THERMO FISHER SCIENTIFIC INC.
Form 10-Q
August 03, 2018

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

ý Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Quarter Ended June 30, 2018
¨ Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Commission File Number 1-8002
THERMO FISHER SCIENTIFIC INC.
(Exact name of Registrant as specified in its charter)

Delaware	04-2209186
(State of incorporation or organization)	(I.R.S. Employer Identification No.)

168 Third Avenue	
Waltham, Massachusetts	02451
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code: (781) 622-1000
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 and (2) has been subject to such filing requirements for the past 90 days. Yes ý No o
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 during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes ý No o
Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ý	Accelerated filer o	Non-accelerated filer o
Smaller reporting company o	Emerging growth company o	

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. o
Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ý
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, 2018
Common Stock, $1.00 par value	402,796,251

THERMO FISHER SCIENTIFIC INC.
QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTER ENDED JUNE 30, 2018
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THERMO FISHER SCIENTIFIC INC.

PART I FINANCIAL INFORMATION
Item 1. Financial Statements
CONSOLIDATED BALANCE SHEET
(Unaudited)

(In millions except share and per share amounts)	June 30, 2018	December 31, 2017
Assets		
Current Assets:		
Cash and cash equivalents	$937	$1,335
Accounts receivable, less allowances of $115 and $109	3,911	3,879
Inventories	2,866	2,971
Refundable income taxes	530	432
Other current assets	1,230	804
Total current assets	9,474	9,421
Property, Plant and Equipment, Net	3,952	4,047
Acquisition-related Intangible Assets, Net	15,680	16,684
Other Assets	1,177	1,227
Goodwill	25,120	25,290
Total Assets	$55,403	$56,669
Liabilities and Shareholders' Equity		
Current Liabilities:		
Short-term obligations and current maturities of long-term obligations	$1,711	$2,135
Accounts payable	1,359	1,428
Accrued payroll and employee benefits	755	918
Contract liabilities	816	—
Deferred revenue	—	719
Other accrued expenses	1,339	1,848
Total current liabilities	5,980	7,048
Deferred Income Taxes	2,599	2,766
Other Long-term Liabilities	2,670	2,569
Long-term Obligations	17,709	18,873
Shareholders' Equity:		
Preferred stock, $100 par value, 50,000 shares authorized; none issued		
Common stock, $1 par value, 1,200,000,000 shares authorized; 429,925,100 and 428,327,873 shares issued	430	428
Capital in excess of par value	14,408	14,177
Retained earnings	17,226	15,914
Treasury stock at cost, 27,128,849 and 27,013,311 shares	(3,128)	(3,103)
Accumulated other comprehensive items	(2,491)	(2,003)

Total shareholders' equity	26,445	25,413
Total Liabilities and Shareholders' Equity	$55,403	$56,669

The accompanying notes are an integral part of these consolidated financial statements.

THERMO FISHER SCIENTIFIC INC.

CONSOLIDATED STATEMENT OF INCOME
(Unaudited)

(In millions except per share amounts)	Three Months Ended June 30, 2018	Three Months Ended July 1, 2017	Six Months Ended June 30, 2018	Six Months Ended July 1, 2017
Revenues				
Product revenues	$4,708	$4,298	$9,236	$8,400
Service revenues	1,370	692	2,695	1,355
Total revenues	6,078	4,990	11,931	9,755
Costs and Operating Expenses:				
Cost of product revenues	2,390	2,244	4,715	4,373
Cost of service revenues	950	462	1,898	905
Selling, general and administrative expenses	1,542	1,291	3,057	2,625
Research and development expenses	242	222	476	437
Restructuring and other costs, net	17	22	62	46
Total costs and operating expenses	5,141	4,241	10,208	8,386
Operating Income	937	749	1,723	1,369
Other Expense, Net	(131)	(123)	(283)	(240)
Income from Continuing Operations Before Income Taxes	806	626	1,440	1,129
(Provision for) Benefit from Income Taxes	(54)	(13)	(109)	35
Income from Continuing Operations	752	613	1,331	1,164
Loss from Discontinued Operations (net of income tax benefit of $0, $0, $0 and $0)	—	(1)	—	(1)
Net Income	$752	$612	$1,331	$1,163
Earnings per Share from Continuing Operations				
Basic	$1.87	$1.57	$3.31	$2.98
Diluted	$1.85	$1.56	$3.28	$2.96
Earnings per Share				
Basic	$1.87	$1.57	$3.31	$2.98
Diluted	$1.85	$1.56	$3.28	$2.95
Weighted Average Shares				
Basic	403	390	402	390
Diluted	406	393	406	394
Cash Dividends Declared per Common Share	$0.17	$0.15	$0.34	$0.30

The accompanying notes are an integral part of these consolidated financial statements.

THERMO FISHER SCIENTIFIC INC.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(Unaudited)

(In millions)	Three Months Ended June 30, 2018	Three Months Ended July 1, 2017	Six Months Ended June 30, 2018	Six Months Ended July 1, 2017
Comprehensive Income				
Net Income	$752	$612	$1,331	$1,163
Other Comprehensive Items:				
Currency translation adjustment (net of tax provision of $94, $0, $47 and $0)	(462)	219	(415)	379
Unrealized gains and losses on available-for-sale investments:				
Unrealized holding gains arising during the period (net of tax provision of $0, $1, $0 and $1)	—	1	—	2
Reclassification adjustment for (gains) losses included in net income (net of tax (provision) benefit of $0, ($1), $0 and ($1))	—	(1)	—	(1)
Unrealized gains and losses on hedging instruments:				
Reclassification adjustment for losses included in net income (net of tax benefit of $1, $1, $2 and $2)	2	2	4	4
Pension and other postretirement benefit liability adjustments:				
Pension and other postretirement benefit liability adjustments arising during the period (net of tax provision (benefit) of $2, ($2), $1 and ($3))	5	(7)	3	(9)
Amortization of net loss and prior service benefit included in net periodic pension cost (net of tax benefit of $2, $1, $3 and $2)	6	3	8	5
Total other comprehensive items	(449)	217	(400)	380
Comprehensive Income	$303	$829	$931	$1,543

The accompanying notes are an integral part of these consolidated financial statements.

THERMO FISHER SCIENTIFIC INC.

CONSOLIDATED STATEMENT OF CASH FLOWS
(Unaudited)

	Six Months Ended	
(In millions)	June 30, 2018	July 1, 2017
Operating Activities		
Net income	$1,331	$1,163
Loss from discontinued operations	—	1
Income from continuing operations	1,331	1,164
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,146	942
Change in deferred income taxes	(99)	(299)
Non-cash stock-based compensation	91	71
Non-cash charges for sale of inventories revalued at the date of acquisition	8	31
Other non-cash expenses, net	55	46
Changes in assets and liabilities, excluding the effects of acquisitions and dispositions:		
Accounts receivable	(97)	(127)
Inventories	(195)	(146)
Other assets	(247)	(178)
Accounts payable	(20)	49
Other liabilities	(408)	(161)
Contributions to retirement plans	(43)	(181)
Net cash provided by continuing operations	1,522	1,211
Net cash used in discontinued operations	—	(1)
Net cash provided by operating activities	1,522	1,210
Investing Activities		
Acquisitions, net of cash acquired	(59)	(307)
Purchase of property, plant and equipment	(301)	(181)
Proceeds from sale of property, plant and equipment	3	2
Other investing activities, net	(7)	9
Net cash used in investing activities	$(364)	$(477)

THERMO FISHER SCIENTIFIC INC.

CONSOLIDATED STATEMENT OF CASH FLOWS (Continued)
(Unaudited)

(In millions)	Six Months Ended June 30, 2018	July 1, 2017
Financing Activities		
Net proceeds from issuance of debt	$—	$519
Repayment of debt	(1,353)	(1,329)
Proceeds from issuance of commercial paper	2,761	4,487
Repayments of commercial paper	(2,655)	(3,991)
Purchases of company common stock	—	(750)
Dividends paid	(129)	(118)
Net proceeds from issuance of company common stock under employee stock plans	78	99
Other financing activities	(50)	—
Net cash used in financing activities	(1,348)	(1,083)
Exchange Rate Effect on Cash	(215)	168
Decrease in Cash, Cash Equivalents and Restricted Cash	(405)	(182)
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	1,361	811
Cash, Cash Equivalents and Restricted Cash at End of Period	$956	$629

See Note 12 for supplemental cash flow information.

The accompanying notes are an integral part of these consolidated financial statements.

THERMO FISHER SCIENTIFIC INC.

CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY
(Unaudited)

(In millions)	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Retained Earnings	Treasury Stock Shares	Treasury Stock Amount	Accumulated Other Comprehensive Items	Total Shareholders' Equity
Balance at December 31, 2016	415	$ 415	$ 12,140	$ 13,927	22	$ (2,306)	$ (2,636)	$ 21,540
Issuance of shares under employees' and directors' stock plans	2	2	120	—	—	(14)	—	108
Stock-based compensation	—	—	71	—	—	—	—	71
Purchases of company common stock	—	—	—	—	5	(750)	—	(750)
Dividends declared	—	—	—	(118)	—	—	—	(118)
Net income	—	—	—	1,163	—	—	—	1,163
Other comprehensive items	—	—	—	—	—	—	380	380
Other	—	—	(3)	—	—	—	—	(3)
Balance at July 1, 2017	417	$ 417	$ 12,328	$ 14,972	27	$ (3,070)	$ (2,256)	$ 22,391
Balance at December 31, 2017	428	$ 428	$ 14,177	$ 15,914	27	$ (3,103)	$ (2,003)	$ 25,413
Cumulative effect of accounting changes	—	—	—	118	—	—	(88)	30
Issuance of shares under employees' and directors' stock plans	2	2	113	—	—	(25)	—	90
Stock-based compensation	—	—	91	—	—	—	—	91
Dividends declared	—	—	—	(137)	—	—	—	(137)
Net income	—	—	—	1,331	—	—	—	1,331
Other comprehensive items	—	—	—	—	—	—	(400)	(400)
Other	—	—	27	—	—	—	—	27
Balance at June 30, 2018	430	$ 430	$ 14,408	$ 17,226	27	$ (3,128)	$ (2,491)	$ 26,445

The accompanying notes are an integral part of these consolidated financial statements.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

Thermo Fisher Scientific Inc. (the company or Thermo Fisher) enables customers to make the world healthier, cleaner and safer by providing analytical instruments, equipment, reagents and consumables, software and services for research, manufacturing, analysis, discovery and diagnostics. Markets served include pharmaceutical and biotech, academic and government, industrial and applied, as well as healthcare and diagnostics.

Interim Financial Statements

The interim consolidated financial statements presented herein have been prepared by the company, are unaudited and, in the opinion of management, reflect all adjustments of a normal recurring nature necessary for a fair statement of the financial position at June 30, 2018, the results of operations for the three- and six-month periods ended June 30, 2018 and July 1, 2017, and the cash flows for the six-month periods ended June 30, 2018 and July 1, 2017. Interim results are not necessarily indicative of results for a full year.

The consolidated balance sheet presented as of December 31, 2017, has been derived from the audited consolidated financial statements as of that date. The consolidated financial statements and notes are presented as permitted by Form 10-Q and do not contain all information that is included in the annual financial statements and notes thereto of the company. The consolidated financial statements and notes included in this report should be read in conjunction with the 2017 financial statements and notes included in the company's Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC).

Note 1 to the consolidated financial statements for 2017 describes the significant accounting estimates and policies used in preparation of the consolidated financial statements. Except for the accounting for revenue arising from contracts with customers, as noted below, there have been no material changes in the company's significant accounting policies during the six months ended June 30, 2018.

Revenue Recognition

The company recognizes revenue for the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. Consumables revenues consist of single-use products and are recognized at a point in time following the transfer of control of such products to the customer, which generally occurs upon shipment. Instruments revenues typically consist of longer-lived assets that, for the substantial majority of sales, are recognized at a point in time in a manner similar to consumables. Service revenues (clinical trial logistics, pharmaceutical development and manufacturing services, asset management, diagnostic testing, training, service contracts, and field services including related time and materials) are recognized over time as customers receive and consume the benefits of such services. For revenues recognized over time, the company generally uses costs accumulated as inputs to measure progress. For contracts that contain multiple performance obligations, the company allocates the consideration to which it expects to be entitled to each performance obligation based on relative standalone selling prices and recognizes the related revenue when or as control of each individual performance obligation is transferred to customers. The company exercises judgment in determining the timing of revenue by analyzing the point in time or the period over which the customer has the ability to direct the use of and obtain substantially all of the remaining benefits of the asset. The company immediately expenses contract costs that would otherwise be capitalized and amortized over a period of less than one year.

Payments from customers for most instruments, consumables and services are typically due in a fixed number of days after shipment or delivery of the product. Service arrangements commonly call for payments in advance of performing the work (e.g. extended service contracts), upon completion of the service (e.g. pharmaceutical development and manufacturing) or a mix of both.

See Note 3 for revenue disaggregated by type and by geographic region as well as further information about remaining performance obligations.

Contract-related Balances

Contract assets include revenues recognized in advance of billings and are recorded net of estimated losses resulting from the inability to invoice customers. Contract assets are classified as current or noncurrent based on the amount of time expected

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

to lapse until the company's right to consideration becomes unconditional. Current contract assets and noncurrent contract assets are included within other current assets and other assets, respectively, in the accompanying balance sheet.

Contract liabilities include billings in excess of revenues recognized, such as those resulting from customer advances and deposits and unearned revenue on service contracts. Contract liabilities are classified as current or noncurrent based on the periods over which remaining performance obligations are expected to be transferred to customers. Noncurrent contract liabilities are included within other long-term liabilities in the accompanying balance sheet.

Contract asset and liability balances are as follows:

(In millions)	June 30, 2018	January 1, 2018
Current Contract Assets, Net	$471	$ 396
Current Contract Liabilities	816	805
Noncurrent Contract Liabilities	337	302

Noncurrent contract assets were immaterial in 2018. In the first six months of 2018, the company recognized revenue of $483 million that was included in the contract liabilities balance at January 1, 2018.

Warranty Obligations

The liability for warranties is included in other accrued expenses in the accompanying balance sheet. The changes in the carrying amount of standard product warranty obligations are as follows:

(In millions)	Six Months Ended June 30, 2018	July 1, 2017
Beginning Balance	$87	$78
Provision charged to income	58	54
Usage	(53)	(51)
Acquisitions	—	1
Adjustments to previously provided warranties, net	(2)	(1)
Currency translation	(2)	2
Ending Balance	$88	$83

Inventories

The components of inventories are as follows:

(In millions)	June 30, 2018	December 31, 2017
Raw Materials	$776	$ 708
Work in Process	415	505
Finished Goods	1,675	1,758
Inventories	$2,866	$ 2,971

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

Property, Plant and Equipment
Property, plant and equipment consists of the following:

(In millions)	June 30, 2018	December 31, 2017
Land	$398	$ 401
Buildings and Improvements	1,668	1,662
Machinery, Equipment and Leasehold Improvements	4,408	4,276
Property, Plant and Equipment, at Cost	6,474	6,339
Less: Accumulated Depreciation and Amortization	2,522	2,292
Property, Plant and Equipment, Net	$3,952	$ 4,047

Acquisition-related Intangible Assets
Acquisition-related intangible assets are as follows:

	Balance at June 30, 2018			Balance at December 31, 2017		
(In millions)	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Definite Lived:						
Customer relationships	$17,129	$ (6,336)	$10,793	$17,356	$ (5,902)	$11,454
Product technology	6,012	(3,024)	2,988	6,046	(2,811)	3,235
Tradenames	1,516	(884)	632	1,538	(817)	721
Other	33	(33)	—	34	(34)	—
	24,690	(10,277)	14,413	24,974	(9,564)	15,410
Indefinite Lived:						
Tradenames	1,235	N/A	1,235	1,235	N/A	1,235
In-process research and development	32	N/A	32	39	N/A	39
	1,267	N/A	1,267	1,274	N/A	1,274
Acquisition-related Intangible Assets	$25,957	$ (10,277)	$15,680	$26,248	$ (9,564)	$16,684

Use of Estimates
The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In addition, significant estimates were made in estimating future cash flows to assess potential impairment of assets and in determining the fair value of acquired intangible assets (Note 2) and the ultimate loss from abandoning leases at facilities being exited (Note 13). Actual results could differ from those estimates.

Recent Accounting Pronouncements
In February 2018, the FASB issued new guidance to allow reclassifications from accumulated other comprehensive items (AOCI) to retained earnings for certain tax effects on items within AOCI resulting from the Tax Cuts and Jobs Act of 2017 (the Tax Act). The company adopted this guidance in January 2018 and recorded the reclassifications in

the period of adoption. The balance sheet impact of adopting this guidance is included in the table below. This guidance only relates to the effects of the

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

Tax Act. For all other tax law changes that have occurred or may occur in the future, the company reclassifies the tax effects to the consolidated statement of income on an item-by-item basis when the pre-tax item in AOCI is reclassified to income.

In December 2017, the SEC staff issued guidance to address the application of accounting guidance in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act enacted on December 22, 2017. The company reported provisional amounts in its 2017 financial statements for certain income tax effects of the Tax Act for which a reasonable estimate could be determined but for which the accounting impact may change. For example, these estimates may be impacted by the need for further analysis and future clarification and guidance regarding available tax accounting methods and elections, earnings and profits computations and state tax conformity to federal changes. Adjustments to provisional amounts identified during the measurement period, which may be up to December 22, 2018, will be included as adjustments to Provision for Income Taxes in the period the amounts are determined (Note 6).

In August 2017, the FASB issued new guidance to simplify the application of hedge accounting guidance. Among other things, the new guidance will permit more hedging strategies to qualify for hedge accounting, allow for additional time to perform an initial assessment of a hedge's effectiveness, and permit a qualitative effectiveness test for certain hedges after initial qualification. The company adopted this guidance in January 2018. The balance sheet impact of adopting this guidance is included in the table below.

In March 2017, the FASB issued new guidance intended to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost. The new guidance requires the service cost component of net periodic cost be reported in the same line item(s) as other employee compensation costs and all other components of the net periodic cost be reported in the income statement below operating income. The company adopted this guidance on January 1, 2018 and applied the changes to the statement of income retrospectively. As a result of adoption of this guidance, the accompanying 2017 statement of income reflects the following changes from previously reported amounts:

(In millions)	Three Months Ended July 1, 2017	Six Months Ended July 1, 2017
Increase in Total Costs and Operating Expenses (principally Selling, General and Administrative Expenses)	$ 3	$ 5
Decrease in Operating Income	3	5
Increase in Other Income (Expense)	3	5

In January 2017, the FASB issued new guidance clarifying the definition of a business and providing criteria to determine when an integrated set of assets and activities is not defined as a business. The new guidance requires such integrated sets to be defined as an asset (and not a business) if substantially all of the fair value of the gross assets acquired or disposed is concentrated in a single identifiable asset or a group of similar identifiable assets. The adoption of this guidance as of January 1, 2018 did not have a material impact on the company's consolidated financial statements.

In October 2016, the FASB issued new guidance eliminating the deferral of the tax effects of intra-entity asset transfers. The impact of this guidance in future periods will be dependent on the extent of future asset transfers which usually occur in connection with planning around acquisitions and other business structuring activities. The balance sheet impact of adopting this guidance as of January 1, 2018 is included in the table below.

In February 2016, the FASB issued new guidance which requires lessees to record most leases on their balance sheets as lease liabilities, initially measured at the present value of the future lease payments, with corresponding right-of-use assets. The new guidance also sets forth new disclosure requirements related to leases. The company plans to adopt the guidance in 2019 using a modified retrospective method. The company is currently evaluating the impact of this guidance by considering which practical expedients to elect, deploying a software tool to assist in the accounting calculations, surveying functional groups that oversee vendor relationships, and developing processes and controls to manage the changes in the lease guidance and gather information for the required disclosures. The company expects that assets and liabilities will increase upon adoption for right-of-use assets and lease liabilities. The company’s future commitments under lease obligations are summarized in Note 10 to the consolidated financial statements for 2017 included in the company's Annual Report on Form 10-K, filed with the SEC.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

In January 2016, the FASB issued new guidance which affects the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. This guidance requires equity investments to be measured at fair value with subsequent changes recognized in net income, except for those accounted for under the equity method or requiring consolidation. The guidance also changes the accounting for investments without a readily determinable fair value and that do not qualify for the practical expedient permitted by the guidance to estimate fair value. The balance sheet impact of adopting this guidance as of January 1, 2018 is included in the table below.

In May 2014, the FASB issued new revenue recognition guidance which provides a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most previous revenue recognition guidance. The new standard also requires significantly expanded disclosures regarding the qualitative and quantitative information of an entity's nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. During 2016 and 2017, the FASB issued additional guidance and clarification, including the elimination of certain SEC Staff Guidance. The guidance is effective for the company in 2018. The company has elected to adopt this guidance through application of the modified retrospective method by applying it to contracts that were not completed as of December 31, 2017 (in addition to new contracts in 2018).

Adoption of new guidance that became effective on January 1, 2018, impacted the company's Consolidated Balance Sheet as follows:

(In millions)	December 31, 2017 as Reported	Impact of Adopting New Revenue Guidance	Impact of Adopting New Equity Investment Guidance	Impact of Adopting New Intra-entity Tax Guidance	Impact of Adopting New Hedge Accounting Guidance	Impact of Adopting New Tax Effects on Items in AOCI Guidance	January 1, 2018 as Adopted
Accounts Receivable, Less Allowances	$ 3,879	$ (8)	$ —	$ —	$ —	$ —	$ 3,871
Inventories	2,971	(252)	—	—	—	—	2,719
Other Current Assets	804	296	—	—	—	—	1,100
Other Assets	1,227	—	—	(77)	—	—	1,150
Contract Liabilities	—	805	—	—	—	—	805
Deferred Revenue	719	(719)	—	—	—	—	—
Other Accrued Expenses	1,848	(153)	—	—	—	—	1,695
Deferred Income Taxes	2,766	—	—	(57)	—	2	2,711
Other Long-term Liabilities	2,569	54	—	—	—	—	2,623
Long-term Obligations	18,873	—	—	—	(3)	—	18,870
Retained Earnings	15,914	49	(1)	(20)	3	87	16,032
Accumulated Other Comprehensive Items	(2,003)	—	1	—	—	(89)	(2,091)

Had the company continued to use the revenue recognition guidance in effect prior to 2018, no material changes would have resulted to the consolidated statements of income, comprehensive income, or cash flows for the three and six months ended June 30, 2018, from amounts reported therein. However, inventories would have been $295 million higher and other current assets would have been $335 million lower as of June 30, 2018, primarily as a result of differences in the accounting for pharmaceutical development and manufacturing services under the new revenue guidance. Under the prior guidance, costs of these services were recorded in inventory while under the new guidance, costs are expensed as the manufacturing service is performed and the company's rights to consideration are recorded as contract assets and included in other current assets.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

Note 2. Acquisitions

The company's acquisitions have historically been made at prices above the determined fair value of the acquired identifiable net assets, resulting in goodwill, due to expectations of the synergies that will be realized by combining the businesses. These synergies include the elimination of redundant facilities, functions and staffing; use of the company's existing commercial infrastructure to expand sales of the acquired businesses' products; and use of the commercial infrastructure of the acquired businesses to cost-effectively expand sales of company products.

Acquisitions have been accounted for using the purchase method of accounting, and the acquired companies' results have been included in the accompanying financial statements from their respective dates of acquisition. Acquisition transaction costs are recorded in selling, general and administrative expenses as incurred.

2018

In 2018, the company acquired, within the Life Sciences Solutions segment, IntegenX Inc., a North America-based provider of a rapid DNA platform for use in forensics and law enforcement applications, for an aggregate purchase price of $65 million.

The company has entered into an agreement to acquire Gatan, Inc., a wholly owned subsidiary of Roper Technologies, Inc., for approximately $925 million in cash. Gatan is a leading manufacturer of instrumentation and software used to enhance and extend the operation and performance of electron microscopes. The transaction, which is expected to be completed by the end of 2018, is subject to customary closing conditions, including regulatory approvals.

Note 3. Revenue

Disaggregated Revenue

Revenue by type is as follows:

(In millions)	Three Months Ended June 30, 2018	Six Months Ended June 30, 2018
Revenues		
Consumables	3,178	$6,289
Instruments	1,530	2,947
Services	1,370	2,695
Consolidated revenues	$ 6,078	$11,931

Revenue by geographic region is as follows:

(In millions)	Three Months Ended June 30, 2018	Six Months Ended June 30, 2018
Revenues		
North America	$ 3,042	$5,945
Europe	1,549	3,067
Asia-Pacific	1,294	2,558
Other regions	193	361

Consolidated revenues	$ 6,078	$ 11,931

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Each reportable segment earns revenues from consumables, instruments and services in North America, Europe, Asia-Pacific and other regions. See note 4 for revenue by reportable segment and other geographic data.

Remaining Performance Obligations

The aggregate amount of the transaction price allocated to the remaining performance obligations for all open customer contracts as of June 30, 2018 was $5.12 billion. The company will recognize revenue for these performance obligations as they are satisfied, approximately 90% of which is expected to occur within the next twelve months.

Note 4. Business Segment and Geographical Information

The company's financial performance is reported in four segments. A description of each segment follows.

Life Sciences Solutions: provides an extensive portfolio of reagents, instruments and consumables used in biological and medical research, discovery and production of new drugs and vaccines as well as diagnosis of disease. These products and services are used by customers in pharmaceutical, biotechnology, agricultural, clinical, academic, and government markets.

Analytical Instruments: provides a broad offering of instruments, consumables, software and services that are used for a range of applications in the laboratory, on the production line and in the field. These products and services are used by customers in pharmaceutical, biotechnology, academic, government, environmental and other research and industrial markets, as well as the clinical laboratory.

Specialty Diagnostics: provides a wide range of diagnostic test kits, reagents, culture media, instruments and associated products used to increase the speed and accuracy of diagnoses. These products are used by customers in healthcare, clinical, pharmaceutical, industrial and food safety laboratories.

Laboratory Products and Services: provides virtually everything needed for the laboratory, including a combination of self-manufactured and sourced products for customers in research, academic, government, industrial and healthcare settings. The segment also includes a comprehensive offering of outsourced services used by the pharmaceutical and biotech industries for drug development, clinical trials logistics and commercial drug manufacturing.

The company's management evaluates segment operating performance based on operating income before certain charges/credits to cost of revenues and selling, general and administrative expenses, principally associated with acquisition accounting; restructuring and other costs/income including costs arising from facility consolidations such as severance and abandoned lease expense and gains and losses from the sale of real estate and product lines as well as from significant litigation-related matters; and amortization of acquisition-related intangible assets. The company uses this measure because it helps management understand and evaluate the segments' core operating results and facilitates comparison of performance for determining compensation.

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Business Segment Information

(In millions)	Three Months Ended June 30, 2018	July 1, 2017	Six Months Ended June 30, 2018	July 1, 2017
Revenues				
Life Sciences Solutions	$1,569	$1,405	$3,068	$2,768
Analytical Instruments	1,311	1,166	2,568	2,218
Specialty Diagnostics	932	862	1,879	1,728
Laboratory Products and Services	2,550	1,792	4,963	3,491
Eliminations	(284)	(235)	(547)	(450)
Consolidated revenues	6,078	4,990	11,931	9,755
Segment Income (a)				
Life Sciences Solutions	522	448	1,039	881
Analytical Instruments	291	232	537	424
Specialty Diagnostics	253	234	496	467
Laboratory Products and Services	337	245	617	461
Subtotal reportable segments (a)	1,403	1,159	2,689	2,233
Cost of revenues charges	(5)	(1)	(8)	(32)
Selling, general and administrative charges, net	(3)	(7)	(11)	(38)
Restructuring and other costs, net	(17)	(22)	(62)	(46)
Amortization of acquisition-related intangible assets	(441)	(380)	(885)	(748)
Consolidated operating income	937	749	1,723	1,369
Other expense, net (b)	(131)	(123)	(283)	(240)
Income from continuing operations before income taxes	$806	$626	$1,440	$1,129
Depreciation				
Life Sciences Solutions	$29	$32	$60	$65
Analytical Instruments	17	17	35	34
Specialty Diagnostics	18	18	37	35
Laboratory Products and Services	66	30	129	60
Consolidated depreciation	$130	$97	$261	$194

(a) Represents operating income before certain charges to cost of revenues and selling, general and administrative expenses; restructuring and other costs, net; and amortization of acquisition-related intangibles.
(b) The company does not allocate other expense, net to its segments.

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Geographical Information

(In millions)	Three Months Ended June 30, 2018	July 1, 2017	Six Months Ended June 30, 2018	July 1, 2017
Revenues (c)				
United States	$2,914	$2,484	$5,670	$4,861
China	648	512	1,189	953
Other	2,516	1,994	5,072	3,941
Consolidated revenues	$6,078	$4,990	$11,931	$9,755

(c) Revenues are attributed to countries based on customer location.

Note 5. Other Expense, Net

The components of other expense, net, in the accompanying statement of income are as follows:

(In millions)	Three Months Ended June 30, 2018	July 1, 2017	Six Months Ended June 30, 2018	July 1, 2017
Interest Income	$31	$18	$51	$36
Interest Expense	(170)	(134)	(333)	(269)
Other Items, Net	8	(7)	(1)	(7)
Other Expense, Net	$(131)	$(123)	$(283)	$(240)

Other Items, Net

In all periods, other items, net includes currency transaction gains and losses on monetary assets and liabilities and net periodic pension benefit cost/income, excluding the service cost component which is included in operating expenses on the accompanying statement of income.

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Note 6. Income Taxes

The provision for income taxes in the accompanying statement of income differs from the provision calculated by applying the statutory federal income tax rate to income before provision for income taxes due to the following:

	Six Months Ended	
(In millions)	June 30, 2018	July 1, 2017
Statutory Federal Income Tax Rate	21 %	35 %
Provision for Income Taxes at Statutory Rate	$302	$395
Increases (Decreases) Resulting From:		
Foreign rate differential	(116)	(190)
Income tax credits	(119)	(114)
Global intangible low-taxed income	81	—
Foreign-derived intangible income	(22)	—
Singapore tax holiday	(19)	(10)
Impact of change in tax laws and apportionment on deferred taxes	9	(63)
Transition tax and other initial impacts of U.S. tax reform	70	—
Reversal of tax reserves, net	(49)	—
Excess tax benefits from stock options and restricted stock units	(36)	(35)
Other, net	8	(18)
Provision for (benefit from) income taxes	$109	$(35)

The company has operations and a taxable presence in approximately 50 countries outside the U.S. Some of these countries have lower tax rates than the U.S. The company’s ability to obtain a benefit from lower tax rates outside the U.S. is dependent on its relative levels of income in countries outside the U.S. and on the statutory tax rates in those countries.

In the first quarter of 2018, the company recorded a net tax provision of $21 million to adjust the estimated initial impacts of U.S. tax reform recorded in 2017, consisting of an incremental provision of $70 million offset in part by a $49 million reduction of related unrecognized tax benefits established in 2017. The adjustment was required based on new U.S. Treasury guidance released in the first quarter of 2018.

The company has significant activities in Singapore and has received considerable tax incentives. The local taxing authority granted the company pioneer company status which provides an incentive encouraging companies to undertake activities that have the effect of promoting economic or technological development in Singapore. This incentive equates to a tax exemption on earnings associated with most of the company’s manufacturing activities in Singapore and continues through December 31, 2026. In 2018 and 2017, the impact of this tax holiday decreased the annual effective tax rates by 1.3 percentage points and 0.9 percentage point, respectively, and increased diluted earnings per share by approximately $0.05 and $0.03, respectively.

Unrecognized Tax Benefits

As of June 30, 2018, the company had $1.29 billion of unrecognized tax benefits substantially all of which, if recognized, would reduce the effective tax rate.

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A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

(In millions)	2018
Balance at beginning of year	$1,409
Reductions due to acquisitions	(9)
Additions for tax positions of current year	3
Additions for tax positions of prior years	5
Reductions for tax positions of prior years	(69)
Settlements	(52)
Balance at end of period	$1,287

Note 7. Earnings per Share

	Three Months Ended		Six Months Ended	
	June 30,	July 1,	June 30,	July 1,
(In millions except per share amounts)	2018	2017	2018	2017
Income from Continuing Operations	$ 752	$ 613	$ 1,331	$ 1,164
Loss from Discontinued Operations	—	(1)	—	(1)
Net Income	$ 752	$ 612	$ 1,331	$ 1,163
Basic Weighted Average Shares	403	390	402	390
Plus Effect of:				
Stock options and restricted units	3	3	4	4
Diluted Weighted Average Shares	406	393	406	394
Basic Earnings per Share:				
Continuing operations	$ 1.87	$ 1.57	$ 3.31	$ 2.98
Discontinued operations	—	—	—	—
Basic Earnings per Share	$ 1.87	$ 1.57	$ 3.31	$ 2.98

Diluted Earnings per Share:				
Continuing operations	$ 1.85	$ 1.56	$ 3.28	$ 2.96
Discontinued operations	—	—	—	—
Diluted Earnings per Share	$ 1.85	$ 1.56	$ 3.28	$ 2.95
Antidilutive Stock Options Excluded from Diluted Weighted Average Shares	2	2	2	2

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Note 8. Debt and Other Financing Arrangements

(Dollars in millions)	Effective Interest Rate at June 30, 2018		June 30, 2018	December 31, 2017
Commercial Paper	—	%	$1,005	$960
Floating Rate 2-Year Senior Notes, Due 8/9/2018 (euro-denominated)	0.37	%	701	721
2.15% 3-Year Senior Notes, Due 12/14/2018			—	450
2.40% 5-Year Senior Notes, Due 2/1/2019			—	900
Floating Rate 2-Year Senior Notes, Due 7/24/2019 (euro-denominated)	0.10	%	584	600
6.00% 10-Year Senior Notes, Due 3/1/2020	2.97	%	750	750
4.70% 10-Year Senior Notes, Due 5/1/2020	4.23	%	300	300
1.50% 5-Year Senior Notes, Due 12/1/2020 (euro-denominated)	1.62	%	497	510
5.00% 10-Year Senior Notes, Due 1/15/2021	3.25	%	400	400
4.50% 10-Year Senior Notes, Due 3/1/2021	6.74	%	1,000	1,000
3.60% 10-Year Senior Notes, Due 8/15/2021	6.55	%	1,100	1,100
3.30% 7-Year Senior Notes, Due 2/15/2022	3.42	%	800	800
2.15% 7-Year Senior Notes, Due 7/21/2022 (euro-denominated)	2.28	%	584	600
3.15% 10-Year Senior Notes, Due 1/15/2023	3.31	%	800	800
3.00% 7-Year Senior Notes, Due 4/15/2023	6.76	%	1,000	1,000
4.15% 10-Year Senior Notes, Due 2/1/2024	4.16	%	1,000	1,000
0.75% 8-Year Senior Notes, Due 9/12/2024 (euro-denominated)	0.94	%	1,168	1,201
2.00% 10-Year Senior Notes, Due 4/15/2025 (euro-denominated)	2.10	%	748	768
3.65% 10-Year Senior Notes, Due 12/15/2025	3.77	%	350	350
1.40% 8.5-Year Senior Notes, Due 1/23/2026 (euro-denominated)	1.53	%	818	840
2.95% 10-Year Senior Notes, Due 9/19/2026	3.19	%	1,200	1,200
1.45% 10-Year Senior Notes, Due 3/16/2027 (euro-denominated)	1.66	%	584	600
3.20% 10-Year Senior Notes, Due 8/15/2027	3.39	%	750	750
1.375% 12-Year Senior Notes, Due 9/12/2028 (euro-denominated)	1.46	%	701	721
1.95% 12-Year Senior Notes, Due 7/24/2029 (euro-denominated)	2.08	%	818	840
2.875% 20-Year Senior Notes, Due 7/24/2037 (euro-denominated)	2.94	%	818	840
5.30% 30-Year Senior Notes, Due 2/1/2044	5.37	%	400	400
4.10% 30-Year Senior Notes, Due 8/15/2047	4.23	%	750	750
Other			23	24

Total Borrowings at Par Value	19,649	21,175
Fair Value Hedge Accounting Adjustments	(132)	(70)
Unamortized Discount, Net	(11)	(2)
Unamortized Debt Issuance Costs	(86)	(95)
Total Borrowings at Carrying Value	19,420	21,008
Less: Short-term Obligations and Current Maturities	1,711	2,135
Long-term Obligations	$ 17,709	$ 18,873

The effective interest rates for the fixed-rate debt include the stated interest on the notes, the accretion of any discount or amortization of any premium, the amortization of any debt issuance costs and, if applicable, adjustments related to hedging.

See Note 11 for fair value information pertaining to the company’s long-term obligations.

Credit Facilities

The company has a revolving credit facility with a bank group that provides for up to $2.50 billion of unsecured multi-currency revolving credit. The facility expires in July 2021. The agreement calls for interest at either a LIBOR-based rate, a

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EURIBOR-based rate (for funds drawn in Euro) or a rate based on the prime lending rate of the agent bank, at the company’s option. The agreement contains affirmative, negative and financial covenants, and events of default customary for facilities of this type. The covenants in our revolving credit facility (the Facility) include a Consolidated Leverage Ratio (total debt-to-Consolidated EBITDA) and a Consolidated Interest Coverage Ratio (Consolidated EBITDA to Consolidated Interest Expense), as such terms are defined in the Facility. Specifically, the company has agreed that, so long as any lender has any commitment under the Facility, any letter of credit is outstanding under the Facility, or any loan or other obligation is outstanding under the Facility, it will maintain a maximum Consolidated Leverage Ratio of 3.5:1.0 for the third quarter of 2018 and thereafter. The company has also agreed that so long as any lender has any commitment under the Facility or any letter of credit is outstanding under the Facility, or any loan or other obligation is outstanding under the Facility, it will maintain a minimum Consolidated Interest Coverage Ratio of 3.0:1.0 as of the last day of any fiscal quarter. As of June 30, 2018, no borrowings were outstanding under the Facility, although available capacity was reduced by approximately $83 million as a result of outstanding letters of credit.

Commercial Paper Programs

The company has commercial paper programs pursuant to which it may issue and sell unsecured, short-term promissory notes (CP Notes). Under the U.S. program, a) maturities may not exceed 397 days from the date of issue and b) the CP Notes are issued on a private placement basis under customary terms in the commercial paper market and are not redeemable prior to maturity nor subject to voluntary prepayment. Under the euro program, maturities may not exceed 183 days and may be denominated in euro, U.S. dollars, Japanese yen, British pounds sterling, Swiss franc, Canadian dollars or other currencies. Under both programs, the CP Notes are issued at a discount from par (or premium to par, in the case of negative interest rates), or, alternatively, are sold at par and bear varying interest rates on a fixed or floating basis. As of June 30, 2018, outstanding borrowings under these programs were $1.01 billion, with a weighted average remaining period to maturity of 58 days and are classified as short-term obligations in the accompanying balance sheet.

Senior Notes

Interest on the floating rate senior notes is payable quarterly. Interest is payable annually on the other euro-denominated senior notes and semi-annually on all other senior notes. Each of the notes may be redeemed at a redemption price of 100% of the principal amount plus a specified make-whole premium and accrued interest. The company is subject to certain affirmative and negative covenants under the indentures governing the senior notes, the most restrictive of which limits the ability of the company to pledge principal properties as security under borrowing arrangements.

Thermo Fisher Scientific (Finance I) B.V., a wholly-owned finance subsidiary of the company, issued the Floating Rate Senior Notes due 2018 included in the table above. This subsidiary has no independent function other than financing activities. The Floating Rate Senior Notes due 2018 are fully and unconditionally guaranteed by the company and no other subsidiaries of the company have guaranteed the obligations.

Interest Rate Swap Arrangements and related Cross-currency Interest Rate Swap Arrangements

The company has entered into LIBOR-based interest rate swap arrangements with various banks on several of its outstanding senior notes. The aggregate amounts of the swaps are equal to the principal amounts of the notes and the payment dates of the swaps coincide with the interest payment dates of the notes. The swap contracts provide for the company to pay a variable interest rate and receive a fixed rate. The variable interest rates reset monthly. The swaps have been accounted for as fair value hedges of the notes. See Note 11 for additional information on the interest rate swap arrangements and related cross-currency interest rate swap arrangements. The following table summarizes the outstanding interest rate swap arrangements on the company's senior notes at June 30, 2018:

(Dollars in millions)	Aggregate Notional Amount	Pay Rate	Pay Rate as of June 30, 2018	Receive Rate

4.50% Senior Notes due 2021 (a)	1,000	1-month LIBOR + 3.4420%	5.4245	%	4.50	%
3.60% Senior Notes due 2021	1,100	1-month LIBOR + 2.5150%	4.5883	%	3.60	%
3.00% Senior Notes due 2023 (a)	1,000	1-month LIBOR + 1.7640%	3.8373	%	3.00	%

(a) The payments on $1.2 billion notional value of these interest rate swaps are offset in part by cross-currency interest rate swaps which effectively reduced the pay rate as of June 30, 2018 from a weighted average of 4.63% to a weighted average of 1.96%.

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In 2018, the company entered into $1.2 billion notional value of cross-currency interest rate swaps, which effectively convert a portion of the semi-annual payments related to the variable rate, U.S. dollar denominated, LIBOR-based interest rate swaps to payments on variable rate, euro denominated, EURIBOR-based cross-currency interest rate swaps.

Note 9. Commitments and Contingencies

Environmental Matters

The company is currently involved in various stages of investigation and remediation related to environmental matters. The company cannot predict all potential costs related to environmental remediation matters and the possible impact on future operations given the uncertainties regarding the extent of the required cleanup, the complexity and interpretation of applicable laws and regulations, the varying costs of alternative cleanup methods and the extent of the company’s responsibility. Expenses for environmental remediation matters related to the costs of installing, operating and maintaining groundwater-treatment systems and other remedial activities related to historical environmental contamination at the company’s domestic and international facilities were not material in any period presented. The company records accruals for environmental remediation liabilities, based on current interpretations of environmental laws and regulations, when it is probable that a liability has been incurred and the amount of such liability can be reasonably estimated. The company calculates estimates based upon several factors, including reports prepared by environmental specialists and management’s knowledge of and experience with these environmental matters. The company includes in these estimates potential costs for investigation, remediation and operation and maintenance of cleanup sites. At June 30, 2018, the company’s total environmental liability was approximately $52 million. While management believes the accruals for environmental remediation are adequate based on current estimates of remediation costs, the company may be subject to additional remedial or compliance costs due to future events such as changes in existing laws and regulations, changes in agency direction or enforcement policies, developments in remediation technologies or changes in the conduct of the company’s operations, which could have a material adverse effect on the company’s financial position, results of operations or cash flows.

Litigation and Related Contingencies

There are various lawsuits and claims pending against the company including matters involving product liability, intellectual property, employment and commercial issues. The company determines the probability and range of possible loss based on the current status of each of these matters. A liability is recorded in the financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. The company establishes a liability that is an estimate of amounts expected to be paid in the future for events that have already occurred. The company accrues the most likely amount or at least the minimum of the range of probable loss when a range of probable loss can be estimated. The accrued liabilities are based on management’s judgment as to the probability of losses for asserted and unasserted claims and, where applicable, actuarially determined estimates. Accrual estimates are adjusted as additional information becomes known or payments are made. The amount of ultimate loss may differ from these estimates. Due to the inherent uncertainties associated with pending litigation or claims, the company cannot predict the outcome, nor, with respect to certain pending litigation or claims where no liability has been accrued, make a meaningful estimate of the reasonably possible loss or range of loss that could result from an unfavorable outcome. The company has no material accruals for pending litigation or claims for which accrual amounts are not disclosed below or in the company's 2017 financial statements and notes included in the company's Annual Report on Form 10-K filed with the SEC, nor are material losses deemed probable for such matters. It is reasonably possible, however, that an unfavorable outcome that exceeds the company’s current accrual estimate, if any, for one or more of the matters described below could have a material adverse effect on the company’s results of operations, financial position and cash flows.

Product Liability, Workers Compensation and Other Personal Injury Matters

For product liability, workers compensation and other personal injury matters, the company accrues the most likely amount or at least the minimum of the range of possible loss when a range of possible loss can be estimated. The company records estimated amounts due from insurers related to certain product liabilities as an asset. Although the company believes that the amounts accrued and estimated recoveries are probable and appropriate based on available information, including actuarial studies of loss estimates, the process of estimating losses and insurance recoveries involves a considerable degree of judgment by management and the ultimate amounts could vary materially. Insurance contracts do not relieve the company of its primary obligation with respect to any losses incurred. The collectability of amounts due from its insurers is subject to the solvency and willingness of the insurer to pay, as well as the legal sufficiency of the insurance claims. Management monitors the payment history as well as the financial condition and ratings of its insurers on an ongoing basis.

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Intellectual Property Matters

On May 26, 2010, Promega Corp. & Max-Planck-Gesellschaft Zur Forderung Der Wissenschaften EV filed a complaint against Life Technologies in the United States District Court for the Western District of Wisconsin. The plaintiffs allege patent infringement by sales and uses of Applied Biosystems' short tandem repeat DNA identification products outside the scope of a 2006 license agreement. The plaintiff sought damages for alleged willful infringement, attorneys' fees, costs, prejudgment interest, and injunctive relief. Although a jury initially found willful infringement and assessed damages at $52 million the District Court subsequently overturned the verdict on the grounds that the plaintiff had failed to prove infringement. The District Court entered judgment in favor of Life Technologies; and plaintiffs and Life Technologies filed cross-appeals with the United States Court of Appeals for the Federal Circuit. The $52 million award was accrued by Life Technologies and the liability was assumed by the company as of the date of the acquisition. On December 15, 2014, the Court of Appeals issued a decision invalidating four of the plaintiffs' patents, but finding infringement by Life Technologies of the remaining fifth patent. The Court of Appeals also ordered a new trial on damages in the District Court. Life Technologies' petition to the U.S. Supreme Court seeking review of the Court of Appeals' judgment was granted on June 27, 2016, and the case was stayed in the District Court pending the outcome of the Supreme Court's review. On February 22, 2017, the Supreme Court issued a decision reversing the Court of Appeals' judgment and remanding the case to the Court of Appeals for further proceedings in view of the Supreme Court's legal interpretation of the patent law statute in question. On November 13, 2017, the Court of Appeals issued a decision holding that Promega is not entitled to recover any damages and affirming the District Court's grant of judgment in favor of Life Technologies and denial of Promega's motion for a new trial. The Court of Appeals denied Promega's petition for rehearing on February 14, 2018, and Promega filed a petition with the U.S. Supreme Court on June 14, 2018, seeking review of the Court of Appeals' decision. The company has maintained the $52 million accrual, pending conclusion of this matter.

On June 3, 2013, Unisone Strategic IP filed a complaint against Life Technologies in the United States District Court for the Southern District of California alleging patent infringement by Life Technologies' supply chain management system software, which operates with product "supply centers" installed at customer sites. Plaintiff seeks damages for alleged willful infringement, attorneys' fees, costs, and injunctive relief. On August 24, 2017, Unisone filed an appeal from a decision by the Patent Trial and Appeal Board that found the challenged patent claims invalid.

Note 10. Comprehensive Income and Shareholders' Equity

Comprehensive Income (Loss)

Comprehensive income (loss) combines net income and other comprehensive items. Other comprehensive items represent certain amounts that are reported as components of shareholders' equity in the accompanying balance sheet. Changes in each component of accumulated other comprehensive items, net of tax are as follows:

(In millions)	Currency Translation Adjustment	Unrealized Losses on Available-for-Sale Investments	Unrealized Losses on Hedging Instruments	Pension and Other Postretirement Benefit Liability Adjustment	Total
Balance at December 31, 2017	$ (1,755)	$ (1)	$ (50)	$ (197)	$ (2,003)
Cumulative effect of accounting changes (Note 1)	(54)	1	(11)	(24)	(88)
Other comprehensive income (loss) before reclassifications	(415)	—	—	3	(412)

Amounts reclassified from accumulated other comprehensive items	—	—	4	8	12
Net other comprehensive items	(415)	—	4	11	(400)
Balance at June 30, 2018	$ (2,224)	$ —	$ (57)	$ (210)	$ (2,491)

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Note 11. Fair Value Measurements and Fair Value of Financial Instruments
Fair Value Measurements
The company uses the market approach technique to value its financial instruments and there were no changes in valuation techniques during 2018. The company's financial assets and liabilities carried at fair value are primarily comprised of insurance contracts, investments in money market funds, derivative contracts, mutual funds holding publicly traded securities and other investments in unit trusts held as assets to satisfy outstanding deferred compensation and retirement liabilities; and acquisition-related contingent consideration.
The fair value accounting guidance requires that assets and liabilities carried at fair value be classified and disclosed in one of the following three categories:
Level 1: Quoted market prices in active markets for identical assets or liabilities that the company has the ability to access.
Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data such as quoted prices, interest rates and yield curves.
Level 3: Inputs are unobservable data points that are not corroborated by market data.
The following tables present information about the company's financial assets and liabilities measured at fair value on a recurring basis as of June 30, 2018 and December 31, 2017:

(In millions)	June 30, 2018	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents	$52	$ 52	$ —	$ —
Bank time deposits	2	2	—	—
Investments in mutual funds and other similar instruments	13	13	—	—
Warrants	4	—	4	—
Insurance contracts	116	—	116	—
Derivative contracts	9	—	9	—
Total Assets	$196	$ 67	$ 129	$ —
Liabilities				
Derivative contracts	$176	$ —	$ 176	$ —
Contingent consideration	40	—	—	40
Total Liabilities	$216	$ —	$ 176	$ 40

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(In millions)	December 31, 2017	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents	$ 22	$ 22	$ —	$ —
Bank time deposits	2	2	—	—
Investments in mutual funds and other similar instruments	13	13	—	—
Warrants	2	—	2	—
Insurance contracts	116	—	116	—
Derivative contracts	10	—	10	—
Total Assets	$ 165	$ 37	$ 128	$ —
Liabilities				
Derivative contracts	$ 139	$ —	$ 139	$ —
Contingent consideration	35	—	—	35
Total Liabilities	$ 174	$ —	$ 139	$ 35

The company determines the fair value of its insurance contracts by obtaining the cash surrender value of the contracts from the issuer. The fair value of derivative contracts is the estimated amount that the company would receive/pay upon liquidation of the contracts, taking into account the change in interest rates and currency exchange rates. The company determines the fair value of acquisition-related contingent consideration based on the probability-weighted discounted cash flows associated with such future payments. Changes to the fair value of contingent consideration are recorded in selling, general and administrative expense. The following table provides a rollforward of the fair value, as determined by level 3 inputs, of the contingent consideration.

(In millions)	Six Months Ended June 30, 2018	July 1, 2017
Contingent Consideration		
Beginning Balance	$ 35	$ 6
Acquisitions	11	9
Payments	(5)	—
Change in fair value included in earnings	(1)	26
Ending Balance	$ 40	$ 41

Derivative Contracts
The following table provides the aggregate notional value of outstanding derivative contracts.

(In millions)	June 30, 2018	December 31, 2017
Notional Amount		
Interest rate swaps (described in Note 8)	$3,100	$ 3,100
Cross-currency interest rate swaps - designated as net investment hedges	1,200	—
Currency exchange contracts	1,974	2,921

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

While certain derivatives are subject to netting arrangements with counterparties, the company does not offset derivative assets and liabilities within the consolidated balance sheet. The following tables present the fair value of derivative instruments in the consolidated balance sheet and statement of income.

	Fair Value – Assets		Fair Value – Liabilities	
(In millions)	June 30, 2018	December 31, 2017	June 30, 2018	December 31, 2017
Derivatives Designated as Hedging Instruments				
Interest rate swaps (a)	$—	$ —	$172	$ 124
Cross-currency interest rate swaps (b)	6	—	—	—
Derivatives Not Designated as Hedging Instruments				
Currency exchange contracts (c)	3	10	4	15
Total Derivatives	$9	$ 10	$176	$ 139

(a) The fair value of the interest rate swaps is included in the consolidated balance sheet under the caption other long-term liabilities.
(b) The fair value of the cross-currency interest rate swaps is included in the consolidated balance sheet under the caption other assets.
(c) The fair value of the currency exchange contracts is included in the consolidated balance sheet under the captions other current assets or other accrued expenses.

The following amounts related to cumulative basis adjustments for fair value hedges were included in the consolidated balance sheet under the caption long-term obligations:

	Carrying Amount of the Hedged Liability		Cumulative Amount of Fair Value Hedging Adjustment - Increase (Decrease) Included in Carrying Amount of Liability (d)	
(In millions)	June 30, 2018	December 31, 2017	June 30, 2018	December 31, 2017
Long-term Obligations	$3,250	$ 3,309	$(132)	$ (70)

(d) Includes increases in the carrying amount of $37 million and $43 million at June 30, 2018 and December 31, 2017, respectively, on discontinued hedging relationships.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

	Gain (Loss) Recognized			
	Three Months Ended		Six Months Ended	
(In millions)	June 30, 2018	July 1, 2017	June 30, 2018	July 1, 2017
Fair Value Hedging Relationships				
Interest rate swaps				
Hedged long-term obligations - included in other expense, net	$(11)	$16	$(49)	$10
Derivatives designated as hedging instruments - included in other expense, net	10	(14)	52	(5)
Derivatives Designated as Cash Flow Hedges				
Interest rate swaps				
Amount reclassified from accumulated other comprehensive items to other expense, net	(3)	(3)	(6)	(6)
Derivatives Designated as Net Investment Hedges				
Foreign currency-denominated debt				
Included in currency translation adjustment within other comprehensive items	400	(283)	200	(329)
Cross-currency interest rate swaps				
Included in currency translation adjustment within other comprehensive items	3	—	3	—
Included in other expense, net	3	—	3	—
Derivatives Not Designated as Hedging Instruments				
Currency exchange contracts				
Included in cost of revenues	2	(1)	—	(2)
Included in other expense, net	35	52	27	71

Gains and losses recognized on currency exchange contracts and the interest rate swaps designated as fair value hedges are included in the consolidated statement of income together with the corresponding, offsetting losses and gains on the underlying hedged transactions.

The company uses foreign currency-denominated debt and cross-currency interest rate swaps to partially hedge its net investments in foreign operations against adverse movements in exchange rates. The company’s euro-denominated senior notes and cross-currency interest rate swaps have been designated as, and are effective as, economic hedges of part of the net investment in a foreign operation. Accordingly, foreign currency transaction gains or losses due to spot rate fluctuations on the euro-denominated debt instruments and contract fair value changes on the cross-currency interest rate swaps, excluding interest accruals, are included in currency translation adjustment within other comprehensive items and shareholders’ equity.

See Note 1 to the consolidated financial statements for 2017 included in the company's Annual Report on Form 10-K and Note 8 herein for additional information on the company's risk management objectives and strategies.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

Fair Value of Other Financial Instruments

The carrying value and fair value of the company's notes receivable and debt obligations are as follows:

	June 30, 2018		December 31, 2017	
(In millions)	Carrying Value	Fair Value	Carrying Value	Fair Value
Notes Receivable	$97	$101	$89	$93
Debt Obligations:				
Senior notes	$18,392	$18,603	$20,024	$20,639
Commercial paper	1,005	1,005	960	960
Other	23	23	24	24
	$19,420	$19,631	$21,008	$21,623

The fair value of debt obligations was determined based on quoted market prices and on borrowing rates available to the company at the respective period ends which represent level 2 measurements.

Note 12. Supplemental Cash Flow Information

	Six Months Ended	
(In millions)	June 30, 2018	July 1, 2017
Non-cash Investing and Financing Activities		
Declared but unpaid dividends	$70	$ 60
Issuance of stock upon vesting of restricted stock units	66	38

Cash, cash equivalents and restricted cash is included in the consolidated balance sheet as follows:

(In millions)	June 30, 2018	December 31, 2017
Cash and Cash Equivalents	$937	$ 1,335
Restricted Cash Included in Other Current Assets	17	24
Restricted Cash Included in Other Assets	2	2
Cash, Cash Equivalents and Restricted Cash	$956	$ 1,361

Amounts included in restricted cash represent funds held as collateral for bank guarantees and incoming cash in China awaiting government administrative clearance.

Note 13. Restructuring and Other Costs, Net

Restructuring and other costs in the first six months of 2018 included continuing charges for headcount reductions and facility consolidations in an effort to streamline operations, including the closure and consolidation of operations within several facilities in the U.S. and Europe; third-party transaction/integration costs related to the acquisition of

Patheon; sales of inventories revalued at the date of acquisition; and net charges for litigation matters. In the first six months of 2018, severance actions associated with facility consolidations and cost reduction measures affected approximately 1% of the company’s workforce.

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

As of August 3, 2018, the company has identified restructuring actions that will result in additional charges of approximately $100 million, primarily in 2018 and 2019, which will be recorded when specified criteria are met, such as communication of benefit arrangements and abandonment of leased facilities.

Second Quarter of 2018

During the second quarter of 2018, the company recorded net restructuring and other costs by segment as follows:

(In millions)	Cost of Revenues	Selling, General and Administrative Expenses	Restructuring and Other Costs, Net	Total
Life Sciences Solutions	$ —	$ —	$ 10	$ 10
Analytical Instruments	2	(1)	4	5
Specialty Diagnostics	—	—	—	—
Laboratory Products and Services	3	4	3	10
Corporate	—	—	—	—
	$ 5	$ 3	$ 17	$ 25

The principal components of net restructuring and other costs by segment are as follows:

Life Sciences Solutions

In the second quarter of 2018, the Life Sciences Solutions segment recorded $10 million of net restructuring and other charges, principally charges for severance and other costs associated with facility consolidations in the U.S.

Analytical Instruments

In the second quarter of 2018, the Analytical Instruments segment recorded $5 million of net restructuring and other charges. The segment recorded $2 million of charges to cost of revenues for sales of inventories revalued at the date of acquisition; $1 million of income to selling, general, and administrative expenses for contingent acquisition consideration; and $4 million of restructuring and other costs, primarily for employee severance and other costs associated with facility consolidations in the U.S. and Europe.

Laboratory Products and Services

In the second quarter of 2018, the Laboratory Products and Services segment recorded $10 million of net restructuring and other charges. The segment recorded $3 million of charges to cost of revenues for sales of inventories revalued at the date of acquisition, as well as $4 million of charges to selling, general, and administrative expenses for third-party transaction/integration costs related to the acquisition of Patheon. The segment also recorded $3 million of restructuring and other costs, primarily for employee severance and hurricane response costs.

First Six Months of 2018

During the first six months of 2018, the company recorded net restructuring and other costs by segment as follows:

(In millions)	Cost of Revenues	Selling, General and Administrative Expenses	Restructuring and Other Costs, Net	Total
Life Sciences Solutions	$ —	$ —	$ 23	$ 23
Analytical Instruments	2	(1)	21	22
Specialty Diagnostics	—	—	4	4
Laboratory Products and Services	6	11	13	30
Corporate	—	1	1	2

$ 8	$ 11	$ 62	$ 81

THERMO FISHER SCIENTIFIC INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(Unaudited)

The principal components of net restructuring and other costs by segment are as follows:
Life Sciences Solutions
In the first six months of 2018, the Life Sciences Solutions segment recorded $23 million of net restructuring and other charges, principally for severance, litigation-related matters, and other costs associated with facility consolidations in the U.S.
Analytical Instruments
In the first six months of 2018, the Analytical Instruments segment recorded $22 million of net restructuring and other charges. The segment recorded charges to cost of revenues of $2 million for the sales of inventory revalued at the date of acquisition; $1 million of income to selling, general, and administrative expense for contingent acquisition consideration; and $21 million of restructuring and other costs, primarily abandoned facilities costs associated with the remediation and closure of a manufacturing facility in the U.S.
Specialty Diagnostics
In the first six months of 2018, the Specialty Diagnostics segment recorded $4 million of net restructuring and other charges for severance and other costs associated with facility consolidations in the U.S. and Europe.
Laboratory Products and Services
In the first six months of 2018, the Laboratory Products and Services segment recorded $30 million of net restructuring and other charges. The segment recorded charges to cost of revenues of $6 million for the sales of inventory revalued at the date of acquisition, as well as $11 million of charges to selling, general, and administrative expenses for third-party transaction/integration costs related to the acquisition of Patheon. The segment also recorded $13 million of restructuring and other costs, primarily for employee severance, as well as hurricane response costs.
Corporate
In the first six months of 2018, the company recorded $2 million of net restructuring and other charges primarily for severance.
The following table summarizes the cash components of the company's restructuring plans. The non-cash components and other amounts reported as restructuring and other costs, net, in the accompanying statement of income have been summarized in the notes to the tables. Accrued restructuring costs are included in other accrued expenses in the accompanying balance sheet.

(In millions)	Severance	Abandonment of Excess Facilities	Other (a)	Total
Balance at December 31, 2017	$ 30	$ 40	$ 6	$ 76
Costs incurred in 2018 (c)	29	20	8	57
Reserves reversed (b)	(5)	(1)	—	(6)
Payments	(23)	(14)	(9)	(46)
Balance at June 30, 2018	$ 31	$ 45	$ 5	$ 81

(a) Other includes relocation and moving expenses associated with facility consolidations, as well as employee retention costs which are accrued ratably over the period through which employees must work to qualify for a payment.
(b) Represents reductions in cost of plans.
(c) Excludes $11 million of charges, net, primarily associated with litigation-related matters, hurricane response costs, and non-cash compensation due at an acquired business.
The company expects to pay accrued restructuring costs as follows: severance, employee-retention obligations and other costs, primarily through 2018; and abandoned-facility payments, over lease terms expiring through 2027.

THERMO FISHER SCIENTIFIC INC.

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

Forward-looking statements, within the meaning of Section 21E of the Securities Exchange Act of 1934 are made throughout this Management's Discussion and Analysis of Financial Condition and Results of Operations. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements, including without limitation statements regarding: projections of revenue, expenses, earnings, margins, tax rates, tax provisions, cash flows, pension and benefit obligations and funding requirements, our liquidity position; cost reductions, restructuring activities, new product and service developments, competitive strengths or market position, acquisitions or divestitures; growth, declines and other trends in markets we sell into; new or modified laws, regulations and accounting pronouncements; outstanding claims, legal proceedings, tax audits and assessments and other contingent liabilities; foreign currency exchange rates and fluctuations in those rates; general economic and capital markets conditions; the timing of any of the foregoing; assumptions underlying any of the foregoing; and any other statements that address events or developments that Thermo Fisher intends or believes will or may occur in the future. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "seeks," "estimates," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements are accompanied by such words. While the company may elect to update forward-looking statements in the future, it specifically disclaims any obligation to do so, even if the company's estimates change, and readers should not rely on those forward-looking statements as representing the company's views as of any date subsequent to the date of the filing of this Quarterly Report.

A number of important factors could cause the results of the company to differ materially from those indicated by such forward-looking statements, including those detailed under the heading "Risk Factors" in Part II, Item 1A of this report on Form 10-Q.

Overview

The company develops, manufactures and sells a broad range of products that are sold worldwide. The company expands the product lines and services it offers by developing and commercializing its own technologies and by making strategic acquisitions of complementary businesses. The company's continuing operations fall into four business segments (see Note 4): Life Sciences Solutions, Analytical Instruments, Specialty Diagnostics and Laboratory Products and Services.

Recent Acquisitions

The company's strategy is to augment internal growth at existing businesses with complementary acquisitions. The company's principal recent acquisitions and divestitures are described below.

On February 14, 2017, the company acquired, within the Life Sciences Solutions segment, Finesse Solutions, Inc., a North America-based developer of scalable control automation systems and software for bioproduction, for a total purchase price of $221 million, net of cash acquired. The acquisition expanded the company's bioproduction offerings. Revenues of Finesse Solutions were approximately $50 million in 2016.

On March 2, 2017, the company acquired, within the Analytical Instruments segment, Core Informatics, a North America-based provider of cloud-based platforms supporting scientific data management, for a total purchase price of $94 million, net of cash acquired. The acquisition enhanced the company's existing informatics solutions. Revenues of Core Informatics were approximately $10 million in 2016.

On August 29, 2017, the company acquired, within the Laboratory Products and Services segment, substantially all of the issued and outstanding shares of Patheon N.V., a leading global provider of high-quality drug development and delivery solutions to the pharmaceutical and biopharma sectors, for $35.00 per share in cash, or $7.36 billion, including the assumption of net debt. The company financed the purchase price, including the repayment of indebtedness of Patheon, with issuances of debt and equity.

Patheon provides comprehensive, integrated and highly customizable solutions as well as the expertise to help biopharmaceutical companies of all sizes satisfy complex development and manufacturing needs. The acquisition provided entry into the pharmaceutical contract development and manufacturing organization market and added a complementary service to the company's existing pharmaceutical services portfolio. Patheon's revenues totaled $1.87 billion for the year ended October 31, 2016.

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THERMO FISHER SCIENTIFIC INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS

Overview of Results of Operations and Liquidity

	Three Months Ended				Six Months Ended			
(Dollars in millions)	June 30, 2018		July 1, 2017		June 30, 2018		July 1, 2017	
Revenues								
Life Sciences Solutions	$1,569	25.8 %	$1,405	28.2 %	$3,068	25.7 %	$2,768	28.4 %
Analytical Instruments	1,311	21.6 %	1,166	23.4 %	2,568	21.5 %	2,218	22.7 %
Specialty Diagnostics	932	15.3 %	862	17.3 %	1,879	15.7 %	1,728	17.7 %
Laboratory Products and Services	2,550	42.0 %	1,792	35.9 %	4,963	41.6 %	3,491	35.8 %
Eliminations	(284)	(4.7)%	(235)	(4.8)%	(547)	(4.5)%	(450)	(4.6)%
	$6,078	100 %	$4,990	100 %	$11,931	100 %	$9,755	100 %

Sales in the second quarter of 2018 were $6.08 billion, an increase of $1.09 billion from 2017. Sales increased $577 million due to acquisitions. The favorable effects of currency translation resulted in an increase in revenues of $107 million in the second quarter of 2018. Aside from the effects of acquisitions and currency translation, revenues increased $404 million (8%) primarily due to increased demand in the quarter compared to the 2017 quarter. Sales to customers in each of the company's primary end markets grew. Sales growth was strong in each of the company's primary geographic areas, particularly Asia.

In the second quarter of 2018, total company operating income and operating income margin were $937 million and 15.4%, respectively, compared with $749 million and 15.0%, respectively, in 2017. The increase in operating income was primarily due to profit on higher sales in local currencies and, to a lesser extent, the effect of acquisitions, offset in part by strategic growth investments and an increase in amortization of acquisition-related intangible assets, due to recent acquisitions. The company’s references to strategic growth investments generally refer to targeted spending for enhancing commercial capabilities, including expansion of geographic sales reach and e-commerce platforms, marketing initiatives, focused research projects and other expenditures to enhance the customer experience. The company’s references throughout this discussion to productivity improvements generally refer to improved cost efficiencies from its Practical Process Improvement (PPI) business system, reduced costs resulting from global sourcing initiatives, a lower cost structure following restructuring actions, including headcount reductions and consolidation of facilities, and low cost region manufacturing.

The company's effective tax rate was 6.5% for the second quarter of 2018. The company expects its effective tax rate for all of 2018 will be between 6% and 9% based on currently forecasted rates of profitability in the countries in which the company conducts business and expected generation of foreign tax credits. Due primarily to the non-deductibility of intangible asset amortization for tax purposes, the company’s cash payments for income taxes are higher than its income tax expense for financial reporting purposes and are expected to total $525 to $575 million in 2018.

The company's effective tax rate was 2.1% in the second quarter of 2017. In 2017, the company continued to implement tax planning initiatives related to non-U.S. subsidiaries. The company implemented foreign tax credit planning in Sweden which resulted in $20 million of U.S. foreign tax credits with no related incremental U.S. income tax expense. The effective rate in both periods was also affected by relatively significant earnings in lower tax jurisdictions.

Net income increased to $752 million in the second quarter of 2018 from $613 million in the second quarter of 2017, primarily due to the increase in operating income in the 2018 period (discussed above) offset in part by higher income taxes (discussed above) and higher interest expense due to an increase in outstanding debt.

During the first six months of 2018, the company’s cash flow from operations totaled $1.52 billion compared with $1.21 billion for 2017. The increase primarily resulted from higher income before amortization and depreciation in the

2018 period, offset in part by higher investment in working capital in 2018.

As of June 30, 2018, the company's short-term debt totaled $1.71 billion including $1.01 billion of commercial paper obligations and $0.70 billion of senior notes due within the next twelve months. The company has a revolving credit facility with a bank group that provides up to $2.50 billion of unsecured multi-currency revolving credit. If the company borrows under this facility, it intends to leave undrawn an amount equivalent to outstanding commercial paper to provide a source of funds in the event that commercial paper markets are not available. As of June 30, 2018, no borrowings were outstanding under the company's revolving credit facility, although available capacity was reduced by approximately $83 million as a result of outstanding letters of credit.

THERMO FISHER SCIENTIFIC INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS
Overview of Results of Operations and Liquidity (continued)

The company expects to fund the acquisition of Gatan (Note 2) with a combination of new debt financing and cash. The company believes that its existing cash and cash equivalents of $937 million as of June 30, 2018 and its future cash flow from operations together with available borrowing capacity under its revolving credit agreement will be sufficient to meet the cash requirements of its existing businesses for the foreseeable future, including at least the next 24 months.

Critical Accounting Policies and Estimates

The company's discussion and analysis of its financial condition and results of operations is based upon its financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent liabilities. On an on-going basis, management evaluates its estimates, including those related to business combinations, intangible assets and goodwill, income taxes, contingencies and litigation, and pension costs. Management believes the most complex and sensitive judgments, because of their significance to the consolidated financial statements, result primarily from the need to make estimates about the effects of matters that are inherently uncertain. Management bases its estimates on historical experience, current market and economic conditions and other assumptions that management believes are reasonable. The results of these estimates form the basis for judgments about the carrying value of assets and liabilities where the values are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Management's Discussion and Analysis and Note 1 to the Consolidated Financial Statements of the company's Form 10-K for 2017, describe the significant accounting estimates and policies used in preparation of the consolidated financial statements. While there have been no significant changes in the company's critical accounting policies during the first six months of 2018, as described in Note 1, the company changed the manner in which it accounts for revenue from contracts with customers under guidance that became effective January 1, 2018.

Results of Operations

Second Quarter 2018 Compared With Second Quarter 2017

(In millions)	Three Months Ended June 30, 2018	July 1, 2017	Total Change	Currency Translation	Acquisitions	Operations
Revenues						
Life Sciences Solutions	$1,569	$1,405	$164	$ 31	$ 2	$ 131
Analytical Instruments	1,311	1,166	145	25	11	109
Specialty Diagnostics	932	862	70	20	4	46
Laboratory Products and Services	2,550	1,792	758	35	564	159
Eliminations	(284)	(235)	(49)	(4)	(4)	(41)
Consolidated Revenues	$6,078	$4,990	$1,088	$ 107	$ 577	$ 404

Sales in the second quarter of 2018 were $6.08 billion, an increase of $1.09 billion from the second quarter of 2017. Sales increased $577 million due to acquisitions. The favorable effects of currency translation resulted in an increase in revenues of $107 million in 2018. Aside from the effects of acquisitions/divestitures and currency translation, revenues increased $404 million (8%) primarily due to increased demand in the quarter compared to the 2017 quarter. Sales to customers in each of the company's primary end markets grew. Sales growth was strong in each of the company's primary geographic areas, particularly Asia.

In the second quarter of 2018, total company operating income and operating income margin were $937 million and 15.4%, respectively, compared with $749 million and 15.0%, respectively, in 2017. The increase in operating income was primarily due to profit on higher sales in local currencies and, to a lesser extent, the effect of acquisitions, offset in part by strategic growth investments and an increase in amortization of acquisition-related intangible assets, due to recent acquisitions.

In the second quarter of 2018, the company recorded restructuring and other costs, net, of $25 million, including $5 million of charges to cost of revenues primarily for the sale of inventories revalued at the date of acquisition. The company recorded $3 million of charges to selling, general and administrative expenses, primarily third-party transaction/integration costs related to the acquisition of Patheon. The company recorded $16 million of cash restructuring costs, including severance

THERMO FISHER SCIENTIFIC INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS
Results of Operations (continued)

and abandoned facilities costs associated with the closure and consolidation of facilities in the U.S. and Europe. The company also recorded $1 million of other charges, net, principally for hurricane response costs (see Note 13).

In the second quarter of 2017, the company recorded restructuring and other costs, net, of $30 million, including $7 million of charges to selling, general and administrative expenses, primarily for third-party transaction costs related to the acquisition of Patheon. In addition, the company recorded $21 million of cash restructuring costs, primarily to achieve acquisition synergies, including severance and abandoned facilities costs associated with the closure and consolidation of facilities in the U.S. and Europe. The company's other businesses incurred costs for continued headcount reductions and facility consolidations in an effort to streamline operations including severance at several businesses and abandoned facility expenses at businesses that have been or are being consolidated in the U.S., Europe and Asia.

As of August 3, 2018, the company has identified restructuring actions that will result in additional charges of approximately $100 million in 2018 and 2019, and expects to identify additional actions during 2018 which will be recorded when specified criteria are met, such as communication of benefit arrangements and abandonment of leased facilities.

Segment Results

The company's management evaluates segment operating performance using operating income before certain charges/credits to cost of revenues and selling, general and administrative expenses, principally associated with acquisition-related activities; restructuring and other costs/income including costs arising from facility consolidations such as severance and abandoned lease expense and gains and losses from the sale of real estate and product lines; and amortization of acquisition-related intangible assets. The company uses this measure because it helps management understand and evaluate the segments' core operating results and facilitate comparison of performance for determining compensation (Note 4). Accordingly, the following segment data is reported on this basis.

	Three Months Ended			
(Dollars in millions)	June 30, 2018	July 1, 2017	Change	
Revenues				
Life Sciences Solutions	$1,569	$1,405	12	%
Analytical Instruments	1,311	1,166	12	%
Specialty Diagnostics	932	862	8	%
Laboratory Products and Services	2,550	1,792	42	%
Eliminations	(284)	(235)	21	%
Consolidated Revenues	$6,078	$4,990	22	%
Segment Income				
Life Sciences Solutions	$522	$448	17	%
Analytical Instruments	291	232	25	%
Specialty Diagnostics	253	234	8	%
Laboratory Products and Services	337	245	38	%
Subtotal Reportable Segments	1,403	1,159	21	%
Cost of Revenues Charges	(5)	(1)		

Selling, General and Administrative Charges, Net	(3)	(7)	
Restructuring and Other Costs, Net	(17)	(22)	
Amortization of Acquisition-related Intangible Assets	(441)	(380)	
Consolidated Operating Income	$937	$749	25 %
Reportable Segments Operating Income Margin	23.1 %	23.2 %	
Consolidated Operating Income Margin	15.4 %	15.0 %	

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THERMO FISHER SCIENTIFIC INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS
Results of Operations (continued)

Income from the company's reportable segments increased 21% to $1.40 billion in the second quarter of 2018 due primarily to profit on higher sales in local currencies and, to a lesser extent, the effect of acquisitions, offset in part by strategic growth investments.

Life Sciences Solutions

	Three Months Ended		
	June 30,	July 1,	
(Dollars in millions)	2018	2017	Change
Revenues	$1,569	$1,405	12 %
Operating Income Margin	33.3 %	31.9 %	1.4 pt

Sales in the Life Sciences Solutions segment increased $164 million to $1.57 billion in the second quarter of 2018. Sales increased $131 million (9%) due to higher revenues at existing businesses, $31 million due to the favorable effects of currency translation and $2 million due to an acquisition. The increase in revenue at existing businesses was primarily due to increased demand in each of the segment's principal businesses, particularly for biosciences products, bioprocess production products and, to a lesser extent, genetic sciences products and clinical next-generation sequencing products.

Operating income margin was 33.3% in the second quarter of 2018 compared to 31.9% in the second quarter of 2017. The increase resulted primarily from profit on higher sales in local currencies and, to a lesser extent, favorable foreign currency exchange. These increases were offset in part by strategic growth investments.

Analytical Instruments

	Three Months Ended		
	June 30,	July 1,	
(Dollars in millions)	2018	2017	Change
Revenues	$1,311	$1,166	12 %
Operating Income Margin	22.2 %	19.9 %	2.3 pt

Sales in the Analytical Instruments segment increased $145 million to $1.31 billion in the second quarter of 2018. Sales increased $109 million (9%) due to higher revenues at existing businesses, $25 million due to the favorable effects of currency translation and $11 million due to acquisitions. The increase in revenue at existing businesses was due to increased demand for products sold by the segment's chromatography and mass spectrometry business, electron microscopy business and, to a lesser extent, chemical analysis business.

Operating income margin was 22.2% in the second quarter of 2018 compared to 19.9% in the second quarter of 2017. The increase resulted primarily from profit on higher sales in local currencies and, to a lesser extent, productivity improvements, net of inflationary cost increases, offset in part by strategic growth investments.

Specialty Diagnostics

	Three Months Ended		
	June 30,	July 1,	
(Dollars in millions)	2018	2017	Change
Revenues	$932	$862	8 %

Operating Income Margin 27.2 % 27.2 % 0.0 pt

Sales in the Specialty Diagnostics segment increased $70 million to $932 million in the second quarter of 2018. Sales increased $46 million (5%) due to higher revenues at existing businesses, $20 million due to the favorable effects of currency translation and $4 million due to an acquisition. The increase in revenue at existing businesses was due to higher demand with particular strength in sales of products sold through the segment's healthcare market channel and clinical diagnostic products.

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Operating income margin was 27.2% in the second quarter of 2018 and 27.2% in the second quarter of 2017. Margin increases due to profit on higher sales in local currencies and favorable foreign currency exchange were offset by strategic growth investments.

Laboratory Products and Services

	Three Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues	$2,550	$1,792	42 %
Operating Income Margin	13.2 %	13.7 %	-0.5 pt

Sales in the Laboratory Products and Services segment increased $758 million to $2.55 billion in the second quarter of 2018. Sales increased $564 million due to an acquisition, $159 million (9%) due to higher revenues at existing businesses and $35 million due to the favorable effects of currency translation. The increase in revenue at existing businesses was primarily due to increased demand for products sold through the segment's research and safety market channel business and, to a lesser extent, service offerings of its clinical trials business.

Operating income margin was 13.2% in the second quarter of 2018 and 13.7% in the second quarter of 2017. The decrease was primarily due to unfavorable sales mix and, to a lesser extent, strategic investments offset in part by profit on higher sales in local currencies.

Other Expense, Net

The company reported other expense, net, of $131 million and $123 million in the second quarter of 2018 and 2017, respectively (Note 5). Interest expense increased $36 million, primarily due to an increase in outstanding debt. This increase was offset in part by higher interest income and other income in 2018.

Provision for Income Taxes

The company's effective tax rate was 6.5% for the second quarter of 2018. The company expects its effective tax rate for all of 2018 will be between 6% and 9% based on currently forecasted rates of profitability in the countries in which the company conducts business and expected generation of foreign tax credits. Due primarily to the non-deductibility of intangible asset amortization for tax purposes, the company’s cash payments for income taxes are higher than its income tax expense for financial reporting purposes and are expected to total $525 to $575 million in 2018.

The company's effective tax rate was 2.1% in the second quarter of 2017. In 2017, the company continued to implement tax planning initiatives related to non-U.S. subsidiaries. The company implemented foreign tax credit planning in Sweden which resulted in $20 million of U.S. foreign tax credits with no related incremental U.S. income tax expense. The effective rate in both periods was also affected by relatively significant earnings in lower tax jurisdictions.

The company has operations and a taxable presence in approximately 50 countries outside the U.S. Some of these countries have lower tax rates than the U.S. The company’s ability to obtain a benefit from lower tax rates outside the U.S. is dependent on its relative levels of income in countries outside the U.S. and on the statutory tax rates in those countries. Based on the dispersion of the company’s non-U.S. income tax provision among many countries, the company believes that a change in the statutory tax rate in any individual country is not likely to materially affect the company’s income tax provision or net income, aside from any resulting one-time adjustment to the company’s deferred tax balances to reflect a new rate.

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First Six Months of 2018 Compared With First Six Months of 2017

(In millions)	Six Months Ended June 30, 2018	July 1, 2017	Total Change	Currency Translation	Acquisitions	Operations
Revenues						
Life Sciences Solutions	$3,068	$2,768	$300	$ 92	$ 2	$ 206
Analytical Instruments	2,568	2,218	350	79	23	248
Specialty Diagnostics	1,879	1,728	151	59	7	85
Laboratory Products and Services	4,963	3,491	1,472	97	1,118	257
Eliminations	(547)	(450)	(97)	(11)	(8)	(78)
Consolidated Revenues	$11,931	$9,755	$2,176	$ 316	$ 1,142	$ 718

Sales in the first six months of 2018 were $11.93 billion, an increase of $2.18 billion from the first six months of 2017. Sales increased $1.14 billion due to acquisitions. The favorable effects of currency translation resulted in an increase in revenues of $316 million in 2018. Aside from the effects of currency translation and acquisitions, revenues increased $718 million (7%) primarily due to increased demand. Sales to customers in each of the company's primary end markets grew. Sales growth was moderate in North America, strong in Europe and particularly strong in Asia.

In the first six months of 2018, total company operating income and operating income margin were $1.72 billion and 14.4%, respectively, compared with $1.37 billion and 14.0%, respectively, in the first six months of 2017. The increase in operating income was primarily due to profit on higher sales in local currencies and, to a lesser extent, the effects of acquisitions and favorable foreign currency exchange, offset in part by an increase in amortization of acquisition-related intangible assets, due to recent acquisitions and strategic growth investments.

In the first six months of 2018, the company recorded restructuring and other costs, net, of $81 million, including $8 million of charges to cost of revenues primarily for the sale of inventories revalued at the date of acquisition. The company recorded $11 million of charges to selling, general and administrative expenses, primarily for third-party transaction and integration costs associated with recent acquisitions and changes in estimates of acquisition contingent consideration. In addition, the company recorded $51 million of cash restructuring costs in its continuing effort to streamline operations, including severance at several businesses and abandoned facility expenses at businesses that have been or are being consolidated in the U.S., Europe and Asia. The company also recorded $11 million of other costs, net, principally charges for litigation-related matters, and hurricane response costs (see Note 13).

In the first six months of 2017, the company recorded restructuring and other costs, net, of $116 million, including $32 million of charges to cost of revenues primarily for the sale of inventories revalued at the date of acquisition and $38 million of charges to selling, general and administrative expenses primarily for changes in estimates of acquisition contingent consideration and third-party transaction costs associated with acquisitions. In addition, the company recorded $39 million of cash restructuring costs, primarily to achieve acquisition synergies, including severance and abandoned facilities costs associated with the closure and consolidation of facilities in the U.S. The company’s other businesses incurred costs for continued headcount reductions and facility consolidations in an effort to streamline operations including severance at several businesses and abandoned facility expenses at businesses that have been or are being consolidated in the U.S., Europe and Asia. The company also recorded $7 million of other costs, net, principally charges for litigation-related matters and the settlement of pension plans.

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Segment Results

	Six Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues			
Life Sciences Solutions	$3,068	$2,768	11 %
Analytical Instruments	2,568	2,218	16 %
Specialty Diagnostics	1,879	1,728	9 %
Laboratory Products and Services	4,963	3,491	42 %
Eliminations	(547)	(450)	22 %
Consolidated Revenues	$11,931	$9,755	22 %
Segment Income			
Life Sciences Solutions	$1,039	$881	18 %
Analytical Instruments	537	424	27 %
Specialty Diagnostics	496	467	6 %
Laboratory Products and Services	617	461	34 %
Subtotal Reportable Segments	2,689	2,233	20 %
Cost of Revenues Charges	(8)	(32)	
Selling, General and Administrative Charges, Net	(11)	(38)	
Restructuring and Other Costs, Net	(62)	(46)	
Amortization of Acquisition-related Intangible Assets	(885)	(748)	
Consolidated Operating Income	$1,723	$1,369	26 %
Reportable Segments Operating Income Margin	22.5 %	22.9 %	
Consolidated Operating Income Margin	14.4 %	14.0 %	

Income from the company’s reportable segments increased 20% to $2.69 billion in the first six months of 2018 due primarily to profit on higher sales in local currencies and, to a lesser extent, the effects of acquisitions and favorable foreign currency exchange, offset in part by strategic growth investments.

Life Sciences Solutions

	Six Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues	$3,068	$2,768	11 %
Operating Income Margin	33.9 %	31.8 %	2.1 pt

Sales in the Life Sciences Solutions segment increased $300 million to $3.07 billion in the first six months of 2018. Sales increased $206 million (7%) due to higher revenues at existing businesses, $92 million due to the favorable effects of currency translation and $2 million due to an acquisition. The increase in revenue at existing businesses was primarily due to increased demand at each of the segment's primary businesses, with particular strength from sales of biosciences products and bioprocess production products.

Operating income margin was 33.9% in the first six months of 2018 compared to 31.8% in the first six months of 2017. The increase resulted primarily from profit on higher sales in local currencies and, to a lesser extent, productivity

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improvements, net of inflationary cost increase and favorable foreign currency exchange. These increases were offset in part by strategic growth investments and unfavorable sales mix.

Analytical Instruments

	Six Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues	$2,568	$2,218	16 %
Operating Income Margin	20.9 %	19.1 %	1.8 pt

Sales in the Analytical Instruments segment increased $350 million to $2.57 billion in the first six months of 2018. Sales increased $248 million (11%) due to higher revenues at existing businesses, $79 million due to the favorable effects of currency translation and $23 million due to acquisitions. The increase in revenue at existing businesses was primarily due to increased demand at each of the segment's businesses, particularly for products sold by the segment's electron microscopy business and chromatography and mass spectrometry business.

Operating income margin was 20.9% in the first six months of 2018 compared to 19.1% in the first six months of 2017. The increase resulted primarily from profit on higher sales in local currencies and, to a lesser extent, productivity improvements, net of inflationary cost increases, offset in part by strategic growth investments, and, to a lesser extent, unfavorable foreign currency exchange.

Specialty Diagnostics

	Six Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues	$1,879	$1,728	9 %
Operating Income Margin	26.4 %	27.0 %	-0.6 pt

Sales in the Specialty Diagnostics segment increased $151 million to $1.88 billion in the first six months of 2018. Sales increased $85 million (5%) due to higher revenues at existing businesses, $59 million due to the favorable effects of currency translation and $7 million due to an acquisition. The increase in revenue at existing businesses was due to broad based higher demand with particular strength in sales of products sold through the segment’s healthcare market channel.

Operating income margin was 26.4% in the first six months of 2018 compared to 27.0% in the first six months of 2017. The decrease resulted primarily from strategic growth investments and unfavorable sales mix offset in part by profit on higher sales in local currencies and, to a lesser extent, favorable foreign currency exchange.

Laboratory Products and Services

	Six Months Ended		
(Dollars in millions)	June 30, 2018	July 1, 2017	Change
Revenues	$4,963	$3,491	42 %

Operating Income Margin	12.4 %	13.2 %	-0.8 pt

Sales in the Laboratory Products and Services segment increased $1.47 billion to $4.96 billion in 2018. Sales increased $1.12 billion due to an acquisition, $257 million (7%) due to higher revenues at existing businesses and $97 million due to the favorable effects of currency translation. The increase in revenue at existing businesses was primarily due to increased demand for products sold through the segment's research and safety market channel business and, to a lesser extent, its clinical trials business.

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Operating income margin was 12.4% in the first six months of 2018 compared to 13.2% in the first six months of 2017. The decrease was primarily due to unfavorable sales mix and, to a lesser extent, strategic growth investments, offset in part by profit on higher sales in local currencies.

Other Expense, Net

The company reported other expense, net, of $283 million and $240 million in the first six months of 2018 and 2017, respectively (Note 5). Interest expense increased $64 million primarily due to an increase in outstanding debt. This increase was offset in part by higher interest income in 2018.

Provision for Income Taxes

The company recorded a $109 million provision for income taxes in the first six months of 2018. In the first quarter of 2018, the company recorded a net tax provision of $21 million to adjust the estimated initial impacts of U.S. tax reform recorded in 2017, consisting of an incremental provision of $70 million offset in part by a $49 million reduction of related unrecognized tax benefits established in 2017. The adjustment was required based on new U.S. Treasury guidance released in the first quarter of 2018.

The company recorded a benefit from income taxes in the first six months of 2017 as a result of a $65 million favorable adjustment to deferred tax balances due to extension of a tax holiday agreement in Singapore. The company implemented foreign tax credit planning in Sweden which resulted in $20 million of U.S. foreign tax credits with no related incremental U.S. income tax expense.

Recent Accounting Pronouncements

A description of recently issued accounting standards is included under the heading "Recent Accounting Pronouncements" in Note 1.

Contingent Liabilities

The company is contingently liable with respect to certain legal proceedings and related matters. An unfavorable outcome that differs materially from current accrual estimates, if any, for one or more of the matters described under the headings "Product Liability, Workers Compensation and Other Personal Injury Matters," "Intellectual Property Matters" and "Commercial Matters" in Note 9 could have a material adverse effect on the company’s financial position as well as its results of operations and cash flows.

Liquidity and Capital Resources

Consolidated working capital was $3.49 billion at June 30, 2018, compared with $2.37 billion at December 31, 2017. Included in working capital were cash and cash equivalents of $937 million at June 30, 2018 and $1.34 billion at December 31, 2017.

First Six Months of 2018

Cash provided by operating activities was $1.52 billion during the first six months of 2018. Cash provided by income was offset in part by investments in working capital. Increases in accounts receivable and inventories used cash of $97 million and $195 million, respectively, primarily to support growth in sales. An increase in other assets used cash of $247 million primarily due to the timing of customer billings and income tax refunds. Other liabilities decreased by $408 million primarily due to the timing of payments for incentive compensation and income taxes. Cash payments for income taxes increased to $458 million during the first six months of 2018, compared with $369 million in the first six months of 2017. The company made cash contributions to its pension and postretirement benefit plans totaling $43 million during the first six months of 2018. Payments for restructuring actions, principally severance costs and lease and other expenses of real estate consolidation, used cash of $46 million during the first six months of 2018.

During the first six months of 2018, the company’s investing activities used $364 million of cash. Acquisitions used cash of $59 million. The company’s investing activities also included the purchase of $301 million of property, plant and equipment. The company expects to fund the acquisition of Gatan (Note 2) with a combination of new debt financing and cash.

The company’s financing activities used $1.35 billion of cash during the first six months of 2018. Repayment of senior notes used cash of $1.35 billion. A net increase in commercial paper obligations provided cash of $106 million. The company’s financing activities also included the payment of $129 million in cash dividends, offset in part by $78 million of net proceeds from employee stock option exercises. On July 7, 2016, the Board of Directors authorized the repurchase of up to $1.50 billion of the company’s common stock. In July 2018, the company repurchased $250 million of the company's common stock. At August 3, 2018, $250 million was available for future repurchases of the company’s common stock under this authorization.

The company's commitments for purchases of property, plant and equipment, contractual obligations and other commercial commitments did not change materially between December 31, 2017 and June 30, 2018, except for changes in debt (discussed above) and the agreement to acquire Gatan (Note 2). The company expects that for all of 2018, expenditures for property, plant and equipment, net of disposals, will approximate $700 to $730 million.

As of June 30, 2018, the company’s short-term debt totaled $1.71 billion including $1.01 billion of commercial paper obligations and $0.70 billion of senior notes due within the next twelve months. The company has a revolving credit facility with a bank group that provides up to $2.50 billion of unsecured multi-currency revolving credit. If the company borrows under this facility, it intends to leave undrawn an amount equivalent to outstanding commercial paper to provide a source of funds in the event that commercial paper markets are not available. As of June 30, 2018, no borrowings were outstanding under the company’s revolving credit facility, although available capacity was reduced by approximately $83 million as a result of outstanding letters of credit.

Approximately half of the company’s cash balances and cash flows from operations are from outside the U.S. The company uses its non-U.S. cash for needs outside of the U.S. including acquisitions and repayment of acquisition-related intercompany debt to the U.S. In addition, the company also transfers cash to the U.S. using non-taxable returns of capital as well as dividends where the related U.S. dividend received deduction or foreign tax credit equals any tax cost arising from the dividends. As a result of using such means of transferring cash to the U.S., the company does not expect any material adverse liquidity effects from its significant non-U.S. cash balances for the foreseeable future.

The company believes that its existing cash and cash equivalents of $937 million as of June 30, 2018 and its future cash flow from operations together with available borrowing capacity under its revolving credit agreement will be sufficient to meet the cash requirements of its existing businesses for the foreseeable future, including at least the next 24 months.

First Six Months of 2017

Cash provided by operating activities was $1.21 billion during the first six months of 2017. Increases in accounts receivable and inventories used cash of $127 million and $146 million, respectively, primarily to support growth in sales. An increase in other assets used cash of $178 million primarily due to the timing of payments. Other liabilities decreased by $161 million primarily due to the timing of payments for incentive compensation and income taxes. Cash payments for income taxes totaled $369 million. The company made cash contributions to its pension and postretirement benefit plans totaling $181 million during the first six months of 2017. Payments for restructuring actions, principally severance costs and lease and other expenses of real estate consolidation, used cash of $48 million during the first six months of 2017.

During the first six months of 2017, the company’s investing activities used $477 million of cash. Acquisitions used cash of $307 million. The company’s investing activities also included the purchase of $181 million of property, plant and equipment.

The company’s financing activities used $1.08 billion of cash during the first six months of 2017. Issuance of debt provided cash of $519 million and an increase in commercial paper obligations provided cash of $496 million. Repayment of debt used cash of $1.33 billion. The company’s financing activities also included the repurchase of $750 million of the company's common stock and the payment of $118 million in cash dividends, offset in part by $99 million of net proceeds from employee stock option exercises.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The company's exposure to market risk from changes in interest rates and currency exchange rates has not changed materially from its exposure at year-end 2017.

Item 4. Controls and Procedures

Management’s Evaluation of Disclosure Controls and Procedures

The company’s management, with the participation of the company’s chief executive officer and chief financial officer, evaluated the effectiveness of the company’s disclosure controls and procedures as of June 30, 2018. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other

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procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of the company's disclosure controls and procedures as of June 30, 2018, the company's chief executive officer and chief financial officer concluded that, as of such date, the company's disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have been no changes in the company's internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the fiscal quarter ended June 30, 2018, that have materially affected or are reasonably likely to materially affect the company's internal control over financial reporting.

PART II OTHER INFORMATION

Item 1. Legal Proceedings

There are various lawsuits and claims against the company involving product liability, intellectual property, employment and commercial issues. See "Note 9 to our Consolidated Financial Statements – Commitments and Contingencies."

Item 1A. Risk Factors

Set forth below are the risks that we believe are material to our investors. This section contains forward-looking statements. You should refer to the explanation of the qualifications and limitations on forward-looking statements beginning on page 31.

We must develop new products, adapt to rapid and significant technological change and respond to introductions of new products by competitors to remain competitive. Our growth strategy includes significant investment in and expenditures for product development. We sell our products in several industries that are characterized by rapid and significant technological changes, frequent new product and service introductions and enhancements and evolving industry standards. Competitive factors include technological innovation, price, service and delivery, breadth of product line, customer support, e-business capabilities and the ability to meet the special requirements of customers. Our competitors may adapt more quickly to new technologies and changes in customers' requirements than we can. Without the timely introduction of new products, services and enhancements, our products and services will likely become technologically obsolete over time, in which case our revenue and operating results would suffer.

Many of our existing products and those under development are technologically innovative and require significant planning, design, development and testing at the technological, product and manufacturing-process levels. Our customers use many of our products to develop, test and manufacture their own products. As a result, we must anticipate industry trends and develop products in advance of the commercialization of our customers' products. If we fail to adequately predict our customers' needs and future activities, we may invest heavily in research and development of products and services that do not lead to significant revenue.

It may be difficult for us to implement our strategies for improving internal growth. Some of the markets in which we compete have been flat or declining over the past several years. To address this issue, we are pursuing a number of strategies to improve our internal growth, including:

- strengthening our presence in selected geographic markets;
- allocating research and development funding to products with higher growth prospects;
- developing new applications for our technologies;

- expanding our service offerings;

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Risk Factors (continued)

- continuing key customer initiatives;
- combining sales and marketing operations in appropriate markets to compete more effectively;
- finding new markets for our products; and
- continuing the development of commercial tools and infrastructure to increase and support cross-selling opportunities of products and services to take advantage of our depth in product offerings.

We may not be able to successfully implement these strategies, and these strategies may not result in the expected growth of our business.

Our business is affected by general economic conditions and related uncertainties affecting markets in which we operate. Our business is affected by general economic conditions, both inside and outside the U.S. If the global economy and financial markets, or economic conditions in Europe, the U.S. or other key markets, are unstable, it could adversely affect the business, results of operations and financial condition of the company and its customers, distributors, and suppliers, having the effect of

- reducing demand for some of our products;
- increasing the rate of order cancellations or delays;
- increasing the risk of excess and obsolete inventories;
- increasing pressure on the prices for our products and services; and
- creating longer sales cycles and greater difficulty in collecting sales proceeds.

Demand for some of our products depends on capital spending policies of our customers and on government funding policies. Our customers include pharmaceutical and chemical companies, laboratories, universities, healthcare providers, government agencies and public and private research institutions. Many factors, including public policy spending priorities, available resources and product and economic cycles, have a significant effect on the capital spending policies of these entities.

Spending by some of these customers fluctuates based on budget allocations and the timely passage of the annual federal budget. An impasse in federal government budget decisions could lead to substantial delays or reductions in federal spending.

As a multinational corporation, we are exposed to fluctuations in currency exchange rates, which could adversely affect our cash flows and results of operations. International markets contribute a substantial portion of our revenues, and we intend to continue expanding our presence in these regions. The exposure to fluctuations in currency exchange rates takes on different forms. International revenues and costs are subject to the risk that fluctuations in exchange rates could adversely affect our reported revenues and profitability when translated into U.S. dollars for financial reporting purposes. These fluctuations could also adversely affect the demand for products and services provided by us. As a multinational corporation, our businesses occasionally invoice third-party customers in currencies other than the one in which they primarily do business (the "functional currency"). Movements in the invoiced currency relative to the functional currency could adversely impact our cash flows and our results of operations. As our international sales grow, exposure to fluctuations in currency exchange rates could have a larger effect on our financial results. In the first six months of 2018, currency translation had a favorable effect of $316 million on revenues due to the weakening of the U.S. dollar relative to other currencies in which the company sells products and services.

Significant developments stemming from the U.S. administration or the U.K.’s referendum on membership in the EU could have an adverse effect on us. The U.S. administration has called for substantial changes to trade agreements, such as the North American Free Trade Agreement (NAFTA), and is imposing significant increases on tariffs on goods imported into the United States, particularly from China and Mexico. The administration has also indicated an intention to request Congress to make significant changes, replacement or elimination of the Patient Protection and Affordable Care Act, and government negotiation/regulation of drug prices paid by government programs. Changes in U.S. social, political, regulatory and economic conditions or laws and policies governing the health care system and drug prices, foreign trade, manufacturing, and development and investment in the territories and countries where we or our customers operate could adversely affect our operating results and our business.

Additionally, on June 23, 2016, the United Kingdom held a referendum and voted in favor of leaving the European Union, or EU. This referendum has created political and economic uncertainty, particularly in the United Kingdom and the EU, and this uncertainty may last for years. Our business could be affected during this period of uncertainty, and perhaps longer, by the impact of the United Kingdom’s referendum. In addition, our business could be negatively affected by new trade agreements

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between the United Kingdom and other countries, including the United States, and by the possible imposition of trade or other regulatory barriers in the United Kingdom. These possible negative impacts, and others resulting from the United Kingdom's actual or threatened withdrawal from the EU, may adversely affect our operating results and our customers' businesses.

Our inability to protect our intellectual property could have a material adverse effect on our business. In addition, third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result. We place considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes because of the length of time and expense associated with bringing new products through the development process and into the marketplace. Our success depends in part on our ability to develop patentable products and obtain and enforce patent protection for our products both in the United States and in other countries. We own numerous U.S. and foreign patents, and we intend to file additional applications, as appropriate, for patents covering our products. Patents may not be issued for any pending or future patent applications owned by or licensed to us, and the claims allowed under any issued patents may not be sufficiently broad to protect our technology. Any issued patents owned by or licensed to us may be challenged, invalidated or circumvented, and the rights under these patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it easier for competitors to capture increased market position. We could incur substantial costs to defend ourselves in suits brought against us or in suits in which we may assert our patent rights against others. An unfavorable outcome of any such litigation could materially adversely affect our business and results of operations.

We also rely on trade secrets and proprietary know-how with which we seek to protect our products, in part, by confidentiality agreements with our collaborators, employees and consultants. These agreements may be breached and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently developed by our competitors.

Third parties may assert claims against us to the effect that we are infringing on their intellectual property rights. Our Life Technologies subsidiary is party to certain lawsuits in which plaintiffs claim we infringe their intellectual property (Note 9). We could incur substantial costs and diversion of management resources in defending these claims, which could have a material adverse effect on our business, financial condition and results of operations. In addition, parties making these claims could secure a judgment awarding substantial damages, as well as injunctive or other equitable relief, which could effectively block our ability to make, use, sell, distribute, or market our products and services in the United States or abroad. In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on commercially reasonable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture, or distribution of our products and, therefore, could have a material adverse effect on our business, financial condition and results of operations.

Changes in governmental regulations may reduce demand for our products or increase our expenses. We compete in many markets in which we and our customers must comply with federal, state, local and international regulations, such as environmental, health and safety and food and drug regulations. We develop, configure and market our products to meet customer needs created by those regulations. Any significant change in regulations could reduce demand for our products or increase our expenses. For example, many of our instruments are marketed to the pharmaceutical industry for use in discovering and developing drugs. Changes in the U.S. Food and Drug Administration's regulation of the drug discovery and development process could have an adverse effect on the demand for these products.

Our pharma services offerings are highly complex, and if we are unable to provide quality and timely offerings to our customers, our business could suffer. Our pharma services offerings are highly exacting and complex, due in part to strict quality and regulatory requirements. Our operating results in this business depend on our ability to execute and, when necessary, improve our quality management strategy and systems, and our ability to effectively train and maintain our employee base with respect to quality management. A failure of our quality control systems could result in problems with facility operations or preparation or provision of products. In each case, such problems could arise for a variety of reasons, including equipment malfunction, failure to follow specific protocols and procedures, problems with raw materials or environmental factors and damage to, or loss of, manufacturing operations. Such problems could affect production of a particular batch or series of batches of products, requiring the destruction of such products or a halt of facility production altogether.

In addition, our failure to meet required quality standards may result in our failure to timely deliver products to our customers, which in turn could damage our reputation for quality and service. Any such failure could, among other things, lead to increased costs, lost revenue, reimbursement to customers for lost drug product, registered intermediates, registered starting materials, and active pharmaceutical ingredients, other customer claims, damage to and possibly termination of existing customer relationships, time and expense spent investigating the cause and, depending on the cause, similar losses with respect to other batches or products. Production problems in our drug and biologic manufacturing operations could be particularly significant because the cost of raw materials for such manufacturing is often high. If problems in preparation or manufacture of a product or failures to meet required quality standards for that product are not discovered before such product is released to the market, we may be subject to adverse regulatory actions, including product recalls, product seizures, injunctions to halt manufacture and distribution, restrictions on our operations, civil sanctions, including monetary sanctions, and criminal actions. In addition, such problems or failures could subject us to litigation claims, including claims from our customers for reimbursement for the cost of lost or damaged active pharmaceutical ingredients, the cost of which could be significant.

We are subject to product and other liability risks for which we may not have adequate insurance coverage. We may be named as a defendant in product liability lawsuits, which may allege that products or services we have provided from our pharma services offerings have resulted or could result in an unsafe condition or injury to consumers. Additionally, products currently or previously sold by our environmental and process instruments and radiation measurement and security instruments businesses include fixed and portable instruments used for chemical, radiation and trace explosives detection. These products are used in airports, embassies, cargo facilities, border crossings and other high-threat facilities for the detection and prevention of terrorist acts. If any of these products were to malfunction, it is possible that explosive or radioactive material could fail to be detected by our product, which could lead to product liability claims. There are also many other factors beyond our control that could lead to liability claims, such as the reliability and competence of the customers' operators and the training of such operators.

Any such product liability claims brought against us could be significant and any adverse determination may result in liabilities in excess of our insurance coverage. Although we carry product liability insurance, we cannot be certain that our current insurance will be sufficient to cover these claims or that it can be maintained on acceptable terms, if at all.

Our inability to complete any pending acquisitions or to successfully integrate any new or previous acquisitions could have a material adverse effect on our business. Our business strategy includes the acquisition of technologies and businesses that complement or augment our existing products and services. Certain acquisitions may be difficult to complete for a number of reasons, including the need for antitrust and/or other regulatory approvals. Any acquisition we may complete may be made at a substantial premium over the fair value of the net identifiable assets of the acquired company. Further, we may not be able to integrate acquired businesses successfully into our existing businesses, make such businesses profitable, or realize anticipated cost savings or synergies, if any, from these acquisitions, which could adversely affect our business.

Moreover, we have acquired many companies and businesses. As a result of these acquisitions, we recorded significant goodwill and indefinite-lived intangible assets (primarily tradenames) on our balance sheet, which amount to approximately \$25.12 billion and \$1.27 billion, respectively, as of June 30, 2018. In addition, we have definite-lived intangible assets totaling \$14.41 billion as of June 30, 2018. We assess the realizability of goodwill and indefinite-lived intangible assets annually as well as whenever events or changes in circumstances indicate that these assets may be impaired. We assess the realizability of definite-lived intangible assets whenever events or changes in circumstances indicate that these assets may be impaired. These events or circumstances would generally include operating losses or a significant decline in earnings associated with the acquired business or asset. Our ability to realize the value of the goodwill and intangible assets will depend on the future cash flows of these businesses. These cash flows in turn depend in part on how well we have integrated these businesses. If we are not able to realize the value of the goodwill and intangible assets, we may be required to incur material charges relating to the impairment of those assets.

We are subject to laws and regulations governing government contracts, and failure to address these laws and regulations or comply with government contracts could harm our business by leading to a reduction in revenue associated with these customers. We have agreements relating to the sale of our products to government entities and,

as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. The laws governing government contracts differ from the laws governing private contracts and government contracts may contain pricing terms and conditions that are not applicable to private contracts. We are also subject to investigation for compliance with the regulations governing government contracts. A failure to comply with these regulations could result in suspension of these contracts, criminal, civil and administrative penalties or debarment.
Because we compete directly with certain of our larger customers and product suppliers, our results of operations could be adversely affected in the short term if these customers or suppliers abruptly discontinue or significantly modify their relationship with us. Our largest customer in the laboratory products business is also a significant competitor. Our business may be harmed in the short term if our competitive relationship in the marketplace with certain of our large customers results in a discontinuation of their purchases from us. In addition, we manufacture products that compete directly with

products that we source from third-party suppliers. We also source competitive products from multiple suppliers. Our business could be adversely affected in the short term if any of our large third-party suppliers abruptly discontinues selling products to us.

Because we rely heavily on third-party package-delivery services, a significant disruption in these services or significant increases in prices may disrupt our ability to ship products, increase our costs and lower our profitability. We ship a significant portion of our products to our customers through independent package delivery companies, such as Federal Express in the U.S. and DHL in Europe. We also maintain a small fleet of vehicles dedicated to the delivery of our products and ship our products through other carriers, including national and regional trucking firms, overnight carrier services and the U.S. Postal Service. If one or more of these third-party package-delivery providers were to experience a major work stoppage, preventing our products from being delivered in a timely fashion or causing us to incur additional shipping costs we could not pass on to our customers, our costs could increase and our relationships with certain of our customers could be adversely affected. In addition, if one or more of these third-party package-delivery providers were to increase prices, and we were not able to find comparable alternatives or make adjustments in our delivery network, our profitability could be adversely affected.

We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies. We are subject to various local, state, federal, foreign and transnational laws and regulations, which include the operating and security standards of the U.S. Federal Drug Administration (the FDA), the U.S. Drug Enforcement Agency (the DEA), various state boards of pharmacy, state health departments, the U.S. Department of Health and Human Services (the DHHS), the European Medicines Agency (the EMA), in Europe, the EU member states and other comparable agencies and, in the future, any changes to such laws and regulations could adversely affect us. In particular, we are subject to laws and regulations concerning current good manufacturing practices and drug safety. Our subsidiaries may be required to register for permits and/or licenses with, and may be required to comply with the laws and regulations of the DEA, the FDA, the DHHS, foreign agencies including the EMA, and other various state boards of pharmacy, state health departments and/or comparable state agencies as well as certain accrediting bodies depending upon the type of operations and location of product distribution, manufacturing and sale.

The manufacture, distribution and marketing of many of our products and services, including medical devices and pharma services, are subject to extensive ongoing regulation by the FDA, the DEA, the EMA, and other equivalent local, state, federal and non-U.S. regulatory authorities. In addition, we are subject to inspections by these regulatory authorities. Failure by us or by our customers to comply with the requirements of these regulatory authorities, including without limitation, remediating any inspectional observations to the satisfaction of these regulatory authorities, could result in warning letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution, restrictions on our operations, civil or criminal sanctions, or withdrawal of existing or denial of pending approvals, including those relating to products or facilities. In addition, such a failure could expose us to contractual or product liability claims, contractual claims from our customers, including claims for reimbursement for lost or damaged active pharmaceutical ingredients, as well as ongoing remediation and increased compliance costs, any or all of which could be significant. We are the sole manufacturer of a number of pharmaceuticals for many of our customers and a negative regulatory event could impact our customers' ability to provide products to their customers.

We are also subject to a variety of federal, state, local and international laws and regulations that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of substances that could be classified as hazardous, and our business practices in the U.S. and abroad such as anti-corruption, anti-competition and privacy and data protection laws. Any noncompliance by us with applicable laws and regulations or the failure to maintain, renew or obtain necessary permits and licenses could result in criminal, civil and administrative penalties and could have an adverse effect on our results of operations.

Our business could be adversely affected by disruptions at our sites. We rely upon our manufacturing operations to produce many of the products we sell and our warehouse facilities to store products, pending sale. Any significant disruption of those operations for any reason, such as strikes or other labor unrest, power interruptions, fire, hurricanes or other events beyond our control could adversely affect our sales and customer relationships and therefore adversely affect our business. We have significant operations in California, near major earthquake faults, which make us susceptible to earthquake risk. Although most of our raw materials are available from a number of potential suppliers, our operations also depend upon our ability to obtain raw materials at reasonable prices. If we are unable to obtain the materials we need at a reasonable price, we may not be able to produce certain of our products or we may not be able to produce certain of these products at a marketable price, which could have an adverse effect on our results of operations.

Fluctuations in our effective tax rate may adversely affect our results of operations and cash flows. As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. In preparing our financial statements, we record the amount of tax that is payable in each of the countries, states and other jurisdictions in which we operate. Our future effective tax rate, however, may be lower or higher than experienced in the past due to numerous factors, including a change in the mix of our profitability from country to country, changes in accounting for income taxes and recently enacted and future changes in tax laws in jurisdictions in which we operate. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could have an adverse effect on our business, results of operations and cash flows.

We may incur unexpected costs from increases in fuel and raw material prices, which could reduce our earnings and cash flow. Our primary commodity exposures are for fuel, petroleum-based resins and steel. While we may seek to minimize the impact of price increases through higher prices to customers and various cost-saving measures, our earnings and cash flows could be adversely affected in the event these measures are insufficient to cover our costs.

A significant disruption in, or breach in security of, our information technology systems could adversely affect our business. As a part of our ongoing effort to upgrade our current information systems, we periodically implement new enterprise resource planning software and other software applications to manage certain of our business operations. As we implement and add functionality, problems could arise that we have not foreseen. Such problems could disrupt our ability to provide quotes, take customer orders and otherwise run our business in a timely manner. When we upgrade or change systems, we may suffer interruptions in service, loss of data or reduced functionality. In addition, if our new systems fail to provide accurate pricing and cost data our results of operations and cash flows could be adversely affected.

We also rely on our technology infrastructure, among other functions, to interact with suppliers, sell our products and services, fulfill orders and bill, collect and make payments, ship products, provide services and support to customers, track customers, fulfill contractual obligations and otherwise conduct business. Our systems may be vulnerable to damage or interruption from natural disasters, power loss, telecommunication failures, terrorist attacks, computer viruses, computer denial-of-service attacks, unauthorized access to customer or employee data or company trade secrets, and other attempts to harm our systems. Certain of our systems are not redundant, and our disaster recovery planning is not sufficient for every eventuality. Despite any precautions we may take, such problems could result in, among other consequences, interruptions in our services, which could harm our reputation and financial results. Any of the cyber-attacks, breaches or other disruptions or damage described above, if significant, could materially interrupt our operations, delay production and shipments, result in theft of our and our customers' intellectual property and trade secrets, damage customer, business partner and employee relationships and our reputation or result in defective products or services, legal claims and proceedings, liability and penalties under privacy laws and increased cost for security and remediation, each of which could adversely affect our business and financial results.

Our debt may restrict our investment opportunities or limit our activities. As of June 30, 2018, we had approximately $19.42 billion in outstanding indebtedness. In addition, we have availability to borrow under a revolving credit facility that provides for up to $2.50 billion of unsecured multi-currency revolving credit. We may also obtain additional long-term debt and lines of credit to meet future financing needs, which would have the effect of increasing our total leverage.

Our leverage could have negative consequences, including increasing our vulnerability to adverse economic and industry conditions, limiting our ability to obtain additional financing and limiting our ability to acquire new products and technologies through strategic acquisitions.

Our ability to make scheduled payments, refinance our obligations or obtain additional financing will depend on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet our obligations. If we are unable to service our debt, refinance our existing debt or obtain additional financing, we may be forced to delay strategic acquisitions, capital expenditures or research and development expenditures.

Additionally, the agreements governing our debt require that we maintain certain financial ratios, and contain affirmative and negative covenants that restrict our activities by, among other limitations, limiting our ability to incur additional indebtedness, merge or consolidate with other entities, make investments, create liens, sell assets and enter into transactions with affiliates. The covenants in our revolving credit facility (the Facility) include a Consolidated Leverage Ratio (total debt-to-Consolidated EBITDA) and a Consolidated Interest Coverage Ratio (Consolidated EBITDA to Consolidated Interest Expense), as such terms are defined in the Facility. Specifically, the company has agreed that, so long as any lender has any commitment under the Facility, any letter of credit is outstanding under the Facility, or any loan or other obligation is outstanding under the Facility, it will maintain a maximum Consolidated Leverage Ratio of 3.5:1.0 for the third quarter of 2018 and thereafter. The company has also agreed that so long as any lender has any commitment under the Facility or any letter of credit is outstanding under the Facility, or any loan or other obligation is outstanding under the Facility, it will maintain a minimum Consolidated Interest Coverage Ratio of 3.0:1.0 as of the last day of any fiscal quarter.

THERMO FISHER SCIENTIFIC INC.
Risk Factors (continued)

Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign exchange rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under that instrument and require us to prepay that debt before its scheduled due date. Also, an acceleration of the debt under certain of our debt instruments would trigger an event of default under other of our debt instruments.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds
Issuer Purchases of Equity Securities
There was no share repurchase activity for the company's second quarter of 2018. On July 7, 2016, the Board of Directors authorized the repurchase of up to $1.50 billion of the company’s common stock. At June 30, 2018, $500 million was available for future repurchases of the company’s common stock under this authorization. In July 2018, the company repurchased $250 million of the company's common stock under this authorization.

Item 6. Exhibits
See Exhibit Index on page 50.

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.

Date: August 3, 2018 THERMO FISHER SCIENTIFIC INC.

/s/ Stephen Williamson
Stephen Williamson
Senior Vice President and Chief Financial Officer

/s/ Peter E. Hornstra
Peter E. Hornstra
Vice President and Chief Accounting Officer

THERMO FISHER SCIENTIFIC INC.
EXHIBIT INDEX

Exhibit Number	Description of Exhibit
31.1	Certification of Chief Executive Officer required by Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer required by Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer required by Exchange Act Rules 13a-14(b) and 15d-14(b), as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**
32.2	Certification of Chief Financial Officer required by Exchange Act Rules 13a-14(b) and 15d-14(b), as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Definition Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.
	The Registrant agrees, pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K, to furnish to the Commission, upon request, a copy of each instrument with respect to long-term debt of the Registrant or its consolidated subsidiaries.

*Indicates management contract or compensatory plan, contract or arrangement.
** Certification is not deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. Such certification is not deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act except to the extent that the registrant specifically incorporates it by reference.
Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheet at June 30, 2018 and December 31, 2017, (ii) Consolidated Statement of Income for the three and six months ended June 30, 2018 and July 1, 2017, (iii) Consolidated Statement of Comprehensive Income for the three and six months ended June 30, 2018 and July 1, 2017, (iv) Consolidated Statement of Cash Flows for the six months ended June 30, 2018 and July 1, 2017, (v) Consolidated Statement of Shareholders’ Equity for the six months ended June 30, 2018 and July 1, 2017 and (vi) Notes to Consolidated Financial Statements.