assets:					
Available-for-sale:					
Marketable securities:					
Commercial paper	\$ 366	\$ —	\$ 366	\$ —	
Certificates of deposit/time deposits	10	—	10	—	
Asset-backed securities	1	—	1	—	
U.S. municipal securities	40	—	—	40	
Derivative instruments — assets:					
Foreign currency forward/option contracts	127	—	127	—	
Interest rate swap contracts	19	—	19	—	
Liabilities:					
Derivative instruments — liabilities:					
Foreign currency forward/option contracts	22	—	22	—	
Interest rate swap contracts	31	—	31	—	

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)	Three months ended March 31,	
	2019	2018
Beginning balance	\$ 40	\$ 30
Total gains or losses:		
Included in earnings	—	—
Included in other comprehensive income	—	—
Purchases and issuances	9	—
Sales and settlements	—	—
Transfers in and/or out of level 3	—	—
Ending balance	\$ 49	\$ 30
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 in 3M's 2018 Annual Report on Form 10-K.

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

Disclosures are required for certain assets and liabilities that are measured at fair value, but are recognized and disclosed at fair value on a nonrecurring basis in periods subsequent to initial recognition. For 3M, such measurements of fair value relate primarily to long-lived asset impairments 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 or adjustments to equity securities using the measurement alternative for the three months ended March 31, 2019 and 2018.

Fair Value of Financial Instruments:

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

(Millions)	March 31, 2019		December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, excluding current portion	\$ 15,580	\$ 16,132	\$ 13,411	\$ 13,586

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 March 31, 2019 and December 31, 2018 due to lower interest rates and tighter credit spreads compared to issuance levels.

NOTE 14. Commitments and Contingencies

Legal Proceedings:

The Company and some of its subsidiaries are involved in numerous claims and lawsuits, principally in the United States, and regulatory proceedings worldwide. These include various products liability (involving products that the Company now or formerly manufactured and sold), intellectual property, and commercial claims and lawsuits, including those brought under the antitrust laws, and environmental proceedings. Unless otherwise stated, the Company is vigorously defending all such litigation. Additional information about the Company's process for disclosure and recording of liabilities and insurance receivables related to legal proceedings can be found in Note 16 "Commitments and Contingencies" in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

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 March 31, 2019, the Company is a named defendant, with multiple co-defendants, in numerous lawsuits in various courts that purport to represent approximately 2,335 individual claimants, compared to approximately 2,320 individual claimants with actions pending at December 31, 2018.

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 years, the Company has prevailed in fourteen of the fifteen 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 has appealed. During March and April 2019, the Company agreed in principle to settle a substantial majority of the coal mine dust lawsuits in Kentucky and West Virginia for \$340 million, including the \$65 million jury verdict in April 2018 in the Kentucky case mentioned above currently on appeal.

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.

As previously reported, the State of West Virginia, through its Attorney General, filed a complaint in 2003 against the Company and two other manufacturers of respiratory protection products in the Circuit Court of Lincoln County, West Virginia, and amended its complaint in 2005. The amended complaint seeks substantial, but unspecified, compensatory damages primarily for reimbursement of the costs allegedly incurred by the State for worker's compensation and healthcare benefits provided to all workers with occupational pneumoconiosis and unspecified punitive damages. The case was inactive from the fourth quarter of 2007 until late 2013, other than a

case management conference in March 2011. In November 2013, the State filed a motion to bifurcate the lawsuit into separate liability and damages proceedings. At the hearing on the motion, the court declined to bifurcate the lawsuit. No liability has been recorded for this matter because the Company believes that liability is not probable and estimable at this time. In addition, the Company is not able to estimate a possible loss or range of loss given the lack of any meaningful discovery responses by the State of West Virginia, the otherwise minimal activity in this case and the fact that the complaint asserts claims against two other manufacturers where a defendant's share of liability may turn on the law of joint and several liability and by the amount of fault, if any, a jury might allocate to each defendant if the case is ultimately tried.

Respirator Mask/Asbestos Liabilities and Insurance Receivables

The Company regularly conducts a comprehensive legal review of its respirator mask/asbestos liabilities. The Company reviews recent and historical claims data, including without limitation, (i) the number of pending claims filed against the Company, (ii) the nature and mix of those claims (i.e., the proportion of claims asserting usage of the Company's mask or respirator products and alleging exposure to each of asbestos, silica, coal or other occupational dusts, and claims pleading use of asbestos-containing products allegedly manufactured by the Company), (iii) the costs to defend and resolve pending claims, and (iv) trends in filing rates and in costs to defend and resolve claims, (collectively, the "Claims Data"). As part of its comprehensive legal review, the Company regularly provides the Claims Data to a third party with expertise in determining the impact of Claims Data on future filing trends and costs. The third party assists the Company in estimating the costs to defend and resolve pending and future claims. The Company uses these estimates to develop its best estimate of probable liability.

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

As a result of the settlements-in-principle of the coal mine dust lawsuits mentioned above, the Company's assessment of other current and expected coal mine dust lawsuits (including the costs to resolve all current and expected coal mine dust lawsuits in Kentucky and West Virginia), its review of its respirator mask/asbestos liabilities, and 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 the first quarter of 2019 for respirator mask/asbestos liabilities by \$313 million pre-tax, or \$238 million after tax (\$0.40 per diluted share). In the first quarter of 2019, the Company made payments for legal fees and settlements of \$32 million related to the respirator mask/asbestos litigation. As of March 31, 2019, the Company had an accrual for respirator mask/asbestos liabilities (excluding Aearo accruals) of \$954 million, up \$281 million from the accrual at December 31, 2018. 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 March 31, 2019, the Company's receivable for insurance recoveries related to the respirator mask/asbestos litigation was \$4 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 purchased the stock of Aearo Holding Corp., the parent of Aearo Technologies ("Aearo"). Aearo manufactured and sold various products, including personal protection equipment, such as eye, ear, head, face, fall and certain respiratory protection products.

As of March 31, 2019, 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 March 31, 2019, the Company, through its Aearo subsidiary, had accruals of \$28 million for product liabilities and defense costs related to current and future Aearo-related asbestos and silica-related claims. This accrual represents the Company's best estimate of Aearo's probable loss and reflects an estimation period for future claims that may be filed against Aearo approaching the year 2050. Responsibility for legal costs, as well as for settlements and judgments, is currently shared in an informal arrangement among Aearo, Cabot, American Optical Corporation and a subsidiary of Warner Lambert and their respective insurers (the "Payor Group"). Liability is allocated among the parties based on the number of years each company sold respiratory products under the "AO Safety" brand and/or owned the AO Safety Division of American Optical Corporation and the alleged years of exposure of the individual plaintiff. Aearo's share of the contingent liability is further limited by an agreement entered into between Aearo and Cabot on July 11, 1995. This agreement provides that, so long as Aearo pays to Cabot a quarterly fee of \$100,000, Cabot will retain responsibility and liability for, and indemnify Aearo against, any product liability claims involving exposure to asbestos, silica, or silica products for respirators sold prior to July 11, 1995. Because of the difficulty in determining how long a particular respirator remains in the stream of commerce after being sold, Aearo and Cabot have applied the agreement to claims arising out of the alleged use of respirators involving exposure to asbestos, silica or silica products prior to January 1, 1997. With these arrangements in place, Aearo's potential liability is limited to exposures alleged to have arisen from the use of respirators involving exposure to asbestos, silica, or silica products on or after January 1, 1997. To date, Aearo has elected to pay the quarterly fee. Aearo could potentially be exposed to additional claims for some part of the pre-July 11, 1995 period covered by its agreement with Cabot if Aearo elects to discontinue its participation in this arrangement, or if Cabot is no longer able to meet its obligations in these matters.

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

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

Environmental Matters and Litigation

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

Under certain environmental laws, including the United States Comprehensive Environmental Response, Compensation and Liability Act of 1980 (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.

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 fluorelastomers, 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.

Regulatory activities concerning PFOA and/or PFOS continue in the United States, Europe and elsewhere, and before certain international bodies. These activities include gathering of exposure and use information, risk assessment, and consideration of regulatory approaches. As the database of studies of both PFOA and PFOS has expanded, the EPA has developed human health effects documents summarizing the available data from these studies. In February 2014, the EPA initiated external peer review of its draft human health effects documents for PFOA and PFOS. The peer review panel met in August 2014. In May 2016, the EPA announced lifetime health advisory levels for PFOA and PFOS at 70 parts per trillion (ppt) (superseding the provisional levels established by the EPA in 2009 of 400 ppt for PFOA and 200 ppt for PFOS). Where PFOA and PFOS are found together, EPA recommends that the concentrations be added together, and the lifetime health advisory for PFOA and PFOS combined is also 70 ppt. Lifetime health advisories, 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. To collect exposure information under the Safe Drinking Water Act, the EPA published on May 2, 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 exceed the level for PFOA and 46 exceed the level for PFOS (unchanged from the July 2016 EPA summary). A technical advisory issued by EPA in September 2016 on laboratory analysis of drinking water samples stated that 65 public water supplies had exceeded the combined level for PFOA and PFOS. These results are based on one or more samples collected during the period 2012-2015 and do not necessarily reflect current conditions of these public water supplies. EPA reporting does not identify the sources of the PFOA and PFOS in the public water supplies.

The Company is continuing to make progress in its work, under the supervision of state regulators, to address its historic disposal of PFAS-containing waste associated with manufacturing operations at its Decatur, Alabama; Cottage Grove, Minnesota; and Cordova, Illinois plants. As previously reported, the Company entered into a voluntary remedial action agreement with the Alabama Department of Environmental Management (ADEM) to address the presence of PFAS in the soil at the Company's manufacturing facility in Decatur, Alabama. Pursuant to a permit issued by ADEM, for approximately 20 years, the Company incorporated its wastewater treatment plant sludge containing PFAS in fields at its Decatur facility. After a review of the available options to address the presence of PFAS in the soil, ADEM agreed that the preferred remediation option is to use a multilayer cap over the former sludge incorporation areas on the manufacturing site with subsequent groundwater migration controls and treatment. Implementation of that plan continues, and construction of the cap was substantially completed in 2018.

The Company continues to work with the Minnesota Pollution Control Agency (MPCA) pursuant to the terms of the previously disclosed May 2007 Settlement Agreement and Consent Order to address the presence of certain PFAS 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 from these sites and proposing response actions; (ii) providing treatment or alternative drinking water upon identifying any level exceeding a Health Based Value ("HBV") or Health Risk Limit ("HRL") (i.e., the amount of a chemical in drinking water determined

by the Minnesota Department of Health (MDH) to be safe for human consumption over a lifetime) for certain PFAS for which a HBV and/or HRL exists as a result of contamination from these sites; (iii) remediating identified sources of other PFAS at these sites that are not controlled by actions to remediate PFOA and PFOS; and (iv) sharing information with the MPCA about certain perfluorinated compounds. During 2008, the MPCA issued formal decisions adopting remedial options for the former disposal sites in Washington County, Minnesota (Oakdale and Woodbury). In August 2009, the MPCA issued a formal decision adopting remedial options for the Company's Cottage Grove manufacturing facility. During the spring and summer of 2010, 3M began implementing the agreed upon remedial options at the Cottage Grove and Woodbury sites. 3M commenced the remedial option at the Oakdale site in late 2010. At each location the remedial options were recommended by the Company and approved by the MPCA. Remediation work has been completed at the Oakdale and Woodbury sites, and they are in an operational maintenance mode. Remediation will continue at the Cottage Grove site during 2019.

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

In May 2017, the MDH issued new HBVs for PFOS and PFOA. The new HBVs are 35 ppt for PFOA and 27 ppt for PFOS. In connection with its announcement the MDH stated that "Drinking water with PFOA and PFOS, even at the levels above the updated values, does not represent an immediate health risk. These values are designed to reduce long-term health risks across the population and are based on multiple safety factors to protect the most vulnerable citizens, which makes them overprotective for most of the residents in our state." In December 2017, the MDH issued a new HBV for perfluorobutane sulfonate (PFBS) of 2 ppb. 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. In April 2019, the MDH issued a new HBV for PFOS of 15 ppt and a new HBV for PFHxS of 47 ppt.

In May 2018, the EPA announced a four-step PFAS action plan, which includes evaluating the need to set Safe Drinking Water Act maximum contaminant levels (MCLs) for PFOA and PFOS and beginning the steps necessary to designate PFOA and PFOS as "hazardous substances" under CERCLA. In November 2018, EPA asked for public comment on draft toxicity assessments for two PFAS compounds, including PFBS. In February 2019, the EPA issued a PFAS Action Plan that outlines short- and long-term actions the EPA is taking to address PFAS – actions that include developing a national drinking water determination for PFOA and PFOS, strengthening enforcement authorities and evaluating cleanup approaches, nationwide drinking water monitoring for PFAS, expanding scientific knowledge for understanding and managing risk from PFAS, and developing consistent risk communication tools for communicating with other agencies and the public.

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 are not intended to define cleanup or action levels for ATSDR or other agencies. In August 2018, 3M submitted comments on the ATSDR proposal, noting that there are major shortcomings with the current draft, especially with the MRLs, and that the ATSDR's profile must reflect the best science and full weight of evidence known about these chemicals.

In several states, the state legislature or the state environmental agency have been evaluating or have taken actions related to cleanup standards, groundwater values or drinking water values for PFOS, PFOA, and other PFAS.

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

Litigation Related to Historical PFAS Manufacturing Operations in Alabama

As previously reported, a former employee filed a putative class action lawsuit in 2002 in the Circuit Court of Morgan County, Alabama (the "St. John case"), seeking unstated damages and alleging that the plaintiffs suffered fear, increased risk, subclinical injuries, and property damage from exposure to certain perfluoroochemicals at or near the Company's Decatur, Alabama, manufacturing facility. The court in 2005 granted the Company's motion to dismiss the named plaintiff's personal injury-related claims on the basis that such claims are barred by the exclusivity provisions of the state's Workers Compensation Act. The plaintiffs'

counsel filed an amended complaint in November 2006, limiting the case to property damage claims on behalf of a putative class of residents and property owners in the vicinity of the Decatur plant. In June 2015, the plaintiffs filed an amended complaint adding additional defendants, including BFI Waste Management Systems of Alabama, LLC; BFI Waste Management of North America, LLC; the City of Decatur, Alabama; Morgan County, Alabama; Municipal Utilities Board of Decatur; and Morgan County, Alabama, d/b/a Decatur Utilities.

In 2005, the judge – in a second putative class action lawsuit filed by three residents of Morgan County, Alabama, seeking unstated compensatory and punitive damages involving alleged damage to their property from emissions of certain perfluorochemical compounds from the Company’s Decatur, Alabama, manufacturing facility that formerly manufactured those compounds (the “Chandler case”) – granted the Company’s motion to abate the case, effectively putting the case on hold pending the resolution of class certification issues in the St. John case. Despite the stay, plaintiffs filed an amended complaint seeking damages for alleged personal injuries and property damage on behalf of the named plaintiffs and the members of a putative class. No further action in the case is expected unless and until the stay is lifted.

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

In October 2015, West Morgan-East Lawrence Water & Sewer Authority (Water Authority) filed an individual complaint against 3M Company, Dyneon, L.L.C, and Daikin America, Inc., in the U.S. District Court for the Northern District of Alabama. The complaint also includes representative plaintiffs who brought the complaint on behalf of themselves, and a class of all owners and possessors of property who use water provided by the Water Authority and five local water works to which the Water Authority supplies water (collectively, the “Water Utilities”). The complaint seeks compensatory and punitive damages and injunctive relief based on allegations that the defendants’ chemicals, including PFOA and PFOS from their manufacturing processes in Decatur, have contaminated the water in the Tennessee River at the water intake, and that the chemicals cannot be removed by the water treatment processes utilized by the Water Authority. In September 2016, the court granted 3M’s motion to dismiss plaintiffs’ trespass claims with prejudice, negligence claims for personal injuries, and private nuisance claims, and denied the motion to dismiss the plaintiffs’ negligence claims for property damage, public nuisance, abatement of nuisance, battery and wantonness. In April 2019, 3M and the Water Authority settled the lawsuit described above for \$35 million. The Water Authority will fund a new water filtration system and, as part of the settlement, 3M agreed to indemnify 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 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 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 is stayed until June 2019 with mediation scheduled for May 2019.

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. 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.

In January 2017, several hundred plaintiffs sued 3M, its subsidiary Dyneon, and Daikin America in Lawrence and Morgan Counties, Alabama. The plaintiffs are owners of property, residents, and holders of property interests who receive their water from the West

Morgan-East Lawrence Water and Sewer Authority (Water Authority). They assert common law claims for negligence, nuisance, trespass, wantonness, and battery, and they seek injunctive relief and punitive damages. The plaintiffs contend that the defendants own and operate manufacturing and disposal facilities in Decatur that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharge into the Tennessee River. The plaintiffs also contend that the defendants have discharged into Bakers Creek and the Decatur Utilities Dry Creek Wastewater Treatment Plant, which, in turn, discharges wastewater containing these chemicals into the Tennessee River. The plaintiffs contend that, as a result 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 2017, a putative class action (the “King” case) was filed against 3M, its subsidiary Dyneon, Daikin America, and the West Morgan-East Lawrence Water and Sewer Authority (Water Authority) in the U.S. District Court for the Northern District of Alabama. The plaintiffs are residents of Lawrence and Morgan County, Alabama who receive their water from the Water Authority. They assert various common law claims, including negligence, nuisance, wantonness, and fraudulent concealment, and they seek injunctive relief, attorneys’ fees, compensatory and punitive damages for their alleged personal injuries. The plaintiffs contend that the defendants own and operate manufacturing and disposal facilities in Decatur that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharge into the Tennessee River. The plaintiffs also contend that the defendants have discharged chemicals into the Decatur Utilities Dry Creek Wastewater Treatment Plant, which, in turn, discharged wastewater containing these chemicals 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 January 2018, certain property owners in Trinity, Alabama filed a lawsuit against 3M, Dyneon, and three unnamed defendants in the U.S. District Court for the Northern District of Alabama. The plaintiffs assert claims for negligence, strict liability, trespass, nuisance, wanton and reckless conduct, and citizen suit claims for violation of the Resource Conservation and Recovery Act. They allege these claims arise from the defendants’ contamination of their property by disposal of PFAS in a landfill located on their property. The plaintiffs seek compensatory and punitive damages and a court order directing the defendants to remediate all PFAS contamination on their property. In September 2018, the case was dismissed by stipulation of the parties.

In September 2018, an individual plaintiff filed a lawsuit in the U.S. District Court for the Northern District of Alabama raising allegations and claims substantially similar to those asserted by plaintiffs in the King case.

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

In December 2010, the State of Minnesota, by its Attorney General, filed a lawsuit in Hennepin County District Court against 3M to recover damages (including unspecified assessment costs and reasonable attorney’s fees) for alleged injury to, destruction of, and loss of use of certain of the State’s natural resources under the Minnesota Environmental Response and Liability Act (MERLA) and the Minnesota Water Pollution Control Act (MWPCA), as well as statutory nuisance and common law claims of trespass, nuisance, and negligence with respect to the presence of PFAS in the groundwater, surface water, fish or other aquatic life, and sediments (the “NRD Lawsuit”). The State also sought declarations under MERLA that 3M is responsible for all damages the State may suffer in the future for injuries to natural resources from releases of PFAS into the environment, and that 3M is responsible for compensation for future loss or destruction of fish, aquatic life, and other damages under the MWPCA. In September 2017, the State’s damages expert submitted a report that contended the State incurred \$5 billion in damages. In November 2017, the State of Minnesota filed a motion for leave to amend its complaint to seek punitive damages from 3M, and 3M filed a motion for summary judgment contending, among other things, that the State’s claims were barred by the applicable statute of limitations. In December 2017, the court urged the parties to attempt to resolve the litigation before trial, and in January 2018, the court appointed a mediator to facilitate that process. 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 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. The projects will also result in 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 June 2018, the State of New York, by its Attorney General, filed a lawsuit in Albany County Supreme Court against 3M, Tyco Fire Products LP, Chemguard, Inc., Buckeye Fire Equipment Co., National Foam, Inc., and Kidde-Fenwal, Inc., seeking to recover the costs incurred in responding to the contamination caused by Aqueous Film Forming Foam (AFFF) manufactured by 3M and others; damages for injury to, destruction of, and loss of the State's natural resources and related recreational series; and property damage. This case was removed to federal court and transferred to the MDL for AFFF cases.

In July 2018, the now former governor of Michigan requested that the now former Michigan Attorney General file a lawsuit against 3M and others related to PFAS in a public letter. The new Michigan Attorney General has not yet announced whether she will do so.

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 for AFFF cases.

In February 2019, the State of New York, by its Attorney General, filed a second lawsuit in Albany County Supreme Court against 3M, Tyco Fire Products LP, Chemguard, Inc., Buckeye Fire Equipment Co., and National Foam, Inc. seeking (1) compensatory damages consisting of (i) costs incurred and to be incurred by the State in investigating, monitoring, remediating, and otherwise responding to injuries and/or threats to public health and the environment caused by defendants' AFFF products used at sites across New York State; and (ii) damages for harm to the State's natural resources; (2) punitive damages; and (3) 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 in response to the threats and/or injuries they have caused.

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. One complaint was filed in Salem County and alleges the defendants should pay for clean-up and removal costs and damages as a result of alleged discharges of hazardous substances and pollutants by the defendants at Dupont's Chambers Works facility in Pennsville, New Jersey. The other complaint was filed in Middlesex County and seeks similar relief relating to DuPont's Parlin, New Jersey facility. 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.

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 2000. As of March 31, 2019, 96 putative class action and other lawsuits have been filed against 3M and other defendants in various state and federal courts where current or former airports, military bases, or fire training facilities are or were located. In these cases, plaintiffs typically allege that certain PFAS used in AFFF contaminated the soil and groundwater where AFFF was used and seek damages for loss of use and enjoyment of properties, diminished property values, investigation costs, remediation costs, and in some cases, personal injury and funds for medical monitoring. Several companies have been sued along with 3M, including Ansul Co. (acquired by Tyco, Inc.), Angus Fire, Buckeye Fire Protection Co., Chemguard, National Foam, Inc., and United Technologies Corp.

In December 2018, the U.S. Judicial Panel on Multidistrict Litigation 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 a multi-district litigation (MDL) proceeding to centralize pre-trial proceedings. As of March 31, 2019, there were 88 cases in the MDL.

Other PFAS-related Environmental Litigation

3M manufactured and sold products containing various perfluoroctanyl compounds (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., E.I. DuPont De Nemours and Co., and various carpet manufacturers.

In New York, 3M is defending 22 individual cases and one putative class action filed in the U.S. District Court for the Northern District of New York against 3M, Saint-Gobain Performance Plastics Corp. (“Saint-Gobain”), Honeywell International Inc. and E.I. DuPont De Nemours and Company. Plaintiffs allege that 3M manufactured and sold PFOA that was used for manufacturing purposes at Saint-Gobain’s and Honeywell’s facilities located in the Village of Hoosick Falls and the Town of Hoosick. Plaintiffs claim that the drinking water around Hoosick Falls became contaminated with unsafe levels of PFOA due to the activities of the defendants and allege that they suffered bodily injury due to the ingestion and inhalation of PFOA. Plaintiffs seek unstated compensatory, consequential, and punitive damages, as well as attorneys’ fees and costs.

In Michigan, two putative class actions are pending in the U.S. District Court for the Western District of Michigan against 3M and Wolverine World Wide (Wolverine) and other defendants. The complaints include some or all of the following claims: negligence, trespass, intentional and negligent infliction of emotional distress, battery, products liability, public and private nuisance, fraudulent concealment, and unjust enrichment. The actions arise from Wolverine’s allegedly improper disposal of materials and wastes related to their shoe manufacturing operations. Plaintiffs allege Wolverine used 3M Scotchgard in its manufacturing process and that chemicals from 3M’s product have contaminated the environment after being disposed of near drinking water sources. In addition to the two federal court class actions, as of March 31, 2019, 3M has been named as a defendant in 214 private individual actions in Michigan state court based on similar allegations. Wolverine also filed a third-party complaint against 3M in a suit by the State of Michigan against Wolverine seeking to compel Wolverine to investigate and address contamination associated with its historic disposal activity.

In Alabama, 3M is defending two lawsuits filed in state court by local public water suppliers 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 PFOA and PFOS into the surface water and groundwater, contaminating drinking water supplies of cities located downstream along the Coosa River.

In Delaware, 3M is defending one putative class action filed in federal court relating to alleged contamination allegedly caused by waste from Wolverine World Wide, which used Scotchgard in its manufacture of leather products. 3M allegedly supplied Scotchgard to Wolverine.

In Maine, 3M is defending one individual action in federal court relating to contamination of drinking water and dairy farm operations by PFAS from wastewater sludge. Plaintiffs contend that PFAS entered the wastewater via discharge from another company’s facility in Kennebunk, Maine.

In New Jersey, 3M is defending one putative class action in federal court that relates to the DuPont “Chambers Works” plant. Plaintiffs allege that PFAS compounds from the plant have contaminated private wells for drinking water.

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. The named plaintiff, a firefighter allegedly exposed to PFAS chemicals through his use of firefighting foam, purports to represent a class of “all individuals residing within the United States who, at the time a class is certified in this case, have detectable levels of PFAS materials in their blood serum.” The plaintiff brings claims for negligence, battery, and conspiracy, but does not seek damages for personal injury, medical monitoring, or property damage. Instead, the plaintiff seeks an order finding the defendants “are liable and responsible for the PFAS in Plaintiff’s and the class members’ blood and/or bodies” and an order “establishing an independent panel of scientists” to be “tasked with independently studying, evaluating, reviewing, identifying, publishing, and notifying/informing the Class” of research results.

In March 2019, the New Jersey Department of Environmental Protection (NJDEP) issued a directive, information request and notice to Solvay, DuPont, Chemours, and 3M relating to PFAS. The NJDEP, in its effort to obtain a “full understanding” of Respondents’ historical and current “development, manufacture, transport, use, storage, release, discharge, and/or disposal of PFAS in New Jersey,”

requested information from each respondent and a collective meeting with the NJDEP to discuss costs to “investigate, test, treat, cleanup, and remove” PFAS from New Jersey’s environment.

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 \$165 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, no liability has been recorded as the Company believes liability in those matters is not probable and estimable and the Company is not able to estimate a possible loss or range of loss at this time, except for those matters 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 estimable based on experience and developments in those matters. During the first quarter of 2019, the EPA issued its PFAS Action Plan and the Company settled the litigation with the Water Authority (both matters are described in more detail above). The Company recently completed a comprehensive review with the assistance of environmental consultants and other experts regarding environmental matters and litigation related to historical PFAS manufacturing operations in Minnesota, Alabama, Gendorf Germany, and at four former landfills in Alabama. As a result of these developments and of that review, the Company increased its accrual for “other environmental liabilities” by \$235 million pre-tax (including the settlement with the Water Authority) or \$186 million after tax (\$0.32 per diluted share). As of March 31, 2019, the Company had recorded liabilities of \$292 million for “other environmental liabilities.” This accrual represents the Company’s best estimate of the probable loss: (i) to implement the Settlement Agreement and Consent Order with the MPCA (including the best estimate of the probable liability under the settlement of the NRD Lawsuit with the State of Minnesota for interim treatment of municipal and private wells), (ii) the remedial action agreement with ADEM, (iii) mitigation plans for the presence of PFAS in the soil and groundwater at two former disposal sites in Washington County, Minnesota (Oakdale and Woodbury), (iv) to cover certain environmental matters and litigation in which 3M is a defendant related to the manufacture and disposal of PFAS at five 3M facilities, including three in the United States and two in Europe. The Company is not able to estimate a possible loss or range of loss in excess of the established accruals at this time.

As of March 31, 2019, the Company had recorded liabilities of \$25 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 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 March 31, 2019, the Company's receivable for insurance recoveries related to the environmental matters and litigation was \$33 million. The Company increased its receivables for insurance recoveries by \$25 million in the first quarter of 2019 related to these matters. 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

As of March 31, 2019, the Company is a named defendant in lawsuits involving approximately 5,080 plaintiffs (compared to approximately 5,015 plaintiffs at December 31, 2018) who allege the Bair Hugger™ patient warming system caused a surgical site infection. Nearly all of the lawsuits are pending in federal court in Minnesota. The plaintiffs claim they underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system (the Bair Hugger™ product line was acquired by 3M as part of the 2010 acquisition of Arizant, Inc., a leading manufacturer of patient warming solutions designed to prevent hypothermia and maintain normal body temperature in surgical settings). 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) granted the plaintiffs' motion to transfer and consolidate all cases pending in federal courts to the U.S. District Court for the District of Minnesota to be managed in a multi-district litigation (MDL) proceeding. In 2017, the U.S. District Court and the Minnesota state courts denied the plaintiffs' motions to amend their complaints to add claims for punitive damages. At a joint hearing before the U.S. District Court and the Minnesota State court, on the parties' motion to exclude each other's experts, and 3M's motion for summary judgment with respect to general causation, the federal court did not exclude the plaintiffs' experts and denied 3M's motion for summary judgment on general causation. The U.S. District Court is reconsidering that decision. In January 2018, the state court, after hearing the same arguments, excluded plaintiffs' experts and granted 3M's motion for summary judgment on general causation, dismissing all 61 cases pending before the state court in Minnesota. Plaintiffs appealed that ruling and the state court's punitive damages ruling. In January 2019, the Minnesota Court of Appeals affirmed the Minnesota state court orders in their entirety. The Minnesota Supreme Court denied plaintiffs' petition for review.

In April 2018, the federal court partially granted 3M's motion for summary judgment in the first bellwether case, leaving for trial a claim for strict liability based upon design defect. The court dismissed the plaintiff's claims for negligence, failure to warn, and common law and statutory fraud. In the trial of the first bellwether case in May 2018, the jury returned a unanimous verdict in 3M's favor finding that the Bair Hugger™ patient warming system was not defective and was not the cause of the plaintiff's injury. The plaintiff has appealed the verdict to the U.S. Court of Appeals for the Eighth Circuit. Of the other 12 bellwether cases designated for trial, the courts or the plaintiffs have so far dismissed 11 cases. The remaining bellwether case had been set for trial in May 2019, but the federal court has postponed that trial pending ruling in defendants' motion to reconsider.

3M is also defending two state court actions. One case is pending in Hidalgo County, Texas and combines Bair Hugger product liability claims with medical malpractice claims and set for trial in September 2019. Another case is pending in Ramsey County, Minnesota, and was filed after the Minnesota state court's summary judgment ruling.

In June 2016, the Company was served with a putative class action filed in the Ontario Superior Court of Justice for all Canadian residents who underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system. The representative plaintiff seeks relief (including punitive damages) under Canadian law based on theories similar to those asserted in the MDL. No liability has been recorded for the Bair Hugger™ litigation because the Company believes that any such liability is not probable and estimable at this time.

In September 2011, 3M Oral Care launched Lava Ultimate CAD/CAM dental restorative material. The product was originally indicated for inlay, onlay, veneer, and crown applications. In June 2015, 3M Oral Care voluntarily removed crown applications from the product's instructions for use, following reports from dentists of patients' crowns debonding, requiring additional treatment. The product remains on the market for other applications. 3M communicated with the U.S. Food and Drug Administration, as well as regulators outside the United States. 3M also informed customers and distributors of its action, offered to accept return of unused materials and provide refunds. In May 2018, 3M reached a preliminary settlement for an amount that did not have a material impact to the Company of the lawsuit pending in the U.S. District Court for the District of Minnesota that sought certification of a class of dentists in the United States and its territories. The settlement is subject to the court's approval and certification of the settlement class, with a right of class members to opt-out of the settlement and bring individual claims against the Company.

Aearo Technologies sold Dual-Ended Combat Arms – Version 2 earplugs starting in 2006. 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 March 31, 2019, the Company is a named defendant in approximately 635 lawsuits (including 6 putative class actions) in various state and federal courts that purport to represent approximately 1,700 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.

For product liability litigation matters described in this section for which a liability has been recorded, the Company believes the amount recorded is not material to the Company's consolidated results of operations or financial condition. In addition, the Company is not able to estimate a possible loss or range of loss in excess of the established accruals at this time.

NOTE 15. Leases

The Company adopted ASU No. 2016-02 and related standards (collectively ASC 842, *Leases*), which replaced previous lease accounting guidance, on January 1, 2019 using the modified retrospective method of adoption. 3M elected the transition method expedient which allows entities to initially apply the requirements by recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. As a result of electing this transition method, prior periods have not been restated. Due to the cumulative net impact of adopting ASC 842, the January 1, 2019 balance of retained earnings was increased by \$14 million, primarily relating to previously deferred gains from sale-leaseback transactions. In addition, adoption of the new standard resulted in the recording of right of use assets and associated lease liabilities of \$0.8 billion each as of January 1, 2019. The Company's accounting for finance leases (previously called capital leases) remains substantially unchanged. ASC 842 did not have a material impact on 3M's consolidated income statement. 3M elected the package of practical expedients permitted under the transition guidance within ASC 842, which includes not reassessing lease classification of existing leases. The Company did not elect the hindsight practical expedient.

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 each lease based primarily on its 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 noncancelable lease term as adjusted for contractual options to terminate or renew, and payments for non-components such as sales tax. Certain 3M leases contain immaterial variable lease payments based on number of units produced.

The components of lease expense are as follows:

(Millions)	Three months ended March 31, 2019
Operating lease cost	\$ 72
Finance lease cost:	
Amortization of assets	4
Interest on lease liabilities	—
Variable lease cost	20
Total net lease cost	<u>\$ 96</u>

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	As of: March 31, 2019
Operating leases:		
Operating lease right of use assets	Operating lease right of use assets	\$ 797
Current operating lease liabilities	Operating lease liabilities - current	\$ 255
Noncurrent operating lease liabilities	Operating lease liabilities	531
Total operating lease liabilities		<u>\$ 786</u>
Finance leases:		
Property and equipment, at cost	Property, plant and equipment	\$ 191
Accumulated amortization	Property, plant and equipment (accumulated depreciation)	(89)
Property and equipment, net		<u>\$ 102</u>
Current obligations of finance leases	Other current liabilities	\$ 16
Finance leases, net of current obligations	Other liabilities	84
Total finance lease liabilities		<u>\$ 100</u>
Weighted average remaining lease term (in years):		
Operating leases		4.7
Finance leases		8.5
Weighted average discount rate:		
Operating leases		3.0 %
Finance leases		4.9 %

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

(Millions)	Three months ended March 31, 2019	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 75	
Operating cash flows from finance leases	3	
Financing cash flows from finance leases	—	
Right of use assets obtained in exchange for lease liabilities:		
Operating leases	48	
Finance leases	9	
Gain on sale leaseback transactions, net	—	

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. Refer to Note 9 in 3M's 2018 Annual Report on Form 10-K for additional non-cash details associated with prior activity.

Maturities of lease liabilities were as follows:

(Millions)	March 31, 2019	
	Finance Leases	Operating Leases
Remainder of 2019	\$ 17	\$ 209
2020	15	211
2021	11	137
2022	11	100
2023	11	71
After 2023	40	121
Total	\$ 105	\$ 849
Less: Amounts representing interest	(5)	(63)
Present value of future minimum lease payments	100	786
Less: Current obligations	16	255
Long-term obligations	\$ 84	\$ 531

As of March 31, 2019, the Company has additional operating and finance lease commitments associated with real estate that have not yet commenced of approximately \$143 million and \$40 million, respectively.

Disclosures related to periods prior to adoption of new lease standard:

Capital and Operating Leases:

Rental expense under operating leases was \$393 million in 2018, \$343 million in 2017 and \$318 million in 2016. It is 3M's practice to secure renewal rights for leases, thereby giving 3M the right, but not the obligation, to maintain a presence in a leased facility. 3M has the following primary capital leases:

- In 2003, 3M recorded a capital lease asset and obligation of approximately 34 million British Pound (GBP), or approximately \$43 million at December 31, 2018, exchange rates, for a building in the United Kingdom (with a lease term of 22 years).
- 3M sold and leased-back certain recently constructed machinery and equipment in return for municipal securities, which in aggregate, were recorded as a capital lease asset and obligation of approximately \$13 million in 2018, \$13 million in 2017, and \$12 million in 2016, with an average remaining lease term remaining of 15 years at December 31, 2018.

Minimum lease payments under capital and operating leases with non-cancelable terms in excess of one year as of December 31, 2018, were as follows:

(Millions)	Capital Leases	Operating Leases
2019	\$ 18	\$ 283
2020	16	208
2021	14	153
2022	12	122
2023	12	92
After 2023	32	253
Total	\$ 104	\$ 1,111
Less: Amounts representing interest	12	
Present value of future minimum lease payments	92	
Less: Current obligations under capital leases	17	
Long-term obligations under capital leases	\$ 75	

NOTE 16. Stock-Based Compensation

The 3M 2016 Long-Term Incentive Plan provides for the issuance or delivery of up to 123,965,000 shares of 3M common stock pursuant to awards granted under the plan. Awards may be issued in the form of incentive stock options, nonqualified stock options, progressive stock options, stock appreciation rights, restricted stock, restricted stock units, other stock awards, and performance units and performance shares. As of March 31, 2019, the remaining shares available for grant under the LTIP Program are 22.0 million.

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 36 percent of the annual grant 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 for the three months ended March 31, 2019 and 2018.

Stock-Based Compensation Expense

(Millions)	Three months ended March 31,	
	2019	2018
Cost of sales	\$ 22	\$ 23
Selling, general and administrative expenses	82	109
Research, development and related expenses	26	27
Stock-based compensation expenses	\$ 130	\$ 159
Income tax benefits	\$ (80)	\$ (98)
Stock-based compensation expenses (benefits), net of tax	\$ 50	\$ 61

Stock Option Program

The following table summarizes stock option activity during the three months ended March 31, 2019:

(Options in thousands)	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (months)	Aggregate Intrinsic Value (millions)
Under option —				
January 1	34,569	\$ 138.98		
Granted:				
Annual	3,423	201.12		
Exercised	(1,983)	82.26		
Forfeited	(9)	205.82		
March 31	36,000	\$ 148.00	71	\$ 2,233
Options exercisable				
March 31	28,703	\$ 133.67	61	\$ 2,154

Stock options vest over a period from one year to three years with the expiration date at 10 years from date of grant. As of March 31, 2019, there was \$117 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 25 months. The total intrinsic values of stock options exercised were \$235 million and \$283 million during the three months ended March 31, 2019 and 2018, respectively. Cash received from options exercised was \$162 million and \$166 million for the three months ended March 31, 2019 and 2018, respectively. The Company's actual tax benefits realized for the tax deductions related to the exercise of employee stock options were \$49 million and \$61 million for the three months ended March 31, 2019 and 2018, respectively.

For the primary 2019 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 2019
Exercise price	\$ 201.12
Risk-free interest rate	2.6 %
Dividend yield	2.5 %
Expected volatility	20.4 %
Expected life (months)	79
Black-Scholes fair value	\$ 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 2019 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 during the three months ended March 31, 2019:

(Shares in thousands)	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested balance —		
As of January 1	1,789	\$ 180.02
Granted		
Annual	551	201.12
Other	1	199.63
Vested	(669)	147.90
Forfeited	(17)	169.34
As of March 31	1,655	\$ 200.17

As of March 31, 2019, there was \$129 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 26 months. The total fair value of restricted stock and restricted stock units that vested during the three months ended March 31, 2019 and 2018 was \$133 million and \$150 million, respectively. The Company's actual tax benefits realized for the tax deductions related to the vesting of restricted stock and restricted stock units was \$26 million and \$28 million for the three months ended March 31, 2019 and 2018, 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 2019 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 during the three months ended March 31, 2019:

(Shares in thousands)	Number of Shares	Weighted Average Grant Date Fair Value
Undistributed balance —		
As of January 1	562	\$ 188.96
Granted	162	207.49
Distributed	(210)	162.16
Performance change	(125)	209.40
As of March 31	<u>389</u>	<u>\$ 204.50</u>

As of March 31, 2019, there was \$30 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 21 months. The total fair value of performance shares that were distributed were \$45 million and \$48 million for the three months ended March 31, 2019 and 2018, respectively. The Company's actual tax benefits realized for the tax deductions related to the distribution of performance shares were \$9 million and \$11 million for the three months ended March 31, 2019 and 2018, respectively.

NOTE 17. Business Segments

3M's businesses are organized, managed and internally grouped into segments based on differences in markets, products, technologies and services. 3M manages its operations in five business segments: Industrial; Safety and Graphics; Health Care; Electronics and Energy; and Consumer. 3M's five business segments bring together common or related 3M technologies, enhancing the development of innovative products and services and providing for efficient sharing of business resources. Transactions among reportable segments are recorded at cost. 3M is an integrated enterprise characterized by substantial intersegment cooperation, cost allocations and inventory transfers. Therefore, management does not represent that these segments, if operated independently, would report the operating income information shown. The difference between operating income and pre-tax income relates to interest income and interest expense, which are not allocated to business segments, along with non-service cost components of pension and postretirement net periodic benefit costs.

As part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes, effective in the first quarter of 2019, and other revisions impacting business segment reporting:

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 largely impacted the amount of dual credit certain business segments receive as a result of sales district attribution. 3M business segment reporting measures include dual credit to business segments for certain sales and operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in a specific country. As a result, previously reported aggregate business segment net sales and operating income for the total year 2018 decreased \$32 million and \$8 million, respectively, offset by corresponding decreases in the elimination of dual credit net sales and operating income amounts.

Creation of Closure and Masking Systems Division and Medical Solutions Division

- 3M created the Closure and Masking Systems Division, which combines the masking tape, packaging tape and personal care portfolios formerly within Industrial Adhesives and Tapes Division in the Industrial business segment into a separate division also within the Industrial business segment. 3M created the Medical Solutions Division in the Health Care business segment, which combines the former Critical and Chronic Care Division and Infection Prevention Division (which were also both within the Health Care business segment).

Additional actions impacting business segment reporting

- The business associated with certain safety products sold through retail channels in the Asia Pacific region was realigned from the Personal Safety Division within the Safety and Graphics Business segment to the Construction and Home Improvement Division within the Consumer Business segment. This change resulted in a decrease in previously reported net sales and operating income for total year 2018 of \$12 million and \$1 million, respectively, in the Safety and Graphics business segment, offset by a corresponding increase in net sales and operating income within the Consumer business segment. Certain previously non-allocated costs related to manufacturing and technology of centrally managed material resource centers of expertise within Corporate and Unallocated are now reflected as being allocated to the business segments. As a result, previously reported aggregate business segment operating income for the total year 2018 decreased \$58 million, offset by a corresponding increase in operating income within Corporate and Unallocated.

The financial information presented herein reflects the impact of the preceding changes between business segments for all periods presented.

In March 2019, 3M announced the upcoming realignment of the company from five to four business segments. The new alignment will enable the company to better serve global customers and markets. This realignment will be effective in the second quarter of 2019, with the changes reflected in all periods presented.

Business Segment Information

(Millions)	Three months ended March 31,	
	2019	2018
Net Sales		
Industrial	\$ 2,929	\$ 3,135
Safety and Graphics	1,704	1,779
Health Care	1,540	1,535
Electronics and Energy	1,190	1,350
Consumer	1,123	1,145
Corporate and Unallocated	21	—
Elimination of Dual Credit	(644)	(666)
Total Company	\$ 7,863	\$ 8,278
Operating Income		
Industrial	\$ 585	\$ 714
Safety and Graphics	396	481
Health Care	432	458
Electronics and Energy	284	336
Consumer	219	220
Corporate and Unallocated	(624)	(1,037)
Elimination of Dual Credit	(156)	(165)
Total Company	\$ 1,136	\$ 1,007

Corporate and unallocated operating income includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company may choose not to allocate directly to its business segments. Corporate and Unallocated also includes sales, costs, and income from contract manufacturing, transition services and other arrangements with the acquirer of all of the Communication Markets Division following its divestiture in 2018. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

3M business segment reporting measures include dual credit to business segments for certain sales and related operating income. Management evaluates each of its five business segments based on net sales and operating income performance, including dual credit reporting to further incentivize sales growth. As a result, 3M reflects additional (“dual”) credit to another business segment when the

customer account activity (“sales district”) with respect to the particular product sold to the external customer is provided by a different business segment. This additional dual credit is largely reflected at the division level. For example, certain respirators are primarily sold by the Personal Safety Division within the Safety and Graphics business segment; however, a sales district within the Industrial business segment provides the contact for sales of the product to particular customers. In this example, the non-primary selling segment (Industrial) would also receive credit for the associated net sales initiated through its sales district and the related approximate operating income. The assigned operating income related to dual credit activity may differ from operating income that would result from actual costs associated with such sales. The offset to the dual credit business segment reporting is reflected as a reconciling item entitled “Elimination of Dual Credit,” such that sales and operating income in total are unchanged.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

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 the following sections:

- Overview
- Results of Operations
- Performance by Business Segment
- Financial Condition and Liquidity
- Cautionary Note Concerning Factors That May Affect Future Results

Forward-looking statements in Part I, Item 2 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 Part I, Item 2 and the risk factors provided in Part II, Item 1A for discussion of these risks and uncertainties).

OVERVIEW

3M is a diversified global manufacturer, technology innovator and marketer of a wide variety of products and services. As more fully described in both the Performance by Business Segment section in MD&A and in Note 17, effective in the first quarter of 2019, the Company changed its business segment reporting in its continuing effort to improve the alignment of businesses around markets and customers. These changes included realignment of customer account activity to correlate with the primary divisional product offerings in various countries, creation of the Closure and Masking Systems and Medical Solutions divisions, in addition to other actions which impacted segment reporting. Business segment information presented herein reflects the impact of these changes for all periods presented.

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

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

The following table provides the increase (decrease) in diluted earnings per share for the three months ended March 31, 2019 compared to 2018.

	Three months ended	
	March 31, 2019	
(Earnings per diluted share)		
Same period last year	\$ 0.98	
Significant litigation-related charges	1.16	
TCJA measurement period adjustment	0.36	
Same period last year, excluding significant litigation-related charges and TCJA measurement period adjustment	\$ 2.50	
Increase/(decrease) in earnings per share - diluted, due to:		
Organic growth/productivity and other	(0.19)	
Acquisitions/divestitures	(0.07)	
Foreign exchange impacts	(0.05)	
Income tax rate	(0.05)	
Shares of common stock outstanding	0.09	
Current period, excluding significant litigation-related charges	\$ 2.23	
Significant litigation-related charges	0.72	
Current period	\$ 1.51	

For the first quarter of 2019, net income attributable to 3M was \$891 million, or \$1.51 per diluted share compared to \$602 million or \$0.98 per diluted share in the same period last year, an increase of 54.1 percent on a per diluted share basis. Adjusting for the first quarter 2019 impact related to significant litigation-related charges and the first quarter 2018 impacts related to significant litigation-related charges and the measurement period adjustment to the provisional amounts recorded in December 2017 from the enactment of

the Tax Cuts and Jobs Act (TCJA), net income attributable to 3M was \$1.315 billion, or \$2.23 per diluted share for the first quarter of 2019, compared to \$1.529 billion, or \$2.50 per diluted share for the first quarter of 2018, a decrease of 10.8 on a per diluted share basis. The Company refers to various measures excluding the significant litigation-related charges and TCJA measurement period adjustments. These non-GAAP measures are further described and reconciled to the most directly comparable GAAP financial measures in the *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section below.

In the first quarter of 2019, 3M experienced slowing in several key end markets (China, automotive and electronics) along with channel inventory adjustments which, collectively, negatively impacted sales growth. The Company also experienced weaker productivity, especially in industrial-related businesses within Asia Pacific and the United States.

Additional discussion related to the components of the year-on-year change in earnings per diluted share follows:

Organic growth/productivity and other:

- Negative organic local-currency sales combined with weaker than expected productivity reduced earnings per diluted share. Higher raw material costs also contributed negatively to earnings per diluted share. These decreases were partially offset by selling price increases in addition to business transformation, which is having a positive impact on 3M's productivity efforts.
- On a combined basis, lower defined benefit pension and postretirement service cost expense decreased expense year-on-year.
- Higher income related to non-service cost components of pension and postretirement expense, decreased expense year-on-year.
- Interest expense (net of interest income) increased \$23 million, as a result of higher U.S. average debt balances and higher borrowing costs.

Acquisitions/divestitures:

- Acquisition impacts, which are measured for the first twelve months post-transaction, relate to the acquisition of M*Modal (first quarter 2019), decreased earnings per diluted share by 4 cents year-on-year. This net impact related to M*Modal included income from operations, more than offset by transaction and integration costs. Interest expense related to financing costs of M*Modal is also included.
- Divestiture impacts, which include the incremental year-on-year pre-tax gain on divestitures and the lost operating income from divested businesses (other than lost income related to the divestiture of the Communication Markets Division), decreased earnings per diluted share by 1 cents year-on-year.
- Remaining stranded costs and lost operating income related to the 2018 divestiture of the Communication Markets Division decreased earnings per diluted share by 2 cents year-on-year.

Foreign exchange impacts:

- Foreign currency impacts (net of hedging) decreased pre-tax earnings year-on-year by approximately \$34 million, or the equivalent of 5 cents per diluted share, excluding the impact of foreign currency changes on tax rates.

Income tax rate:

- The effective tax rate for the first quarter of 2019 was 17.9 percent, a decrease of 19.3 percentage points versus 2018. Excluding the significant litigation-related charges in the first quarter of 2018 and 2019 and measurement period adjustment related to TCJA in the first quarter of 2018 (as discussed below), the effective tax rate increased 1.9 percentage points year-on-year.
- Factors that decreased the effective tax rate for the first quarter of 2019 primarily related to significant events such as measurement period adjustments related to the 2017 Tax Cuts and Jobs Act (TCJA) and significant litigation related charges, in addition to increased benefit from research and development credits. These decreases were partially offset by the composition of geographic mix of income before taxes and the effects of the international tax provisions from U.S. tax reform, which increased the Company's effective tax rate. Refer to Note 8 for additional details.

Shares of common stock outstanding:

- Lower shares outstanding increased earnings per share by 9 cents year-on-year. Weighted-average diluted shares outstanding in the first three months of 2019 declined 3.9 percent, which benefited earnings per share. The decrease in the outstanding weighted-average diluted shares relates to the Company's purchase of \$701 million of its own stock in the first three months of 2019.

Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures):

In the first quarter of 2019, the Company recorded significant litigation-related charges of \$548 million (\$424 million after tax) related to historical PFAS (certain perfluorinated compounds) manufacturing operations and coal mine dust respirator mask lawsuits as further discussed in Note 14. These were reflected in cost of sales (\$223 million) and selling, general and administrative expense (\$325 million). In the first quarter of 2018, the Company recorded significant litigation-related charges of \$897 million (\$710 million after tax) from the previously disclosed agreement reached with the State of Minnesota that resolved the Natural Resource Damages (NRD) lawsuit, essentially all of which were reflected in selling, general and administrative expense.

During the first quarter of 2018, 3M recorded a tax expense of \$217 million related to a measurement period adjustment to the provisional amounts recorded in December 2017 from the enactment of the TCJA as further discussed in Note 8.

In addition to reporting financial results in accordance with U.S. GAAP, the Company also provides non-GAAP measures that adjust for the impacts of significant litigation-related charges and measurement period adjustment to the impact of enactment of the TCJA. These items represent significant charges that impacted the Company's financial results. 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 an adjusted measure. The adjusted measures are not in accordance with, nor are they a substitute for, GAAP measures. The Company considers these non-GAAP measures in evaluating and managing the Company's operations. The Company believes that discussion of results adjusted for these items is meaningful to investors as it provides a useful analysis of ongoing underlying operating trends. The determination of these items may not be comparable to similarly titled measures used by other companies.

Adjusted income, operating income margin, earnings per share, & effective tax rate (non- GAAP measures) (Dollars in millions, except per share amounts)	Net Sales	Operating Income	Operating Income 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
Q1 2018 GAAP	\$ 8,278	\$ 1,007	12.2 %	\$ 965	\$ 359	37.2 %	\$ 602	\$ 0.98	
Adjustment for significant litigation-related charges	—	897		897	187		710	1.16	
Adjustment for measurement period accounting of TCJA	—	—	—	—	(217)		217	0.36	
Q1 2018 Adjusted Non- GAAP Measure	\$ 8,278	\$ 1,904	23.0 %	\$ 1,862	\$ 329	17.6 %	\$ 1,529	\$ 2.50	
Q1 2019 GAAP	\$ 7,863	\$ 1,136	14.4 %	\$ 1,088	\$ 195	17.9 %	\$ 891	\$ 1.51	54.1 %
Adjustment for significant litigation-related charges	—	548		548	124		424	0.72	
Q1 2019 Adjusted Non- GAAP Measure	\$ 7,863	\$ 1,684	21.4 %	\$ 1,636	\$ 319	19.5 %	\$ 1,315	\$ 2.23	(10.8)%

Sales and operating income by business segment:

In the first quarter of 2019, 3M experienced slowing in several key end markets (China, automotive and electronics) along with channel inventory adjustments which, collectively, negatively impacted sales growth. These slow market trends and inventory adjustments primarily impacted the Industrial, Safety and Graphics, and Electronics and Energy businesses.

The following tables contain sales and operating income results by business segment for the three months ended March 31, 2019 and 2018. Refer to the section entitled “Performance by Business Segment” later in MD&A for additional discussion concerning 2019 versus 2018 results, including Corporate and Unallocated. Refer to Note 17 for additional information on business segments, including Elimination of Dual Credit.

(Dollars in millions)	Three months ended March 31,						% change	
	2019		2018		Net Sales	Oper. Income		
	Net Sales	Oper. Income	Net Sales	Oper. Income				
Business Segments								
Industrial	\$ 2,929	\$ 585	\$ 3,135	\$ 714	(6.6)%	(18.0)%		
Safety and Graphics	1,704	396	1,779	481	(4.2)	(17.7)		
Health Care	1,540	432	1,535	458	0.3	(5.6)		
Electronics and Energy	1,190	284	1,350	336	(11.8)	(15.6)		
Consumer	1,123	219	1,145	220	(1.9)	(0.7)		
Corporate and Unallocated	21	(624)	—	(1,037)	—	—		
Elimination of Dual Credit	(644)	(156)	(666)	(165)	—	—		
Total Company	\$ 7,863	\$ 1,136	\$ 8,278	\$ 1,007	(5.0)%	12.8 %		
Three months ended March 31, 2019								
Worldwide Sales Change By Business Segment								
	Organic local- currency sales	Acquisitions	Divestitures	Translation	Total sales change			
Industrial	(2.8)%	— %	(0.1)%	(3.7)%	(6.6)%			
Safety and Graphics	(0.1)	—	(0.1)	(4.0)	(4.2)			
Health Care	0.7	3.2	—	(3.6)	0.3			
Electronics and Energy	(3.0)	—	(6.6)	(2.2)	(11.8)			
Consumer	0.9	—	—	(2.8)	(1.9)			
Total Company	(1.1)%	0.6 %	(1.1)%	(3.4)%	(5.0)%			

Sales by geographic area:

Percent change information compares the first quarter of 2019 with the same period last year, unless otherwise indicated. From a geographic perspective, any references to EMEA refer to Europe, Middle East and Africa on a combined basis.

	Three months ended March 31, 2019					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/Canada	Other Unallocated	Worldwide
Net sales (millions)	\$ 3,046	\$ 2,478	\$ 1,624	\$ 717	\$ (2)	\$ 7,863
% of worldwide sales	38.7 %	31.5 %	20.7 %	9.1 %	—	100.0 %
Components of net sales change:						
Volume — organic	(1.2)%	(4.3)%	(0.7)%	(0.3)%	—	(2.0)%
Price	0.8	0.7	1.4	1.1	—	0.9
Organic local-currency sales	(0.4)	(3.6)	0.7	0.8	—	(1.1)
Acquisitions	1.5	—	0.1	0.1	—	0.6
Divestitures	(1.0)	(0.3)	(2.4)	(1.2)	—	(1.1)
Translation	—	(3.5)	(7.8)	(6.2)	—	(3.4)
Total sales change	0.1 %	(7.4)%	(9.4)%	(6.5)%	—	(5.0)%
Total sales change:						
Industrial	(1.7)%	(12.1)%	(7.6)%	(4.7)%	—	(6.6)%
Safety and Graphics	(2.6)%	(4.8)%	(6.4)%	(3.2)%	—	(4.2)%
Health Care	3.3 %	2.3 %	(4.2)%	(6.6)%	—	0.3 %
Electronics and Energy	(11.4)%	(7.6)%	(35.0)%	(20.5)%	—	(11.8)%
Consumer	3.5 %	(7.0)%	(9.5)%	(9.0)%	—	(1.9)%
Organic local-currency sales change:						
Industrial	(1.7)%	(8.3)%	0.5 %	1.4 %	—	(2.8)%
Safety and Graphics	(2.5)%	— %	1.9 %	2.4 %	—	(0.1)%
Health Care	(3.2)%	7.4 %	2.8 %	(0.2)%	—	0.7 %
Electronics and Energy	2.0 %	(4.7)%	0.3 %	(1.2)%	—	(3.0)%
Consumer	3.5 %	(2.8)%	(1.2)%	(1.6)%	—	0.9 %

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

- In the Asia Pacific geographic area, China/Hong Kong total sales decreased 9 percent and organic local-currency sales decreased 4 percent. In Japan, total sales decreased 10 percent and organic local-currency sales decreased 7 percent. Excluding electronics, Japan total sales decreased 1 percent and organic local-currency sales increased 2 percent. Asia Pacific was impacted by a slowdown in China, automotive and electronics markets.
- In the Latin America/Canada geographic area, total sales decreased 2 percent in Mexico, while organic local-currency sales increased 1 percent. In Canada, total sales decreased 3 percent, as organic local-currency sales growth of 1 percent was more than offset by foreign currency translation impacts. In Brazil, total sales decreased 12 percent, as organic local-currency sales growth of 4 percent was more than offset by foreign currency translation impacts.

Managing currency risks:

The stronger U.S. dollar had a negative impact on sales and earnings in the first three months of 2019 compared to the same period last year. 3M utilizes a number of tools to hedge currency risk related to earnings. 3M uses natural hedges such as pricing, productivity, hard currency and 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:

3M generated \$1.048 billion of operating cash flows in the first three months of 2019, an increase of \$905 million when compared to the first three months of 2018, with this increase primarily due to the lower year-on-year significant litigation-related charges and the timing of associated payments that impacted both the first quarter of 2019 and first quarter of 2018. 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 the first three months of 2019, the Company purchased \$701 million of its own stock, compared to \$937 million of stock purchases in the first three months of 2018. As of March 31, 2019, approximately \$8.8 billion remained available under the authorization. The Company expects to purchase \$2.0 billion to \$4.0 billion of its own stock in 2019. In February 2019, 3M's Board of Directors declared a first-quarter 2019 dividend of \$1.44 per share, an increase of 6 percent. This marked the 61st consecutive year of dividend increases for 3M.

3M currently has an AA- credit rating with a stable outlook from Standard & Poor's and has an A1 credit rating with a stable outlook from Moody's Investors Service. The Company generates significant ongoing cash flow and has proven access to capital markets funding throughout business cycles.

3M expects to contribute approximately \$200 million of cash to its global defined benefit pension and postretirement plans in 2019. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2019.

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)	March 31,		
	2019	2018	Change
Cost of sales	54.8 %	51.1 %	3.7 %
Selling, general and administrative expenses	24.8	31.1	(6.3)
Research, development and related expenses	6.1	5.9	0.2
Gain on sale of businesses	(0.1)	(0.3)	0.2
Operating income margin	14.4 %	12.2 %	2.2 %

3M expects global defined benefit pension and postretirement service cost expense in 2019 to decrease by approximately \$60 million pre-tax when compared to 2018, which impacts cost of sales; selling, general and administrative expenses (SG&A); and research, development and related expenses (R&D). The year-on-year decrease in defined benefit pension and postretirement service cost expense for the first quarter of 2019 was approximately \$15 million.

The Company is investing in an initiative called business transformation, with these investments impacting cost of sales, SG&A, and R&D. Business transformation encompasses the ongoing multi-year phased implementation of an enterprise resource planning (ERP) system on a worldwide basis, as well as changes in processes and internal/external service delivery across 3M.

Cost of Sales:

Cost of sales includes manufacturing, engineering and freight costs.

Cost of sales, measured as a percent of sales, increased in the first quarter of 2019 primarily due to significant litigation-related charges taken in the first quarter of 2019 (as discussed earlier in the *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section).

Other factors that increased cost of sales as a percent of sales are foreign currency effects (net of hedge losses) and raw material cost increases. These factors were partially offset by selling price increases, which increased net sales year-on-year by 0.9 percent in the first quarter of 2019.

Selling, General and Administrative Expenses:

SG&A in dollars decreased 24.3 percent in the first quarter of 2019, when compared to the same period last year. The decrease primarily relates to lower year-on-year impact related to significant litigation-related charges (as discussed earlier in the *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section).

Research, Development and Related Expenses:

R&D in dollars decreased \$9 million in the first quarter of 2019, when compared to the same period last year. R&D, measured as a percent of sales, increased in the first quarter of 2019, as 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 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. Refer to Note 3 for additional details on divestitures.

Operating Income:

3M uses operating income as one of its primary business segment performance measurement tools. Refer to the table below for a reconciliation of operating income margins for the three months ended March 31, 2019 versus 2018.

(Percent of net sales)	Three months ended	
	March 31, 2019	
Same period last year		12.2 %
Significant litigation-related charges		10.8
Same period last year, excluding significant litigation-related charges		23.0 %
Increase/(decrease) in operating income margin, due to:		
Organic volume/productivity and other	(1.8)	
Acquisitions/divestitures	(0.4)	
Selling price and raw material impact	0.3	
Foreign exchange impacts	0.3	
Current period, excluding significant litigation-related charges		21.4 %
Significant litigation-related charges		(7.0)
Current period		14.4 %

Operating income margins increased 2.2 percentage point in the first quarter of 2019 when compared to the first quarter of 2018. Excluding the significant litigation-related charges, operating margins decreased 1.6 points to 21.4 percent. Refer to the *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section above for additional details on the significant litigation-related charges.

Additional discussion related to the components of the year-on-year change in operating income margins follows:

Organic volume/productivity and other:

- Operating income margins decreased year-on-year due to negative organic local-currency growth and weaker than expected productivity. Productivity challenges were most pronounced in the Company's industrial-related businesses within Asia Pacific and the United States. Lower year-on-year portfolio and supply chain footprint optimization charges partially offset these operating income margin decreases.
- Operating income margins increased year-on-year due to lower defined benefit pension and postretirement service cost expense.

Acquisitions/divestitures:

- Acquisition-related impacts relate to the on-going integration of M*Modal, which decreased operating income margins year-on-year.
- Remaining stranded costs to be addressed from the 2018 divestiture of the Communication Markets Division reduced operating margins year-on-year.
- Operating income margins increased year-on-year due to the lost lower-margin operating income from divested businesses.

Selling price and raw material impact:

- Higher selling prices, partially offset by raw material cost increases, benefited operating income margins year-on-year.

Foreign exchange impacts:

- Foreign currency effects (net of hedge gains) increased operating income margins year-on-year.

Significant litigation-related charges:

- Operating income margins for the first three months of 2018 and 2019 included the \$897 million and \$548 million impact, respectively, of significant litigation-related charges (as discussed earlier in the *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section).

Other Expense (Income), Net:

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

Interest expense increased in the first quarter of 2019 compared to the same period in 2018 due to higher U.S. average debt balances and higher borrowing costs.

Provision for Income Taxes:

(Percent of pre-tax income)	Three months ended March 31,	
	2019	2018
Effective tax rate	17.9 %	37.2 %

The effective tax rate for the first quarter of 2019 was 17.9 percent, compared to 37.2 percent in 2018, a decrease of 19.3 percentage points. The changes in the tax rates between years were impacted by many factors, including measurement period adjustments related to the Tax Cuts and Jobs Act (TCJA) and significant litigation-related charges as further described in the Overview, *Operating income, operating income margin, income before taxes, net income, earnings per share, and effective tax rate adjusted for impacts of significant litigation-related charges and measurement period adjustments to the impact of the enactment of the Tax Cuts and Jobs Act (TCJA) - (non-GAAP measures)* section and in Note 8.

3M currently estimates its effective tax rate for 2019 will be approximately 20 to 22 percent. The tax rate can vary from quarter to quarter due to discrete items, such as the settlement of income tax audits, changes in tax laws, and employee share-based payment accounting; as well as recurring factors, such as the geographic mix of income before taxes.

Refer to Note 8 for further discussion of income taxes.

Net Income Attributable to Noncontrolling Interest:

(Millions)	Three months ended March 31,	
	2019	2018
Net income attributable to noncontrolling interest	\$ 2	\$ 4

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

Second Quarter 2019 Restructuring and Other Actions:

In April 2019, in response to a slower than expected 2019, 3M management began approving and initiating restructuring and other actions expected to impact approximately 2,000 positions worldwide. The Company anticipates a pre-tax charge of approximately \$150 million in the remainder of 2019 as a result of this plan. The actions are expected to span all business groups, functions and geographies, with emphasis on corporate structure and under-performing areas of the portfolio.

Currency Effects:

3M estimates that year-on-year currency effects, including hedging impacts, decreased pre-tax income by approximately \$34 million for the first quarter of 2019 compared to 2018. This estimate includes the effect of translating profits from local currencies into U.S. dollars; the impact of currency fluctuations on the transfer of goods between 3M operations in the United States and abroad; and transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks. 3M estimates that year-on-year foreign currency transaction effects, including hedging impacts, increased pre-tax income by approximately \$90 million for the three months ended March 31, 2019. These estimates include transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks.

Significant Accounting Policies:

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

PERFORMANCE BY BUSINESS SEGMENT

Disclosures relating to 3M's business segments are provided in Note 17. As part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes, effective in the first quarter of 2019, and other revisions impacting business segment reporting:

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 largely impacted the amount of dual credit certain business segments receive as a result of sales district attribution. 3M business segment reporting measures include dual credit to business segments for certain sales and operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in a specific country. As a result, previously reported aggregate business segment net sales and operating income for the total year 2018 decreased \$32 million and \$8 million, respectively, offset by corresponding decreases in the elimination of dual credit net sales and operating income amounts.

Creation of Closure and Masking Systems Division and Medical Solutions Division

- 3M created the Closure and Masking Systems Division, which combines the masking tape, packaging tape and personal care portfolios formerly within Industrial Adhesives and Tapes Division in the Industrial business segment into a separate division also within the Industrial business segment. 3M created the Medical Solutions Division in the Health Care business segment, which combines the former Critical and Chronic Care Division and Infection Prevention Division (which were also both within the Health Care business segment).

Additional actions impacting business segment reporting

- The business associated with certain safety products sold through retail channels in the Asia Pacific region was realigned from the Personal Safety Division within the Safety and Graphics Business segment to the Construction and Home Improvement Division within the Consumer Business segment. This change resulted in a decrease in previously reported net sales and operating income for total year 2018 of \$12 million and \$1 million, respectively, in the Safety and Graphics business segment, offset by a corresponding increase in net sales and operating income within the Consumer business segment. Certain previously non-allocated costs related to manufacturing and technology of centrally managed material resource centers of expertise within Corporate and Unallocated are now reflected as being allocated to the business segments. As a result, previously reported aggregate business segment operating income for the total year 2018 decreased \$58 million, offset by a corresponding increase in operating income within Corporate and Unallocated.

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

Corporate and Unallocated:

In addition to these five business segments, 3M assigns certain costs to “Corporate and Unallocated,” which is presented separately in the preceding business segments table and in Note 17. Corporate and Unallocated includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company determines not to allocate directly to its business segments. Corporate and Unallocated also includes sales, costs, and income from contract manufacturing, transition services and other arrangements with the acquirer of the Communication Markets Division following its divestiture in 2018. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

Corporate and Unallocated operating expenses decreased in the first quarter of 2019, when compared to the same period last year. In the first quarter of 2018 and 2019, significant litigation-related charges of \$897 million and \$548 million, respectively, were reflected in Corporate and Unallocated. In addition, 3M’s defined benefit pension and postretirement service-cost expense allocation to Corporate and Unallocated decreased year-on-year.

Operating Business Segments:

Information related to 3M’s business segments for the first quarter of both 2019 and 2018 are presented in the tables that follow. Organic local-currency sales include both organic volume impacts plus selling price impacts. Acquisition impacts, if any, are measured separately for the first twelve months post-transaction. The divestiture impacts, if any, foreign currency translation impacts and total sales change are also provided for each business segment. Any references to EMEA relate to Europe, Middle East and Africa on a combined basis.

Refer to the preceding “Sales and operating income by geographic area” section for organic local-currency sales growth by business segment within major geographic areas.

Refer to 3M’s 2018 Annual Report on Form 10-K, Item 1, Business, for discussion of 3M products that are included in each business segment.

Industrial Business:

	Three months ended March 31,	
	2019	2018
Sales (millions)	\$ 2,929	\$ 3,135
Sales change analysis:		
Organic local-currency	(2.8)%	2.2 %
Divestitures	(0.1)	—
Translation	(3.7)	5.0
Total sales change	(6.6)%	7.2 %
Operating income (millions)	\$ 585	\$ 714
Percent change	(18.0)%	7.6 %
Percent of sales	20.0 %	22.8 %

First quarter 2019 results:

Sales in Industrial totaled \$2.9 billion, a decrease of 6.6 percent compared to the same period last year. Organic local-currency sales decreased 2.8 percent, divestitures decreased sales by 0.1 percent, and foreign currency translation decreased sales by 3.7 percent.

On an organic local-currency sales basis:

- Sales increased in advanced materials, while industrial adhesives and tapes, automotive aftermarket, separation and purification, abrasives, closure and masking, and automotive and aerospace all declined year-on-year.
- Automotive and aerospace was impacted by the decline in global car and light truck builds along with channel inventory reductions within its Automotive OEM business, particularly in China.

Divestitures:

- In the first quarter of 2018, 3M completed the sale of its polymer additives compounding business.
- In May 2018, 3M divested an abrasives glass products business.

Operating income:

- Operating income margins decreased 2.8 percentage points, primarily impacted by sales declines and weak productivity, particularly in Asia Pacific and the U.S.

Safety and Graphics Business:

	Three months ended March 31,	
	2019	2018
Sales (millions)	\$ 1,704	\$ 1,779
Sales change analysis:		
Organic local-currency	(0.1)%	7.0 %
Acquisitions	—	9.7
Divestitures	(0.1)	(6.7)
Translation	(4.0)	4.9
Total sales change	(4.2)%	14.9 %
 Operating income (millions)	 \$ 396	 \$ 481
Percent change	(17.7)%	21.2 %
Percent of sales	23.2 %	27.0 %

First quarter 2019 results:

Sales in Safety and Graphics totaled \$1.7 billion, down 4.2 percent in U.S. dollars. Organic local-currency sales decreased 0.1 percent, divestitures reduced sales by 0.1 percent, and foreign currency translation decreased sales by 4.0 percent.

On an organic local-currency sales basis:

- Sales increased in personal safety, while commercial solutions, transportation safety, and roofing granules declined.

Acquisitions and divestitures:

- Acquisition sales growth in 2018 reflects the acquisition of Scott Safety in October 2017. Scott Safety is a premier manufacturer of innovative products, including self-contained breathing apparatus systems, gas and flame detection instruments and other safety devices.
- 2017 divestitures include the sale of its safety prescription eyewear business (first quarter 2017), the sale of 3M's identity management business and tolling and automated license/number plate business (both in second quarter 2017) and electronic monitoring business (fourth quarter 2017).
- In February 2018, 3M closed on the sale of certain personal safety product offerings primarily focused on noise, environmental, and heat stress monitoring.

Operating income:

- Operating income margins decreased 3.8 percentage points, primarily impacted by sales declines and weak productivity, particularly in Asia Pacific and the U.S. Divestiture impacts related to the first quarter 2018 sale of certain personal safety product offerings resulted in a net year-on-year operating income margin reduction of 1.1 percentage points.

Health Care Business:

	Three months ended March 31,	
	2019	2018
Sales (millions)	\$ 1,540	\$ 1,535
Sales change analysis:		
Organic local-currency	0.7 %	2.6 %
Acquisitions	3.2	0.1
Translation	(3.6)	4.3
Total sales change	<u>0.3 %</u>	<u>7.0 %</u>
Operating income (millions)	\$ 432	\$ 458
Percent change	(5.6)%	7.1 %
Percent of sales	<u>28.1 %</u>	<u>29.8 %</u>

First quarter 2019 results:

Sales in Health Care totaled \$1.5 billion, up 0.3 percent in U.S. dollars. Organic local-currency sales increased 0.7 percent, acquisitions increased sales by 3.2 percent, and foreign currency translation decreased sales by 3.6 percent.

On an organic local-currency sales basis:

- Sales increased in food safety, health information systems, medical solutions and oral care.
- Drug delivery declined year-on-year, as continued softness in the business negatively impacted overall Health Care organic growth.

Acquisitions and divestitures:

- 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 the first quarter of 2019, the Company sold certain oral care technology comprising a business.
- In September 2017, 3M acquired Elution Technologies, LLC, a manufacturer of food safety test kits.

Operating income:

- Operating income margins decreased 1.7 percentage points year-on-year, driven by a 2.3 percentage point impact related to the M*Modal acquisition.

Electronics and Energy Business:

	Three months ended March 31,	
	2019	2018
Sales (millions)	\$ 1,190	\$ 1,350
Sales change analysis:		
Organic local-currency	(3.0)%	1.7 %
Divestitures	(6.6)	(0.2)
Translation	(2.2)	3.1
Total sales change	<u>(11.8)%</u>	<u>4.6 %</u>
Operating income (millions)	\$ 284	\$ 336
Percent change	(15.6)%	31.5 %
Percent of sales	<u>23.8 %</u>	<u>24.9 %</u>

First quarter 2019 results:

Sales in Electronics and Energy totaled \$1.2 billion, down 11.8 percent in U.S. dollars. Organic local-currency sales decreased 3.0 percent, divestitures reduced sales by 6.6 percent, and foreign currency translation decreased sales by 2.2 percent.

Total sales decreased 7 percent within the electronics-related businesses and decreased 22 percent within the energy-related businesses. Total sales decreased 8 percent in Asia Pacific.

On an organic local-currency sales basis:

- Sales decreased 6 percent in 3M's electronics-related businesses, with both display materials and systems and electronics materials solutions declining year-on-year. Electronics-related growth was impacted by soft consumer electronics and factory automation end markets in addition to channel inventory adjustments.
- Sales increased 5 percent in 3M's energy-related businesses.
- Sales decreased 5 percent in Asia Pacific, where 3M's electronics business is concentrated.

Divestitures:

- In the fourth quarter of 2017, 3M sold the assets of its electrical marking/labeling business.
- In 2018, 3M completed the sale of substantially all of its Communication Markets Division.

Operating income:

- Operating income margins decreased 1.1 percentage points, with the decrease partially offset by the lost lower-margin operating income of the former Communication Markets Division.

Consumer Business:

	Three months ended March 31,	
	2019	2018
Sales (millions)	\$ 1,123	\$ 1,145
Sales change analysis:		
Organic local-currency	0.9 %	2.1 %
Acquisitions	—	0.3
Translation	(2.8)	2.9
Total sales change	(1.9)%	5.3 %
Operating income (millions)	\$ 219	\$ 220
Percent change	(0.7)%	(2.1)%
Percent of sales	19.5 %	19.2 %

First quarter 2019 results:

Sales in Consumer totaled \$1.1 billion, a decrease of 1.9 percent in U.S. dollars. Organic local-currency sales increased 0.9 percent and foreign currency translation decreased sales by 2.8 percent.

On an organic local-currency sales basis:

- Sales grew in home improvement, while home care and consumer health care declined.
- Geographically, the U.S. showed particular strength in the Company's Filtrete™ and Command™ brands, while Asia Pacific was impacted by lower consumer demand for respiratory solutions.

Operating income:

- Operating income margins increased 0.3 percentage points year-on-year.

FINANCIAL CONDITION AND LIQUIDITY

The strength and stability of 3M's business model and strong free cash flow capability, together with proven capital markets access, positions the Company to be able to add further leverage to its capital structure. Investing in 3M's businesses to drive organic growth remains the first priority for capital deployment, including research and development, capital expenditures, and commercialization capability. Investment in organic growth will be supplemented by complementary acquisitions. 3M will also continue to return cash to shareholders through dividends and share repurchases. Sources for cash availability in the United States, such as ongoing cash flow from operations and access to capital markets, have historically been sufficient to fund dividend payments to shareholders, as well as funding U.S. acquisitions and other items as needed. The TCJA creates additional repatriation opportunities for 3M to access international cash positions on a continual and on-going basis and will help support U.S. capital deployments needs. For those international earnings still considered to be reinvested indefinitely, the Company currently has no plans or intentions to repatriate these funds for U.S. operations. See Note 10 in 3M's 2018 Annual Report on Form 10-K for further information on earnings considered to be reinvested indefinitely.

3M's primary short-term liquidity needs are met through cash on hand and U.S. commercial paper issuances. 3M believes it will have continuous access to the commercial paper market. 3M's commercial paper program permits the Company to have a maximum of \$5 billion outstanding with a maximum maturity of 397 days from date of issuance. At March 31, 2019, there was no commercial paper issued and outstanding, compared to \$435 million outstanding at December 31, 2018.

Total debt:

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

The Company's total debt was \$1.7 billion higher at March 31, 2019 when compared to December 31, 2018. Increases in debt related to the first quarter 2019 issuance of \$2.25 billion of medium-term notes, partially offset by lower commercial paper outstanding. For discussion of repayments of and proceeds from debt refer to the following "Cash Flows from Financing Activities" section.

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

As of March 31, 2019, 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). Information with respect to long-term debt issuances and maturities for the periods presented is included in Note 12 of 3M's 2018 Annual Report on Form 10-K.

In March 2016, 3M amended and restated its existing \$2.25 billion five-year revolving credit facility expiring in August 2019 to a \$3.75 billion five-year revolving credit facility expiring in March 2021. This credit agreement includes a provision under which 3M may request an increase of up to \$1.25 billion (at lenders' discretion), bringing the total facility up to \$5.0 billion. This revolving credit facility is undrawn at March 31, 2019. Under the \$3.75 billion credit agreement, the Company is required to maintain its EBITDA to Interest Ratio as of the end of each fiscal quarter at not less than 3.0 to 1. This is calculated (as defined in the agreement) as the ratio of consolidated total EBITDA for the four consecutive quarters then ended to total interest expense on all funded debt for the same period. At March 31, 2019, this ratio was approximately 24 to 1. Debt covenants do not restrict the payment of dividends. Apart from the committed facilities, an additional \$235 million in stand-alone letters of credit and bank guarantees were also issued and outstanding at March 31, 2019. These instruments are utilized in connection with normal business activities.

Cash, cash equivalents and marketable securities:

At March 31, 2019, 3M had \$3.5 billion of cash, cash equivalents and marketable securities, of which approximately \$3.2 billion was held by the Company's foreign subsidiaries and approximately \$300 million was held by the United States. These balances are invested in bank instruments and other high-quality fixed income securities. At December 31, 2018, cash, cash equivalents and marketable securities held by the Company's foreign subsidiaries and by the United States totaled approximately \$3.1 billion and \$160 million, respectively.

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 March 31, 2019 and December 31, 2018.

(Millions)	March 31, 2019	December 31, 2018	Change
Total debt	\$ 16,370	\$ 14,622	\$ 1,748
Less: Cash, cash equivalents and marketable securities	3,523	3,270	253
Net debt (non-GAAP measure)	\$ 12,847	\$ 11,352	\$ 1,495

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)	March 31, 2019	December 31, 2018	Change
Current assets	\$ 14,374	\$ 13,709	\$ 665
Less: Current liabilities	7,125	7,244	(119)
Working capital (non-GAAP measure)	\$ 7,249	\$ 6,465	\$ 784

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

Working capital increased \$784 million compared with December 31, 2018. Current asset balance changes increased working capital by \$665 million, driven by increases in accounts receivable and inventories (discussed further below) and cash and cash equivalents and marketable securities. Current liability balance changes increased working capital by \$119 million, primarily due to decreases in short-term debt partially offset by the addition of the current portion of operating lease liabilities due to the adoption of Accounting Standards Update (ASU) No. 2016-02, *Leases*. Refer to Note 15 for additional details on leases.

Accounts receivable increased \$153 million from December 31, 2018, primarily due to the receivables acquired from the M*Modal acquisition. Inventory increased \$172 million from December 31, 2018, impacted by a lag in altering production activity in response to slowing growth conditions in several key end markets and channel inventory adjustments by customers.

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:

(Millions)	Three months ended March 31,	
	2019	2018
Net income including noncontrolling interest	\$ 893	\$ 606
Depreciation and amortization	375	382
Company pension and postretirement contributions	(47)	(232)
Company pension and postretirement expense	70	102
Stock-based compensation expense	130	159
Gain on sale of businesses	(5)	(24)
Income taxes (deferred and accrued income taxes)	(56)	109
Accounts receivable	(78)	(260)
Inventories	(178)	(209)
Accounts payable	(3)	(88)
Other — net	(53)	(402)
Net cash provided by (used in) operating activities	\$ 1,048	\$ 143

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 the first three months of 2019, cash flows provided by operating activities increased \$905 million compared to the same period last year, with this increase primarily due to lower year-on-year significant litigation-related charges and the timing of associated payments. Factors that decreased operating cash flows were increases in inventory and accounts receivable. The combination of accounts receivable, inventories and accounts payable increased working capital by \$259 billion in the first three months of 2019, compared to the working capital increases of \$557 million in the first three months of 2018. Additional discussion on working capital changes is provided earlier in the “Financial Condition and Liquidity” section.

Cash Flows from Investing Activities:

(Millions)	Three months ended March 31,	
	2019	2018
Purchases of property, plant and equipment (PP&E)	\$ (391)	\$ (304)
Proceeds from sale of PP&E and other assets	1	83
Acquisitions, net of cash acquired	(704)	—
Purchases and proceeds from maturities and sale of marketable securities and investments, net	(142)	473
Proceeds from sale of businesses, net of cash sold	6	40
Other — net	5	(11)
Net cash provided by (used in) investing activities	\$ (1,225)	\$ 281

Investments in property, plant and equipment enable growth across many diverse markets, helping to meet product demand and increasing manufacturing efficiency. The Company expects 2019 capital spending to be approximately \$1.6 billion to \$1.7 billion as 3M continues to invest in its businesses.

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

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.

Purchases of marketable securities and investments and proceeds from maturities and sale of marketable securities and investments are primarily attributable to asset-backed securities, certificates of deposit/time deposits, commercial paper, and other securities, which are classified as available-for-sale. Refer to Note 9 for more details about 3M's diversified marketable securities portfolio. Purchases of investments include additional survivor benefit insurance, plus investments in equity securities.

Cash Flows from Financing Activities:

(Millions)	Three months ended March 31,	
	2019	2018
Change in short-term debt — net	\$ (428)	\$ 1,581
Repayment of debt (maturities greater than 90 days)	(246)	(6)
Proceeds from debt (maturities greater than 90 days)	2,265	6
Total cash change in debt	\$ 1,591	\$ 1,581
Purchases of treasury stock	(701)	(937)
Proceeds from issuances of treasury stock pursuant to stock option and benefit plans	215	219
Dividends paid to shareholders	(830)	(810)
Other — net	(17)	(7)
Net cash provided by (used in) financing activities	\$ 258	\$ 46

Total debt was approximately \$16.4 billion at March 31, 2019 and \$14.6 billion at December 31, 2018. Increases in debt related to the first quarter 2019 issuance of \$2.25 billion of medium-term notes. Repayment of debt primarily consists of debt assumed and subsequently repaid as a result of the Company's acquisition of M*Modal. Outstanding commercial paper was zero at March 31, 2019, as compared to \$435 million at December 31, 2018. Net commercial paper issuances and repayments and borrowings by international subsidiaries are largely reflected in "Change in short-term debt – net" in the preceding table. 3M's primary short-term liquidity needs are met through cash on hand and U.S. commercial paper issuances.

Repurchases of 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. In the first quarter of 2019, the Company purchased \$0.7 billion of its own stock. The Company expects full-year 2019 gross share repurchases to be between \$2.0 billion to \$4.0 billion. For more information, refer to the table titled "Issuer Purchases of Equity Securities" in Part II, Item 2. The Company does not utilize derivative instruments linked to the Company's stock.

3M has paid dividends each year since 1916. In February 2019, 3M's Board of Directors declared a first-quarter 2019 dividend of \$1.44 per share, an increase of 6 percent. This is equivalent to an annual dividend of \$5.76 per share and marked the 61st consecutive year of dividend increases.

Other cash flows from financing activities may include various other items, such as distributions to or sales of noncontrolling interests, changes in cash overdraft balances, and principal payments for capital 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. The first quarter of each year is typically 3M's seasonal low for free cash flow and free cash flow conversion. In the table below details the components of free cash flow for the three months ended March 31, 2019 and 2018.

In the first three months of 2019, free cash flow conversion was impacted by significant litigation-related charges. In the first three months of 2018, free cash flow conversion was impacted by significant litigation-related charges and the measurement period adjustment relative to the accounting for the 2017 enactment of the TCJA. Refer to the preceding "Cash Flows from Operating Activities" section for discussion of additional items that impacted operating cash flow. Refer to the proceeding "Cash Flows from Investing Activities" section for discussion on capital spending for property, plant and equipment.

(Millions)	Three months ended March 31,	
	2019	2018
Major GAAP Cash Flow Categories		
Net cash provided by (used in) operating activities	\$ 1,048	\$ 143
Net cash provided by (used in) investing activities	(1,225)	281
Net cash provided by (used in) financing activities	258	46
Free Cash Flow (non-GAAP measure)		
Net cash provided by (used in) operating activities	\$ 1,048	\$ 143
Purchases of property, plant and equipment (PP&E)	(391)	(304)
Free cash flow	\$ 657	\$ (161)
Net income attributable to 3M	\$ 891	\$ 602
Free cash flow conversion	74 %	(27)%

CAUTIONARY NOTE CONCERNING FACTORS THAT MAY AFFECT FUTURE RESULTS

This Quarterly Report on Form 10-Q, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part I, Item 2, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Company may also make forward-looking statements in other reports filed with the Securities and Exchange Commission, in materials delivered to shareholders and in press releases. In addition, the Company’s representatives may from time to time make oral forward-looking statements.

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

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

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

Forward-looking statements are based on certain assumptions and expectations of future events and trends that are subject to risks and uncertainties. Actual future results and trends may differ materially from historical results or those reflected in any such forward-looking statements depending on a variety of factors. Important information as to these factors can be found in this document, including, among others, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the headings of “Overview,” “Financial Condition and Liquidity” and annually in “Critical Accounting Estimates.” Discussion of these factors is incorporated by reference from Part I, Item 1A, “Risk Factors,” of this document, and should be considered an integral part of Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” For additional information concerning factors that may cause actual results to vary materially from those stated in the forward-looking statements, see our reports on Form 10-K, 10-Q and 8-K filed with the SEC from time to time.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

In the context of Item 3, 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. For a discussion of sensitivity analysis related to these types of market risks, refer to Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risk, in 3M’s 2018 Annual Report on Form 10-K. There have been no material changes in information that would have been provided in the context of Item 3 from the end of the preceding year until March 31, 2019. However, the Company does provide risk management discussion in various places in this Quarterly Report on Form 10-Q, primarily in the Derivatives note.

Item 4. 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. 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.

3M COMPANY
FORM 10-Q
For the Quarterly Period Ended March 31, 2019
PART II. Other Information

Item 1. Legal Proceedings.

Discussion of legal matters is incorporated by reference from Part I, Item 1, Note 14, "Commitments and Contingencies" of this document, and should be considered an integral part of Part II, Item 1, "Legal Proceedings."

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 I, Item 2, "Management's Discussion and Analysis of Financial Conditions and Results of Operations."

** Results are impacted by the effects of, and changes in, worldwide economic, political, regulatory, capital markets 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. The Company's business is subject to global competition and geopolitical risks and may be adversely affected by factors in the United States and other countries that are beyond its control, such as slower economic growth, disruptions in financial markets, economic downturns in the form of either contained or widespread recessionary conditions, inflation, elevated unemployment levels, sluggish or uneven recovery, government actions impacting international trade agreements, imposing trade restrictions such as tariffs, and retaliatory counter measures, government deficit reduction and other austerity measures in specific countries or regions, or in the various industries in which the Company operates; social, political or labor conditions in specific countries or regions; natural and other disasters affecting the operations of the Company or its customers and suppliers; or adverse changes in the availability and cost of capital, interest rates, tax rates, tax laws, or exchange control, ability to expatriate earnings and other regulations in the jurisdictions in which the Company operates. Natural occurrences and human activities are increasingly releasing greenhouse gases into the atmosphere, contributing to changes in the earth's climate. 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.

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

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

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

projected growth rates in sales and earnings could be adversely affected if the U.S. dollar strengthens significantly against foreign currencies.

** The Company's growth objectives are largely dependent on the timing and market acceptance of its new product offerings, including its ability to continually renew its pipeline of new products and to bring those products to market.* This ability may be adversely affected by difficulties or delays in product development, such as the inability to identify viable new products, obtain adequate intellectual property protection, or gain market acceptance of new products. There are no guarantees that new products will prove to be commercially successful.

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

** Acquisitions, strategic alliances, divestitures, and other unusual events resulting from portfolio management actions and other evolving business strategies, and possible organizational restructuring could affect future results.* The Company monitors its business portfolio and organizational structure and has made and may continue to make acquisitions, strategic alliances, divestitures and changes to its organizational structure. With respect to acquisitions, future results will be affected by the Company's ability to integrate acquired businesses quickly and obtain the anticipated synergies. The Company has recently announced the realignment from five to four business segments to better serve its global customers and markets. Successful execution of these and other organizational changes will be important to the Company's future results.

** 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 enterprise resource planning (ERP) system on a worldwide basis. There can be no assurance that all of the projected productivity improvements will be realized. Operational challenges, including those related to productivity improvements, could have a material adverse effect on the Company's business, financial conditions and results of operations.

** The Company employs information technology systems to support its business, including ongoing phased implementation of an ERP system as part of business transformation on a worldwide basis over the next several years. Security breaches and other disruptions to the Company's information technology infrastructure could interfere with the Company's operations, compromise information belonging to the Company or its customers, suppliers, and employees, exposing the Company to liability which could adversely impact the Company's business and reputation.* In the ordinary course of business, the Company relies on centralized and local information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of businesses. Additionally, the Company collects and stores certain data, including proprietary business information, and may have access to confidential or personal information in certain of our businesses that is subject to privacy and security laws, regulations and customer-imposed controls. Despite our cybersecurity measures (including employee and third-party training, monitoring of networks and systems, patching, maintenance, and backup of systems and data), the Company's information technology networks and infrastructure may still be vulnerable to damage, disruptions or shutdowns due to attacks by hackers, breaches, employee error or malfeasance, power outages, computer viruses, ransomware, telecommunication or utility failures, systems failures, service or cloud provider breaches, natural disasters or other catastrophic events. It is possible for such vulnerabilities to remain undetected for an extended period, up to and including several years. While we have experienced, and expect to continue to experience, these types of vulnerabilities to the Company's information technology networks and infrastructure, none of them to date has had a material impact to the Company. There may be other challenges and risks as the Company upgrades and standardizes its ERP system on a worldwide basis. Any such events could result in legal claims or proceedings, liability or penalties

under privacy laws, disruptions or shutdowns, 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.

** The Company's defined benefit pension and postretirement plans are subject to financial market risks that could adversely impact our results.* The performance of financial markets and discount rates impact the Company's funding obligations under its defined benefit plans. Significant changes in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets, and relevant legislative or regulatory changes relating to defined benefit plan funding may increase the Company's funding obligations and adversely impact its results of operations and cash flows.

** The Company's future results may be affected by various legal and regulatory proceedings and legal compliance risks, including those involving product liability, antitrust, intellectual property, environmental, the U.S. Foreign Corrupt Practices Act and other anti-bribery laws, U.S. trade sanctions compliance, or other matters.* The outcome of these legal proceedings may differ from the Company's expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict.

Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables where applicable, or make such estimates for matters previously not susceptible of reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in future charges that could have a material adverse effect on the Company's results of operations or cash flows in any particular period. For a more detailed discussion of the legal proceedings involving the Company and the associated accounting estimates, see the discussion in Note 14 "Commitments and Contingencies" within the Notes to Consolidated Financial Statements.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

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)

<u>Period</u>	<u>Total Number of Shares Purchased (1)</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)</u>	<u>Maximum Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs (Millions)</u>
January 1-31, 2019	1,723,445	\$ 192.18	1,723,187	\$ 9,065
February 1-28, 2019	1,052,365	\$ 204.91	1,048,301	\$ 8,850
March 1-31, 2019	355,200	\$ 204.83	355,200	\$ 8,777
Total January 1-March 31, 2019	3,131,010	\$ 197.89	3,126,688	\$ 8,777

- (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 3. Defaults Upon Senior Securities. — No matters require disclosure.

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. 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 quarterly report.

Item 5. Other Information.

Disclosures 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 because the Company’s management recently became aware that the ultimate customer in Iran, which meets the definition of the “Government of Iran” under Section 560.304 of 31 C.F.R. Part 560 (the “Iran Party”), was not eligible to receive non-U.S. origin products sold by our foreign subsidiary through a third-party distributor under General License H issued by the U.S. Department of the Treasury, Office of Foreign Assets Control (“OFAC”). Based upon currently known information, total revenues to our foreign subsidiary from indirect sales to the Iran Party, which took place from September 2016 through September 2018, were approximately \$8.4 million, and the total net income attributable to those sales was approximately \$1.6 million.

Upon expiration of OFAC’s authorization in November 2018, our foreign subsidiary stopped all shipments to the distributor for resale to the Iran Party, and, accordingly, the foreign subsidiary does not intend to continue sales to, or engage in other dealings with the Iran Party. On April 8, 2019, the Company submitted initial notifications of voluntary self-disclosures to OFAC regarding these historic activities, and the Company intends to cooperate fully with OFAC.

Item 6. Exhibits.

- (31.1) Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
- (31.2) Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
- (32.1) Certification of the Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
- (32.2) Certification of the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
- (95) Mine Safety Disclosures.
- (101.INS) XBRL Instance Document.
- (101.SCH) XBRL Taxonomy Extension Schema Document.
- (101.CAL) XBRL Taxonomy Extension Calculation Linkbase Document.
- (101.DEF) XBRL Taxonomy Extension Definition Linkbase Document.
- (101.LAB) XBRL Taxonomy Extension Label Linkbase Document.
- (101.PRE) XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURES

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

3M COMPANY
(Registrant)

Date: April 26, 2019

By /s/ Nicholas C. Gangestad
Nicholas C. Gangestad,

Senior Vice President and Chief Financial Officer
(Mr. Gangestad is the Principal Financial Officer and has
been duly authorized to sign on behalf of the Registrant.)

SARBANES-OXLEY SECTION 302 CERTIFICATION

I, Michael F. Roman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of 3M Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

/s/ Michael F. Roman

Michael F. Roman
Chief Executive Officer

April 26, 2019

SARBANES-OXLEY SECTION 302 CERTIFICATION

I, Nicholas C. Gangestad, certify that:

1. I have reviewed this quarterly report on Form 10-Q of 3M Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

/s/ Nicholas C. Gangestad

Nicholas C. Gangestad
Chief Financial Officer

April 26, 2019

SARBANES-OXLEY SECTION 906 CERTIFICATION

In connection with the Quarterly Report of 3M Company (the “Company”) on Form 10-Q for the period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Michael F. Roman, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael F. Roman

Michael F. Roman
Chief Executive Officer

April 26, 2019

EXHIBIT 32.2

SARBANES-OXLEY SECTION 906 CERTIFICATION

In connection with the Quarterly Report of 3M Company (the “Company”) on Form 10-Q for the period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Nicholas C. Gangestad, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Nicholas C. Gangestad

Nicholas C. Gangestad
Chief Financial Officer

April 26, 2019

MINE SAFETY DISCLOSURES

For the first quarter of 2019, the Company has the following mine safety information to report in accordance with Section 1503(a) of the Act, in connection with the Pittsboro, North Carolina mine, the Little Rock, Arkansas mine, the Corona, California mine, and the Wausau, Wisconsin mine (including Greystone Plant):

Mine or Operating Name/MSHA Identification Number	Section 104 S&S Citations (#)	Section 104(b) Orders (#)	Section 104(d) Citations and Orders (#)	Section 110(b)(2) Violations (#)	Section 107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed (\$)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Under Section 104(e) (yes/no)	Legal Actions Pending as of Last Day of Period (#)	Aggregate Legal Actions Initiated During Period (#)	Aggregate Legal Actions Resolved During Period (#)
3M Pittsboro ID: 3102153	—	—	—	—	—	\$ 246	—	No	No	—	—	—
3M Little Rock ID: 0300426	—	—	—	—	—	\$ —	—	No	No	—	—	—
3M Corona Plant ID: 0400191	—	—	—	—	—	\$ 3,147	—	No	No	—	—	—
Greystone Plant ID: 4700119	—	—	—	—	—	\$ —	—	No	No	—	—	—
Wausau Plant ID: 4702918	—	—	—	—	—	\$ 889	—	No	No	—	—	—
Total	—	—	—	—	—	\$ 4,282	—	—	—	—	—	—