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 June 30, 2017

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 ☐ (Do not check if a smaller reporting company)	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 June 30, 2017
Common Stock, $0.01 par value per share	596,767,147 shares

3M COMPANY
Form 10-Q for the Quarterly Period Ended June 30, 2017
TABLE OF CONTENTS

		BEGINNING PAGE
PART I	FINANCIAL INFORMATION	
ITEM 1.	Financial Statements	
	Index to Financial Statements:	
	Consolidated Statement of Income	3
	Consolidated Statement of Comprehensive Income	4
	Consolidated Balance Sheet	5
	Consolidated Statement of Cash Flows	6
	Notes to Consolidated Financial Statements	
	Note 1. Significant Accounting Policies	7
	Note 2. Acquisitions and Divestitures	14
	Note 3. Goodwill and Intangible Assets	15
	Note 4. Restructuring Actions and Exit Activities	17
	Note 5. Supplemental Equity and Comprehensive Income Information	18
	Note 6. Income Taxes	22
	Note 7. Marketable Securities	23
	Note 8. Long-Term Debt and Short-Term Borrowings	24
	Note 9. Pension and Postretirement Benefit Plans	25
	Note 10. Derivatives	26
	Note 11. Fair Value Measurements	33
	Note 12. Commitments and Contingencies	36
	Note 13. Stock-Based Compensation	46
	Note 14. Business Segments	50
	Report of Independent Registered Public Accounting Firm	52
ITEM 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	
	Index to Management's Discussion and Analysis:	
	Overview	53
	Results of Operations	61
	Performance by Business Segment	65
	Financial Condition and Liquidity	72
	Cautionary Note Concerning Factors That May Affect Future Results	78
ITEM 3.	Quantitative and Qualitative Disclosures About Market Risk	78
ITEM 4.	Controls and Procedures	79
PART II	OTHER INFORMATION	
ITEM 1.	Legal Proceedings	80
ITEM 1A.	Risk Factors	80
ITEM 2.	Unregistered Sales of Equity Securities and Use of Proceeds	83
ITEM 3.	Defaults Upon Senior Securities	84
ITEM 4.	Mine Safety Disclosures	84
ITEM 5.	Other Information	84
ITEM 6.	Exhibits	84

3M COMPANY
FORM 10-Q
For the Quarterly Period Ended June 30, 2017
PART I. Financial Information

Item 1. Financial Statements.

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

(Millions, except per share amounts)	Three months ended June 30, 2017	Three months ended June 30, 2016	Six months ended June 30, 2017	Six months ended June 30, 2016
Net sales	**$ 7,810**	$ 7,662	**$ 15,495**	$ 15,071
Operating expenses				
Cost of sales	**4,007**	3,799	**7,876**	7,477
Selling, general and administrative expenses	**1,607**	1,560	**3,207**	3,093
Research, development and related expenses	**473**	437	**944**	887
Gain on sale of businesses	**(461)**	—	**(490)**	(40)
Total operating expenses	**5,626**	5,796	**11,537**	11,417
Operating income	**2,184**	1,866	**3,958**	3,654
Interest expense and income				
Interest expense	**54**	38	**99**	85
Interest income	**(12)**	(7)	**(20)**	(12)
Total interest expense — net	**42**	31	**79**	73
Income before income taxes	**2,142**	1,835	**3,879**	3,581
Provision for income taxes	**557**	542	**968**	1,010
Net income including noncontrolling interest	**$ 1,585**	$ 1,293	**$ 2,911**	$ 2,571
Less: Net income attributable to noncontrolling interest	**2**	2	**5**	5
Net income attributable to 3M	**$ 1,583**	$ 1,291	**$ 2,906**	$ 2,566
Weighted average 3M common shares outstanding — basic	**598.1**	606.9	**598.1**	607.2
Earnings per share attributable to 3M common shareholders — basic	**$ 2.65**	$ 2.13	**$ 4.86**	$ 4.23
Weighted average 3M common shares outstanding — diluted	**612.8**	620.9	**612.4**	621.1
Earnings per share attributable to 3M common shareholders — diluted	**$ 2.58**	$ 2.08	**$ 4.74**	$ 4.13
Cash dividends paid per 3M common share	**$ 1.175**	$ 1.11	**$ 2.35**	$ 2.22

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 June 30, 2017	Three months ended June 30, 2016	Six months ended June 30, 2017	Six months ended June 30, 2016
Net income including noncontrolling interest	**$ 1,585**	$ 1,293	**$ 2,911**	$ 2,571
Other comprehensive income (loss), net of tax:				
Cumulative translation adjustment	**(67)**	37	**225**	175
Defined benefit pension and postretirement plans adjustment	**78**	67	**161**	136
Cash flow hedging instruments, unrealized gain (loss)	**(51)**	(27)	**(127)**	(137)
Total other comprehensive income (loss), net of tax	**(40)**	77	**259**	174
Comprehensive income (loss) including noncontrolling interest	**1,545**	1,370	**3,170**	2,745
Comprehensive (income) loss attributable to noncontrolling interest	**(2)**	(2)	**(8)**	(4)
Comprehensive income (loss) attributable to 3M	**$ 1,543**	$ 1,368	**$ 3,162**	$ 2,741

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

3M Company and Subsidiaries
Consolidated Balance Sheet
(Unaudited)

(Dollars in millions, except per share amount)	June 30, 2017	December 31, 2016
Assets		
Current assets		
Cash and cash equivalents	**$ 2,654**	$ 2,398
Marketable securities — current	**140**	280
Accounts receivable — net	**4,919**	4,392
Inventories		
Finished goods	**1,863**	1,629
Work in process	**1,145**	1,039
Raw materials and supplies	**830**	717
Total inventories	**3,838**	3,385
Other current assets	**1,090**	1,271
Total current assets	**12,641**	11,726
Marketable securities — non-current	**17**	17
Investments	**137**	128
Property, plant and equipment	**24,292**	23,499
Less: Accumulated depreciation	**(15,726)**	(14,983)
Property, plant and equipment — net	**8,566**	8,516
Goodwill	**9,105**	9,166
Intangible assets — net	**2,201**	2,320
Prepaid pension benefits	**83**	52
Other assets	**1,207**	981
Total assets	**$ 33,957**	$ 32,906
Liabilities		
Current liabilities		
Short-term borrowings and current portion of long-term debt	**$ 213**	$ 972
Accounts payable	**1,782**	1,798
Accrued payroll	**666**	678
Accrued income taxes	**432**	299
Other current liabilities	**2,604**	2,472
Total current liabilities	**5,697**	6,219
Long-term debt	**11,088**	10,678
Pension and postretirement benefits	**3,761**	4,018
Other liabilities	**1,767**	1,648
Total liabilities	**$ 22,313**	$ 22,563
Commitments and contingencies (Note 12)		
Equity		
3M Company shareholders' equity:		
Common stock par value, $.01 par value, 944,033,056 shares issued	**$ 9**	$ 9
Additional paid-in capital	**5,244**	5,061
Retained earnings	**38,793**	37,907
Treasury stock, at cost: 347,265,909 shares at June 30, 2017; 347,306,778 shares at December 31, 2016	**(25,466)**	(25,434)
Accumulated other comprehensive income (loss)	**(6,989)**	(7,245)
Total 3M Company shareholders' equity	**11,591**	10,298
Noncontrolling interest	**53**	45
Total equity	**$ 11,644**	$ 10,343
Total liabilities and equity	**$ 33,957**	$ 32,906

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)	Six months ended June 30, 2017	2016
Cash Flows from Operating Activities		
Net income including noncontrolling interest	**$ 2,911**	$ 2,571
Adjustments to reconcile net income including noncontrolling interest to net cash provided by operating activities		
Depreciation and amortization	**818**	722
Company pension and postretirement contributions	**(279)**	(97)
Company pension and postretirement expense	**162**	118
Stock-based compensation expense	**206**	193
Gain on sale of businesses	**(490)**	(40)
Deferred income taxes	**(120)**	(134)
Changes in assets and liabilities		
Accounts receivable	**(412)**	(419)
Inventories	**(347)**	(42)
Accounts payable	**(60)**	(57)
Accrued income taxes (current and long-term)	**257**	(102)
Other — net	**(16)**	(168)
Net cash provided by operating activities	**2,630**	2,545
Cash Flows from Investing Activities		
Purchases of property, plant and equipment (PP&E)	**(589)**	(637)
Proceeds from sale of PP&E and other assets	**13**	18
Acquisitions, net of cash acquired	**—**	(4)
Purchases of marketable securities and investments	**(407)**	(510)
Proceeds from maturities and sale of marketable securities and investments	**543**	449
Proceeds from sale of businesses, net of cash sold	**862**	56
Other — net	**5**	(2)
Net cash provided by (used in) investing activities	**427**	(630)
Cash Flows from Financing Activities		
Change in short-term debt — net	**(113)**	(337)
Repayment of debt (maturities greater than 90 days)	**(650)**	—
Proceeds from debt (maturities greater than 90 days)	**—**	1,112
Purchases of treasury stock	**(1,184)**	(2,055)
Proceeds from issuance of treasury stock pursuant to stock option and benefit plans	**496**	612
Dividends paid to shareholders	**(1,403)**	(1,344)
Other — net	**(2)**	(16)
Net cash used in financing activities	**(2,856)**	(2,028)
Effect of exchange rate changes on cash and cash equivalents	**55**	3
Net increase (decrease) in cash and cash equivalents	**256**	(110)
Cash and cash equivalents at beginning of year	**2,398**	1,798
Cash and cash equivalents at end of period	**$ 2,654**	$ 1,688

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.

As described in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K) and 3M's Quarterly Report on Form 10-Q for the period ended March 31, 2017, effective in the first quarter of 2017, 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 integration of the former Renewable Energy Division into existing divisions, the combining of two divisions to form the Automotive and Aerospace Solutions Division, and consolidation of U.S. customer account activity, impacting dual credit reporting. Segment information presented herein reflects the impact of these changes for all periods presented. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's consolidated financial statements and notes included in its Current Report on Form 8-K dated May 4, 2017.

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 represented less than 1.0 percent of 3M's consolidated operating income for 2016. The Venezuelan government sets official rates of exchange and conditions precedent to purchase foreign currency at these rates with local currency. The government also operates various expanded secondary currency exchange mechanisms that have been eliminated and replaced from time to time. Such rates and conditions have been and continue to be subject to change. For the periods presented, the financial statements of 3M's Venezuelan subsidiary were remeasured utilizing the rate associated with the secondary auction mechanism, Tipo de Cambio Complementario, which was redesigned by the Venezuelan government in June 2017, (DICOM2), or its predecessor. During the same periods, the Venezuelan government's official exchange was Tipo de Cambio Protegido (DIPRO), or its predecessor.

Note 1 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 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 Venezuelan Bolivars (VEF). As of June 30, 2017, the Company had a balance of net monetary assets denominated in VEF of less than 5 billion VEF and the DIPRO and DICOM exchange rates were approximately 10 VEF and 2,600 VEF per U.S. dollar, respectively. A need to deconsolidate the Company's Venezuelan subsidiary's operations may result from a lack of exchangeability of VEF-denominated cash coupled with an acute degradation in the ability to make key operational decisions due to government regulations in Venezuela. Based upon a review of factors as of June 30, 2017, the Company continues to consolidate its Venezuelan subsidiary. As of June 30, 2017, the balance of intercompany receivables due from this subsidiary and its equity balance were not significant.

Reclassifications

Certain amounts in prior periods' consolidated financial statements have been reclassified to conform to the current period presentation.

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 not have had a dilutive effect (insignificant for the three months ended June 30, 2017; 1.6 million average options for the six months ended June 30, 2017; 2.9 million average options for the three months ended June 30, 2016; and 5.9 million average options for the six months ended June 30, 2016). The computations for basic and diluted earnings per share follow:

Earnings Per Share Computations

	Three months ended June 30,		Six months ended June 30,	
(Amounts in millions, except per share amounts)	**2017**	**2016**	**2017**	**2016**
Numerator:				
Net income attributable to 3M	**$ 1,583**	$ 1,291	**$ 2,906**	$ 2,566
Denominator:				
Denominator for weighted average 3M common shares outstanding – basic	**598.1**	606.9	**598.1**	607.2
Dilution associated with the Company's stock-based compensation plans	**14.7**	14.0	**14.3**	13.9
Denominator for weighted average 3M common shares outstanding – diluted	**612.8**	620.9	**612.4**	621.1
Earnings per share attributable to 3M common shareholders – basic	**$ 2.65**	$ 2.13	**$ 4.86**	$ 4.23
Earnings per share attributable to 3M common shareholders – diluted	**$ 2.58**	$ 2.08	**$ 4.74**	$ 4.13

New Accounting Pronouncements

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

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

In January 2016, the FASB issued ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which revises the accounting related to (1) the classification and measurement of investments in equity securities and (2) the presentation of certain fair value changes for financial liabilities measured at fair value. The ASU also amends certain disclosure requirements associated with the fair value of financial instruments. The new guidance requires the fair value measurement of investments in equity securities and other ownership interests in an entity, including investments in partnerships, unincorporated joint ventures and limited liability companies (collectively, equity securities) that do not result in consolidation and are not accounted for under the equity method. Entities will need to measure these investments and recognize changes in fair value in net income. Entities will no longer be able to recognize unrealized holding gains and losses on equity securities they classify under current guidance as available for sale in other comprehensive income (OCI). They also will no longer be able to use the cost method of accounting for equity securities that do not have readily determinable fair values. Instead, for these types of equity investments that do not otherwise qualify for the net asset value practical expedient, entities will be permitted to elect a practicability exception and measure the investment at cost less impairment plus or minus observable price changes (in orderly transactions). The ASU also establishes an incremental recognition and disclosure requirement related to the presentation of fair value changes of financial liabilities for which the fair value option (FVO) has been elected. Under this guidance, an entity would be required to separately present in OCI the portion of the total fair value change attributable to instrument-specific credit risk as opposed to reflecting the entire amount in earnings. For derivative liabilities for which the FVO has been elected, however, any changes in fair value attributable to instrument-specific credit risk would continue to be presented in net income, which is consistent with current guidance. For 3M, this standard is effective beginning January 1, 2018 via a cumulative-effect adjustment to beginning retained earnings, except for guidance relative to equity securities without readily determinable fair values which is applied prospectively. The Company is currently assessing this ASU's impact on 3M's consolidated results of operations and financial condition, however, 3M has historically held limited amounts of equity securities and cost method investments (less than $75 million in aggregate at June 30, 2017), and has not elected the FVO with respect to material financial liabilities.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*, replacing existing lease accounting guidance. The new standard introduces a lessee model that would require entities to recognize assets and liabilities for most leases, but recognize expenses on their income statements in a manner similar to current accounting. The ASU does not make fundamental changes to existing lessor accounting. However, it modifies what qualifies as a sales-type and direct financing lease and related accounting and aligns a number of the underlying principles with those of the new revenue standard, ASU No. 2014-09, such as evaluating how collectability should be considered and determining when profit can be recognized. The guidance eliminates existing real estate-specific provisions and requires expanded qualitative and quantitative disclosures. The standard requires modified retrospective transition by which it is applied at the beginning of the earliest comparative period presented in the year of adoption. For 3M, the ASU is effective January 1, 2019. Information under existing lease guidance with respect to rent expense for operating leases and the Company's minimum lease payments for capital and operating leases with non-cancelable terms in excess of one year as of December 31, 2016 is included in Note 14 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K). The Company is currently assessing this ASU's impact on 3M's consolidated results of operations and financial condition.

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

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

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

In August 2016, the FASB issued ASU No. 2016-15, *Classification of Certain Cash Receipts and Cash Payments,* which was intended to reduce diversity in practice in how certain cash receipts and payments are presented and classified in the statement of cash flows. The standard provided guidance in a number of situations including, among others, settlement of zero-coupon bonds, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, and distributions received from equity method investees. The ASU also provided guidance for classifying cash receipts and payments that have aspects of more than one class of cash flows. For 3M, this ASU is effective January 1, 2018, with early adoption permitted. The Company early adopted ASU No. 2016-15 as of January 1, 2017. Since the associated changes in classification were immaterial to all prior periods presented, no impact was reflected in the Company's pre-2017 consolidated results of operations and financial condition presented.

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

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

In November 2016, the FASB issued ASU No. 2016-18, *Restricted Cash*, which clarified guidance on the classification and presentation of restricted cash in the statement of cash flows. Under the ASU, changes in restricted cash and restricted cash equivalents would be included along with those of cash and cash equivalents in the statement of cash flows. As a result, entities would no longer present transfers between cash/equivalents and restricted cash/equivalents in the statement of cash flows. In addition, a reconciliation between the balance sheet and the statement of cash flows would be disclosed when the balance sheet includes more than one line item for cash/equivalents and restricted cash/equivalents. For 3M, this ASU is effective January 1, 2018, with early adoption permitted. The Company early adopted ASU No. 2016-18 as of January 1, 2017. Due to the immaterial use of restricted cash and restricted cash equivalents, no impact was reflected in the Company's pre-2017 consolidated results of operations and financial condition presented.

In January 2017, the FASB issued ASU No. 2017-01, *Clarifying the Definition of a Business*, which narrows the existing definition of a business and provides a framework for evaluating whether a transaction should be accounted for as an acquisition (or disposal) of assets or a business. The ASU requires an entity to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets; if so, the set of transferred assets and activities (collectively, the set) is not a business. To be considered a business, the set would need to include an input and a substantive process that together significantly contribute to the ability to create outputs. The standard also narrows the definition of outputs. The definition of a business affects areas of accounting such as acquisitions, disposals and goodwill. Under the new guidance, fewer acquired sets are expected to be considered businesses. For 3M, this ASU is effective January 1, 2018 on a prospective basis with early adoption permitted. 3M would apply this guidance to applicable transactions after the adoption date.

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

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

In March 2017, the FASB issued ASU No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This ASU changes how employers that sponsor defined benefit pension and/or other postretirement benefit plans present the net periodic benefit cost in the income statement. Under the new standard, only the service cost component of net periodic benefit cost would be included in operating expenses and only the service cost component would be eligible for capitalization into assets such as inventory. All other net periodic benefit costs components (such as interest, expected return on plan assets, prior service cost amortization and actuarial gain/loss amortization) would essentially be reported outside of operating income. For 3M, this ASU is effective January 1, 2018 on a retrospective basis; however, guidance limiting the capitalization to only the service cost component is applied on prospective basis. The components of 3M's net periodic defined benefit pension and postretirement benefit costs are presented in Note 9. These include components totaling a benefit of $32 million and $54 million for the three months ended June 30, 2017 and 2016, respectively, and $64 million and $106 million for the six months ended June 30, 2017 and 2016, respectively, that would no longer be included within operating expenses and instead would be reported outside of income from operations under the new standard.

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

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

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

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

NOTE 2. Acquisitions and Divestitures

Acquisitions:

3M makes acquisitions of certain businesses from time to time that are aligned with its strategic intent with respect to, among other factors, growth markets and adjacent product lines or technologies.

There were no business combinations that closed during the six months ended June 30, 2017.

In March 2017, 3M announced that it entered into an agreement to acquire Scott Safety, which is headquartered in Monroe, North Carolina, from Johnson Controls for $2.0 billion, subject to closing and other adjustments. Scott Safety is a premier manufacturer of innovative products, including self-contained breathing apparatus systems, gas and flame detection instruments, and other safety devices that complement 3M's personal safety portfolio. The business had revenues of approximately $570 million in 2016. This transaction is expected to close in the second half of 2017 and will be reflected within the Company's Safety and Graphics business, subject to customary closing conditions, regulatory approvals, and information or consultation requirements with relevant works councils.

Divestitures:

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

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

In May 2017, 3M completed the related sale or transfer of control, as applicable of its identity management business to Gemalto N.V. This business, with 2016 sales of approximately $205 million, is a leading provider in identity management solutions, including biometric hardware and software that enable identity verification and authentication, as well as secure materials and document readers. In June 2017, 3M also completed the sale of its tolling and automated license/number plate recognition business, with annual sales of approximately $40 million, to Neology, Inc. 3M's tolling and automated license/number plate recognition business includes RFID readers and tags, automatic vehicle classification systems, lane controller and host software, and back office software and services. It also provides mobile and fixed cameras, software, and services in automated license/number plate recognition. 3M received proceeds of $833 million, or $809 million net of cash sold, and reflected a pre-tax gain of $461 million in the second quarter of 2017 as a result of these two divestitures, which was reported within the Company's Safety and Graphics business.

In June 2017, 3M agreed to sell its electronic monitoring business to an affiliate of Apax Partners, for $200 million, net of cash sold and subject to closing and other adjustments. This business, with annual sales of approximately $95 million, is a provider of electronic monitoring technologies, serving hundreds of correctional and law enforcement agencies around the world. This sale is expected to close in the second half of 2017, subject to customary closing conditions, regulatory approvals and consultation or information requirements with relevant works councils. The Company expects a pre-tax gain of approximately $100 million as a result of this divestiture that will be reported within the Company's Safety and Graphics business.

The aggregate operating income of these four preceding divested businesses was less than $20 million in 2016. The approximate amounts of major assets and liabilities associated with disposal groups classified as held-for-sale as of June 30, 2017 were not significant and, as of December 31, 2016, included the following:

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

In addition, approximately $50 million and $270 million of goodwill was estimated to be attributable to disposal groups classified as held-for-sale as of June 30, 2017 and December 31, 2016, respectively, based upon relative fair value. The amounts above have not been segregated and are classified within the existing corresponding line items on the Company's consolidated balance sheet.

Refer to Note 2 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K) for more information on 3M's acquisitions and divestitures.

NOTE 3. Goodwill and Intangible Assets

There were no acquisitions that closed during the first six month of 2017. The amounts in the "Translation and other" column in the following table primarily relate to changes in foreign currency exchange rates. The goodwill balances by business segment as of December 31, 2016 and June 30, 2017, follow:

Goodwill

(Millions)	December 31, 2016 Balance	Acquisition activity	Divestiture activity	Translation and other	June 30, 2017 Balance
Industrial	$ 2,536	$ —	$ —	$ 93	$ 2,629
Safety and Graphics	3,324	—	(276)	54	3,102
Health Care	1,609	—	—	41	1,650
Electronics and Energy	1,489	—	—	26	1,515
Consumer	208	—	—	1	209
Total Company	$ 9,166	$ —	$ (276)	$ 215	$ 9,105

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 generally correspond to a division.

As described in Note 14, effective in the first quarter of 2017, 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 2017, 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 June 30, 2017, and December 31, 2016, follow:

(Millions)	June 30, 2017	December 31, 2016
Customer related intangible assets	**$ 1,900**	$ 1,939
Patents	**585**	602
Other technology-based intangible assets	**475**	524
Definite-lived tradenames	**392**	420
Other amortizable intangible assets	**209**	211
Total gross carrying amount	**$ 3,561**	$ 3,696
Accumulated amortization — customer related	**(818)**	(797)
Accumulated amortization — patents	**(494)**	(497)
Accumulated amortization — other technology based	**(284)**	(302)
Accumulated amortization — definite-lived tradenames	**(231)**	(236)
Accumulated amortization — other	**(173)**	(173)
Total accumulated amortization	**$ (2,000)**	$ (2,005)
Total finite-lived intangible assets — net	**$ 1,561**	$ 1,691
Non-amortizable intangible assets (primarily tradenames)	**640**	629
Total intangible assets — net	**$ 2,201**	$ 2,320

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 acquired intangible assets for the three and six months ended June 30, 2017 and 2016 follows:

	Three months ended June 30,		Six months ended June 30,	
(Millions)	2017	2016	2017	2016
Amortization expense	**$ 47**	$ 66	**$ 111**	$ 132

Expected amortization expense for acquired amortizable intangible assets recorded as of June 30, 2017:

(Millions)	Remainder of 2017	2018	2019	2020	2021	2022	After 2022
Amortization expense	$ 118	$ 190	$ 181	$ 172	$ 160	$ 147	$ 593

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

NOTE 4. Restructuring Actions and Exit Activities

2017 Restructuring Actions:

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

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

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

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

(Millions)	Second Quarter 2017
Cost of sales	86
Selling, general and administrative expenses	5
Research, development and related expenses	8
Total	$ 99

Components of these restructuring actions, follow:

(Millions)	Employee-Related
Expense incurred	$ 99
Accrued restructuring action balances as of June 30, 2017	$ 99

2017 Exit Activities:

In the first quarter of 2017, the Company recorded net pre-tax charges of $24 million related to exit activities. These charges related to employee reductions, primarily in Western Europe.

NOTE 5. Supplemental Equity and Comprehensive Income Information

Consolidated Statement of Changes in Equity

Three months ended June 30, 2017

		3M Company Shareholders				
(Millions)	Total	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest
Balance at March 31, 2017	$ 11,040	$ 5,198	$ 38,094	$ (25,354)	$ (6,949)	$ 51
Net income	1,585		1,583			2
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	(67)				(67)	—
Defined benefit pension and post-retirement plans adjustment	78				78	—
Cash flow hedging instruments - unrealized gain (loss)	(51)				(51)	—
Total other comprehensive income (loss), net of tax	(40)					
Dividends declared	(701)		(701)			
Stock-based compensation	55	55				
Reacquired stock	(475)			(475)		
Issuances pursuant to stock option and benefit plans	180		(183)	363		
Balance at June 30, 2017	$ 11,644	$ 5,253	$ 38,793	$ (25,466)	$ (6,989)	$ 53

Six months ended June 30, 2017

		3M Company Shareholders				
(Millions)	Total	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest
Balance at December 31, 2016	$ 10,343	$ 5,070	$ 37,907	$ (25,434)	$ (7,245)	$ 45
Net income	2,911		2,906			5
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	225				222	3
Defined benefit pension and post-retirement plans adjustment	161				161	—
Cash flow hedging instruments - unrealized gain (loss)	(127)				(127)	—
Total other comprehensive income (loss), net of tax	259					
Dividends declared	(1,403)		(1,403)			
Stock-based compensation	183	183				
Reacquired stock	(1,153)			(1,153)		
Issuances pursuant to stock option and benefit plans	504		(617)	1,121		
Balance at June 30, 2017	$ 11,644	$ 5,253	$ 38,793	$ (25,466)	$ (6,989)	$ 53

Three months ended June 30, 2016

		3M Company Shareholders				
(Millions)	Total	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest
Balance at March 31, 2016	$ 11,495	$ 4,925	$ 36,506	$ (23,716)	$ (6,261)	$ 41
Net income	1,293		1,291			2
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	37				37	—
Defined benefit pension and post-retirement plans adjustment	67				67	—
Cash flow hedging instruments - unrealized gain (loss)	(27)				(27)	—
Total other comprehensive income (loss), net of tax	77					
Dividends declared	(672)		(672)			
Stock-based compensation	47	47				
Reacquired stock	(837)			(837)		
Issuances pursuant to stock option and benefit plans	255		(210)	465		
Balance at June 30, 2016	$ 11,658	$ 4,972	$ 36,915	$ (24,088)	$ (6,184)	$ 43

Six months ended June 30, 2016

		3M Company Shareholders				
(Millions)	Total	Common Stock and Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest
Balance at December 31, 2015	$ 11,468	$ 4,800	$ 36,296	$ (23,308)	$ (6,359)	$ 39
Net income	2,571		2,566			5
Other comprehensive income (loss), net of tax:						
Cumulative translation adjustment	175				176	(1)
Defined benefit pension and post-retirement plans adjustment	136				136	—
Cash flow hedging instruments - unrealized gain (loss)	(137)				(137)	—
Total other comprehensive income (loss), net of tax	174					
Dividends declared	(1,344)		(1,344)			
Stock-based compensation	172	172				
Reacquired stock	(2,000)			(2,000)		
Issuances pursuant to stock option and benefit plans	617		(603)	1,220		
Balance at June 30, 2016	$ 11,658	$ 4,972	$ 36,915	$ (24,088)	$ (6,184)	$ 43

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

Three months ended June 30, 2017

(Millions)	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
Balance at March 31, 2017, net of tax:	$ (1,719)	$ (5,245)	$ 15	$ (6,949)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	(167)	—	(74)	(241)
Amounts reclassified out	—	119	(5)	114
Total other comprehensive income (loss), before tax	(167)	119	(79)	(127)
Tax effect	100	(41)	28	87
Total other comprehensive income (loss), net of tax	(67)	78	(51)	(40)
Balance at June 30, 2017, net of tax:	$ (1,786)	$ (5,167)	$ (36)	$ (6,989)

Six months ended June 30, 2017

(Millions)	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2016, net of tax:	$ (2,008)	$ (5,328)	$ 91	$ (7,245)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	59	—	(175)	(116)
Amounts reclassified out	—	238	(23)	215
Total other comprehensive income (loss), before tax	59	238	(198)	99
Tax effect	163	(77)	71	157
Total other comprehensive income (loss), net of tax	222	161	(127)	256
Balance at June 30, 2017, net of tax:	$ (1,786)	$ (5,167)	$ (36)	$ (6,989)

Three months ended June 30, 2016

(Millions)	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
Balance at March 31, 2016, net of tax:	$ (1,540)	$ (4,735)	$ 14	$ (6,261)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	59	—	(15)	44
Amounts reclassified out	—	101	(28)	73
Total other comprehensive income (loss), before tax	59	101	(43)	117
Tax effect	(22)	(34)	16	(40)
Total other comprehensive income (loss), net of tax	37	67	(27)	77
Balance at June 30, 2016, net of tax:	$ (1,503)	$ (4,668)	$ (13)	$ (6,184)

Six months ended June 30, 2016

(Millions)	Cumulative Translation Adjustment	Defined Benefit Pension and Postretirement Plans Adjustment	Cash Flow Hedging Instruments, Unrealized Gain (Loss)	Total Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2015, net of tax:	$ (1,679)	$ (4,804)	$ 124	$ (6,359)
Other comprehensive income (loss), before tax:				
Amounts before reclassifications	119	—	(136)	(17)
Amounts reclassified out	—	204	(80)	124
Total other comprehensive income (loss), before tax	119	204	(216)	107
Tax effect	57	(68)	79	68
Total other comprehensive income (loss), net of tax	176	136	(137)	175
Balance at June 30, 2016, net of tax	$ (1,503)	$ (4,668)	$ (13)	$ (6,184)

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 — Three months ended June 30, 2017	2016	Six months ended June 30, 2017	2016	Location on Income Statement
Gains (losses) associated with, defined benefit pension and postretirement plans amortization					
Transition asset	$ —	$ 1	$ —	$ 1	See Note 9
Prior service benefit	**22**	24	**44**	47	See Note 9
Net actuarial loss	**(141)**	(126)	**(282)**	(252)	See Note 9
Total before tax	**(119)**	(101)	**(238)**	(204)	
Tax effect	**41**	34	**77**	68	Provision for income taxes
Net of tax	**$ (78)**	$ (67)	**$ (161)**	$ (136)	
Cash flow hedging instruments gains (losses)					
Foreign currency forward/option contracts	**$ 5**	$ 28	**$ 23**	$ 81	Cost of sales
Interest rate swap contracts	**—**	—	**—**	(1)	Interest expense
Total before tax	**5**	28	**23**	80	
Tax effect	**(2)**	(11)	**(8)**	(29)	Provision for income taxes
Net of tax	**$ 3**	$ 17	**$ 15**	$ 51	
Total reclassifications for the period, net of tax	**$ (75)**	$ (50)	**$ (146)**	$ (85)	

NOTE 6. Income Taxes

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

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

Currently, the Company is under examination by the IRS for its U.S. federal income tax returns for the years 2015, 2016, and 2017. It is anticipated that the IRS will complete its examination of the Company for 2015 by the end of the fourth quarter of 2017, for 2016 by the end of the first quarter of 2018, and for 2017 by the end of the first quarter of 2019. As of June 30, 2017, the IRS has not proposed any significant adjustments to the Company's tax positions for which the Company is not adequately reserved.

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

3M anticipates changes to the Company's uncertain tax positions due to the closing and resolution of audit issues for various audit years mentioned above and closure of statutes. Currently, the Company is estimating a decrease in unrecognized tax benefits during the next 12 months as a result of anticipated resolutions of audit issues. The total amounts of unrecognized tax benefits that, if recognized, would affect the effective tax rate as of June 30, 2017 and December 31, 2016 are $370 million and $333 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 $5 million and $1 million of expense for the three months ended June 30, 2017 and June 30, 2016, respectively, and approximately $8 million of expense and $3 million of benefit for the six months ended June 30, 2017 and June 30, 2016, respectively. At June 30, 2017 and December 31, 2016, accrued interest and penalties in the consolidated balance sheet on a gross basis were $56 million and $52 million, respectively. Included in these interest and penalty amounts are interest and penalties related to tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. Because of the impact of deferred tax accounting, other than interest and penalties, the disallowance of the shorter deductibility period would not affect the annual effective tax rate but would accelerate the payment of cash to the taxing authority to an earlier period.

The effective tax rate for the second quarter of 2017 was 26.0 percent, compared to 29.6 percent in the second quarter of 2016, a decrease of 3.6 percentage points. Primary factors that decreased the Company's effective tax rate on a combined basis by 5.0 percentage points year-on-year included international taxes that were impacted by changes to the geographic mix of income before taxes and prior year cash optimization actions, tax benefits resulting from the held-for-sale status of certain legal entities, and other items. This decrease was partially offset by a 1.4 percentage points year-on-year increase to the Company's effective tax rate, which reflects a lower year-on-year excess tax benefit related to employee share-based payments, and remeasurements of 3M's uncertain tax positions.

The effective tax rate for the first six months of 2017 was 25.0 percent, compared to 28.2 percent in the first six months of 2016, a decrease of 3.2 percentage points. Primary factors that decreased the Company's effective tax rate included international taxes that were impacted by changes to the geographic mix of income before taxes and prior year cash optimization actions, tax benefits resulting from the held-for-sale status of certain legal entities, remeasurements of 3M's uncertain tax positions, an increase in excess tax benefits related to employee share-based payments, and other items.

The provision for income taxes is determined using the asset and liability approach. Under this approach, deferred income taxes represent the expected future tax consequences of temporary differences between the carrying amounts and tax basis of assets and liabilities. The Company records a valuation allowance to reduce its deferred tax assets when uncertainty regarding their realizability exits. As of June 30, 2017 and December 31, 2016, the Company had valuation allowances of $57 million and $47 million on its deferred tax assets, respectively.

NOTE 7. 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)	June 30, 2017	December 31, 2016
Corporate debt securities	**$ 10**	$ 10
Commercial paper	**37**	14
Certificates of deposit/time deposits	**53**	197
U.S. municipal securities	**3**	3
Asset-backed securities:		
Automobile loan related	**28**	31
Credit card related	**9**	18
Other	**—**	7
Asset-backed securities total	**37**	56
Current marketable securities	**$ 140**	$ 280
U.S. municipal securities	**$ 17**	$ 17
Non-current marketable securities	**$ 17**	$ 17
Total marketable securities	**$ 157**	$ 297

Classification of marketable securities as current or non-current is based on the nature of the securities and availability for use in current operations. At June 30, 2017 and December 31, 2016, gross unrealized gains and/or losses (pre-tax) were not material. The gross amounts of the realized gains or losses were not material. Cost of securities sold use the first in, first out (FIFO) method. Since these marketable securities are classified as available-for-sale securities, changes in fair value will flow through other comprehensive income, with amounts reclassified out of other comprehensive income into earnings upon sale or "other-than-temporary" impairment.

3M reviews impairments associated with its marketable securities in accordance with the measurement guidance provided by ASC 320, *Investments-Debt and Equity Securities*, when determining the classification of the impairment as "temporary" or "other-than-temporary". A temporary impairment charge results in an unrealized loss being recorded in the other comprehensive income component of shareholders' equity. Such an unrealized loss does not reduce net income attributable to 3M for the applicable accounting period because the loss is not viewed as other-than-temporary. The factors evaluated to differentiate between temporary and other-than-temporary include the projected future cash flows, credit ratings actions, and assessment of the credit quality of the underlying collateral, as well as other factors.

The balances at June 30, 2017 for marketable securities by contractual maturity are shown below. Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

(Millions)		June 30, 2017
Due in one year or less	$	104
Due after one year through five years		49
Due after five years through ten years		4
Total marketable securities	$	157

3M has a diversified marketable securities portfolio. Within this portfolio, asset-backed securities primarily include interests in automobile loans, credit cards and other asset-backed securities. 3M's investment policy allows investments in asset-backed securities with minimum credit ratings of Aa2 by Moody's Investors Service or AA by Standard & Poor's or Fitch Ratings or DBRS. Asset-backed securities must be rated by at least two of the aforementioned rating agencies, one of which must be Moody's Investors Service or Standard & Poor's. At June 30, 2017, all asset-backed security investments were in compliance with this policy. Approximately 76.8 percent of all asset-backed security investments were rated AAA or A-1+ by Standard & Poor's and/or Aaa or P-1 by Moody's Investors Service and/or AAA or F1+ by Fitch Ratings. Interest rate risk and credit risk related to the underlying collateral may impact the value of investments in asset-backed securities, while factors such as general conditions in the overall credit market and the nature of the underlying collateral may affect the liquidity of investments in asset-backed securities. 3M does not currently expect risk related to its holding in asset-backed securities to materially impact its financial condition or liquidity.

NOTE 8. Long-Term Debt and Short-Term Borrowings

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

NOTE 9. Pension and Postretirement Benefit Plans

Net periodic benefit cost is recorded in cost of sales, selling, general and administrative expenses, and research, development and related expenses. Components of net periodic benefit cost and other supplemental information for the three and six months ended June 30, 2017 and 2016 follow:

Benefit Plan Information

	Three months ended June 30,					
	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International			
(Millions)	2017	2016	2017	2016	2017	2016
Net periodic benefit cost (benefit)						
Service cost	**$ 67**	$ 65	**$ 34**	$ 34	**$ 12**	$ 14
Interest cost	**142**	144	**37**	43	**20**	19
Expected return on plan assets	**(259)**	(261)	**(70)**	(78)	**(21)**	(22)
Amortization of transition (asset) obligation	**—**	—	**—**	(1)	**—**	—
Amortization of prior service cost (benefit)	**(6)**	(6)	**(3)**	(4)	**(13)**	(14)
Amortization of net actuarial (gain) loss	**97**	88	**30**	23	**14**	15
Settlements, curtailments, special termination benefits and other	**—**	—	**—**	—	**—**	—
Net periodic benefit cost (benefit) after settlements, curtailments, special termination benefits and other	**$ 41**	$ 30	**$ 28**	$ 17	**$ 12**	$ 12

	Six months ended June 30,					
	Qualified and Non-qualified Pension Benefits				Postretirement Benefits	
	United States		International			
(Millions)	2017	2016	2017	2016	2017	2016
Net periodic benefit cost (benefit)						
Service cost	**$ 134**	$ 130	**$ 67**	$ 67	**$ 25**	$ 27
Interest cost	**284**	287	**74**	86	**39**	39
Expected return on plan assets	**(518)**	(521)	**(139)**	(156)	**(42)**	(45)
Amortization of transition (asset) obligation	**—**	—	**—**	(1)	**—**	—
Amortization of prior service cost (benefit)	**(12)**	(12)	**(6)**	(7)	**(26)**	(28)
Amortization of net actuarial (gain) loss	**194**	176	**60**	45	**28**	31
Settlements, curtailments, special termination benefits and other	**—**	—	**—**	—	**—**	—
Net periodic benefit cost (benefit) after settlements, curtailments, special termination benefits and other	**$ 82**	$ 60	**$ 56**	$ 34	**$ 24**	$ 24

For the six months ended June 30, 2017, contributions totaling $277 million were made to the Company's U.S. and international pension plans and $2 million to its postretirement plans. For total year 2017, the Company expects to contribute approximately $300 million to $500 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 2017. 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.

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

As part of a diversified investment strategy, the U.S. pension and postretirement benefit plans made investments in the natural gas fired power generation industry during the period 2011 through 2013. In April 2017, one of these entities, Panda Temple Power, LLC, filed for Chapter 11 bankruptcy protection in the U.S. Bankruptcy Court for the District of Delaware. This investment represented less than one percent of the fair value of the U.S. pension and postretirement plans' assets as of their 2016 measurement date.

NOTE 10. Derivatives

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

Additional information with respect to the impacts on other comprehensive income of nonderivative hedging and derivative instruments is included in Note 5. Additional information with respect to the fair value of derivative instruments is included in Note 11. References to information regarding derivatives and/or hedging instruments associated with the Company's long-term debt are also made in Note 10 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 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 effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

Cash Flow Hedging - Foreign Currency Forward and Option Contracts: The Company enters into foreign exchange forward and option contracts to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies. These transactions are designated as cash flow hedges. The settlement or extension of these derivatives will result in reclassifications (from accumulated other comprehensive income) to earnings in the period during which the hedged transactions affect earnings. 3M may dedesignate these cash flow hedge relationships in advance of the occurrence of the forecasted transaction. The portion of gains or losses on the derivative instrument previously accumulated in other comprehensive income for dedesignated hedges remains in accumulated other comprehensive income until the forecasted transaction occurs or is no longer probable of occurring. Changes in the value of derivative instruments after dedesignation are recorded in earnings and are included in the Derivatives Not Designated as Hedging Instruments section below. The maximum length of time over which 3M hedges its exposure to the variability in future cash flows of the forecasted transactions is 36 months.

Cash Flow Hedging — Interest Rate Contracts: 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 on the effective portion of derivatives as a result of reclassification from accumulated other comprehensive income. Additional information regarding previously issued and terminated interest rate contracts can be found in Note 12 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K).

In the first six months of 2016, the Company entered into forward starting interest rate swaps that expired in December 2016 with an aggregate notional amount of $300 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt. Upon issuance of medium-term notes in September 2016, 3M terminated these interest rate swaps. The termination resulted in an immaterial loss within accumulated other comprehensive income that will be amortized over the respective lives of the debt.

In the fourth quarter of 2016, the Company entered into forward starting interest rate swaps with a notional amount of $200 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt. In the first quarter of 2017, the Company entered into forward starting interest rate swaps with a notional amount of $200 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt. In the second quarter of 2017, the Company entered into forward starting interest rate swaps with a notional amount of $200 million as a hedge against interest rate volatility associated with a forecasted issuance of fixed rate debt.

As of June 30, 2017, the Company had a balance of $36 million associated with the after-tax net unrealized loss associated with cash flow hedging instruments recorded in accumulated other comprehensive income. This includes a remaining balance of $5 million (after tax loss) related to the forward starting interest rate swaps, which will be amortized over the respective lives of the debt. Based on exchange rates as of June 30, 2017, 3M expects to reclassify approximately $1 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings over the remainder of 2017, approximately $18 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings in 2018, and approximately $17 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings after 2018 (with the impact offset by earnings/losses from underlying hedged items). 3M expects to reclassify approximately $16 million of the after-tax net unrealized foreign exchange cash flow hedging losses to earnings over the next 12 months.

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.

Three months ended June 30, 2017 (Millions)	Pretax Gain (Loss) Recognized in Other Comprehensive Income on Effective Portion of Derivative Amount	Pretax Gain (Loss) Recognized in Income on Effective Portion of Derivative as a Result of Reclassification from Accumulated Other Comprehensive Income Location	Amount	Ineffective Portion of Gain (Loss) on Derivative and Amount Excluded from Effectiveness Testing Recognized in Income Location	Amount
Foreign currency forward/option contracts	$ (72)	Cost of sales	$ 5	Cost of sales	$ —
Interest rate swap contracts	(2)	Interest expense	—	Interest expense	—
Total	$ (74)		$ 5		$ —

Six months ended June 30, 2017 (Millions)	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	$ (172)	Cost of sales	$ 23	Cost of sales	$ —
Interest rate swap contracts	(3)	Interest expense	—	Interest expense	—
Total	$ (175)		$ 23		$ —

Three months ended June 30, 2016 (Millions)	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	$ (11)	Cost of sales	$ 28	Cost of sales	$ —
Interest rate swap contracts	(4)	Interest expense	—	Interest expense	—
Total	$ (15)		$ 28		$ —

Six months ended June 30, 2016 (Millions)	Amount	Location	Amount	Location	Amount
Foreign currency forward/option contracts	$ (131)	Cost of sales	$ 81	Cost of sales	$ —
Interest rate swap contracts	(5)	Interest expense	(1)	Interest expense	—
Total	$ (136)		$ 80		$ —

Fair Value Hedges:

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

Fair Value Hedging - Interest Rate Swaps: The Company manages interest expense using a mix of fixed and floating rate debt. To help manage borrowing costs, the Company may enter into interest rate swaps. Under these arrangements, the Company agrees to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount. The mark-to-market of these fair value hedges is recorded as gains or losses in interest expense and is offset by the gain or loss of the underlying debt instrument, which also is recorded in interest expense. These fair value hedges are highly effective and, thus, there is no impact on earnings due to hedge ineffectiveness. Additional information regarding designated interest rate swaps can be found in Note 12 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K).

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:

Three months ended June 30, 2017	**Gain (Loss) on Derivative Recognized in Income**		**Gain (Loss) on Hedged Item Recognized in Income**	
(Millions)	**Location**	**Amount**	**Location**	**Amount**
Interest rate swap contracts	Interest expense	$ 1	Interest expense	$ (1)
Total		$ 1		$ (1)

Six months ended June 30, 2017				
(Millions)	**Location**	**Amount**	**Location**	**Amount**
Interest rate swap contracts	Interest expense	$ (4)	Interest expense	$ 4
Total		$ (4)		$ 4

Three months ended June 30, 2016				
(Millions)	**Location**	**Amount**	**Location**	**Amount**
Interest rate swap contracts	Interest expense	$ 5	Interest expense	$ (5)
Total		$ 5		$ (5)

Six months ended June 30, 2016				
(Millions)	**Location**	**Amount**	**Location**	**Amount**
Interest rate swap contracts	Interest expense	$ 34	Interest expense	$ (34)
Total		$ 34		$ (34)

Net Investment Hedges:

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

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

At June 30, 2017, the total notional amount of foreign exchange forward contracts designated in net investment hedges was approximately 250 million Euros and approximately 248 billion South Korean Won, along with a principal amount of long-term debt instruments designated in net investment hedges totaling 4.4 billion Euros. The maturity dates of these derivative and nonderivative instruments designated in net investment hedges range from 2017 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 June 30, 2017 (Millions)	Pretax Gain (Loss) Recognized as Cumulative Translation within Other Comprehensive Income on Effective Portion of Instrument	Ineffective Portion of Gain (Loss) on Instrument and Amount Excluded from Effectiveness Testing Recognized in Income	
	Amount	Location	Amount
Foreign currency denominated debt	$ (270)	N/A	$ —
Foreign currency forward contracts	(7)	Cost of sales	3
Total	$ (277)		$ 3

Six months ended June 30, 2017 (Millions)	Amount	Location	Amount
Foreign currency denominated debt	$ (391)	N/A	$ —
Foreign currency forward contracts	(27)	Cost of sales	5
Total	$ (418)		$ 5

Three months ended June 30, 2016 (Millions)	Amount	Location	Amount
Foreign currency denominated debt	$ 94	N/A	$ —
Foreign currency forward contracts	16	Cost of sales	3
Total	$ 110		$ 3

Six months ended June 30, 2016 (Millions)	Amount	Location	Amount
Foreign currency denominated debt	$ (50)	N/A	$ —
Foreign currency forward contracts	(27)	Cost of sales	1
Total	$ (77)		$ 1

Derivatives Not Designated as Hedging Instruments:

3M enters into foreign exchange forward contracts that are not designated in hedge relationships to offset, in part, the impacts of certain intercompany transactions and to further mitigate short-term currency impacts. In addition, the Company enters into commodity price swaps to offset, in part, fluctuations in costs associated with the use of certain 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 Company revised amounts previously presented in the table below for the gain (loss) on derivatives recognized in income for the three and six months ended June 30, 2016 relative to foreign currency forward contracts. This immaterial correction increased the previously presented amount of the gain recognized in income in the disclosure table below by $40 million for the three months ended June 30, 2016 and decreased the previously presented amount of the gain recognized in income by $18 million for the six months ended June 30, 2016. This revision had no impact on the Company's consolidated results of operations, financial condition, or cash flows.

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

	Three months ended June 30, 2017 Gain (Loss) on Derivative Recognized in Income		Six months ended June 30, 2017 Gain (Loss) on Derivative Recognized in Income	
(Millions)	Location	Amount	Location	Amount
Foreign currency forward/option contracts	Cost of sales	$ 6	Cost of sales	$ 5
Foreign currency forward contracts	Interest expense	(138)	Interest expense	(96)
Total		$ (132)		$ (91)

	Three months ended June 30, 2016 Gain (Loss) on Derivative Recognized in Income		Six months ended June 30, 2016 Gain (Loss) on Derivative Recognized in Income	
(Millions)	Location	Amount	Location	Amount
Foreign currency forward/option contracts	Cost of sales	$ (1)	Cost of sales	$ (6)
Foreign currency forward contracts	Interest expense	89	Interest expense	24
Total		$ 88		$ 18

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 interest rate swaps, which are presented using the contract inception date's foreign exchange rate. Additional information with respect to the fair value of derivative instruments is included in Note 11.

June 30, 2017 (Millions)	Gross Notional Amount	Assets Location	Assets Fair Value Amount	Liabilities Location	Liabilities Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	$ 2,208	Other current assets	$ 11	Other current liabilities	$ 42
Foreign currency forward/option contracts	1,488	Other assets	32	Other liabilities	27
Interest rate swap contracts	590	Other current assets	2	Other current liabilities	4
Interest rate swap contracts	1,753	Other assets	22	Other liabilities	2
Total derivatives designated as hedging instruments			$ 67		$ 75
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	$ 5,914	Other current assets	$ 23	Other current liabilities	$ 118
Total derivatives not designated as hedging instruments			$ 23		$ 118
Total derivative instruments			$ 90		$ 193

December 31, 2016 (Millions)	Gross Notional Amount	Assets Location	Assets Fair Value Amount	Liabilities Location	Liabilities Fair Value Amount
Derivatives designated as hedging instruments					
Foreign currency forward/option contracts	$ 2,160	Other current assets	$ 107	Other current liabilities	$ 9
Foreign currency forward/option contracts	1,459	Other assets	86	Other liabilities	3
Interest rate swap contracts	1,953	Other assets	25	Other current liabilities	1
Total derivatives designated as hedging instruments			$ 218		$ 13
Derivatives not designated as hedging instruments					
Foreign currency forward/option contracts	$ 5,655	Other current assets	$ 41	Other current liabilities	$ 82
Total derivatives not designated as hedging instruments			$ 41		$ 82
Total derivative instruments			$ 259		$ 95

Credit Risk and Offsetting of Assets and Liabilities of Derivative Instruments

The Company is exposed to credit loss in the event of nonperformance by counterparties in interest rate swaps, currency swaps, commodity price swaps, and forward and option contracts. However, the Company's risk is limited to the fair value of the instruments. The Company actively monitors its exposure to credit risk through the use of credit approvals and credit limits, and by selecting major international banks and financial institutions as counterparties. 3M enters into master netting arrangements with counterparties when possible to mitigate credit risk in derivative transactions. A master netting arrangement may allow each counterparty to net settle amounts owed between a 3M entity and the counterparty as a result of multiple, separate derivative transactions. As of June 30, 2017, 3M has International Swaps and Derivatives Association (ISDA) agreements with 16 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 15 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 collateral had been received or pledged related to these derivative instruments.

Offsetting of Financial Assets under Master Netting Agreements with Derivative Counterparties

June 30, 2017 (Millions)	Gross Amount of Derivative Assets Presented in the Consolidated Balance Sheet	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements: Gross Amount of Eligible Offsetting Recognized Derivative Liabilities	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements: Cash Collateral Received	Net Amount of Derivative Assets
Derivatives subject to master netting agreements	$ 90	$ 35	$ —	$ 55
Derivatives not subject to master netting agreements	—			—
Total	$ 90			$ 55

December 31, 2016 (Millions)				
Derivatives subject to master netting agreements	$ 259	$ 39	$ —	$ 220
Derivatives not subject to master netting agreements	—			—
Total	$ 259			$ 220

Offsetting of Financial Liabilities under Master Netting Agreements with Derivative Counterparties

June 30, 2017 (Millions)	Gross Amount of Derivative Liabilities Presented in the Consolidated Balance Sheet	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements: Gross Amount of Eligible Offsetting Recognized Derivative Assets	Gross Amounts not Offset in the Consolidated Balance Sheet that are Subject to Master Netting Agreements: Cash Collateral Pledged	Net Amount of Derivative Liabilities
Derivatives subject to master netting agreements	$ 189	$ 35	$ —	$ 154
Derivatives not subject to master netting agreements	4			4
Total	$ 193			$ 158

December 31, 2016 (Millions)				
Derivatives subject to master netting agreements	$ 93	$ 39	$ —	$ 54
Derivatives not subject to master netting agreements	2			2
Total	$ 95			$ 56

Currency Effects

3M estimates that year-on-year foreign currency transactions effects, including hedging impacts, decreased pre-tax income by approximately $28 million and $65 million for the three and six months ended June 30, 2017, respectively. These estimates include transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks and any impacts from swapping Venezuelan bolivars into U.S. dollars.

NOTE 11. Fair Value Measurements

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

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

For 3M, assets and liabilities that are measured at fair value on a recurring basis primarily relate to available-for-sale marketable securities, available-for-sale investments (included as part of investments in the Consolidated Balance Sheet) and certain derivative instruments. Derivatives include cash flow hedges, interest rate swaps and net investment hedges. The information in the following paragraphs and tables primarily addresses matters relative to these financial assets and liabilities. Separately, there were no material fair value measurements with respect to nonfinancial assets or liabilities that are recognized or disclosed at fair value in the Company's financial statements on a recurring basis for the three and six months ended June 30, 2017 and 2016.

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

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

Marketable securities, except certain U.S. municipal securities, are valued utilizing multiple sources. A weighted average market price is used for these securities. Market prices are obtained for these securities from a variety of industry standard data providers, security master files from large financial institutions, and other third-party sources. These multiple prices are used as inputs into a distribution-curve-based algorithm to determine the daily fair value to be used. 3M classifies U.S. treasury securities as level 1, while all other marketable securities (excluding certain U.S. municipal securities) are classified as level 2. Marketable securities are discussed further in Note 7.

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

In both 2016 and 2014, 3M obtained municipal bonds from the City of Nevada, Missouri, which represent 3M's only U.S. municipal securities holding as of June 30, 2017 and December 31, 2016. Due to the nature of this security, the valuation method utilized will include the financial health of the City of Nevada, any recent municipal bond issuances by

Nevada, and macroeconomic considerations related to the direction of interest rates and the health of the overall municipal bond market, and as such has been classified as a level 3 security.

Available-for-sale investments:

Investments include equity securities that are traded in an active market. Closing stock prices are readily available from active markets and are used as being representative of fair value. 3M classifies these securities as level 1.

Derivative instruments:

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

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

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

Description (Millions)	Fair Value at June 30, 2017	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3
Assets:				
Available-for-sale:				
Marketable securities:				
Corporate debt securities	$ 10	$ —	$ 10	$ —
Commercial paper	37	—	37	—
Certificates of deposit/time deposits	53	—	53	—
Asset-backed securities:				
Automobile loan related	28	—	28	—
Credit card related	9	—	9	—
U.S. municipal securities	20	—	—	20
Derivative instruments — assets:				
Foreign currency forward/option contracts	66	—	66	—
Interest rate swap contracts	24	—	24	—
Liabilities:				
Derivative instruments — liabilities:				
Foreign currency forward/option contracts	187	—	187	—
Interest rate swap contracts	6	—	6	—

Table of Contents

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

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

Marketable securities — certain U.S. municipal securities only (Millions)	Three months ended June 30, 2017	2016	Six months ended June 30, 2017	2016
Beginning balance	**$ 20**	$ 18	**$ 20**	$ 12
Total gains or losses:				
Included in earnings	**—**	—	**—**	—
Included in other comprehensive income	**—**	—	**—**	—
Purchases and issuances	**—**	—	**—**	6
Sales and settlements	**—**	—	**—**	—
Transfers in and/or out of level 3	**—**	—	**—**	—
Ending balance	**$ 20**	$ 18	**$ 20**	$ 18
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 11 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 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. During the six months ended June 30, 2017, the Company recognized approximately $40 million in long-lived asset impairments related to its Electronics and Energy business segment, with the complete carrying amount of such assets written off and included in operating income results. There were no material long-lived asset impairments for the three months ended June 30, 2017 and the three and six months ended June 30, 2016.

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 and 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 and investments, in addition to certain derivative instruments, are recorded at fair values as indicated in the preceding disclosures. For its long-term debt, the Company utilized third-party quotes to estimate fair values (classified as level 2). Information with respect to the carrying amounts and estimated fair values of these financial instruments follow:

	June 30, 2017		December 31, 2016	
(Millions)	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt, excluding current portion	**$ 11,088**	**$ 11,567**	$ 10,678	$ 11,168

The fair values reflected above consider the terms of the related debt absent the impacts of derivative/hedging activity. The carrying amount of long-term debt referenced above is impacted by certain fixed-to-floating interest rate swaps that are designated as fair value hedges and by the designation of fixed rate Eurobond securities issued by the Company as hedging instruments of the Company's net investment in its European subsidiaries. Many of 3M's fixed-rate bonds were trading at a premium at June 30, 2017 and December 31, 2016 due to the low interest rates and tightening of 3M's credit spreads.

NOTE 12. 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 14 "Commitments and Contingencies" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 as updated by the Company's Current Report on Form 8-K dated May 4, 2017.

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 June 30, 2017, the Company is a named defendant, with multiple co-defendants, in numerous lawsuits in various courts that purport to represent approximately 2,310 individual claimants, compared to approximately 2,660 individual claimants with actions pending at December 31, 2016.

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

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

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

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

Respirator Mask/Asbestos Liabilities and Insurance Receivables:

The Company annually conducts a comprehensive legal review of its respirator mask/asbestos liabilities in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. 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 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.

In the first six months of 2017, the Company made payments for legal fees and settlements of $34 million related to the respirator mask/asbestos litigation, $22 million of which occurred in the second quarter of 2017. As of June 30, 2017, the Company had an accrual for respirator mask/asbestos liabilities (excluding Aearo accruals) of $561 million. This accrual represents the Company's best estimate of probable loss and reflects an estimation period for future claims that may be filed against the Company approaching the year 2050. The Company cannot estimate the amount or upper end of the range of amounts by which the liability may exceed the accrual the Company has established because of the (i) inherent difficulty in projecting the number of claims that have not yet been asserted or the time period in which future claims may be asserted, (ii) the complaints nearly always assert claims against multiple defendants where the damages alleged are typically not attributed to individual defendants so that a defendant's share of liability may turn on the law of joint and several liability, which can vary by state, (iii) the multiple factors described above that the Company considers in estimating its liabilities, and (iv) the several possible developments described above that may occur that could affect the Company's estimate of liabilities.

As of June 30, 2017, the Company's receivable for insurance recoveries related to the respirator mask/asbestos litigation was $4 million. The Company is seeking coverage under the policies of certain insolvent and other insurers. Once those claims for coverage are resolved, the Company will have collected substantially all of its remaining insurance coverage for respirator mask/asbestos claims.

Respirator Mask/Asbestos Litigation — Aearo Technologies

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

As of June 30, 2017, Aearo and/or other companies that previously owned and operated Aearo's respirator business (American Optical Corporation, Warner-Lambert LLC, AO Corp. and Cabot Corporation ("Cabot")) are named defendants, with multiple co-defendants, including the Company, in numerous lawsuits in various courts in which plaintiffs allege use of mask and respirator products and seek damages from Aearo and other defendants for alleged personal injury from workplace exposures to asbestos, silica-related, or other occupational dusts found in products manufactured by other defendants or generally in the workplace.

As of June 30, 2017, the Company, through its Aearo subsidiary, had accruals of $18 million for product liabilities and defense costs related to current and future Aearo-related asbestos and silica-related claims. Responsibility for legal costs, as well as for settlements and judgments, is currently shared in an informal arrangement among Aearo, Cabot, American Optical Corporation and a subsidiary of Warner Lambert and their respective insurers (the "Payor Group"). Liability is allocated among the parties based on the number of years each company sold respiratory products under the "AO Safety" brand and/or owned the AO Safety Division of American Optical Corporation and the alleged years of exposure of the individual plaintiff. Aearo's share of the contingent liability is further limited by an agreement entered into between Aearo and Cabot on July 11, 1995. This agreement provides that, so long as Aearo pays to Cabot a quarterly fee of $100,000, Cabot will retain responsibility and liability for, and indemnify Aearo against, any product liability claims involving exposure to asbestos, silica, or silica products for respirators sold prior to July 11, 1995. Because of the difficulty in determining how long a particular respirator remains in the stream of commerce after being sold, Aearo and Cabot have applied the agreement to claims arising out of the alleged use of respirators involving exposure to asbestos, silica or silica products prior to January 1, 1997. With these arrangements in place, Aearo's potential liability is limited to exposures alleged to have arisen from the use of respirators involving exposure to asbestos, silica, or silica products on or after January 1, 1997. To date, Aearo has elected to pay the quarterly fee. Aearo could potentially be exposed to additional claims for some part of the pre-July 11, 1995 period covered by its agreement with Cabot if Aearo elects to discontinue its participation in this arrangement, or if Cabot is no longer able to meet its obligations in these matters.

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

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

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

Environmental Matters and Litigation

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

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

Environmental Matters

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

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

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

As previously reported, the Company entered into a voluntary remedial action agreement with the Alabama Department of Environmental Management (ADEM) to address the presence of PFCs in the soil at the Company's manufacturing facility in Decatur, Alabama. Pursuant to a permit issued by ADEM, for approximately twenty years, the Company incorporated its wastewater treatment plant sludge containing PFCs in fields at its Decatur facility. After a review of the available options to address the presence of PFCs in the soil, ADEM agreed that the preferred remediation option is to use a multilayer cap over the former sludge incorporation areas on the manufacturing site with subsequent groundwater migration controls and treatment. Implementation of that plan continues and is expected to be completed in 2018.

The Company continues to work with the Minnesota Pollution Control Agency (MPCA) pursuant to the terms of the previously disclosed May 2007 Settlement Agreement and Consent Order to address the presence of certain PFCs in the soil and groundwater at former disposal sites in Washington County, Minnesota (Oakdale and Woodbury) and at the Company's manufacturing facility at Cottage Grove, Minnesota. Under this agreement, the Company's principal obligations include (i) evaluating releases of certain PFCs from these sites and proposing response actions; (ii) providing treatment or alternative drinking water upon identifying any level exceeding a Health Based Value ("HBV") or Health Risk Limit ("HRL") (i.e., the amount of a chemical in drinking water determined by the Minnesota Department of Health (MDH) to be safe for human consumption over a lifetime) for certain PFCs for which a HBV and/or HRL exists as a result of contamination from these sites; (iii) remediating identified sources of other PFCs at these sites that are not controlled by actions to remediate PFOA and PFOS; and (iv) sharing information with the MPCA about certain perfluorinated compounds. During 2008, the MPCA issued formal decisions adopting remedial options for the former disposal sites in Washington County, Minnesota (Oakdale and Woodbury). In August 2009, the MPCA issued a formal decision adopting remedial options for the Company's Cottage Grove manufacturing facility. During the spring and summer of 2010, 3M began implementing the agreed upon remedial options at the Cottage Grove and Woodbury sites. 3M commenced the remedial option at the Oakdale site in late 2010. At each location the remedial options were recommended by the Company and approved by the MPCA. Remediation work has been completed at the Oakdale and Woodbury sites, and they are in an operational maintenance mode. Remediation will continue at the Cottage Grove site during 2017.

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.”

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.

Environmental Litigation

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

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

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

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

Authority. In September 2016, the court granted 3M's motion to dismiss plaintiffs' trespass claims with prejudice, negligence claims for personal injuries, and private nuisance claims, and denied the motion to dismiss the plaintiffs' negligence claims for property damage, public nuisance, abatement of nuisance, battery and wantonness.

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

In July 2016, the City of Lake Elmo filed a lawsuit in the U.S. District Court for the District of Minnesota against 3M alleging that the City suffered damages from drinking water supplies contaminated with PFCs, including costs to construct alternative sources of drinking water. Trial is scheduled to begin in February 2018.

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

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

In January 2017, several hundred plaintiffs sued 3M, its subsidiary Dyneon, and Daikin American 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 (Authority). They assert common law claims for negligence, nuisance, trespass, wantonness, and battery, and they seek injunctive relief and punitive damages. The plaintiffs contend that the defendants own and operate manufacturing and disposal facilities in Decatur that have released and continue to release PFOA, PFOS and related chemicals into the groundwater and surface water of their sites, resulting in discharge into the Tennessee River. The plaintiffs also contend that the defendants have discharged into Bakers Creek and the Decatur Utilities Dry Creek Wastewater Treatment Plant, which, in turn, discharges wastewater containing these chemicals into the Tennessee River. The plaintiffs contend that, as a result the alleged discharges, the water supplied by the Authority to the plaintiffs was, and is, contaminated with PFOA, PFOS, and related chemicals at a level dangerous to humans.

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

As of June 30, 2017, eight purported class actions have been filed against 3M and other defendants in federal or state courts - three in federal court in Colorado, four in federal court in Pennsylvania, and one in state court in New York. An individual complaint also has been filed in the federal court Pennsylvania. The complaints seek unstated damages and other remedies, such as medical monitoring, and allege that the plaintiffs suffered personal injury and property damage from drinking water supplies contaminated with certain PFCs used in Aqueous Film Forming Foam (AFFF) at current or former airports and air force military bases located in Colorado, Pennsylvania, and New York.

In December 2010, the State of Minnesota, by its Attorney General Lori Swanson, acting in its capacity as trustee of the natural resources of the State of Minnesota, filed a lawsuit in Hennepin County District Court against 3M to recover damages (including unspecified assessment costs and reasonable attorney's fees) for alleged injury to, destruction of, and loss of use of certain of the State's natural resources under the Minnesota Environmental Response and Liability Act (MERLA) and the Minnesota Water Pollution Control Act (MWPCA), as well as statutory nuisance and common law claims of trespass, nuisance, and negligence with respect to the presence of PFCs in the groundwater, surface water, fish or other aquatic life, and sediments (the "NRD Lawsuit"). The State also seeks declarations under MERLA that 3M is responsible for all damages the State may suffer in the future for injuries to natural resources from releases of PFCs into the environment, and under MWPCA that 3M is responsible for compensation for future loss or destruction of fish, aquatic life, and other damages.

In November 2011, the Metropolitan Council filed a motion to intervene and a complaint in the NRD Lawsuit seeking compensatory damages and other legal, declaratory and equitable relief, including reasonable attorneys' fees, for costs and fees that the Metropolitan Council alleges it will be required to assess at some time in the future if the MPCA imposes restrictions on Metropolitan Council's PFOS discharges to the Mississippi River, including the installation and maintenance of a water treatment system. The Metropolitan Council's intervention motion was based on several theories, including common law negligence, and statutory claims under MERLA for response costs, and under the Minnesota Environmental Rights Act (MERA) for declaratory and equitable relief against 3M for PFOS and other PFC pollution of the waters and sediments of the Mississippi River. 3M did not object to the motion to intervene. In January 2012, 3M answered the Metropolitan Council's complaint and filed a counterclaim alleging that the Metropolitan Council discharges PFCs to the Mississippi River and discharges PFC-containing sludge and bio solids from one or more of its wastewater treatment plants onto agricultural lands and local area landfills. Accordingly, 3M's complaint against the Metropolitan Council asks that if the court finds that the State is entitled to any of the damages it seeks, 3M be awarded contribution and apportionment from the Metropolitan Council, including attorneys' fees, under MERLA, and contribution from and liability for the Metropolitan Council's proportional share of damages awarded to the State under the MWPCA, as well as under statutory nuisance and common law theories of trespass, nuisance, and negligence. 3M also seeks declaratory relief under MERA. In May 2017, the Metropolitan Council paid 3M approximately $1 million and agreed to dismiss its claims against 3M. As part of the settlement agreement, 3M agreed to dismiss its claims against the Metropolitan Council.

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

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

Environmental Liabilities and Insurance Receivables

As of June 30, 2017, the Company had recorded liabilities of $36 million for estimated "environmental remediation" costs based upon an evaluation of currently available facts with respect to each individual site and also recorded related insurance receivables of $8 million. The Company records liabilities for remediation costs on an undiscounted basis when they are probable and reasonably estimable, generally no later than the completion of feasibility studies or the Company's commitment to a plan of action. Liabilities for estimated costs of environmental remediation, depending on the site, are based primarily upon internal or third-party environmental studies, and estimates as to the number, participation level and financial viability of any other potentially responsible parties, the extent of the contamination and the nature of required remedial actions. The Company adjusts recorded liabilities as further information develops or circumstances change. The Company expects that it will pay the amounts recorded over the periods of remediation for the applicable sites, currently ranging up to 20 years.

As of June 30, 2017, the Company had recorded liabilities of $28 million for "other environmental liabilities" based upon an evaluation of currently available facts to implement the Settlement Agreement and Consent Order with the MPCA, the remedial action agreement with ADEM, and to address trace amounts of perfluorinated compounds in drinking water sources in the City of Oakdale, Minnesota, as well as presence in the soil and groundwater at the Company's manufacturing facilities in Decatur, Alabama, and Cottage Grove, Minnesota, and at two former disposal sites in Washington County, Minnesota (Oakdale and Woodbury). The Company expects that most of the spending will occur over the next four years. During the first quarter of 2017, the Company collected from its insurer the outstanding receivable of $15 million related to "other environmental liabilities."

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

Other Matters

Department of Labor Investigation

The U.S. Department of Labor (DOL) notified 3M in April 2015 that it had commenced an investigation of 3M's pension plan pursuant to the federal Employee Retirement Income Security Act of 1974, as amended (ERISA). The DOL has stated its investigation relates to certain private equity investments, plan expenses, securities lending, and distributions of plan benefits. In response to certain DOL requests, 3M produced documents and made employees available for interviews. In December 2016, the DOL issued certain subpoenas to 3M and 3M Investment Management Corp. relating to this investigation. 3M has produced additional responsive documents and is cooperating with the DOL in its investigation. The DOL has not provided a timeline for the completion of its investigation.

Product Liability Litigation

One customer obtained an order in the French courts against 3M Purification SAS (a French subsidiary) in October 2011 appointing an expert to determine the amount of commercial loss and property damage allegedly caused by allegedly defective 3M filters used in the customer's manufacturing process. An Austrian subsidiary of this same customer also filed a claim against 3M Austria GmbH (an Austrian subsidiary) and 3M Purification SAS in the Austrian courts in September 2012 seeking damages for the same issue. The Company reached an agreement in principle to settle those two cases and finalized the settlement during the second quarter of 2017. The amounts agreed to in each of these settlements were not material to the Company's consolidated results of operations or financial condition.

As of June 30, 2017, the Company is a named defendant in lawsuits involving approximately 2,600 plaintiffs (compared to approximately 1,260 plaintiffs at December 31, 2016), most of which are pending in federal or state court in Minnesota, in which the plaintiffs claim they underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system. The complaints seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and/or negligent misrepresentation/concealment, unjust enrichment, and violations of various state consumer fraud, deceptive or unlawful trade practices and/or false advertising acts. One case, from the U.S. District Court for the Western District of Tennessee is a putative nationwide class action. The U.S. Judicial Panel on Multidistrict Litigation (MDL) granted the plaintiffs' motion to transfer and consolidate all cases pending in federal courts to the U.S. District Court for the District of Minnesota to be managed in a multi-district proceeding during the pre-trial phase of the litigation. In June 2016, the Company was served with a putative class action filed in the Ontario Superior Court of Justice for all Canadian residents who underwent various joint arthroplasty, cardiovascular, and other surgeries and later developed surgical site infections due to the use of the Bair Hugger™ patient warming system. The representative plaintiff seeks relief (including punitive damages) under Canadian law based on theories similar to those asserted in the MDL. The Bair Hugger™ product line was acquired by 3M as part of the 2010 acquisition of Arizant, Inc., a leading manufacturer of patient warming solutions designed to prevent hypothermia and maintain normal body temperature in surgical settings. No liability has been recorded for this matter because the Company believes that any such liability is not probable and estimable at this time.

In September 2011, 3M Oral Care launched Lava Ultimate CAD/CAM dental restorative material. The product was originally indicated for inlay, onlay, veneer, and crown applications. In June 2015, 3M Oral Care voluntarily removed crown applications from the product's instructions for use, following reports from dentists of patients' crowns debonding, requiring additional treatment. The product remains on the market for other applications. 3M communicated with the U.S. Food and Drug Administration, as well as regulators outside the United States. 3M also informed customers and distributors of its action, offered to accept return of unused materials and provide refunds. As of June 30, 2017, there are two lawsuits pending that were brought by dentists and dental practices against 3M. The complaints allege 3M marketed and sold defective Lava Ultimate material used for dental crowns to dentists and, under various theories, seek monetary damages (replacement costs and business reputation loss), punitive damages, disgorgement of profits, injunction from marketing and selling Lava Ultimate for use in dental crowns, statutory penalties, and attorneys' fees and costs. One lawsuit, pending in the U.S. District Court for the District of Minnesota, is a class action that names 39 plaintiffs and seeks certification of a class of dentists in the United States and its territories, and alternatively seeks subclasses in 13 states. The other lawsuit is an individual complaint against 3M in Madison County, Illinois.

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 13. Stock-Based Compensation

The 3M 2016 Long-Term Incentive Plan (LTIP), as discussed in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K), 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. The remaining total shares available for grant under the LTIP Program are 30,069,336 as of June 30, 2017.

The Company's annual stock option and restricted stock unit grant is made in February to provide a strong and immediate link between the performance of individuals during the preceding year and the size of their annual stock compensation grants. The grant to eligible employees uses the closing stock price on the grant date. Accounting rules require recognition of expense under a non-substantive vesting period approach, requiring compensation expense recognition when an employee is eligible to retire. Employees are considered eligible to retire at age 55 and after having completed ten years of service. This retiree-eligible population represents 35 percent of the 2017 annual grant stock-based compensation award expense dollars; therefore, higher stock-based compensation expense is recognized in the first quarter.

In addition to the annual grants, the Company makes other minor grants of stock options, restricted stock units and other stock-based grants. The Company issues cash settled restricted stock units and stock appreciation rights in certain countries. These grants do not result in the issuance of common stock and are considered immaterial 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 and six months ended June 30, 2017 and 2016.

Stock-Based Compensation Expense

	Three months ended June 30,		Six months ended June 30,	
(Millions)	2017	2016	2017	2016
Cost of sales	**$ 9**	$ 8	**$ 32**	$ 31
Selling, general and administrative expenses	**43**	34	**141**	130
Research, development and related expenses	**7**	7	**33**	32
Stock-based compensation expenses	**$ 59**	$ 49	**$ 206**	$ 193
Income tax benefits	**$ (74)**	$ (72)	**$ (222)**	$ (199)
Stock-based compensation expenses (benefits), net of tax	**$ (15)**	$ (23)	**$ (16)**	$ (6)

Stock Option Program

The following table summarizes stock option activity during the six months ended June 30, 2017:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (months)	Aggregate Intrinsic Value (millions)
Under option —				
January 1	**36,196,232**	**$ 112.07**		
Granted:				
Annual	**5,409,628**	**175.93**		
Exercised	**(4,667,165)**	**89.38**		
Canceled	**(122,880)**	**161.12**		
June 30	**36,815,815**	**$ 124.16**	**75**	**$ 3,093**
Options exercisable				
June 30	**26,069,052**	**$ 107.43**	**61**	**$ 2,627**

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 June 30, 2017, there was $104 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 23 months. The total intrinsic values of stock options exercised were $465 million and $469 million during the six months ended June 30, 2017 and 2016, respectively. Cash received from options exercised was $416 million and $534 million for the six months ended June 30, 2017 and 2016, respectively. The Company's actual tax benefits realized for the tax deductions related to the exercise of employee stock options were $158 million and $173 million for the six months ended June 30, 2017 and 2016, respectively.

For the primary 2017 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 2017
Exercise price	**$ 175.76**
Risk-free interest rate	**2.1 %**
Dividend yield	**2.5 %**
Expected volatility	**17.3 %**
Expected life (months)	**78**
Black-Scholes fair value	**$ 23.51**

Expected volatility is a statistical measure of the amount by which a stock price is expected to fluctuate during a period. For the 2017 annual grant date, the Company estimated the expected volatility based upon the average of the most recent one year volatility, the median of the term of the expected life rolling volatility, the median of the most recent term of the expected life volatility of 3M stock, and the implied volatility on the grant date. The expected life 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 six months ended June 30, 2017:

	Number of Awards	Weighted Average Grant Date Fair Value
Nonvested balance —		
As of January 1	**2,185,046**	**$ 145.64**
Granted		
Annual	**604,256**	**176.10**
Other	**1,547**	**184.98**
Vested	**(758,403)**	**126.75**
Forfeited	**(31,511)**	**157.36**
As of June 30	**2,000,935**	**$ 161.84**

As of June 30, 2017, there was $112 million of compensation expense that has yet to be recognized related to non-vested restricted stock units and restricted stock. This expense is expected to be recognized over the remaining weighted-average vesting period of 24 months. The total fair value of restricted stock units and restricted stock that vested during the six months ended June 30, 2017 and 2016 was $134 million and $136 million, respectively. The Company’s actual tax benefits realized for the tax deductions related to the vesting of restricted stock units and restricted stock was $44 million and $51 million for the six months ended June 30, 2017 and 2016, 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 2017 performance criteria for these performance shares (organic volume growth, return on invested capital, free cash flow conversion, and earning per share growth) were selected because the Company believes that they are important drivers of long-term stockholder value. The number of shares of 3M common stock that could actually be delivered at the end of the three-year performance period may be anywhere from 0% to 200% of each performance share granted, depending on the performance of the Company during such performance period. Non-substantive vesting requires that expense for the performance shares be recognized over one or three years depending on when each individual became a 3M executive. The 2017 performance share grant accrues 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 six months ended June 30, 2017:

	Number of Awards	Weighted Average Grant Date Fair Value
Undistributed balance —		
As of January 1	**656,278**	**$ 142.98**
Granted	**187,480**	**189.81**
Distributed	**(312,173)**	**124.63**
Performance change	**65,216**	**173.25**
Forfeited	**(9,275)**	**168.09**
As of June 30	**587,526**	**$ 170.63**

As of June 30, 2017, there was $42 million of compensation expense that has yet to be recognized related to performance shares. This expense is expected to be recognized over the remaining weighted-average earnings period of 11 months. The total fair values of performance shares that were distributed were $55 million and $54 million for the six months ended June 30, 2017 and 2016, respectively. The Company's actual tax benefits realized for the tax deductions related to the distribution of performance shares were $15 million for both the six months ended June 30, 2017 and 2016.

NOTE 14. 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.

Effective in the first quarter of 2017, as part of 3M's continuing effort to improve the alignment of its businesses around markets and customers the Company made the following changes:

1. Integrated the former Renewable Energy Division into existing divisions;
2. Combined two divisions to form the Automotive and Aerospace Solutions Division; and
3. Consolidated U.S. customer account activity - impacting dual credit reporting

Integration of former Renewable Energy Division

- The (a) solar and wind and (b) energy product lines (along with certain technology previously included in Corporate and Unallocated) of the former Renewable Energy Division (RED) were integrated into the existing Electrical Markets Division and Electronics Materials and Solutions Division, respectively, within the Electronics and Energy business segment. In addition, the former RED's window film product lines were moved into the Commercial Solutions Division within the Safety and Graphics business segment. This change resulted in a decrease in previously reported net sales and operating income for total year 2016 of $203 million and $38 million, respectively, in the Electronics and Energy segment. These decreases were offset by a $207 million and $29 million increase in previously reported total year 2016 net sales and operating income, respectively, in the Safety and Graphics business segment and a $4 million decrease and $9 million increase in previously reported net sales and operating income, respectively, in Corporate and Unallocated.

Creation of Automotive and Aerospace Solutions Division

- The former Automotive Division and Aerospace and Commercial Transportation Division (both within the Industrial business segment) were combined to create the Automotive and Aerospace Solutions Division. Because this realignment was within the Industrial business segment, it had no impact on business segment reporting.

Consolidation of U.S. customer account activity - impacting dual credit reporting

- The Company consolidated its customer account activity in the U.S. into more centralized sales districts to better serve customers. As discussed further below, 3M business segment reporting measures include dual credit to business segments for certain U.S. sales and related operating income. This dual credit is based on which business segment provides customer account activity ("sales district") with respect to a particular product sold in the U.S. Previously, a customer in the U.S. may have been aligned to several sales districts associated with multiple divisions or segments based on the individual products the customer purchased across 3M's portfolio. The alignment of U.S. customer accounts to fewer, more focused sales districts therefore changed the attribution of dual credit across 3M's business segments. As a result, previously reported aggregate business segment net sales and operating income for total year 2016 increased $163 million and $36 million, respectively, offset by similar increases in the elimination of dual credit net sales and operating income amounts.

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

Business Segment Information

(Millions)	Three months ended June 30, 2017	Three months ended June 30, 2016	Six months ended June 30, 2017	Six months ended June 30, 2016
Net Sales				
Industrial	**$ 2,720**	$ 2,654	**$ 5,429**	$ 5,253
Safety and Graphics	**1,547**	1,561	**3,074**	3,038
Health Care	**1,440**	1,414	**2,863**	2,805
Electronics and Energy	**1,214**	1,129	**2,424**	2,218
Consumer	**1,137**	1,130	**2,179**	2,180
Corporate and Unallocated	**2**	3	**4**	3
Elimination of Dual Credit	**(250)**	(229)	**(478)**	(426)
Total Company	**$ 7,810**	$ 7,662	**$ 15,495**	$ 15,071
Operating Income				
Industrial	**$ 523**	$ 620	**$ 1,148**	$ 1,242
Safety and Graphics	**852**	421	**1,251**	780
Health Care	**412**	462	**846**	919
Electronics and Energy	**301**	217	**526**	412
Consumer	**195**	281	**417**	519
Corporate and Unallocated	**(44)**	(84)	**(125)**	(124)
Elimination of Dual Credit	**(55)**	(51)	**(105)**	(94)
Total Company	**$ 2,184**	$ 1,866	**$ 3,958**	$ 3,654

Corporate and unallocated operating income includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company may choose not to allocate directly to its business segments. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

3M business segment reporting measures include dual credit to business segments for certain U.S. sales and related operating income. Management evaluates each of its five business segments based on net sales and operating income performance, including dual credit U.S. reporting to further incentivize U.S. 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 in the U.S. 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 the U.S. market. In this example, the non-primary selling segment (Industrial) would also receive credit for the associated net sales initiated though 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 for the U.S. in total are unchanged.

Certain sales and operating income results for electronic bonding product lines are equally divided between the Electronics and Energy business segment and the Industrial business segment.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM*

To the Stockholders and Board of Directors of 3M Company:

We have reviewed the accompanying consolidated balance sheet of 3M Company and its subsidiaries as of June 30, 2017, and the related consolidated statements of income and comprehensive income for the three-month and six-month periods ended June 30, 2017 and 2016 and the consolidated statements of cash flows for the six-month periods ended June 30, 2017 and 2016. These interim financial statements are the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2016, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended (not presented herein), and in our report dated February 9, 2017, except with respect to our opinion on the consolidated financial statements insofar as it relates to the business segment reporting changes discussed in Notes 3 and 16 as to which the date is May 4, 2017, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2016, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Minneapolis, Minnesota
August 1, 2017

* Pursuant to Rule 436(c) of the Securities Act of 1933 ("Act") this should not be considered a "report" within the meaning of Sections 7 and 11 of the Act and the independent registered public accounting firm liability under Section 11 does not extend to it.

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 described in 3M's Quarterly Report on Form 10-Q for the period ended March 31, 2017, and also in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K), effective in the first quarter of 2017, the Company changed its business segment reporting in its continued effort to improve the alignment of businesses around markets and customers. These changes included the integration of the former Renewable Energy Division into existing divisions, the combination of two divisions to form the Automotive and Aerospace Solutions Division, and consolidation of U.S. customer account activity, impacting dual credit reporting. Business segment information presented herein reflects the impact of these changes for all periods presented. Refer to Note 14 for additional detail. This quarterly report on Form 10-Q should be read in conjunction with the Company's consolidated statements and notes included in its Current Report on Form 8-K dated May 4, 2017.

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. Any references to "Membrana" refer to the former Separations Media business acquired by 3M from Polypore in 2015.

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 and six months ended June 30, 2017 compared to 2016.

(Earnings per diluted share)	Three months ended June 30, 2017	Six months ended June 30, 2017
Same period last year	$ 2.08	$ 4.13
Increase/(decrease) in earnings per share - diluted, due to:		
Organic growth/other productivity	0.08	0.29
Foreign exchange impacts	(0.05)	(0.09)
Income tax rate	0.12	0.20
Shares of common stock outstanding/net interest	0.02	0.06
Divestiture gains, net of lost operating income	0.57	0.55
Incremental strategic investments	(0.24)	(0.40)
Current period	$ 2.58	$ 4.74

Earnings per diluted share increased 50 cents, or 24.0 percent and 61 cents, or 14.8 percent in the second quarter and first six months of 2017, respectively, when compared to the same periods last year. The second quarter of 2017 includes a net year-on-year benefit of $273 million, comprised of divestiture gains (net of lost operating income) of $451 million partially offset by $178 million of incremental strategic investments in accelerated growth programs, productivity and portfolio actions.

Operating income results include year-on-year incremental strategic investments that decreased pre-tax earnings by approximately $178 million and $314 million in the second quarter of 2017 and first six months of 2017, respectively. The second quarter impact was comprised of 3M's investments in growth initiatives and optimization of its portfolio and supply chain footprint of $178 million. In addition to the second quarter strategic investments discussion above, the first quarter of 2017 included strategic investments of $136 million. Additional discussion on strategic investments is provided later within "Divestitures and Strategic Investments" and also within the "Results of Operations" section.

Divestiture lost operating income impacts, which are measured for the first twelve months post-transaction, related to the divestitures of Polyfoam and the remaining portion of the library system business (both in first quarter 2016), the divestitures of the protective films business and cathode battery technology out-license business (both in fourth quarter 2016), and the divestitures of the identity management and tolling and automated license/number plate recognition businesses (both in the second quarter of 2017). In addition, 3M sold its prescription safety eyewear business (January 2017), sold and transferred control of its identify management business (May 2017), and sold its tolling and automated license/number plate recognition business (June 2017). On a combined basis, higher year-on-year divestiture gains, net of lost operating income in the second quarter of 2017 (largely related to the identity management business) increased earnings per share.

Organic growth, productivity and other include benefits from higher organic local-currency sales, lower raw material costs, and business transformation, which is having a positive impact on 3M's productivity efforts. These benefits were partially offset by higher defined benefit pension expenses.

Foreign currency impacts (net of hedging) decreased pre-tax earnings by approximately $44 million and $79 million year-on-year in the second quarter and first six months of 2017, respectively, excluding the impact of foreign currency changes on tax rates. This is equivalent to a year-on-year decrease of 5 cents and 9 cents per diluted share for the second quarter and first six months of 2017, respectively.

The effective income tax rate was 26.0 percent in the second quarter of 2017, a decrease of 3.6 percentage points versus last year's second quarter, and 25.0 percent in the first six months of 2017, a decline of 3.2 percentage points versus last year's first six months. The second quarter and first six months 2017 change in tax rate was driven by a number of factors as referenced in Note 6.

Lower shares outstanding, partially offset by higher interest expense, increased earnings per share. Weighted-average diluted shares outstanding in the second quarter and first six months of 2017 declined 1.3 percent and 1.4 percent year-on-year, respectively, which benefited earnings per share. The decrease in the outstanding weighted-average diluted shares relates to the Company's purchase of $494 million and $1.2 billion of its own stock in the second quarter and first six months of 2017, respectively. Higher net interest expense was largely due to higher U.S. average debt balances and higher interest rates.

Sales and operating income by business segment:

The following tables contain sales and operating income results by business segment for the three months and six months ended June 30, 2017 and 2016. In addition to the discussion below, refer to the section entitled "Performance by Business Segment" later in MD&A for a more detailed discussion of the sales and operating income results of the Company and its respective business segments (including Corporate and Unallocated). Refer to Note 14 for additional information on business segments, including Elimination of Dual Credit. Further discussion of the Company's operating income results is in the section entitled "Operating Income" within the "Results of Operations" section.

(Dollars in millions)	Three months ended June 30, 2017 Net Sales	2017 Oper. Income	2016 Net Sales	2016 Oper. Income	% change Net Sales	% change Oper. Income
Business Segments						
Industrial	**$ 2,720**	**$ 523**	$ 2,654	$ 620	**2.5 %**	**(15.6)%**
Safety and Graphics	**1,547**	**852**	1,561	421	**(0.9)%**	**102.0 %**
Health Care	**1,440**	**412**	1,414	462	**1.8 %**	**(10.6)%**
Electronics and Energy	**1,214**	**301**	1,129	217	**7.5 %**	**38.8 %**
Consumer	**1,137**	**195**	1,130	281	**0.5 %**	**(30.4)%**
Corporate and Unallocated	**2**	**(44)**	3	(84)	—	—
Elimination of Dual Credit	**(250)**	**(55)**	(229)	(51)	—	—
Total Company	**$ 7,810**	**$ 2,184**	$ 7,662	$ 1,866	**1.9 %**	**17.1 %**

Worldwide Sales Change Analysis By Business Segment	Three months ended June 30, 2017 Organic local-currency sales	Divestitures	Translation	Total sales change
Industrial	3.8 %	(0.6)%	(0.7)%	2.5 %
Safety and Graphics	3.2 %	(3.4)%	(0.7)%	(0.9)%
Health Care	2.5 %	— %	(0.7)%	1.8 %
Electronics and Energy	8.4 %	(0.4)%	(0.5)%	7.5 %
Consumer	0.7 %	— %	(0.2)%	0.5 %
Total Company	3.5 %	(1.0)%	(0.6)%	1.9 %

Sales in U.S. dollars in the second quarter of 2017 increased 1.9 percent compared to the same period in 2016, with an increase in organic local-currency sales (which includes organic volume impacts plus selling price impacts) partially offset by divestiture and foreign currency translation impacts. Total company organic local-currency sales increased 3.5 percent, with growth in all business segments. Worldwide operating income margins for the second quarter of 2017 were 28.0 percent, compared to 24.4 percent for the second quarter of 2016, helped by a net benefit from divestiture gains, net of lost operating income, partially offset by incremental strategic investments.

Divestitures reduced second quarter sales growth by 1.0 percent. As part of its ongoing portfolio management process, 3M sold its protective films business and cathode battery technology out-license business (both in fourth quarter 2016). In addition, 3M sold its prescription safety eyewear business (January 2017), its identify management business (May 2017), and its tolling and automated license/number plate recognition business (June 2017). Refer to Note 2 in the Consolidated Financial Statements for additional detail.

(Dollars in millions)	Six months ended June 30, 2017 Net Sales	2017 Oper. Income	2016 Net Sales	2016 Oper. Income	% change Net Sales	% change Oper. Income
Business Segments						
Industrial	**$ 5,429**	**$ 1,148**	$ 5,253	$ 1,242	**3.4 %**	**(7.6)%**
Safety and Graphics	**3,074**	**1,251**	3,038	780	**1.2 %**	**60.3 %**
Health Care	**2,863**	**846**	2,805	919	**2.1 %**	**(7.9)%**
Electronics and Energy	**2,424**	**526**	2,218	412	**9.3 %**	**27.6 %**
Consumer	**2,179**	**417**	2,180	519	**(0.1)%**	**(19.6)%**
Corporate and Unallocated	**4**	**(125)**	3	(124)	—	—
Elimination of Dual Credit	**(478)**	**(105)**	(426)	(94)	—	—
Total Company	**$ 15,495**	**$ 3,958**	$ 15,071	$ 3,654	**2.8 %**	**8.3 %**

Worldwide Sales Change Analysis By Business Segment	Six months ended June 30, 2017 Organic local-currency sales	Divestitures	Translation	Total sales change
Industrial	4.8 %	(0.7)%	(0.7)%	3.4 %
Safety and Graphics	4.0 %	(2.1)%	(0.7)%	1.2 %
Health Care	2.8 %	— %	(0.7)%	2.1 %
Electronics and Energy	10.0 %	(0.3)%	(0.4)%	9.3 %
Consumer	(0.3)%	— %	0.2 %	(0.1)%
Total Company	4.0 %	(0.7)%	(0.5)%	2.8 %

Sales in U.S. dollars in the first six months of 2017 increased 2.8 percent, with an increase in organic local-currency sales partially offset by divestiture and foreign currency translation impacts. Total company organic local-currency sales increased 4.0 percent, with growth in all business segments except Consumer. All five of 3M's business segments achieved operating income margins in excess of 19 percent. Worldwide operating income margins for the first six months of 2017 were 25.5 percent, compared to 24.2 percent for the first six months of 2016, helped by a net benefit from divestiture gains, net of lost operating income, partially offset by incremental strategic investments.

In the first quarter of 2016, 3M completed the sale of the remaining portions of its library systems business. Also, in the first quarter of 2016, 3M divested the assets of 3M's pressurized polyurethane foam adhesives business (formerly known as Polyfoam). These businesses were formerly part of the Company's Safety and Graphics business and Industrial business, respectively. Additional acquisition and divestiture impacts that impacted six months ended June 30, 2017 results are provided in the preceding second quarter discussion.

Sales by geographic area:

Percent change information compares the second quarter and first six months of 2017 with the same periods last year, unless otherwise indicated. From a geographic perspective, any references to EMEA refer to Europe, Middle East and Africa on a combined basis. Additional discussion of geographic area impacts by business segment is provided in the Performance by Business Segment section.

	Three months ended June 30, 2017					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/ Canada	Other Unallocated	Worldwide
Net sales (millions)	$ 3,127	$ 2,322	$ 1,605	$ 757	$ (1)	$ 7,810
% of worldwide sales	40.0 %	29.7 %	20.6 %	9.7 %	—	100.0 %
Components of net sales change:						
Volume — organic	2.3 %	10.7 %	(2.0)%	3.5 %	—	3.8 %
Price	(0.4)	(0.7)	0.4	0.2	—	(0.3)
Organic local-currency sales	1.9	10.0	(1.6)	3.7	—	3.5
Divestitures	(1.4)	(0.4)	(0.8)	(1.3)	—	(1.0)
Translation	—	(1.3)	(1.2)	0.1	—	(0.6)
Total sales change	0.5 %	8.3 %	(3.6)%	2.5 %	—	1.9 %
Total sales change:						
Industrial	3.2 %	4.7 %	(0.6)%	1.8 %	—	2.5 %
Safety and Graphics	(2.2)%	4.8 %	(3.7)%	(1.4)%	—	(0.9)%
Health Care	3.4 %	6.3 %	(5.9)%	7.6 %	—	1.8 %
Electronics and Energy	(1.7)%	14.9 %	(8.9)%	1.3 %	—	7.5 %
Consumer	(0.7)%	6.0 %	(5.8)%	6.7 %	—	0.5 %
Organic local-currency sales change:						
Industrial	4.3 %	6.8 %	0.8 %	1.8 %	—	3.8 %
Safety and Graphics	1.9 %	8.5 %	0.6 %	3.2 %	—	3.2 %
Health Care	3.4 %	7.6 %	(4.1)%	7.8 %	—	2.5 %
Electronics and Energy	0.1 %	15.7 %	(8.8)%	1.4 %	—	8.4 %
Consumer	(0.7)%	6.6 %	(5.0)%	6.5 %	—	0.7 %

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

- In Asia Pacific, where 3M's Electronics and Energy business is concentrated, sales benefited from strengthened demand across most market segments in consumer electronics. Total sales in China/Hong Kong grew 13 percent and Japan grew 4 percent. On an organic local-currency sales basis, China/Hong Kong grew 17 percent and Japan grew 8 percent.
- In EMEA, Central/East Europe and Middle East/Africa total sales decreased 3 percent, as organic local-currency sales and divestiture impacts reduced sales growth by 2 percent each, partially offset by foreign currency translation impacts. West Europe total sales declined 4 percent, as both organic local-currency sales and foreign currency translation reduced sales growth by 2 percent each.
- In Latin America/Canada, total sales increased 6 percent in Mexico, driven by organic local-currency sales growth of 8 percent. In Canada, total sales declined 1 percent, with organic local-currency sales growth of 3 percent offset by foreign currency translation and divestiture impacts. In Brazil total sales growth of 12 percent was driven by organic local-currency sales growth of 6 percent and foreign currency translation.

Selling prices decreased 0.3 percent. Strong volume growth in electronics had a negative impact on price, plus 3M had less price growth in Latin America, as currencies were more stable versus the U.S. dollar.

Foreign currency translation reduced year-on-year sales by 0.6 percent, with translation-related sales decreases in both Asia Pacific and EMEA. In Asia Pacific, the U.S. dollar was weaker compared to the second quarter of 2016 by 4 percent versus both the Japanese Yen and the Chinese Yuan. In EMEA, the U.S. dollar was weaker compared to the second quarter of 2016 by 9 percent versus the British Pound, while the Euro was flat.

	Six months ended June 30, 2017					
	United States	Asia Pacific	Europe, Middle East & Africa	Latin America/ Canada	Other Unallocated	Worldwide
Net sales (millions)	$ 6,068	$ 4,755	$ 3,182	$ 1,493	$ (3)	$ 15,495
% of worldwide sales	39.2 %	30.7 %	20.5 %	9.6 %	—	100.0 %
Components of net sales change:						
Volume — organic	1.9 %	10.4 %	0.6 %	2.1 %	—	4.1 %
Price	(0.3)	(0.4)	0.4	1.0	—	(0.1)
Organic local-currency sales	1.6	10.0	1.0	3.1	—	4.0
Divestitures	(1.1)	(0.2)	(0.4)	(0.9)	—	(0.7)
Translation	—	(0.7)	(2.5)	2.1	—	(0.5)
Total sales change	0.5 %	9.1 %	(1.9)%	4.3 %	—	2.8 %
Total sales change:						
Industrial	3.8 %	6.0 %	— %	2.8 %	—	3.4 %
Safety and Graphics	(0.3)%	5.0 %	(0.4)%	1.5 %	—	1.2 %
Health Care	2.8 %	6.6 %	(4.9)%	10.2 %	—	2.1 %
Electronics and Energy	0.1 %	16.1 %	(4.1)%	1.8 %	—	9.3 %
Consumer	(2.6)%	7.4 %	(4.9)%	7.6 %	—	(0.1)%
Organic local-currency sales change:						
Industrial	5.0 %	7.3 %	2.9 %	1.1 %	—	4.8 %
Safety and Graphics	2.7 %	7.1 %	3.7 %	2.7 %	—	4.0 %
Health Care	2.8 %	7.3 %	(1.7)%	7.7 %	—	2.8 %
Electronics and Energy	1.4 %	16.6 %	(3.0)%	0.6 %	—	10.0 %
Consumer	(2.6)%	6.7 %	(2.8)%	4.5 %	—	(0.3)%

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

- In Asia Pacific, where 3M's Electronics and Energy business is concentrated, sales benefited from strengthened demand across most market segments in consumer electronics. Total sales in China/Hong Kong grew 11 percent and Japan grew 9 percent. On an organic local-currency sales basis, China/Hong Kong grew 15 percent and Japan grew 11 percent.
- In EMEA, Central/East Europe and Middle East/Africa total sales and organic local-currency were flat. West Europe total sales declined 2 percent, as organic local-currency sales growth of 1 percent was more than offset by foreign currency translation.
- In Latin America/Canada, total sales increased 2 percent in Mexico, as organic local-currency sales growth of 8 percent was partially offset by foreign currency translation and divestitures. In Canada, total sales grew 1 percent, helped by organic local-currency sales growth of 3 percent. In Brazil total sales growth of 16 percent was driven by foreign currency translation, while organic local-currency sales increased 2 percent.

Foreign currency translation reduced year-on-year sales by 0.5 percent, with the translation-related sales increase in Latin America/Canada more than offset by the decreases in EMEA and Asia Pacific.

Managing currency risks:

As discussed above, the stronger U.S. dollar had a negative impact on sales and earnings in both the second quarter and first six months of 2017 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 $2.630 billion of operating cash flows in the first six months of 2017, an increase of $85 million when compared to the first six months of 2016. Refer to the section entitled "Financial Condition and Liquidity" later in MD&A for a discussion of items impacting cash flows.

In February 2016, 3M's Board of Directors authorized the repurchase of up to $10 billion of 3M's outstanding common stock, with no pre-established end date. In the first six months of 2017, the Company purchased $1.2 billion of its own stock, compared to $2.1 billion of stock purchases in the first six months of 2016. As of June 30, 2017, approximately $6.0 billion remained available under the February 2016 authorization. The Company expects to purchase $2.0 billion to $3.5 billion of its own stock in 2017. In February 2017, 3M's Board of Directors declared a first-quarter 2017 dividend of $1.175 per share, an increase of 6 percent. This marked the 59th consecutive year of dividend increases for 3M. In May 2017, 3M's Board of Directors declared a second quarter 2017 dividend of $1.175 per share.

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 $300 million to $500 million of cash to its global defined benefit pension and postretirement plans in 2017. The Company does not have a required minimum cash pension contribution obligation for its U.S. plans in 2017.

Year 2017 announced acquisitions (not closed as of June 30, 2017):

In March 2017, 3M announced that it entered into an agreement to acquire Scott Safety from Johnson Controls for $2.0 billion, subject to closing and other adjustments. This transaction is expected to close in the second half of 2017 and will be reflected within the Company's Safety and Graphics business. Refer to Note 2 for additional details.

Year 2017 announced divestitures (not closed as of June 30, 2017):

In June 2017, 3M announced that it has entered into an agreement to sell its electronic monitoring business to an affiliate of Apax Partners, for $200 million, net of cash sold and subject to closing and other adjustments. This transaction is expected to close in the second half of 2017 and will be reported within the Company's Safety and Graphics business. Refer to Note 2 for additional details.

Divestitures and Strategic Investments:

In both the second quarter and first six months of 2017, the Company continued to execute on accelerating investments in growth initiatives and footprint optimization. In addition, the Company divested certain businesses as it continued to focus its portfolio on opportunities that create greater value for its shareholders. As shown below, these divestitures and strategic investments led to a net year-on-year benefit of approximately $0.33 per diluted share and $0.15 per diluted share, respectively, for the three and six months ended June 30, 2017.

Divestiture impacts and strategic investments net benefit/(cost) (in millions, except per share amounts)	Three months ended June 30, 2017 Pre-tax impact	Three months ended June 30, 2017 Impact per diluted share after-tax	Six months ended June 30, 2017 Pre-tax impact	Six months ended June 30, 2017 Impact per diluted share after-tax
Divestiture impacts:				
2017 divestiture gains	$ 461		$ 490	
Less: prior year divestiture gains	—		(40)	
Year-on-year lost operating income from divested businesses	(10)		(12)	
Year-on-year divestiture impacts, net of lost operating income	$ 451	$ 0.57	$ 438	$ 0.55
Strategic investments:				
2017 portfolio and footprint optimization activities:				
Restructuring actions and exit activities	$ (99)		$ (123)	
Asset charges and accelerated depreciation	(36)		(116)	
Other costs	(15)		(15)	
Less: prior year portfolio and footprint optimization activities	11		15	
Year-on-year portfolio and footprint optimization	(139)	$ (0.20)	(239)	$ (0.30)
Incremental year-on-year growth initiatives	(39)		(75)	
Total incremental strategic investments	$ (178)	$ (0.24)	$ (314)	$ (0.40)
Year-on-year divestiture impacts and strategic investments net benefit/(cost)	$ 273	$ 0.33	$ 124	$ 0.15

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

(Millions)	Three months ended June 30, 2017	Six months ended June 30, 2017
Industrial	$ (60)	$ (102)
Safety and Graphics	439	455
Health Care	(27)	(45)
Electronics and Energy	(5)	(73)
Consumer	(56)	(75)
Corporate and Unallocated	(18)	(36)
Total pretax divestiture gains, net of strategic investments	$ 273	$ 124

During the second half of 2017, the Company will recognize additional portfolio and footprint optimization charges related to accelerated depreciation from earlier 2017 actions. In addition, the Company also anticipates additional incremental strategic investments, largely footprint related, during the same period. These actions combined are expected to have a $0.20 to $0.25 per diluted share impact during the second half of 2017.

RESULTS OF OPERATIONS

Net Sales:

Refer to the preceding sections entitled “Sales and operating income by business segment” and “Sales and operating income by geographic area” for discussion of sales change.

Operating Expenses:

(Percent of net sales)	Three months ended June 30, 2017	Three months ended June 30, 2016	Change	Six months ended June 30, 2017	Six months ended June 30, 2016	Change
Cost of sales	**51.2 %**	49.5 %	1.7 %	**50.9 %**	49.6 %	1.3 %
Selling, general and administrative expenses	**20.6**	20.4	0.2	**20.7**	20.6	0.1
Research, development and related expenses	**6.1**	5.7	0.4	**6.1**	5.9	0.2
Gain on sale of businesses	**(5.9)**	—	(5.9)	**(3.2)**	(0.3)	(2.9)
Operating income	**28.0 %**	24.4 %	3.6 %	**25.5 %**	24.2 %	1.3 %

3M expects global defined benefit pension and postretirement expense in 2017 (before settlements, curtailments, special termination benefits and other) to increase by approximately $74 million pre-tax when compared to 2016, which impacts cost of sales; selling, general and administrative expenses (SG&A); and research, development and related expenses (R&D). Refer to 3M’s Current Report on Form 8-K dated May 4, 2017 (MD&A section entitled Critical Accounting Estimates — Pension and Postretirement Obligations and Note 11, Pension and Postretirement Benefit Plans) for background concerning the change to the spot yield curve approach and other factors that will impact pension and postretirement expenses in 2017. The year-on-year increase in defined benefit pension and postretirement expense for the second quarter and first six months of 2017 was $22 million and $44 million, respectively.

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.

In both the first and second quarters of 2017, strategic investments in growth initiatives, portfolio actions and footprint optimization, in addition to gains on divestitures, impacted 3M’s operating expenses. The table below reflects actual amounts within the period and does not include any year-on-year impacts.

(Millions)	Three months ended June 30, 2017	Six months ended June 30, 2017
Cost of sales	$ 119	$ 202
Selling, general and administrative expenses	70	128
Research, development and related charges	8	9
Gain on sale of businesses	(461)	(490)
Total	$ (264)	$ (151)

Cost of Sales:

Cost of sales includes manufacturing, engineering and freight costs.

Cost of sales, measured as a percent of sales, increased in the second quarter due to charges related to 3M’s optimization of its portfolio and supply chain footprint, foreign currency effects (net of hedge gains), higher defined benefit pension expense, and decreases in selling prices of 0.3 percent. This was partially offset by raw material cost deflation, which was favorable by approximately 1 percent year-on-year.

Cost of sales, measured as a percent of sales, increased in the first six months of 2017 due to incremental strategic investments in productivity and portfolio actions, foreign currency effects (net of hedge gains), and higher defined benefit pension expense, in addition to the optimization charges in the second quarter of 2017 as described earlier. This was partially offset by raw material cost deflation, which was favorable by approximately 1.5 percent year-on-year. Selling prices decreased net sales year-on-year by 0.1 percent in the first six months of 2017.

Selling, General and Administrative Expenses:

SG&A in dollars increased 3.0 percent and 3.7 percent in the second quarter and first six months of 2017, respectively, when compared to the same period last year, impacted by incremental strategic investments, optimization charges, and higher defined benefit pension expense.

Research, Development and Related Expenses:

R&D in dollars increased $36 million and $57 million in the second quarter and first six months of 2017, respectively, compared to the same period last year. 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:

In January 2017, 3M completed the sale of assets related to its safety prescription eyewear business to HOYA Vision Care. 3M received proceeds of $53 million for this transaction and recognized, net of assets sold, transaction and other costs, a pre-tax gain of $29 million, which was reported within the Company's Safety and Graphics business.

In May 2017, 3M completed the sale of its identity management business to Gemalto N.V. In June 2017, 3M completed the sale of its tolling and automated license/number plate recognition business to Neology, Inc. 3M received proceeds of $833 million, or $809 million net of cash sold, and reflected a pre-tax gain of $461 million as a result of these two divestitures in the second quarter of 2017, which was reported within the Company's Safety and Graphics business. For more details, refer to Note 2.

In the first quarter of 2016, 3M completed the sale of the remainder of the assets of 3M's library systems business to One Equity Partners Capital Advisors L.P. (OEP). Also in the first quarter of 2016, 3M completed the sale of its pressurized polyurethane foam adhesives business (formerly known as Polyfoam) to Innovative Chemical Products Group, a portfolio company of Audax Private Equity. 3M received proceeds of $56 million for these transactions and recognized a pre-tax gain of $40 million as a result of these two divestitures in the first quarter of 2016. These businesses were formerly part of the Company's Safety and Graphics business and Industrial business, respectively. Refer to Note 2 in 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K) for more information on 3M's acquisitions and 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 and six months ended June 30, 2017 versus the same periods last year.

(Percent of net sales)	Three months ended June 30, 2017	Six months ended June 30, 2017
Same period last year	**24.4 %**	**24.2 %**
Increase/(decrease) in operating income margin, due to:		
Organic volume/other productivity	**0.6**	**0.9**
Selling price and raw material impact	**0.1**	**0.3**
Foreign exchange impacts	**(0.5)**	**(0.4)**
Pension and postretirement benefit costs	**(0.3)**	**(0.3)**
Incremental strategic investments	**(2.3)**	**(2.0)**
Divestiture gains, net of lost operating income	**6.0**	**2.8**
Current period	**28.0 %**	**25.5 %**

Operating income margins increased 3.6 percentage points in the second quarter of 2017 and increased 1.3 percentage points in the first six months of 2017 when compared to the same periods last year. Items that reduced operating income margins included year-on-year incremental strategic investments in growth, productivity and portfolio actions and charges related to 3M's optimization of its portfolio and supply chain footprint. Additional items that reduced operating margins included foreign currency effects (net of hedge gains), and higher year-on-year defined benefit pension expense. 3M benefited from year-on-year divestiture gains, net of lost operating income (refer to Note 2), higher organic local-currency sales growth and productivity. 3M also benefited from lower raw material costs.

Interest Expense and Income:

	Three months ended June 30,		Six months ended June 30,	
(Millions)	2017	2016	2017	2016
Interest expense	**$ 54**	$ 38	**$ 99**	$ 85
Interest income	**(12)**	(7)	**(20)**	(12)
Total	**$ 42**	$ 31	**$ 79**	$ 73

Interest expense was higher in the second quarter and first six months of 2017 compared to the same periods last year, largely due to higher U.S. average debt balances and higher interest rates.

Provision for Income Taxes:

	Three months ended June 30,		Six months ended June 30,	
(Percent of pre-tax income)	2017	2016	2017	2016
Effective tax rate	**26.0 %**	29.6 %	**25.0 %**	28.2 %

The effective tax rate for the second quarter of 2017 was 26.0 percent, compared to 29.6 percent in the second quarter of 2016, a decrease of 3.6 percentage points. The effective tax rate for the first six months of 2017 was 25.0 percent, compared to 28.2 percent in the first six months of 2016, a decrease of 3.2 percentage points. The changes in the rates between years are impacted by many factors, as described further in Note 6.

The Company currently anticipates its 2017 full-year tax rate will be 26.0 to 27.0 percent. The rate can vary from quarter to quarter due to discrete items, such as the settlement of income tax audits and changes in tax laws and employee share-based payment accounting; as well as recurring factors, such as geographic mix of income before taxes and foreign currency effects.

Net Income Attributable to Noncontrolling Interest:

(Millions)	Three months ended June 30, 2017	Three months ended June 30, 2016	Six months ended June 30, 2017	Six months ended June 30, 2016
Net income attributable to noncontrolling interest	**$ 2**	$ 2	**$ 5**	$ 5

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.

Currency Effects:

3M estimates that year-on-year currency effects, including hedging impacts, decreased pre-tax income by $44 million and $79 million for the three and six months ended June 30, 2017, respectively. This estimate includes the effect of translating profits from local currencies into U.S. dollars; the impact of currency fluctuations on the transfer of goods between 3M operations in the United States and abroad; and transaction gains and losses, including derivative instruments designed to reduce foreign currency exchange rate risks and any impacts from swapping Venezuelan bolivars into U.S. dollars. 3M estimates that year-on-year derivative and other transaction gains and losses decreased pre-tax income by $28 million and $65 million for the three and six months ended June 30, 2017, respectively.

Significant Accounting Policies and Critical Accounting Estimates:

Information regarding new accounting standards is included in Note 1 to the Consolidated Financial Statements. In addition, refer to the Critical Accounting Estimates section within the MD&A of 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K).

PERFORMANCE BY BUSINESS SEGMENT

Disclosures relating to 3M's business segments are provided in Note 14. Effective in the first quarter of 2017, as part of 3M's continuing effort to improve the alignment of its businesses around markets and customers, the Company made the following changes:

Integration of former Renewable Energy Division

- 3M's former Renewable Energy Division (RED) has been integrated into existing divisions within the Electronics and Energy business segment and Safety and Graphics business segment. 3M is committed to leadership in sustainability and to enabling the advancement of energy solutions into the future. Integrating RED's offerings into larger divisions already serving these segments will provide increased scale and build on strength by leveraging 3M's existing brands, go-to-market capabilities, and relationships to support growth objectives.

Creation of Automotive and Aerospace Solutions Division

- 3M created the Automotive and Aerospace Solutions Division, which combined the former Automotive Division and Aerospace and Commercial Transportation Division, which were both within the Industrial business segment. Combining the strengths along with the deep industry knowledge of each business will enable this new division to utilize shared technology platforms and processes to deliver a broader set of innovative solutions, along with world-class quality and service to 3M's customers. This combination will help accelerate the Company's profitable growth and market relevance across the automotive, aerospace and commercial transportation industries.

Consolidation of U.S. customer account activity - impacting dual credit reporting

- The Company consolidated its customer account activity in the U.S. into more centralized sales districts. This improved alignment reduces the complexity for customers when interacting with multiple businesses within 3M, creating a better customer experience. 3M business segment reporting measures include dual credit to business segments for certain U.S. sales and related operating income. This dual credit is based on which business segment provides customer account activity with respect to a particular product sold in the U.S. The alignment of U.S. customer accounts to fewer, more focused sales districts changed the attribution of dual credit across 3M's business segments.

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 14. Corporate and Unallocated includes a variety of miscellaneous items, such as corporate investment gains and losses, certain derivative gains and losses, certain insurance-related gains and losses, certain litigation and environmental expenses, corporate restructuring charges and certain under- or over-absorbed costs (e.g. pension, stock-based compensation) that the Company determines not to allocate directly to its business segments. Because this category includes a variety of miscellaneous items, it is subject to fluctuation on a quarterly and annual basis.

Corporate and Unallocated operating expenses decreased by $40 million and increased by $1 million in the second quarter and first six months of 2017, respectively, when compared to the same period last year. The second quarter of 2016 included an unfavorable 2016 arbitration ruling, which benefited year-on-year comparisons. In both the first and second quarters of 2017, a portion of the severance actions were reflected in Corporate and Unallocated. In addition, 3M's defined benefit pension and postretirement expense allocation to Corporate and Unallocated increased by $9 million and $19 million, respectively, in the second quarter and first six months of 2017 when compared to the same periods last year.

Operating Business Segments:

Information related to 3M's business segments for the second quarter and first six months of 2017 and 2016 is 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.

Industrial Business:

	Three months ended June 30,		Six months ended June 30,	
	2017	**2016**	**2017**	**2016**
Sales (millions)	**$ 2,720**	$ 2,654	**$ 5,429**	$ 5,253
Sales change analysis:				
Organic local-currency	**3.8 %**	(1.3)%	**4.8 %**	(1.6)%
Acquisitions	**—**	2.8	**—**	2.4
Divestitures	**(0.6)**	(0.2)	**(0.7)**	(0.2)
Translation	**(0.7)**	(1.3)	**(0.7)**	(2.1)
Total sales change	**2.5 %**	— %	**3.4 %**	(1.5)%
Operating income (millions)	**$ 523**	$ 620	**$ 1,148**	$ 1,242
Percent change	**(15.6)%**	1.2 %	**(7.6)%**	2.4 %
Percent of sales	**19.2 %**	23.4 %	**21.2 %**	23.7 %

The Industrial segment serves a broad range of markets, such as automotive original equipment manufacturer (OEM) and automotive aftermarket (auto body shops and retail), electronics, appliance, paper and printing, packaging, food and beverage, and construction. Industrial products include tapes, a wide variety of coated, non-woven and bonded abrasives, adhesives, advanced ceramics, sealants, specialty materials, 3M purification (filtration products), closure systems for personal hygiene products, acoustic systems products, and components and products that are used in the manufacture, repair and maintenance of automotive, marine, aircraft and specialty vehicles. 3M is also a leading global supplier of precision grinding technology serving customers in the area of hard-to-grind precision applications in industrial, automotive, aircraft and cutting tools. 3M develops and produces advanced technical ceramics for demanding applications in the automotive, oil and gas, solar, industrial, electronics and defense industries.

Second Quarter 2017 results:

Sales in Industrial totaled $2.7 billion, up 2.5 percent in U.S. dollars. Organic local-currency sales increased 3.8 percent, divestitures reduced sales by 0.6 percent, and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:
- Sales growth was led by advanced materials, automotive and aerospace solutions, and industrial adhesives and tapes, while separations and purification sciences declined.
- Abrasives and automotive aftermarket also showed positive growth.

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

Operating income:
- Operating income margins decreased 4.2 percentage points, as incremental strategic investments decreased margins by 2.3 percentage points. In addition, foreign currency impacts, sales mix, and select pricing actions to drive volume growth all decreased margins.

First Six Months 2017 results:

Sales in Industrial totaled $5.4 billion, up 3.4 percent in U.S. dollars. Organic local-currency sales increased 4.8 percent, divestitures reduced sales by 0.7 percent, and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:
- Sales growth was led by advanced materials, automotive and aerospace solutions, industrial adhesives and tapes, abrasives, and automotive aftermarket, while separations and purification sciences was flat.

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

Operating income:
- Operating income margins decreased 2.5 percentage points, as divestiture gains related to the first quarter 2016 sale of the Polyfoam business resulted in a net year-on-year operating income margin reduction of 0.6 percentage points. In addition, incremental strategic investments decreased first six months margins by 1.3 percentage points.

Safety and Graphics Business:

	Three months ended June 30,		Six months ended June 30,	
	2017	**2016**	**2017**	**2016**
Sales (millions)	**$ 1,547**	$ 1,561	**$ 3,074**	$ 3,038
Sales change analysis:				
Organic local-currency	**3.2 %**	2.4 %	**4.0 %**	2.5 %
Acquisitions	**—**	6.6	**—**	6.6
Divestitures	**(3.4)**	(2.2)	**(2.1)**	(2.2)
Translation	**(0.7)**	(2.2)	**(0.7)**	(3.1)
Total sales change	**(0.9)%**	4.6 %	**1.2 %**	3.8 %
Operating income (millions)	**$ 852**	$ 421	**$ 1,251**	$ 780
Percent change	**102.0 %**	13.2 %	**60.3 %**	8.3 %
Percent of sales	**55.1 %**	27.0 %	**40.7 %**	25.7 %

The Safety and Graphics segment serves a broad range of markets that increase the safety, security and productivity of people, facilities and systems. Major product offerings include personal protection products, such as respiratory, hearing, eye and fall protection equipment; traffic safety solutions, such as retroreflective sign sheeting; commercial solutions, including commercial graphics sheeting and systems, architectural design solutions for surfaces, and cleaning and protection products for commercial establishments; and roofing granules for asphalt shingles.

Second Quarter 2017 results:

Sales in Safety and Graphics totaled $1.5 billion, down 0.9 percent in U.S. dollars. Organic local-currency sales increased 3.2 percent, divestitures reduced sales by 3.4 percent, and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:

- Sales growth was led by personal safety, as 3M experienced strong demand around the world, with particular strength in Asia Pacific and the U.S.
- Sales in commercial solutions were flat.
- The transportation safety business declined, as 3M continues to take actions to improve the portfolio. In the second quarter of 2017, 3M finalized the sale of its identity management and tolling and automated license/number plate recognition businesses, and announced the exit of its electronic monitoring business.
- Sales in roofing granules declined, primarily due to tough year-on-year comparisons.

Acquisitions and divestitures:

- Acquisition sales growth in 2016 reflected the acquisition of Capital Safety in August 2015. Capital Safety is a leading global provider of fall protection equipment.
- In January 2017, 3M sold its safety prescription eyewear business.
- In May 2017, 3M closed on the sale and transfer of control of its identity management business. In June 2017, 3M completed the sale of its tolling and automated license/number plate recognition business. 3M recorded a pre-tax gain of approximately $461 million as a result of these two divestitures.

Operating income:

- Operating income margins increased 28.1 percentage points, as divestiture gains year-on-year were partially offset by acquisition charges and incremental strategic investments, which combined resulted in a net operating income margin benefit of 28.0 percentage points.

Six Months 2017 results:

Sales in Safety and Graphics totaled $3.1 billion, up 1.2 percent in U.S. dollars. Organic local-currency sales increased 4.0 percent, divestitures reduced sales by 2.1 percent, and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:

- Sales growth was led by personal safety and roofing granules, as both transportation safety and commercial solutions were flat.

Acquisitions and divestitures:

- In January 2017, 3M sold its safety prescription eyewear business.
- Acquisition sales growth in 2016 reflected the acquisition of Capital Safety in August 2015. Capital Safety is a leading global provider of fall protection equipment.
- In the first quarter of 2016, 3M divested the remainder of the library systems business.

Operating income:

- Operating income margins increased 15.0 percentage points, largely driven by year-on-year divestiture gains that were partially offset by acquisition charges and incremental strategic investments, which resulted in a net operating income margin benefit of 14.9 percentage points.

In March 2017, 3M announced that it entered into an agreement to acquire Scott Safety from Johnson Controls for $2.0 billion, subject to closing and other adjustments. This transaction is expected to close in the second half of 2017 and will be reflected within the Company's Safety and Graphics business. Refer to Note 2 for additional details.

Health Care Business:

	Three months ended June 30,		Six months ended June 30,	
	2017	**2016**	**2017**	**2016**
Sales (millions)	**$ 1,440**	$ 1,414	**$ 2,863**	$ 2,805
Sales change analysis:				
Organic local-currency	**2.5 %**	5.0 %	**2.8 %**	5.6 %
Acquisitions	**—**	—	**—**	0.4
Translation	**(0.7)**	(1.8)	**(0.7)**	(2.4)
Total sales change	**1.8 %**	3.2 %	**2.1 %**	3.6 %
Operating income (millions)	**$ 412**	$ 462	**$ 846**	$ 919
Percent change	**(10.6)%**	4.5 %	**(7.9)%**	7.9 %
Percent of sales	**28.6 %**	32.6 %	**29.5 %**	32.8 %

The Health Care segment serves markets that include medical clinics and hospitals, pharmaceuticals, dental and orthodontic practitioners, health information systems, and food manufacturing and testing. Products and services provided to these and other markets include medical and surgical supplies, skin health and infection prevention products, inhalation and transdermal drug delivery systems, oral care solutions (dental and orthodontic products), health information systems, and food safety products.

Second Quarter 2017 results:

Sales in Health Care totaled $1.4 billion, up 1.8 percent in U.S. dollars. Organic local-currency sales increased 2.5 percent and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:

- Sales increased in drug delivery systems, food safety, and medical consumables (which is comprised of the critical and chronic care and infection prevention businesses).
- Sales were flat in both health information systems and oral care.
- In developing markets, Health Care organic local-currency sales growth was led by China/Hong Kong and Latin America.

Operating income:

- Operating income margins decreased 4.0 percentage points year-on-year, as incremental strategic investments, primarily related to accelerating future growth opportunities, reduced margins by 2.0 percentage points.

First Six Months 2017 results:

Sales in Health Care totaled $2.9 billion, up 2.1 percent in U.S. dollars. Organic local-currency sales increased 2.8 percent and foreign currency translation reduced sales by 0.7 percent.

On an organic local-currency sales basis:

- Sales increased in drug delivery systems, food safety, oral care, and medical consumables (which is comprised of the critical and chronic care and infection prevention businesses).
- Sales declined in health information systems.

Acquisitions:

- Acquisition sales growth in 2016 related to the March 2015 purchase of Ivera Medical Corp. Ivera is a manufacturer of health care products that disinfect and protect devices used for access into a patient’s bloodstream.

Operating income:
- Operating income margins decreased year-on-year, as incremental strategic investments, primarily related to accelerating future growth opportunities, reduced margins by 1.6 percentage points.

Electronics and Energy Business:

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	**2017**	2016
Sales (millions)	**$ 1,214**	$ 1,129	**$ 2,424**	$ 2,218
Sales change analysis:				
Organic local-currency	**8.4 %**	(9.7)%	**10.0 %**	(11.1)%
Divestitures	**(0.4)**	—	**(0.3)**	—
Translation	**(0.5)**	(0.8)	**(0.4)**	(1.3)
Total sales change	**7.5 %**	(10.5)%	**9.3 %**	(12.4)%
Operating income (millions)	**$ 301**	$ 217	**$ 526**	$ 412
Percent change	**38.8 %**	(20.0)%	**27.6 %**	(23.9)%
Percent of sales	**24.8 %**	19.2 %	**21.7 %**	18.6 %

The Electronics and Energy segment includes solutions that improve the dependability, cost-effectiveness, and performance of electronic devices; electrical products, including infrastructure protection; telecommunications networks; and power generation and distribution. This segment's electronics solutions include optical film solutions for the electronic display industry; high-performance fluids and abrasives; high-temperature and display tapes; flexible circuits, which use electronic packaging and interconnection technology; and touch systems products. This segment's energy solutions include pressure sensitive tapes and resins; electrical insulation; infrastructure products that provide both protection and detection solutions; a wide array of fiber-optic and copper-based telecommunications systems; and renewable energy component solutions for the solar and wind power industries.

Second Quarter 2017 results:

Sales in Electronics and Energy totaled $1.2 billion, up 7.5 percent in U.S. dollars. Organic local-currency sales increased 8.4 percent, divestitures reduced sales by 0.4 percent, and foreign currency translation reduced sales by 0.5 percent.

Total sales within the electronics-related businesses were up 14 percent, while energy-related businesses sales declined 4 percent. Total sales increased 15 percent in Asia Pacific.

On an organic local-currency sales basis:
- Sales increased 15 percent in 3M's electronics-related businesses, with increases in both display materials and systems and electronics materials solutions, as the businesses drove increased inclusion in OEM platforms in addition to strengthened demand in consumer electronics.
- Sales declined 3 percent in 3M's energy-related businesses, as sales were flat in electrical markets and declined in telecommunications.
- Sales increased 16 percent in Asia Pacific, where 3M's electronics business is concentrated.

Divestitures:
- In December 2016, 3M sold the assets of its cathode battery technology out-licensing business, with annual sales of approximately $10 million.

Operating income:
- Operating income margins increased 5.6 percentage points, driven by underlying productivity gains related to significant organic local-currency sales growth.

First Six Months 2017 results:

Sales in Electronics and Energy totaled $2.4 billion, up 9.3 percent in U.S. dollars. Organic local-currency sales increased 10.0 percent, divestitures reduced sales by 0.3 percent, and foreign currency translation reduced sales by 0.4 percent.

Total sales within the electronics-related businesses were up 16 percent while energy-related businesses declined 2 percent. Total sales increased 16 percent in Asia Pacific.

On an organic local-currency sales basis:
- Sales increased 17 percent in 3M's electronics-related businesses, with increases in both display materials and systems and electronics materials solutions, as the businesses drove increased inclusion in OEM platforms in addition to strengthened demand in consumer electronics.
- Sales declined 1 percent in 3M's energy-related businesses, as sales growth in electrical markets was more than offset by declines in telecommunications.
- Sales increased 17 percent in Asia Pacific, where 3M's electronics business is concentrated.

Divestitures:
- In December 2016, 3M sold the assets of its cathode battery technology out-licensing business, with annual sales of approximately $10 million.

Operating income:
- Operating income margins increased 3.1 percentage points, as benefits from higher organic volume were partially offset by first half 2017 footprint and portfolio actions. These actions resulted in a year-on-year operating income margin reduction of 3.0 percentage points.

Consumer Business:

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	**2017**	2016
Sales (millions)	**$ 1,137**	$ 1,130	**$ 2,179**	$ 2,180
Sales change analysis:				
Organic local-currency	**0.7 %**	2.5 %	**(0.3)%**	2.6 %
Translation	**(0.2)**	(1.0)	**0.2**	(1.8)
Total sales change	**0.5 %**	1.5 %	**(0.1)%**	0.8 %
Operating income (millions)	**$ 195**	$ 281	**$ 417**	$ 519
Percent change	**(30.4)%**	8.6 %	**(19.6)%**	3.9 %
Percent of sales	**17.2 %**	24.9 %	**19.2 %**	23.8 %

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

Second Quarter 2017 results:

Sales in Consumer totaled $1.1 billion, up 0.5 percent in U.S. dollars. Organic local-currency sales increased 0.7 percent, while foreign currency translation decreased sales by 0.2 percent.

On an organic local-currency sales basis:

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

Operating income:

- Operating income margins declined year-on-year, in part due to incremental strategic investments, which reduced margins by 5.0 percentage points.

First Six Months 2017 results:

Sales in Consumer totaled $2.2 billion, down 0.1 percent in U.S. dollars. Organic local-currency sales declined 0.3 percent, while foreign currency translation increased sales by 0.2 percent.

On an organic local-currency sales basis:

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

Operating income:

- Operating income margins declined year-on-year, in part due to incremental strategic investments, which reduced margins by 3.5 percentage points.

FINANCIAL CONDITION AND LIQUIDITY

3M continues its transition to a better-optimized capital structure and is adding leverage at a measured pace. The strength and stability of 3M's business model and strong free cash flow capability, together with proven capital markets access, enable the Company to implement this strategy. 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 and share repurchases, as well as funding U.S. acquisitions and other items as needed. For those international earnings considered to be reinvested indefinitely, the Company currently has no plans or intentions to repatriate these funds for U.S. operations. However, if these international funds are needed for operations in the U.S., 3M would be required to accrue and pay U.S. taxes to repatriate them. See Note 8 in 3M's Current Report on Form 8-K dated May 4, 2017, 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 June 30, 2017, there was approximately $50 million in commercial paper issued and outstanding.

Total Debt:

The Company's total debt was approximately $11.3 billion and $11.7 billion at June 30, 2017 and December 31, 2016, respectively. In May 2016, 3M issued 500 million Euro aggregate principal amount of 5.75-year fixed rate medium-term notes due February 2022 with a coupon rate of 0.375% and 500 million Euro aggregate principal amount of 15-year fixed rate medium-term notes due 2031 with a coupon rate of 1.50%. In September 2016, 3M issued $600 million aggregate principal amount of five-year fixed rate medium-term notes due 2021 with a coupon rate of 1.625%, $650 million aggregate principal amount of 10-year fixed rate medium-term notes due 2026 with a coupon rate of 2.250%, and $500 million aggregate principal amount of 30-year fixed rate medium-term notes due 2046 with a coupon rate of 3.125%. All of these 2016 issuances were under the medium-term notes program (Series F). In June 2017, 3M repaid $650 million aggregate principal amount of fixed rate medium-term notes. As of June 30, 2017, the total amount of debt issued as part of the medium-term notes program (Series F), inclusive of debt issued in 2011, 2012, 2014, 2015 and the 2016 debt referenced above, is approximately $11.1 billion (utilizing the foreign exchange rates applicable at the time of issuance for the Euro denominated debt). Information with respect to long-term debt issuances and maturities for the periods presented is included in Note 10 of 3M's Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 Annual Report on Form 10-K) .

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 ongoing transition to a more optimized capital structure, financed with additional low-cost debt, could impact 3M's credit rating in the future.

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.

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 June 30, 2017. Under the $3.75 billion credit agreement, the Company is required to maintain its EBITDA to Interest Ratio as of the end of each fiscal quarter at not less than 3.0 to 1. This is calculated (as defined in the agreement) as the ratio of consolidated total EBITDA for the four consecutive quarters then ended to total interest expense on all funded debt for the same period. At June 30, 2017, this ratio was approximately 43 to 1. Debt covenants do not restrict the payment of dividends. Apart from the committed facilities, $291 million in stand-alone letters of credit and bank guarantees were also issued and outstanding at June 30, 2017. These lines of credit are utilized in connection with normal business activities.

Cash, Cash Equivalents and Marketable Securities:

At June 30, 2017, 3M had $2.8 billion of cash, cash equivalents and marketable securities, of which approximately $2.7 billion was held by the Company's foreign subsidiaries and approximately $130 million was held by the United States. These balances are invested in bank instruments and other high-quality fixed income securities. At December 31, 2016, cash, cash equivalents and marketable securities held by the Company's foreign subsidiaries and by the United States totaled approximately $2.35 billion and $350 million, respectively.

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 June 30, 2017, and December 31, 2016.

(Millions)	June 30, 2017	December 31, 2016
Total debt	**$ 11,301**	$ 11,650
Less: Cash and cash equivalents and marketable securities	**2,811**	2,695
Net debt (non-GAAP measure)	**$ 8,490**	$ 8,955

In the first six months of 2017, net debt decreased by $465 million to a net debt balance of $8.5 billion, impacted by the June 2017 repayment of $650 million aggregate principal amount of medium-term notes.

Balance Sheet:

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

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

Working Capital (non-GAAP measure):

(Millions)	June 30, 2017	December 31, 2016	Change
Current assets	$ **12,641**	$ 11,726	$ 915
Less: Current liabilities	**(5,697)**	(6,219)	522
Working capital (non-GAAP measure)	$ **6,944**	$ 5,507	$ 1,437

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. Working capital increased $1.437 billion compared to December 31, 2016. Current asset balance changes increased working capital by $915 million, driven by increases in accounts receivable, and inventories (discussed further below), plus increases in cash. Current liability balance changes increased working capital by $522 million, largely due to decreases in short-term debt, partially offset by increases in accrued income taxes. 3M believes working capital is meaningful to investors as a measure of operational efficiency and short-term financial health.

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

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

Accounts receivable turns (non-GAAP measure)

(Millions, except turns)	June 30, 2017	December 31, 2016
Quarterly net sales	$ **7,810**	$ 7,329
Ending accounts receivable - net	$ **4,919**	$ 4,392
Accounts receivable turns	**6.35**	6.67

Inventory turns (non-GAAP measure)

(Millions, except turns)	June 30, 2017	December 31, 2016
Quarterly cost of sales	$ **4,007**	$ 3,716
Less: Freight and engineering	$ **166**	$ 160
Manufacturing cost	$ **3,841**	$ 3,556
Ending inventory	$ **3,838**	$ 3,385
Inventory turns	**4.00**	4.20

Concerning accounts receivable, higher June 2017 sales compared to December 2016 sales contributed to the accounts receivable increase. On a seasonal basis, both accounts receivable and inventory turns are usually higher at year-end, driven by typically lower year-end accounts receivable and inventory balances.

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 as separate line items within the statement of 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:

	Six months ended June 30,	
(Millions)	**2017**	**2016**
Net income including noncontrolling interest	**$ 2,911**	$ 2,571
Depreciation and amortization	**818**	722
Company pension contributions	**(277)**	(95)
Company postretirement contributions	**(2)**	(2)
Company pension expense	**138**	94
Company postretirement expense	**24**	24
Stock-based compensation expense	**206**	193
Gain on sale of businesses	**(490)**	(40)
Income taxes (deferred and accrued income taxes)	**137**	(236)
Accounts receivable	**(412)**	(419)
Inventories	**(347)**	(42)
Accounts payable	**(60)**	(57)
Other — net	**(16)**	(168)
Net cash provided by operating activities	**$ 2,630**	$ 2,545

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 six months of 2017, cash flows provided by operating activities increased $85 million compared to the same period last year, with this increase primarily due to lower cash taxes, partially offset by the timing of pension contributions. For total year 2017, the Company expects to contribute approximately $300 million to $500 million of cash to its global defined benefit pension and postretirement plans, similar to the $383 million contributed for total year 2016. Additional factors that decreased operating cash flows were increases in accounts receivable and inventories. The combination of accounts receivable, inventories and accounts payable increased working capital by $819 million in the first six months of 2017, compared to the working capital increases of $518 million in the first six months of 2016. Additional discussion on working capital changes is provided earlier in the “Financial Condition and Liquidity” section.

Cash Flows from Investing Activities:

(Millions)	Six months ended June 30, 2017	2016
Purchases of property, plant and equipment (PP&E)	**$ (589)**	$ (637)
Proceeds from sale of PP&E and other assets	**13**	18
Acquisitions, net of cash acquired	**—**	(4)
Purchases and proceeds from maturities and sale of marketable securities and investments, net	**136**	(61)
Proceeds from sale of businesses, net of cash sold	**862**	56
Other — net	**5**	(2)
Net cash provided by (used in) investing activities	**$ 427**	$ (630)

Investments in property, plant and equipment enable growth across many diverse markets, helping to meet product demand and increasing manufacturing efficiency. 3M invests in renewal and maintenance programs, which pertain to cost reduction, cycle time, maintaining and renewing current capacity, pollution reduction, and compliance. Costs related to maintenance, ordinary repairs, and certain other items are expensed. 3M also invests in new growth capacity, both through expansion of current facilities and by building new facilities. 3M also invests in corporate laboratory facilities and information technology (IT). The Company expects 2017 capital spending to be in the range of $1.3 billion to $1.5 billion.

Refer to Note 2 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. Proceeds from sale of businesses in the first six months of 2017 relate to the divestiture of the assets of the prescription safety eyewear, identity management, and tolling and automated license/number plate recognition businesses within the Safety and Graphics business segment.

Purchases of marketable securities and investments and proceeds from maturities and sale of marketable securities and investments are primarily attributable to asset-backed securities, certificates of deposit/time deposits, commercial paper, and other securities, which are classified as available-for-sale. Refer to Note 7 for more details about 3M's diversified marketable securities portfolio. Purchases of investments include additional survivor benefit insurance, plus cost method and equity investments.

Cash Flows from Financing Activities:

(Millions)	Six months ended June 30, 2017	2016
Change in short-term debt — net	**$ (113)**	$ (337)
Repayment of debt (maturities greater than 90 days)	**(650)**	—
Proceeds from debt (maturities greater than 90 days)	**—**	1,112
Total cash change in debt	**$ (763)**	$ 775
Purchases of treasury stock	**(1,184)**	(2,055)
Proceeds from issuances of treasury stock pursuant to stock option and benefit plans	**496**	612
Dividends paid to shareholders	**(1,403)**	(1,344)
Other — net	**(2)**	(16)
Net cash used in financing activities	**$ (2,856)**	$ (2,028)

Total debt was approximately $11.3 billion at June 30, 2017 and $11.7 billion at year-end 2016, with the decrease driven by repayment of $650 million aggregate principal amount of fixed rate medium-term notes.

Repurchases of common stock are made to support the Company's stock-based employee compensation plans and for other corporate purposes. In February 2016, 3M's Board of Directors authorized the repurchase of up to $10 billion of 3M's outstanding common stock, with no pre-established end date. The Company expects full-year 2017 gross share repurchases will be in the range of $2.0 billion to $3.5 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 2017, 3M's Board of Directors declared a first-quarter 2017 dividend of $1.175 per share, an increase of 6 percent. This is equivalent to an annual dividend of $4.70 per share and marked the 59th consecutive year of dividend increases for 3M. In May 2017, 3M's Board of Directors declared a second-quarter 2017 dividend of $1.175 per share.

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. Below find a recap of free cash flow for the six months ended June 30, 2017 and 2016.

(Millions)	Six months ended June 30, 2017	Six months ended June 30, 2016
Major GAAP Cash Flow Categories		
Net cash provided by operating activities	**$ 2,630**	$ 2,545
Net cash provided by (used in) investing activities	**427**	(630)
Net cash used in financing activities	**(2,856)**	(2,028)
Free Cash Flow (non-GAAP measure)		
Net cash provided by operating activities	**$ 2,630**	$ 2,545
Purchases of property, plant and equipment (PP&E)	**(589)**	(637)
Free cash flow	**$ 2,041**	$ 1,908
Net income attributable to 3M	**$ 2,906**	$ 2,566
Free cash flow conversion	**70 %**	74 %

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, and capital markets conditions, such as interest rates, foreign currency exchange rates, financial conditions of our suppliers and customers, and natural and other disasters or climate change affecting the operations of the Company or its suppliers and customers,
- new business opportunities, product development, and future performance or results of current or anticipated products,
- the scope, nature or impact of acquisitions, strategic alliances and divestitures,
- 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, 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 II, Item 1A, "Risk Factors," of this document, and should be considered an integral part of Part I, Item 2, "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 Current Report on Form 8-K dated May 4, 2017 (which updated 3M's 2016 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 June 30, 2017. 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 elements of certain processes/sub-processes in limited subsidiaries/locations and will continue to roll out the ERP system over the next several years. As with any new information technology application we implement, this application, along with the internal controls over financial reporting included in this process, was appropriately considered within the testing for effectiveness with respect to the implementation in these instances. We concluded, as part of 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 June 30, 2017
PART II. Other Information

Item 1. Legal Proceedings.

Discussion of legal matters is incorporated by reference from Part I, Item 1, Note 12, "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, and capital markets conditions.* The Company operates in more than 70 countries and derives approximately 60 percent of its revenues from outside the United States. The Company's business is subject to global competition and geopolitical risks and may be adversely affected by factors in the United States and other countries that are beyond its control, such as slower economic growth, disruptions in financial markets, economic downturns in the form of either contained or widespread recessionary conditions, inflation, elevated unemployment levels, sluggish or uneven recovery, government deficit reduction and other austerity measures in specific countries or regions, or in the various industries in which the Company operates; social, political or labor conditions in specific countries or regions; natural and other disasters or climate change affecting the operations of the Company or its customers and suppliers; or adverse changes in the availability and cost of capital, interest rates, tax rates, tax laws, or exchange control, ability to expatriate earnings and other regulations in the jurisdictions in which the Company operates.

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

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

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

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

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

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

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

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

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

** The Company's future results may be affected by various legal and regulatory proceedings and legal compliance risks, including those involving product liability, antitrust, intellectual property, environmental, the U.S. Foreign Corrupt Practices Act and other anti-bribery, anti-corruption, or other matters.* The outcome of these legal proceedings may differ from the Company's expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict. Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables where applicable, or make such estimates for matters previously not susceptible of reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in future charges that could have a material adverse effect on the Company's results of operations or cash flows in any particular period. For a more detailed discussion of the legal proceedings involving the Company and the associated accounting estimates, see the discussion in Note 12 "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 February 2016, 3M's Board of Directors authorized the repurchase of up to $10 billion of 3M's outstanding common stock, with no pre-established end date.

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

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs (Millions)
January 1-31, 2017	1,245,580	$ 177.61	1,245,347	$ 6,835
February 1-28, 2017	1,038,362	$ 182.41	1,037,719	$ 6,645
March 1-31, 2017	1,168,893	$ 190.75	1,168,893	$ 6,422
Total January 1-March 31, 2017	3,452,835	$ 183.50	3,451,959	$ 6,422
April 1-30, 2017	934,900	$ 191.64	933,463	$ 6,244
May 1-31, 2017	1,017,290	$ 197.80	1,017,000	$ 6,042
June 1-30, 2017	396,770	$ 208.83	396,770	$ 5,960
Total April 1-June 30, 2017	2,348,960	$ 197.21	2,347,233	$ 5,960
Total January 1-June 30, 2017	5,801,795	$ 189.05	5,799,192	$ 5,960

(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. — No matters require disclosure.

Item 6. Exhibits.

(12)	Calculation of ratio of earnings to fixed charges.
(15)	A letter from the Company's independent registered public accounting firm regarding unaudited interim consolidated financial statements.
(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: August 1, 2017

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.)