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

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**FORM 10-Q**

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(Mark One)

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

For the quarterly period ended June 30, 2014

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 1-6571

**Merck & Co., Inc.**

One Merck Drive  
Whitehouse Station, N.J. 08889-0100  
(908) 423-1000

*Incorporated in New Jersey*

*I.R.S. Employer  
Identification No. 22-1918501*

The number of shares of common stock outstanding as of the close of business on July 31, 2014 : 2,884,632,033

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

(Do not check if a smaller reporting company)

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

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Part I - Financial Information

Item 1. Financial Statements

**MERCK & CO., INC. AND SUBSIDIARIES**  
**INTERIM CONSOLIDATED STATEMENT OF INCOME**  
(Unaudited, \$ in millions except per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Sales	\$ 10,934	\$ 11,010	\$ 21,198	\$ 21,681
Costs, Expenses and Other				
Materials and production	4,893	4,284	8,796	8,243
Marketing and administrative	2,973	3,140	5,707	6,126
Research and development	1,664	2,101	3,238	4,008
Restructuring costs	163	155	288	274
Equity income from affiliates	(92)	(116)	(217)	(249)
Other (income) expense, net	(558)	201	(596)	484
	9,043	9,765	17,216	18,886
Income Before Taxes	1,891	1,245	3,982	2,795
Taxes on Income	(142)	310	218	244
Net Income	2,033	935	3,764	2,551
Less: Net Income Attributable to Noncontrolling Interests	29	29	55	52
Net Income Attributable to Merck & Co., Inc.	\$ 2,004	\$ 906	\$ 3,709	\$ 2,499
Basic Earnings per Common Share Attributable to Merck & Co., Inc. Common Shareholders	\$ 0.69	\$ 0.30	\$ 1.27	\$ 0.83
Earnings per Common Share Assuming Dilution Attributable to Merck & Co., Inc. Common Shareholders	\$ 0.68	\$ 0.30	\$ 1.25	\$ 0.82
Dividends Declared per Common Share	\$ 0.44	\$ 0.43	\$ 0.88	\$ 0.86

**MERCK & CO., INC. AND SUBSIDIARIES**  
**INTERIM CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**  
(Unaudited, \$ in millions)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Net Income Attributable to Merck & Co., Inc.	\$ 2,004	\$ 906	\$ 3,709	\$ 2,499
Other Comprehensive Income (Loss) Net of Taxes:				
Net unrealized (loss) gain on derivatives, net of reclassifications	(39)	35	(105)	271
Net unrealized gain (loss) on investments, net of reclassifications	64	(81)	62	(80)
Benefit plan net (loss) gain and prior service (credit) cost, net of amortization	(331)	51	(332)	212
Cumulative translation adjustment	41	(136)	128	(481)
	(265)	(131)	(247)	(78)
Comprehensive Income Attributable to Merck & Co., Inc.	\$ 1,739	\$ 775	\$ 3,462	\$ 2,421

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

**MERCK & CO., INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEET**  
(Unaudited, \$ in millions except per share amounts)

	June 30, 2014	December 31, 2013
<b>Assets</b>		
Current Assets		
Cash and cash equivalents	\$ 9,743	\$ 15,621
Short-term investments	3,652	1,865
Accounts receivable (net of allowance for doubtful accounts of \$167 in 2014 and \$146 in 2013) (excludes accounts receivable of \$275 in 2014 and 2013 classified in Other assets - see Note 4)	7,022	7,184
Inventories (excludes inventories of \$1,623 in 2014 and \$1,704 in 2013 classified in Other assets - see Note 5)	6,136	6,226
Deferred income taxes and other current assets	3,659	4,763
Assets held for sale	3,375	26
Total current assets	33,587	35,685
Investments	12,618	9,770
Property, Plant and Equipment, at cost, net of accumulated depreciation of \$18,866 in 2014 and \$18,121 in 2013	13,893	14,973
Goodwill	11,789	12,301
Other Intangibles, Net	18,830	23,801
Other Assets	7,143	9,115
	\$ 97,860	\$ 105,645
<b>Liabilities and Equity</b>		
Current Liabilities		
Loans payable and current portion of long-term debt	\$ 4,477	\$ 4,521
Trade accounts payable	2,326	2,274
Accrued and other current liabilities	8,829	9,501
Income taxes payable	192	251
Dividends payable	1,303	1,321
Liabilities held for sale	801	—
Total current liabilities	17,928	17,868
Long-Term Debt	18,590	20,539
Deferred Income Taxes	4,651	6,776
Other Noncurrent Liabilities	8,175	8,136
Merck & Co., Inc. Stockholders' Equity		
Common stock, \$0.50 par value		
Authorized - 6,500,000,000 shares		
Issued - 3,577,103,522 shares in 2014 and 2013	1,788	1,788
Other paid-in capital	40,199	40,508
Retained earnings	40,366	39,257
Accumulated other comprehensive loss	(2,444)	(2,197)
	79,909	79,356
Less treasury stock, at cost:		
677,393,158 shares in 2014 and 649,576,808 shares in 2013	31,551	29,591
Total Merck & Co., Inc. stockholders' equity	48,358	49,765
Noncontrolling Interests	158	2,561
Total equity	48,516	52,326
	\$ 97,860	\$ 105,645

The accompanying notes are an integral part of this consolidated financial statement.



**MERCK & CO., INC. AND SUBSIDIARIES**  
**INTERIM CONSOLIDATED STATEMENT OF CASH FLOWS**  
(Unaudited, \$ in millions)

	Six Months Ended June 30,	
	2014	2013
<b>Cash Flows from Operating Activities</b>		
Net income	\$ 3,764	\$ 2,551
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,507	3,329
Intangible asset impairment charges	660	594
Gain on AstraZeneca option exercise	(741)	—
Equity income from affiliates	(217)	(249)
Dividends and distributions from equity affiliates	125	68
Deferred income taxes	(1,246)	(319)
Share-based compensation	134	142
Other	(192)	372
Net changes in assets and liabilities	(1,118)	(1,809)
<b>Net Cash Provided by Operating Activities</b>	<b>4,676</b>	<b>4,679</b>
<b>Cash Flows from Investing Activities</b>		
Capital expenditures	(507)	(764)
Purchases of securities and other investments	(12,380)	(8,818)
Proceeds from sales of securities and other investments	8,102	7,195
Dispositions of businesses, net of cash divested	558	—
Proceeds from AstraZeneca option exercise	419	—
Other	(48)	99
<b>Net Cash Used in Investing Activities</b>	<b>(3,856)</b>	<b>(2,288)</b>
<b>Cash Flows from Financing Activities</b>		
Net change in short-term borrowings	(1,886)	1,702
Proceeds from issuance of debt	1	6,467
Payments on debt	(5)	(515)
Purchases of treasury stock	(3,413)	(6,105)
Dividends paid to stockholders	(2,629)	(2,638)
Proceeds from exercise of stock options	1,134	641
Other	49	(3)
<b>Net Cash Used in Financing Activities</b>	<b>(6,749)</b>	<b>(451)</b>
<b>Effect of Exchange Rate Changes on Cash and Cash Equivalents</b>	<b>51</b>	<b>(301)</b>
<b>Net (Decrease) Increase in Cash and Cash Equivalents</b>	<b>(5,878)</b>	<b>1,639</b>
<b>Cash and Cash Equivalents at Beginning of Year</b>	<b>15,621</b>	<b>13,451</b>
<b>Cash and Cash Equivalents at End of Period</b>	<b>\$ 9,743</b>	<b>\$ 15,090</b>

The accompanying notes are an integral part of this consolidated financial statement.

## **1. Basis of Presentation**

The accompanying unaudited interim consolidated financial statements of Merck & Co., Inc. (“Merck” or the “Company”) have been prepared pursuant to the rules and regulations for reporting on Form 10-Q. Accordingly, certain information and disclosures required by accounting principles generally accepted in the United States for complete consolidated financial statements are not included herein. These interim statements should be read in conjunction with the audited financial statements and notes thereto included in Merck’s Form 10-K filed on February 27, 2014.

The results of operations of any interim period are not necessarily indicative of the results of operations for the full year. In the Company’s opinion, all adjustments necessary for a fair presentation of these interim statements have been included and are of a normal and recurring nature. Certain reclassifications have been made to prior year amounts to conform to the current presentation.

### *Recently Issued Accounting Standards*

In May 2014, the Financial Accounting Standards Board issued amended accounting guidance on revenue recognition that will be applied to all contracts with customers. The objective of the new guidance is to improve comparability of revenue recognition practices across entities and to provide more useful information to users of financial statements through improved disclosure requirements. This guidance is effective for annual and interim periods beginning in 2017. Early adoption is not permitted. The Company is currently assessing the impact of adoption on its consolidated financial statements.

## **2. Restructuring**

### *2013 Restructuring Program*

In October 2013, the Company announced a global restructuring program (the “2013 Restructuring Program”) as part of a global initiative to sharpen its commercial and research and development focus. As part of the program, the Company expects to reduce its total workforce by approximately 8,500 positions. These workforce reductions will primarily come from the elimination of positions in sales, administrative and headquarters organizations, as well as research and development. The Company will also reduce its global real estate footprint and continue to improve the efficiency of its manufacturing and supply network. The Company will continue to hire employees in strategic growth areas of the business as necessary.

The Company recorded total pretax costs of \$229 million and \$389 million in the second quarter and first six months of 2014 , respectively, related to this restructuring program. Since inception of the 2013 Restructuring Program through June 30, 2014 , Merck has recorded total pretax accumulated costs of approximately \$1.6 billion and eliminated approximately 4,135 positions comprised of employee separations, as well as the elimination of contractors and vacant positions. The actions under the 2013 Restructuring Program are expected to be substantially completed by the end of 2015 with the cumulative pretax costs estimated to be approximately \$2.5 billion to \$3.0 billion . The Company estimates that approximately two-thirds of the cumulative pretax costs will result in cash outlays, primarily related to employee separation expense. Approximately one-third of the cumulative pretax costs are non-cash, relating primarily to the accelerated depreciation of facilities to be closed or divested.

### *Merger Restructuring Program*

In 2010, subsequent to the Merck and Schering-Plough Corporation (“Schering-Plough”) merger (the “Merger”), the Company commenced actions under a global restructuring program (the “Merger Restructuring Program”) designed to streamline the cost structure of the combined company. Further actions under this program were initiated in 2011. The actions under this program primarily reflect the elimination of positions in sales, administrative and headquarters organizations, as well as from the sale or closure of certain manufacturing and research and development sites and the consolidation of office facilities.

On October 1, 2013, the Company sold its active pharmaceutical ingredient (“API”) manufacturing business, including the related manufacturing facility, in the Netherlands to Aspen Holdings (“Aspen”) as part of planned manufacturing facility rationalizations under the Merger Restructuring Program. Also in connection with the sale, Aspen acquired certain branded products from Merck, which transferred to Aspen effective December 31, 2013. Consideration for the transaction included cash of \$705 million and notes receivable with a present value of \$198 million at the time of disposition. The Company received \$172 million of the cash portion of the consideration in the fourth quarter of 2013 and the remaining \$533 million was received by the Company in January 2014.

The Company recorded total pretax costs of \$192 million and \$265 million in the second quarter of 2014 and 2013 , respectively, and \$358 million and \$418 million in the first six months of 2014 and 2013 , respectively, related to this restructuring program. Since inception of the Merger Restructuring Program through June 30, 2014 , Merck has recorded total pretax accumulated costs of approximately \$7.5 billion and eliminated approximately 27,670 positions comprised of employee separations, as well as the elimination of contractors and vacant positions. Approximately 4,890 position eliminations remain pending under this program as of June 30, 2014 , which include the remaining actions under the 2008 Restructuring Program that are being reported as part of the Merger Restructuring Program as discussed below. The non-manufacturing related restructuring actions under the Merger Restructuring Program were substantially completed by the end of 2013. The remaining actions under this program relate to ongoing

Notes to Interim Consolidated Financial Statements (unaudited) (continued)

manufacturing facility rationalizations, which are expected to be substantially completed by 2016. The Company expects the estimated total cumulative pretax costs for this program to be approximately \$7.9 billion to \$8.2 billion . The Company estimates that approximately two-thirds of the cumulative pretax costs relate to cash outlays, primarily related to employee separation expense. Approximately one-third of the cumulative pretax costs are non-cash, relating primarily to the accelerated depreciation of facilities to be closed or divested.

*2008 Restructuring Program*

In 2008, Merck announced a global restructuring program (the “2008 Restructuring Program”) to reduce its cost structure, increase efficiency, and enhance competitiveness. Pretax costs of \$13 million and \$54 million were recorded in the second quarter and first six months of 2013, respectively, related to the 2008 Restructuring Program. Any remaining activities under the 2008 Restructuring Program are being accounted for as part of the Merger Restructuring Program effective July 1, 2013.

For segment reporting, restructuring charges are unallocated expenses.

The following tables summarize the charges related to restructuring program activities by type of cost:

(\$ in millions)	Three Months Ended June 30, 2014				Six Months Ended June 30, 2014			
	Separation Costs	Accelerated Depreciation	Other	Total	Separation Costs	Accelerated Depreciation	Other	Total
<i>2013 Restructuring Program</i>								
Materials and production	\$ —	\$ 103	\$ 11	\$ 114	\$ —	\$ 184	\$ 17	\$ 201
Marketing and administrative	—	28	—	28	—	47	—	47
Research and development	—	44	1	45	—	85	8	93
Restructuring costs	52	—	(10)	42	77	—	(29)	48
	52	175	2	229	77	316	(4)	389
<i>Merger Restructuring Program</i>								
Materials and production	—	84	(27)	57	—	152	(63)	89
Marketing and administrative	—	13	3	16	—	25	3	28
Research and development	—	(2)	—	(2)	—	—	1	1
Restructuring costs	70	—	51	121	99	—	141	240
	70	95	27	192	99	177	82	358
	\$ 122	\$ 270	\$ 29	\$ 421	\$ 176	\$ 493	\$ 78	\$ 747

(\$ in millions)	Three Months Ended June 30, 2013				Six Months Ended June 30, 2013			
	Separation Costs	Accelerated Depreciation	Other	Total	Separation Costs	Accelerated Depreciation	Other	Total
<i>Merger Restructuring Program</i>								
Materials and production	\$ —	\$ 30	\$ 62	\$ 92	\$ —	\$ 61	\$ 71	\$ 132
Marketing and administrative	—	9	5	14	—	24	5	29
Research and development	—	14	—	14	—	29	—	29
Restructuring costs	129	—	16	145	194	—	34	228
	129	53	83	265	194	114	110	418
<i>2008 Restructuring Program</i>								
Materials and production	—	(2)	3	1	—	(2)	6	4
Marketing and administrative	—	2	—	2	—	4	—	4
Restructuring costs	2	—	8	10	34	—	12	46
	2	—	11	13	34	2	18	54
	\$ 131	\$ 53	\$ 94	\$ 278	\$ 228	\$ 116	\$ 128	\$ 472

Separation costs are associated with actual headcount reductions, as well as those headcount reductions which were probable and could be reasonably estimated. In the second quarter and first six months of 2014 , approximately 1,375 positions and 2,595 positions, respectively, were eliminated under the 2013 Restructuring Program. In the second quarter of 2014 and 2013 , approximately 430 positions and 670 positions, respectively, and in the first six months of 2014 and 2013 , approximately 790 positions and 1,405 positions, respectively, were eliminated under the Merger Restructuring Program. In addition, approximately 10 positions and 55 positions were eliminated in the second quarter and first six months of 2013 , respectively, under the 2008 Restructuring Program. These position eliminations were comprised of actual headcount reductions and the elimination of contractors and vacant positions.

Accelerated depreciation costs primarily relate to manufacturing, research and administrative facilities and equipment to be sold or



closed as part of the programs. Accelerated depreciation costs represent the difference between the depreciation expense to be recognized over the revised useful life of the site, based upon the anticipated date the site will be closed or divested,

and depreciation expense as determined utilizing the useful life prior to the restructuring actions. All of the sites have and will continue to operate up through the respective closure dates and, since future undiscounted cash flows were sufficient to recover the respective book values, Merck was required to accelerate depreciation of the site assets rather than record an impairment charge. Anticipated site closure dates, particularly related to manufacturing locations, have been and may continue to be adjusted to reflect changes resulting from regulatory or other factors.

Other activity in 2014 and 2013 includes pretax gains and losses resulting from sales of facilities and related assets, as well as asset abandonment, shut-down and other related costs. Additionally, other activity includes certain employee-related costs associated with pension and other postretirement benefit plans (see Note 11) and share-based compensation.

Adjustments to previously recorded amounts were not material in any period.

The following table summarizes the charges and spending relating to restructuring activities by program for the six months ended June 30, 2014 :

(\$ in millions)	Separation Costs	Accelerated Depreciation	Other	Total
<b>2013 Restructuring Program</b>				
Restructuring reserves January 1, 2014	\$ 745	\$ —	\$ 23	\$ 768
Expense	77	316	(4)	389
(Payments) receipts, net	(375)	—	(33)	(408)
Non-cash activity	—	(316)	30	(286)
Restructuring reserves June 30, 2014 <sup>(1)</sup>	\$ 447	\$ —	\$ 16	\$ 463
<b>Merger Restructuring Program</b>				
Restructuring reserves January 1, 2014	\$ 725	\$ —	\$ 12	\$ 737
Expense	99	177	82	358
(Payments) receipts, net	(163)	—	(92)	(255)
Non-cash activity	—	(177)	7	(170)
Restructuring reserves June 30, 2014 <sup>(1)</sup>	\$ 661	\$ —	\$ 9	\$ 670

<sup>(1)</sup> The cash outlays associated with the 2013 Restructuring Program are expected to be substantially completed by the end of 2015. The non-manufacturing cash outlays associated with the Merger Restructuring Program were substantially completed by the end of 2013; the remaining cash outlays are expected to be substantially completed by 2016.

### 3. Acquisitions, Divestitures, Research Collaborations and License Agreements

The Company continues its strategy of establishing external alliances to complement its substantial internal research capabilities, including research collaborations, licensing preclinical and clinical compounds to drive both near- and long-term growth. The Company supplements its internal research with a licensing and external alliance strategy focused on the entire spectrum of collaborations from early research to late-stage compounds, as well as access to new technologies. These arrangements often include upfront payments, as well as expense reimbursements or payments to the third party, and milestone, royalty or profit share payments, contingent upon the occurrence of certain future events linked to the success of the asset in development. The Company also reviews its pipeline to examine candidates which may provide more value through out-licensing and as part of its portfolio assessment process may also divest certain products.

In August 2014, Merck completed the acquisition of Idenix Pharmaceuticals, Inc. (“Idenix”) for \$24.50 per share in cash for a total of approximately \$3.85 billion. Idenix is a biopharmaceutical company engaged in the discovery and development of medicines for the treatment of human viral diseases, whose primary focus is on the development of next-generation oral antiviral therapeutics to treat hepatitis C virus (“HCV”) infection. Idenix currently has three HCV drug candidates in clinical development: two nucleotide prodrugs (IDX21437 and IDX21459) and a NS5A inhibitor (samatasvir). These novel candidates are being evaluated for their potential inclusion in the development of all oral, pan-genotypic fixed-dose combination regimens.

In May 2014, Merck entered into an agreement to sell certain ophthalmic products to Santen Pharmaceutical Co., Ltd. (“Santen”) in Japan and markets in Europe and Asia Pacific. The ophthalmic products included in the agreement are *Cosopt* (dorzolamide hydrochloride-timolol maleate ophthalmic solution), *Cosopt PF* (dorzolamide hydrochloride-timolol maleate ophthalmic solution) 2%/0.5%, *Trusopt* (dorzolamide hydrochloride ophthalmic solution) sterile ophthalmic solution 2%, *Trusopt PF* (dorzolamide hydrochloride ophthalmic solution) preservative-free, *Timoptic* (timolol maleate ophthalmic solution), *Timoptic PF* (timolol maleate preservative free ophthalmic solution in unit dose dispenser), *Timoptic XE* (timolol maleate ophthalmic gel forming solution), *Saflutan* (tafluprost) and *Taptiqom* (tafluprost-timolol maleate ophthalmic solution, in development). The agreement provides that Santen make upfront payments of approximately \$600 million and additional payments based on defined sales milestones. Santen will also purchase supply of ophthalmology products covered by the agreement for a two- to five-year

period. Upon closing of the transaction in most markets on July 1, 2014, Santen made \$548 million of the upfront payments to the Company. The remaining markets continue to be subject to certain closing conditions and are expected to close by the end of 2014.

In March 2014, Merck divested its Sirna Therapeutics, Inc. (“Sirna”) subsidiary to Alnylam Pharmaceuticals, Inc. (“Alnylam”) for consideration of \$25 million and 2,520,044 shares of Alnylam common stock. Merck is eligible to receive future payments associated with the achievement of certain regulatory and commercial milestones, as well as royalties on future sales. Under the terms of the agreement, Merck received 85% of the Alnylam shares in the first quarter of 2014 (valued at \$172 million at the time of closing) and the remaining 15% of the shares in the second quarter of 2014 (valued at \$22 million at the time the shares were received). Merck recorded gains of \$22 million and \$204 million in the second quarter and first six months of 2014, respectively, related to this transaction that are included in *Other (income) expense, net*. The excess of Merck’s tax basis in its investment in Sirna over the value received resulted in an approximate \$300 million tax benefit recorded in the first six months of 2014. In the second quarter of 2014, the Company recorded a \$36 million impairment charge within *Other (income) expense, net* on the Alnylam shares received in the first quarter of 2014 as the Company determined these shares were other than temporarily impaired.

In January 2014, Merck sold the U.S. marketing rights to *Saphris* (asenapine), an antipsychotic indicated for the treatment of schizophrenia and bipolar I disorder in adults to Forest Laboratories, Inc. (“Forest”). Under the terms of the agreement, Forest made upfront payments of \$232 million, which were recorded in *Sales* in the first six months of 2014, and will make additional payments to Merck based on defined sales milestones. In addition, as part of this transaction, Merck has agreed to supply product to Forest until patent expiry.

In April 2013, Merck and Pfizer Inc. (“Pfizer”) announced that they had entered into a worldwide (except Japan) collaboration agreement for the development and commercialization of Pfizer’s ertugliflozin, an investigational oral sodium glucose cotransporter (“SGLT2”) inhibitor being evaluated for the treatment of type 2 diabetes. The Company has initiated Phase 3 clinical trials for ertugliflozin with Pfizer. Under the terms of the agreement, Merck and Pfizer will collaborate on the clinical development and commercialization of ertugliflozin and ertugliflozin-containing fixed-dose combinations with metformin and with *Januvia* (sitagliptin) tablets. Merck will continue to retain the rights to its existing portfolio of sitagliptin-containing products. Through the first six months of 2013, Merck recorded research and development expenses of \$60 million for upfront and milestone payments made to Pfizer. Pfizer will be eligible for additional payments associated with the achievement of pre-specified future clinical, regulatory and commercial milestones. The companies will share potential revenues and certain costs 60% to Merck and 40% to Pfizer. Each party will have certain manufacturing and supply obligations. The Company and Pfizer each have the right to terminate the agreement due to a material, uncured breach by, or insolvency of, the other party, or in the event of a safety issue. Pfizer has the right to terminate the agreement upon 12 months notice at any time following the first anniversary of the first commercial sale of a collaboration product, but must assign all rights to ertugliflozin to Merck. Upon termination of the agreement, depending upon the circumstances, the parties have varying rights and obligations with respect to the continued development and commercialization of ertugliflozin and certain payment obligations.

In February 2013, Merck and Supera Farma Laboratorios S.A. (“Supera”), a Brazilian pharmaceutical company co-owned by Cristália and Eurofarma, established the previously announced joint venture that markets, distributes and sells a portfolio of pharmaceutical and branded generic products from Merck, Cristália and Eurofarma in Brazil. Merck owns 51% of the joint venture, and Cristália and Eurofarma collectively own 49%. The transaction was accounted for as an acquisition of a business; accordingly, the assets acquired and liabilities assumed were recorded at their respective fair values. This resulted in Merck recognizing intangible assets for currently marketed products of \$89 million, in-process research and development (“IPR&D”) of \$100 million, goodwill of \$103 million, and deferred tax liabilities of \$64 million. The Company also recorded increases to *Noncontrolling interests* and *Other paid-in capital* in the amounts of \$112 million and \$116 million, respectively. This transaction closed on February 1, 2013, and accordingly, the results of operations of the acquired business have been included in the Company’s results of operations beginning after that date. During the fourth quarter of 2013, as a result of changes in cash flow assumptions for certain compounds, the Company recorded \$15 million of impairment charges related to the IPR&D recorded in the Supera transaction.

#### *Merck Consumer Care*

In May 2014, the Company announced that it had entered into a definitive agreement to sell its Merck Consumer Care (“MCC”) business to Bayer AG (“Bayer”) for \$14.2 billion. Under the terms of the agreement, Bayer will acquire Merck’s existing over-the-counter (“OTC”) business, including the global trademark and prescription rights for *Claritin* and *Afrin*. The Company expects the pretax gain from the sale of MCC to be between \$11.0 billion and \$11.3 billion. Merck expects to close the sale of MCC in the second half of 2014, subject to customary closing conditions, including regulatory approvals.

Information with respect to Consumer Care assets and liabilities held for sale is as follows:

(\$ millions)	June 30, 2014
<b>Assets</b>	
Accounts receivable, net	\$ 204
Inventories	232
Deferred income taxes and other current assets	246
Property, plant and equipment, net	212
Goodwill	137
Other intangibles, net	2,194
Other assets	67
	\$ 3,292
<b>Liabilities</b>	
Trade accounts payable	\$ 71
Accrued and other current liabilities	175
Deferred income taxes	543
Other noncurrent liabilities	12
	\$ 801

The Company also announced a worldwide clinical development collaboration with Bayer to market and develop its portfolio of soluble guanylate cyclase (“sGC”) modulators. This includes Bayer’s Adempas (riociguat), the first member of this novel class of compounds. Adempas is approved to treat pulmonary arterial hypertension (“PAH”) and is the first and only drug treatment approved for patients with chronic thromboembolic pulmonary hypertension (“CTEPH”). Adempas is currently marketed in the United States and Europe for both PAH and CTEPH and in Japan for CTEPH. The two companies will equally share costs and profits from the collaboration and implement a joint development and commercialization strategy. The collaboration also includes clinical development of Bayer’s vericiguat, which is currently in Phase 2 trials for worsening heart failure, as well as opt-in rights for other early-stage sGC compounds in development at Bayer. Merck will in turn make available its early-stage sGC compounds under similar terms. In return for these broad collaboration rights, Merck will make an upfront payment to Bayer of \$1.0 billion with the potential for additional milestone payments upon the achievement of agreed-upon sales goals. For Adempas, Bayer will continue to lead commercialization in the Americas, while Merck will lead commercialization in the rest of the world. For vericiguat and other potential opt-in products, Bayer will lead in the rest of world and Merck will lead in the Americas. For all products and candidates included in the agreement, both companies will share in development costs and profits on sales and will have the right to co-promote in territories where they are not the lead. The formation of this collaboration is subject to the closing of the MCC sale to Bayer.

#### *Remicade/Simponi*

In 1998, a subsidiary of Schering-Plough entered into a licensing agreement with Centocor Ortho Biotech Inc. (“Centocor”), a Johnson & Johnson (“J&J”) company, to market *Remicade*, which is prescribed for the treatment of inflammatory diseases. In 2005, Schering-Plough’s subsidiary exercised an option under its contract with Centocor for license rights to develop and commercialize *Simponi*, a fully human monoclonal antibody. The Company has exclusive marketing rights to both products throughout Europe, Russia and Turkey. In December 2007, Schering-Plough and Centocor revised their distribution agreement regarding the development, commercialization and distribution of both *Remicade* and *Simponi*, extending the Company’s rights to exclusively market *Remicade* to match the duration of the Company’s exclusive marketing rights for *Simponi*. In addition, Schering-Plough and Centocor agreed to share certain development costs relating to *Simponi*’s auto-injector delivery system. On October 6, 2009, the European Commission approved *Simponi* as a treatment for rheumatoid arthritis and other immune system disorders in two presentations – a novel auto-injector and a prefilled syringe. As a result, the Company’s marketing rights for both products extend for 15 years from the first commercial sale of *Simponi* in the European Union (the “EU”) following the receipt of pricing and reimbursement approval within the EU. All profits derived from Merck’s exclusive distribution of the two products in these countries are equally divided between Merck and J&J.

## 4. Financial Instruments

### Derivative Instruments and Hedging Activities

The Company manages the impact of foreign exchange rate movements and interest rate movements on its earnings, cash flows and fair values of assets and liabilities through operational means and through the use of various financial instruments, including derivative instruments.

A significant portion of the Company's revenues and earnings in foreign affiliates is exposed to changes in foreign exchange rates. The objectives and accounting related to the Company's foreign currency risk management program, as well as its interest rate risk management activities are discussed below.

#### *Foreign Currency Risk Management*

The Company has established revenue hedging, balance sheet risk management and net investment hedging programs to protect against volatility of future foreign currency cash flows and changes in fair value caused by volatility in foreign exchange rates.

The objective of the revenue hedging program is to reduce the potential for longer-term unfavorable changes in foreign exchange rates to decrease the U.S. dollar value of future cash flows derived from foreign currency denominated sales, primarily the euro and Japanese yen. To achieve this objective, the Company will hedge a portion of its forecasted foreign currency denominated third-party and intercompany distributor entity sales that are expected to occur over its planning cycle, typically no more than three years into the future. The Company will layer in hedges over time, increasing the portion of third-party and intercompany distributor entity sales hedged as it gets closer to the expected date of the forecasted foreign currency denominated sales. The portion of sales hedged is based on assessments of cost-benefit profiles that consider natural offsetting exposures, revenue and exchange rate volatilities and correlations, and the cost of hedging instruments. The hedged anticipated sales are a specified component of a portfolio of similarly denominated foreign currency-based sales transactions, each of which responds to the hedged currency risk in the same manner. The Company manages its anticipated transaction exposure principally with purchased local currency put options, which provide the Company with a right, but not an obligation, to sell foreign currencies in the future at a predetermined price. If the U.S. dollar strengthens relative to the currency of the hedged anticipated sales, total changes in the options' cash flows offset the decline in the expected future U.S. dollar equivalent cash flows of the hedged foreign currency sales. Conversely, if the U.S. dollar weakens, the options' value reduces to zero, but the Company benefits from the increase in the U.S. dollar equivalent value of the anticipated foreign currency cash flows.

In connection with the Company's revenue hedging program, a purchased collar option strategy may be utilized. With a purchased collar option strategy, the Company writes a local currency call option and purchases a local currency put option. As compared to a purchased put option strategy alone, a purchased collar strategy reduces the upfront costs associated with purchasing puts through the collection of premium by writing call options. If the U.S. dollar weakens relative to the currency of the hedged anticipated sales, the purchased put option value of the collar strategy reduces to zero and the Company benefits from the increase in the U.S. dollar equivalent value of its anticipated foreign currency cash flows, however this benefit would be capped at the strike level of the written call. If the U.S. dollar strengthens relative to the currency of the hedged anticipated sales, the written call option value of the collar strategy reduces to zero and the changes in the purchased put cash flows of the collar strategy would offset the decline in the expected future U.S. dollar equivalent cash flows of the hedged foreign currency sales.

The Company may also utilize forward contracts in its revenue hedging program. If the U.S. dollar strengthens relative to the currency of the hedged anticipated sales, the increase in the fair value of the forward contracts offsets the decrease in the expected future U.S. dollar cash flows of the hedged foreign currency sales. Conversely, if the U.S. dollar weakens, the decrease in the fair value of the forward contracts offsets the increase in the value of the anticipated foreign currency cash flows.

The fair values of these derivative contracts are recorded as either assets (gain positions) or liabilities (loss positions) in the Consolidated Balance Sheet. Changes in the fair value of derivative contracts are recorded each period in either current earnings or *Other comprehensive income* ("OCI"), depending on whether the derivative is designated as part of a hedge transaction and, if so, the type of hedge transaction. For derivatives that are designated as cash flow hedges, the effective portion of the unrealized gains or losses on these contracts is recorded in *Accumulated other comprehensive income* ("AOCI") and reclassified into *Sales* when the hedged anticipated revenue is recognized. The hedge relationship is highly effective and hedge ineffectiveness has been *de minimis*. For those derivatives which are not designated as cash flow hedges, but serve as economic hedges of forecasted sales, unrealized gains or losses are recorded in *Sales* each period. The cash flows from both designated and non-designated contracts are reported as operating activities in the Consolidated Statement of Cash Flows. The Company does not enter into derivatives for trading or speculative purposes.

The primary objective of the balance sheet risk management program is to mitigate the exposure of foreign currency denominated net monetary assets of foreign subsidiaries where the U.S. dollar is the functional currency from the effects of volatility in foreign exchange. In these instances, Merck principally utilizes forward exchange contracts, which enable the Company to buy and sell foreign currencies in the future at fixed exchange rates and economically offset the consequences of changes in foreign

exchange from the monetary assets. Merck routinely enters into contracts to offset the effects of exchange on exposures denominated in developed country currencies, primarily the euro and Japanese yen. For exposures in developing country currencies, the Company will enter into forward contracts to partially offset the effects of exchange on exposures when it is deemed economical to do so based on a cost-benefit analysis that considers the magnitude of the exposure, the volatility of the exchange rate and the cost of the hedging instrument. The Company will also minimize the effect of exchange on monetary assets and liabilities by managing operating activities and net asset positions at the local level. The cash flows from these contracts are reported as operating activities in the Consolidated Statements of Cash Flows.

Monetary assets and liabilities denominated in a currency other than the functional currency of a given subsidiary are remeasured at spot rates in effect on the balance sheet date with the effects of changes in spot rates reported in *Other (income) expense, net*. The forward contracts are not designated as hedges and are marked to market through *Other (income) expense, net*. Accordingly, fair value changes in the forward contracts help mitigate the changes in the value of the remeasured assets and liabilities attributable to changes in foreign currency exchange rates, except to the extent of the spot-forward differences. These differences are not significant due to the short-term nature of the contracts, which typically have average maturities at inception of less than one year.

The Company also uses forward exchange contracts to hedge its net investment in foreign operations against movements in exchange rates. The forward contracts are designated as hedges of the net investment in a foreign operation. The Company hedges a portion of the net investment in certain of its foreign operations and measures ineffectiveness based upon changes in spot foreign exchange rates. The effective portion of the unrealized gains or losses on these contracts is recorded in foreign currency translation adjustment within *OCI*, and remains in *AOCI* until either the sale or complete or substantially complete liquidation of the subsidiary. The cash flows from these contracts are reported as investing activities in the Consolidated Statement of Cash Flows.

Foreign exchange risk is also managed through the use of foreign currency debt. The Company's senior unsecured euro-denominated notes have been designated as, and are effective as, economic hedges 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 are included in foreign currency translation adjustment within *OCI*. Included in the cumulative translation adjustment are pretax gains of \$34 million and \$40 million for the first six months of 2014 and 2013, respectively, from the euro-denominated notes.

#### *Interest Rate Risk Management*

The Company may use interest rate swap contracts on certain investing and borrowing transactions to manage its net exposure to interest rate changes and to reduce its overall cost of borrowing. The Company does not use leveraged swaps and, in general, does not leverage any of its investment activities that would put principal capital at risk.

At June 30, 2014, the Company was party to a total of 15 pay-floating, receive-fixed interest rate swap contracts designated as fair value hedges of fixed-rate notes in which the notional amounts match the amount of the hedged fixed-rate notes. There are four swaps maturing in 2016 with notional amounts of \$250 million each that effectively convert the Company's 0.70% fixed-rate notes due in 2016 to floating-rate instruments; four swaps maturing in 2018 with notional amounts of \$250 million each that effectively convert the Company's 1.30% fixed-rate notes due in 2018 to floating-rate instruments; four swaps maturing in 2017, one with a notional amount of \$200 million, two with notional amounts of \$250 million each, and one with a notional amount of \$300 million, that effectively convert the Company's 6.00% fixed-rate notes due in 2017 to floating-rate instruments; and three swaps maturing in 2019, two with notional amounts of \$200 million each, and one with a notional amount of \$150 million, that effectively convert a portion of the Company's 5.00% notes due in 2019 to floating rate instruments. The interest rate swap contracts are designated hedges of the fair value changes in the notes attributable to changes in the benchmark London Interbank Offered Rate ("LIBOR") swap rate. The fair value changes in the notes attributable to changes in the LIBOR are recorded in interest expense and offset by the fair value changes in the swap contracts. The cash flows from these contracts are reported as operating activities in the Consolidated Statement of Cash Flows.



Notes to Interim Consolidated Financial Statements (unaudited) (continued)

Presented in the table below is the fair value of derivatives on a gross basis segregated between those derivatives that are designated as hedging instruments and those that are not designated as hedging instruments:

(\$ in millions)	Balance Sheet Caption	June 30, 2014			December 31, 2013		
		Fair Value of Derivative		U.S. Dollar Notional	Fair Value of Derivative		U.S. Dollar Notional
		Asset	Liability		Asset	Liability	
Derivatives Designated as Hedging Instruments							
Interest rate swap contracts (non-current)	Other assets	\$ 23	\$ —	\$ 1,550	\$ 13	\$ —	\$ 1,550
Interest rate swap contracts (non-current)	Other noncurrent liabilities	—	14	2,000	—	25	2,000
Foreign exchange contracts (current)	Deferred income taxes and other current assets	361	—	6,072	493	—	4,427
Foreign exchange contracts (non-current)	Other assets	313	—	5,904	515	—	6,676
Foreign exchange contracts (current)	Accrued and other current liabilities	—	1	450	—	19	1,659
Foreign exchange contracts (non-current)	Other noncurrent liabilities	—	5	520	—	—	—
		\$ 697	\$ 20	\$ 16,496	\$ 1,021	\$ 44	\$ 16,312
Derivatives Not Designated as Hedging Instruments							
Foreign exchange contracts (current)	Deferred income taxes and other current assets	\$ 45	\$ —	\$ 4,306	\$ 69	\$ —	\$ 5,705
Foreign exchange contracts (current)	Accrued and other current liabilities	—	67	6,253	—	140	7,892
		\$ 45	\$ 67	\$ 10,559	\$ 69	\$ 140	\$ 13,597
		\$ 742	\$ 87	\$ 27,055	\$ 1,090	\$ 184	\$ 29,909

As noted above, the Company records its derivatives on a gross basis in the Consolidated Balance Sheet. The Company has master netting agreements with several of its financial institution counterparties (see *Concentrations of Credit Risk* below). The following table provides information on the Company's derivative positions subject to these master netting arrangements as if they were presented on a net basis, allowing for the right of offset by counterparty and cash collateral exchanged per the master agreements and related credit support annexes:

(\$ in millions)	June 30, 2014		December 31, 2013	
	Asset	Liability	Asset	Liability
Gross amounts recognized in the consolidated balance sheet	\$ 742	\$ 87	\$ 1,090	\$ 184
Gross amount subject to offset in master netting arrangements not offset in the consolidated balance sheet	(85)	(85)	(147)	(147)
Cash collateral (received) posted	(427)	—	(652)	—
Net amounts	\$ 230	\$ 2	\$ 291	\$ 37

## Notes to Interim Consolidated Financial Statements (unaudited) (continued)

The table below provides information on the location and pretax gain or loss amounts for derivatives that are: (i) designated in a fair value hedging relationship, (ii) designated in a foreign currency cash flow hedging relationship, (iii) designated in a foreign currency net investment hedging relationship and (iv) not designated in a hedging relationship:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
<b>Derivatives designated in a fair value hedging relationship</b>				
Interest rate swap contracts				
Amount of (gain) loss recognized in <i>Other (income) expense, net</i> on derivatives	\$ (17)	\$ 33	\$ (21)	\$ 33
Amount of loss (gain) recognized in <i>Other (income) expense, net</i> on hedged item	16	(33)	20	(33)
<b>Derivatives designated in foreign currency cash flow hedging relationships</b>				
Foreign exchange contracts				
Amount of (gain) loss reclassified from <i>AOCI</i> to <i>Sales</i>	(4)	2	(2)	34
Amount of loss (gain) recognized in <i>OCI</i> on derivatives	55	(36)	157	(385)
<b>Derivatives designated in foreign currency net investment hedging relationships</b>				
Foreign exchange contracts				
Amount of gain recognized in <i>Other (income) expense, net</i> on derivatives <sup>(1)</sup>	(1)	(1)	(3)	(3)
Amount of loss (gain) recognized in <i>OCI</i> on derivatives	7	(65)	50	(244)
<b>Derivatives not designated in a hedging relationship</b>				
Foreign exchange contracts				
Amount of loss (gain) recognized in <i>Other (income) expense, net</i> on derivatives <sup>(2)</sup>	59	(32)	(23)	(8)
Amount of loss (gain) recognized in <i>Sales</i>	—	7	—	(3)

<sup>(1)</sup> There was no ineffectiveness on the hedge. Represents the amount excluded from hedge effectiveness testing.

<sup>(2)</sup> These derivative contracts mitigate changes in the value of remeasured foreign currency denominated monetary assets and liabilities attributable to changes in foreign currency exchange rates.

At June 30, 2014, the Company estimates \$49 million of pretax net unrealized gains on derivatives maturing within the next 12 months that hedge foreign currency denominated sales over that same period will be reclassified from *AOCI* to *Sales*. The amount ultimately reclassified to *Sales* may differ as foreign exchange rates change. Realized gains and losses are ultimately determined by actual exchange rates at maturity.

## Investments in Debt and Equity Securities

Information on available-for-sale investments is as follows:

(\$ in millions)	June 30, 2014				December 31, 2013			
	Fair Value	Amortized Cost	Gross Unrealized		Fair Value	Amortized Cost	Gross Unrealized	
			Gains	Losses			Gains	Losses
Corporate notes and bonds	\$ 8,843	\$ 8,790	\$ 55	\$ (2)	\$ 7,054	\$ 7,037	\$ 32	\$ (15)
Commercial paper	2,927	2,927	—	—	1,206	1,206	—	—
U.S. government and agency securities	1,747	1,745	3	(1)	1,236	1,239	1	(4)
Asset-backed securities	1,350	1,349	3	(2)	1,300	1,303	1	(4)
Mortgage-backed securities	514	514	2	(2)	476	479	2	(5)
Foreign government bonds	464	463	1	—	125	126	—	(1)
Equity securities	673	578	95	—	471	397	74	—
	\$ 16,518	\$ 16,366	\$ 159	\$ (7)	\$ 11,868	\$ 11,787	\$ 110	\$ (29)

Available-for-sale debt securities included in *Short-term investments* totaled \$3.7 billion at June 30, 2014. Of the remaining debt securities, \$11.3 billion mature within five years. At June 30, 2014 and December 31, 2013, there were no debt securities pledged as collateral.

## Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company uses a fair value hierarchy which maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. There are three levels of inputs used to measure fair value with Level 1 having the highest priority and Level 3 having the lowest:





Notes to Interim Consolidated Financial Statements (unaudited) (continued)

*Level 1* - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

*Level 2* - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

*Level 3* - Unobservable inputs that are supported by little or no market activity. Level 3 assets are those whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques with significant unobservable inputs, as well as instruments for which the determination of fair value requires significant judgment or estimation.

If the inputs used to measure the financial assets and liabilities fall within more than one level described above, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument.

*Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis*

Financial assets and liabilities measured at fair value on a recurring basis are summarized below:

	Fair Value Measurements Using					Fair Value Measurements Using				
	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total		
(\$ in millions)	June 30, 2014				December 31, 2013					
Assets										
Investments										
Corporate notes and bonds	\$	—	\$ 8,843	\$ —	\$ 8,843	\$	—	\$ 7,054	\$ —	\$ 7,054
Commercial paper		—	2,927	—	2,927		—	1,206	—	1,206
U.S. government and agency securities		—	1,747	—	1,747		—	1,236	—	1,236
Asset-backed securities <sup>(1)</sup>		—	1,350	—	1,350		—	1,300	—	1,300
Mortgage-backed securities <sup>(1)</sup>		—	514	—	514		—	476	—	476
Foreign government bonds		—	464	—	464		—	125	—	125
Equity securities		425	—	—	425		238	—	—	238
		425	15,845	—	16,270		238	11,397	—	11,635
Other assets										
Securities held for employee compensation		193	55	—	248		186	47	—	233
Derivative assets <sup>(2)</sup>										
Purchased currency options		—	623	—	623		—	868	—	868
Forward exchange contracts		—	96	—	96		—	209	—	209
Interest rate swaps		—	23	—	23		—	13	—	13
		—	742	—	742		—	1,090	—	1,090
Total assets	\$	618	\$ 16,642	\$ —	\$ 17,260	\$	424	\$ 12,534	\$ —	\$ 12,958
Liabilities										
Derivative liabilities <sup>(2)</sup>										
Forward exchange contracts	\$	—	\$ 54	\$ —	\$ 54	\$	—	\$ 134	\$ —	\$ 134
Written currency options		—	19	—	19		—	25	—	25
Interest rate swaps		—	14	—	14		—	25	—	25
Total liabilities	\$	—	\$ 87	\$ —	\$ 87	\$	—	\$ 184	\$ —	\$ 184

<sup>(1)</sup> Primarily all of the asset-backed securities are highly-rated (Standard & Poor's rating of AAA and Moody's Investors Service rating of Aaa), secured primarily by credit card, auto loan, and home equity receivables, with weighted-average lives of primarily 5 years or less. Mortgage-backed securities represent AAA-rated securities issued or unconditionally guaranteed as to payment of principal and interest by U.S. government agencies.

<sup>(2)</sup> The fair value determination of derivatives includes the impact of the credit risk of counterparties to the derivatives and the Company's own credit risk, the effects of which were not significant.

There were no transfers between Level 1 and Level 2 during the first six months of 2014. As of June 30, 2014, Cash and cash equivalents of \$9.7 billion included \$8.7 billion of cash equivalents (considered Level 2 in the fair value hierarchy). The Company has liabilities related to contingent consideration (considered Level 3 in the fair value hierarchy) associated with business combinations, the fair values of which were \$73 million and \$69 million at June 30, 2014 and December 31, 2013, respectively.

*Other Fair Value Measurements*

Some of the Company's financial instruments, such as cash and cash equivalents, receivables and payables, are reflected in the balance sheet at carrying value, which approximates fair value due to their short-term nature.

The estimated fair value of loans payable and long-term debt (including current portion) at June 30, 2014 , was \$24.2 billion compared with a carrying value of \$23.1 billion and at December 31, 2013 , was \$25.5 billion compared with a carrying value of \$25.1 billion . Fair value was estimated using recent observable market prices and would be considered Level 2 in the fair value hierarchy.

#### *Concentrations of Credit Risk*

On an ongoing basis, the Company monitors concentrations of credit risk associated with corporate and government issuers of securities and financial institutions with which it conducts business. Credit exposure limits are established to limit a concentration with any single issuer or institution. Cash and investments are placed in instruments that meet high credit quality standards as specified in the Company's investment policy guidelines.

The majority of the Company's accounts receivable arise from product sales in the United States and Europe and are primarily due from drug wholesalers and retailers, hospitals, government agencies, managed health care providers and pharmacy benefit managers. The Company monitors the financial performance and creditworthiness of its customers so that it can properly assess and respond to changes in their credit profile. The Company also continues to monitor economic conditions, including the volatility associated with international sovereign economies, and associated impacts on the financial markets and its business, taking into consideration global economic conditions and the ongoing sovereign debt issues in certain European countries. The Company continues to monitor the credit and economic conditions within Greece, Italy, Spain and Portugal, among other members of the EU. These economic conditions, as well as inherent variability of timing of cash receipts, have resulted in, and may continue to result in, an increase in the average length of time that it takes to collect accounts receivable outstanding. As such, time value of money discounts have been recorded for those customers for which collection of accounts receivable is expected to be in excess of one year. At June 30, 2014 and December 31, 2013 , *Other assets* included \$275 million of accounts receivable not expected to be collected within one year. The Company does not expect to have write-offs or adjustments to accounts receivable which would have a material adverse effect on its financial position, liquidity or results of operations.

At June 30, 2014 , the Company's accounts receivable in Greece, Italy, Spain and Portugal totaled approximately \$1.0 billion . Of this amount, hospital and public sector receivables were approximately \$665 million in the aggregate, of which approximately 11% , 42% , 36% and 11% related to Greece, Italy, Spain and Portugal, respectively. At June 30, 2014 , the Company's total net accounts receivable outstanding for more than one year were approximately \$200 million , of which approximately 45% related to accounts receivable in Greece, Italy, Spain and Portugal, mostly comprised of hospital and public sector receivables.

Additionally, the Company continues to expand in the emerging markets. Payment terms in these markets tend to be longer, resulting in an increase in accounts receivable balances in certain of these markets.

Derivative financial instruments are executed under International Swaps and Derivatives Association master agreements. The master agreements with several of the Company's financial institution counterparties also include credit support annexes. These annexes contain provisions that require collateral to be exchanged depending on the value of the derivative assets and liabilities, the Company's credit rating, and the credit rating of the counterparty. As of June 30, 2014 and December 31, 2013 , the Company had received cash collateral of \$427 million and \$652 million , respectively, from various counterparties and the obligation to return such collateral is recorded in *Accrued and other current liabilities* . The Company had not advanced any cash collateral to counterparties as of June 30, 2014 or December 31, 2013 .

## **5. Inventories**

Inventories consisted of:

(\$ in millions)	June 30, 2014	December 31, 2013
Finished goods	\$ 2,125	\$ 1,738
Raw materials and work in process	5,249	5,894
Supplies	216	225
Total (approximates current cost)	7,590	7,857
Increase to LIFO costs	169	73
	\$ 7,759	\$ 7,930
Recognized as:		
Inventories	\$ 6,136	\$ 6,226
Other assets	1,623	1,704

Amounts recognized as *Other assets* are comprised almost entirely of raw materials and work in process inventories. At June 30, 2014 and December 31, 2013 , these amounts included \$1.4 billion and \$1.5 billion , respectively, of inventories not

expected to be sold within one year. In addition, these amounts included \$201 million and \$177 million at June 30, 2014 and December 31, 2013, respectively, of inventories produced in preparation for product launches.

## 6. Other Intangibles

In connection with mergers and acquisitions, the Company measures the fair value of marketed products and research and development pipeline programs and capitalizes these amounts. During the second quarter and first six months of 2014, the Company recorded intangible asset impairment charges of \$660 million within *Materials and production* costs related to certain products marketed by the Company for the treatment of chronic HCV. Of this amount, \$523 million related to *PegIntron* and \$137 million related to *Victralis*. Sales of *PegIntron* and *Victralis* are being adversely affected by loss of market share or patient treatment delays in markets anticipating the availability of new therapeutic options. During the second quarter, these trends accelerated more rapidly than previously anticipated by the Company, which led to changes in the cash flow assumptions for both *PegIntron* and *Victralis*. These revisions to cash flows indicated that the *PegIntron* and *Victralis* intangible asset values were not recoverable on an undiscounted cash flows basis. The Company utilized market participant assumptions to determine its best estimate of the fair values of the intangible assets related to *PegIntron* and *Victralis* that, when compared with their related carrying values, resulted in impairment charges noted above.

During the second quarter and first six months of 2013, the Company recorded an intangible asset impairment charge of \$330 million within *Materials and production* costs resulting from lower cash flow projections for *Saphris/Sycrest* due to reduced expectations in international markets and in the United States. These revisions to cash flows indicated that the *Saphris/Sycrest* intangible asset value was not recoverable on an undiscounted cash flows basis. The Company utilized market participant assumptions and considered several different scenarios to determine its best estimate of the fair value of the intangible asset related to *Saphris/Sycrest* that, when compared with its related carrying values, resulted in the impairment charge noted above.

In addition, during the second quarter and first six months of 2013, the Company recorded \$234 million and \$264 million of IPR&D impairment charges within *Research and development* expenses. Of these amounts, \$181 million related to the write-off of the intangible asset associated with preladenant as a result of the discontinuation of the clinical development program for this compound. In addition, the Company recorded impairment charges resulting from changes in cash flow assumptions for certain compounds. The remaining impairment charges for the first six months of 2013 related to pipeline programs that had previously been deprioritized and were subsequently deemed to have no alternative use in the period.

The Company may recognize additional non-cash impairment charges in the future related to other marked products or pipeline programs and such charges could be material.

## 7. Joint Ventures and Other Equity Method Affiliates

Equity income from affiliates reflects the performance of the Company's joint ventures and other equity method affiliates and was comprised of the following:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
AstraZeneca LP <sup>(1)</sup>	\$ 94	\$ 105	\$ 192	\$ 230
Other <sup>(2)</sup>	(2)	11	25	19
	\$ 92	\$ 116	\$ 217	\$ 249

<sup>(1)</sup> As noted below, as of July 1, 2014, the Company no longer records equity income from AZLP.

<sup>(2)</sup> Includes results from Sanofi Pasteur MSD.

### AstraZeneca LP

In 1998, Merck and Astra completed the restructuring of the ownership and operations of their existing joint venture whereby Merck acquired Astra's interest in KBI Inc. ("KBI") and contributed KBI's operating assets to a new U.S. limited partnership, Astra Pharmaceuticals L.P. (the "Partnership"), in exchange for a 1% limited partner interest. Astra contributed the net assets of its wholly owned subsidiary, Astra USA, Inc., to the Partnership in exchange for a 99% general partner interest. The Partnership, renamed AstraZeneca LP ("AZLP") upon Astra's 1999 merger with Zeneca Group Plc, became the exclusive distributor of the products for which KBI retained rights.

On June 30, 2014, AstraZeneca exercised its option to purchase Merck's interest in KBI for \$419 million in cash. Of this amount, \$327 million reflects an estimate of the fair value of Merck's interest in Nexium and Prilosec. This portion of the exercise price, which is subject to a true-up in 2018 based on actual sales from closing in 2014 to June 2018, was deferred and will be recognized over time in *Other (income) expense, net* as the contingency is eliminated as sales occur. The remaining exercise price of \$91 million primarily represents a multiple of ten times Merck's average 1% annual profit allocation in the partnership.

for the three years prior to exercise. Merck recognized the \$91 million as a gain in the second quarter and first six months of 2014 within *Other (income) expense, net*. As a result of AstraZeneca's option exercise, the Company's remaining interest in AZLP was redeemed. Accordingly, the Company also recognized a non-cash gain of approximately \$650 million in the second quarter and first six months of 2014 within *Other (income) expense, net* resulting from the retirement of \$2.4 billion of KBI preferred stock (see Note 9), the elimination of the Company's \$1.4 billion investment in AZLP and a \$340 million reduction of goodwill. This transaction resulted in a net tax benefit of \$517 million in the second quarter and first six months of 2014 primarily reflecting the reversal of deferred taxes on the AZLP investment balance.

As a result of AstraZeneca exercising its option, as of July 1, 2014, the Company no longer records equity income from AZLP and supply sales to AZLP have terminated.

Summarized financial information for AZLP is as follows:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Sales	\$ 1,123	\$ 1,142	\$ 2,205	\$ 2,300
Materials and production costs	581	575	1,044	1,126
Other expense, net	194	419	604	801
Income before taxes <sup>(1)</sup>	\$ 348	\$ 148	\$ 557	\$ 373

<sup>(1)</sup> Merck's partnership returns from AZLP were generally contractually determined as noted above and were not based on a percentage of income from AZLP, other than with respect to Merck's 1% limited partnership interest.

## 8. Contingencies

The Company is involved in various claims and legal proceedings of a nature considered normal to its business, including product liability, intellectual property, and commercial litigation, as well as additional matters such as antitrust actions and environmental matters. Except for the *Vioxx* Litigation (as defined below) for which a separate assessment is provided in this Note, in the opinion of the Company, it is unlikely that the resolution of these matters will be material to the Company's financial position, results of operations or cash flows.

Given the nature of the litigation discussed below, including the *Vioxx* Litigation, and the complexities involved in these matters, the Company is unable to reasonably estimate a possible loss or range of possible loss for such matters until the Company knows, among other factors, (i) what claims, if any, will survive dispositive motion practice, (ii) the extent of the claims, including the size of any potential class, particularly when damages are not specified or are indeterminate, (iii) how the discovery process will affect the litigation, (iv) the settlement posture of the other parties to the litigation and (v) any other factors that may have a material effect on the litigation.

The Company records accruals for contingencies when it is probable that a liability has been incurred and the amount can be reasonably estimated. These accruals are adjusted periodically as assessments change or additional information becomes available. For product liability claims, a portion of the overall accrual is actuarially determined and considers such factors as past experience, number of claims reported and estimates of claims incurred but not yet reported. Individually significant contingent losses are accrued when probable and reasonably estimable. Legal defense costs expected to be incurred in connection with a loss contingency are accrued when probable and reasonably estimable.

The Company's decision to obtain insurance coverage is dependent on market conditions, including cost and availability, existing at the time such decisions are made. The Company has evaluated its risks and has determined that the cost of obtaining product liability insurance outweighs the likely benefits of the coverage that is available and, as such, has no insurance for certain product liabilities effective August 1, 2004.

## *Vioxx* Litigation

### *Product Liability Lawsuits*

As previously disclosed, Merck is a defendant in approximately 50 federal and state lawsuits (the "*Vioxx* Product Liability Lawsuits") alleging personal injury as a result of the use of *Vioxx*. Most of these cases are coordinated in a multidistrict litigation in the U.S. District Court for the Eastern District of Louisiana (the "*Vioxx* MDL") before Judge Eldon E. Fallon.

As previously disclosed, Merck is also a defendant in approximately 30 putative class action lawsuits alleging economic injury as a result of the purchase of *Vioxx*. All but two of those cases are in the *Vioxx* MDL. Merck has reached a resolution, approved by Judge Fallon, of these class actions in the *Vioxx* MDL. One objector to the settlement has filed an appeal from the approval order, which is pending before the U.S. Court of Appeals for the Fifth Circuit. Under the settlement, Merck will pay up to \$23 million to pay all properly documented claims submitted by class members, approved attorneys' fees and expenses, and

approved settlement notice costs and certain other administrative expenses. The court entered an order approving the settlement on January 6, 2014. The deadline for members to submit claims under the settlement was May 6, 2014 and the claims administrator is currently reviewing claims submitted under the settlement protocol.

Merck is also a defendant in lawsuits brought by state Attorneys General of four states — Alaska, Mississippi, Montana and Utah. All of these actions were pending in the *Vioxx* MDL proceeding, although Judge Fallon asked that the Judicial Panel on Multidistrict Litigation (“JPML”) remand the Alaska, Montana and Utah cases to their original federal courts. The JPML then issued conditional remand orders in all three cases, and set a briefing schedule for any objections to the remand. Merck has filed motions to vacate the remand orders. These four actions allege that Merck misrepresented the safety of *Vioxx* and seek recovery for expenditures on *Vioxx* by government-funded health care programs, such as Medicaid, and/or penalties for alleged Consumer Fraud Act violations. In November 2013, the Circuit Court of Franklin County, Kentucky approved a settlement in an action filed by the Kentucky Attorney General, under which Merck agreed to pay Kentucky \$25 million to resolve its lawsuit and the related appeals.

#### *Shareholder Lawsuits*

As previously disclosed, in addition to the *Vioxx* Product Liability Lawsuits, various putative class actions and individual lawsuits under federal securities laws and state laws have been filed against Merck and various current and former officers and directors (the “*Vioxx* Securities Lawsuits”). The *Vioxx* Securities Lawsuits are coordinated in a multidistrict litigation in the U.S. District Court for the District of New Jersey before Judge Stanley R. Chesler, and have been consolidated for all purposes. In August 2011, Judge Chesler granted in part and denied in part Merck’s motion to dismiss the Fifth Amended Class Action Complaint in the consolidated securities action. Among other things, the claims based on statements made on or after the voluntary withdrawal of *Vioxx* on September 30, 2004, have been dismissed. In October 2011, defendants answered the Fifth Amended Class Action Complaint. In April 2012, plaintiffs filed a motion for class certification and, in January 2013, Judge Chesler granted that motion. In March 2013, plaintiffs filed a motion for leave to amend their complaint to add certain allegations to expand the class period. In May 2013, the court denied plaintiffs’ motion for leave to amend their complaint to expand the class period, but granted plaintiffs’ leave to amend their complaint to add certain allegations within the existing class period. In June 2013, plaintiffs filed their Sixth Amended Class Action Complaint. In July 2013, defendants answered the Sixth Amended Class Action Complaint. Discovery has been completed and is now closed. Under the court’s scheduling order, dispositive motions have been fully briefed.

As previously disclosed, several individual securities lawsuits filed by foreign institutional investors also are consolidated with the *Vioxx* Securities Lawsuits. In October 2011, plaintiffs filed amended complaints in each of the pending individual securities lawsuits. Also in October 2011, an individual securities lawsuit (the “KBC Lawsuit”) was filed in the District of New Jersey by several foreign institutional investors; that case is also consolidated with the *Vioxx* Securities Lawsuits. In January 2012, defendants filed motions to dismiss in one of the individual lawsuits (the “ABP Lawsuit”). Briefing on the motions to dismiss was completed in March 2012. In August 2012, Judge Chesler granted in part and denied in part the motions to dismiss the ABP Lawsuit. Among other things, certain alleged misstatements and omissions were dismissed as inactionable and all state law claims were dismissed in full. In September 2012, defendants answered the complaints in all individual actions other than the KBC Lawsuit; on the same day, defendants moved to dismiss the complaint in the KBC Lawsuit on statute of limitations grounds. In December 2012, Judge Chesler denied the motion to dismiss the KBC Lawsuit and, in January 2013, defendants answered the complaint in the KBC Lawsuit. Discovery has been completed and is now closed. Under the court’s scheduling order, dispositive motions have been fully briefed. In March and April 2014, four additional individual securities complaints were filed by institutional investors that opted out of the class action referred to above. The new complaints are substantially similar to the complaints in the other individual securities lawsuits.

#### *Insurance*

The Company has Directors and Officers insurance coverage applicable to the *Vioxx* Securities Lawsuits with remaining stated upper limits of approximately \$145 million, which is currently being used to partially fund the Company’s legal fees. As a result of the previously disclosed insurance arbitration, additional insurance coverage for these claims should also be available, if needed, under upper-level excess policies that provide coverage for a variety of risks. There are disputes with the insurers about the availability of some or all of the Company’s insurance coverage for these claims and there are likely to be additional disputes. The amounts actually recovered under the policies discussed in this paragraph may be less than the stated upper limits.

#### *International Lawsuits*

As previously disclosed, in addition to the lawsuits discussed above, Merck has been named as a defendant in litigation relating to *Vioxx* in Brazil, Canada, Europe and Israel (collectively, the “*Vioxx* International Lawsuits”). As previously disclosed, the Company has entered into an agreement to resolve all claims related to *Vioxx* in Canada pursuant to which the Company will pay a minimum of approximately \$21 million but not more than an aggregate maximum of approximately \$36 million. The agreement has been approved by courts in Canada’s provinces.



### *Reserves*

The Company believes that it has meritorious defenses to the remaining *Vioxx* Product Liability Lawsuits, *Vioxx* Securities Lawsuits and *Vioxx* International Lawsuits (collectively, the “*Vioxx* Litigation”) and will vigorously defend against them. In view of the inherent difficulty of predicting the outcome of litigation, particularly where there are many claimants and the claimants seek indeterminate damages, the Company is unable to predict the outcome of these matters and, at this time, cannot reasonably estimate the possible loss or range of loss with respect to the remaining *Vioxx* Litigation. The Company has established a reserve with respect to the Canadian settlement, certain other *Vioxx* Product Liability Lawsuits and other immaterial settlements related to certain *Vioxx* International Lawsuits. The Company also has an immaterial remaining reserve relating to the previously disclosed *Vioxx* investigation for the non-participating states with which litigation is continuing. The Company has established no other liability reserves with respect to the *Vioxx* Litigation. Unfavorable outcomes in the *Vioxx* Litigation could have a material adverse effect on the Company’s financial position, liquidity and results of operations.

### **Other Product Liability Litigation**

#### *Fosamax*

As previously disclosed, Merck is a defendant in product liability lawsuits in the United States involving *Fosamax* (the “*Fosamax* Litigation”). As of June 30, 2014, approximately 5,510 cases, which include approximately 5,720 plaintiff groups, had been filed and were pending against Merck in either federal or state court, including one case which seeks class action certification, as well as damages and/or medical monitoring. In approximately 1,080 of these actions, plaintiffs allege, among other things, that they have suffered osteonecrosis of the jaw (“ONJ”), generally subsequent to invasive dental procedures, such as tooth extraction or dental implants and/or delayed healing, in association with the use of *Fosamax*. In addition, plaintiffs in approximately 4,430 of these actions generally allege that they sustained femur fractures and/or other bone injuries (“Femur Fractures”) in association with the use of *Fosamax*.

In December 2013, Merck reached an agreement in principle with the Plaintiffs’ Steering Committee (“PSC”) in the *Fosamax* ONJ MDL (as defined below) to resolve pending ONJ cases not on appeal in the *Fosamax* ONJ MDL and in the state courts for an aggregate amount of \$27.7 million, which the Company recorded as a liability in the fourth quarter of 2013. Merck and the PSC subsequently formalized the terms of this agreement in a Master Settlement Agreement (“ONJ Master Settlement Agreement”) that was executed in April 2014. All of plaintiffs’ counsel have advised the Company that they intend to participate in the settlement plan. As a condition to the settlement, 100% of the state and federal ONJ plaintiffs must also agree to participate in the settlement plan or Merck can either terminate the agreement, or waive the 100% participation requirement and agree to a lesser funding amount for the settlement fund. On July 14, 2014, Merck elected to proceed with the ONJ Master Settlement Agreement at a reduced funding level since the current participation level is approximately 95%. Merck has also requested, without objection from the PSC, that the judge overseeing the *Fosamax* ONJ MDL enter an order that will require all non-participants in the *Fosamax* ONJ MDL to submit expert reports in order for their cases to proceed any further. The ONJ Master Settlement Agreement has no effect on the cases alleging Femur Fractures discussed below.

#### *Cases Alleging ONJ and/or Other Jaw Related Injuries*

In August 2006, the JPML ordered that certain *Fosamax* product liability cases pending in federal courts nationwide should be transferred and consolidated into one multidistrict litigation (the “*Fosamax* ONJ MDL”) for coordinated pre-trial proceedings. The *Fosamax* ONJ MDL has been transferred to Judge John Keenan in the U.S. District Court for the Southern District of New York. As a result of the JPML order, approximately 795 of the cases are before Judge Keenan, although, as noted above, these cases are subject to the pending settlement.

In addition, in July 2008, an application was made by the Atlantic County Superior Court of New Jersey requesting that all of the *Fosamax* cases pending in New Jersey be considered for mass tort designation and centralized management before one judge in New Jersey. In October 2008, the New Jersey Supreme Court ordered that all pending and future actions filed in New Jersey arising out of the use of *Fosamax* and seeking damages for existing dental and jaw-related injuries, including ONJ, but not solely seeking medical monitoring, be designated as a mass tort for centralized management purposes before Judge Carol E. Higbee in Atlantic County Superior Court. As of June 30, 2014, approximately 280 ONJ cases were pending against Merck in Atlantic County, New Jersey, although these cases are also subject to the pending settlement described above.

#### *Cases Alleging Femur Fractures*

In March 2011, Merck submitted a Motion to Transfer to the JPML seeking to have all federal cases alleging Femur Fractures consolidated into one multidistrict litigation for coordinated pre-trial proceedings. The Motion to Transfer was granted in May 2011, and all federal cases involving allegations of Femur Fracture have been or will be transferred to a multidistrict litigation in the District of New Jersey (the “*Fosamax* Femur Fracture MDL”). As a result of the JPML order, approximately 1,020 cases were pending in the *Fosamax* Femur Fracture MDL as of June 30, 2014. A Case Management Order was entered requiring the parties to review 33 cases. Judge Joel Pisano selected four cases from that group to be tried as the initial bellwether cases in



the *Fosamax* Femur Fracture MDL. The first bellwether case, *Glynn v. Merck*, began on April 8, 2013, and the jury returned a verdict in Merck's favor on April 29, 2013; in addition, on June 27, 2013, Judge Pisano granted Merck's motion for judgment as a matter of law in the *Glynn* case and held that the plaintiff's failure to warn claim was preempted by federal law. Judge Pisano set a May 5, 2014, trial date for the bellwether trial of a case in which the alleged injury took place after January 31, 2011. Following the completion of fact discovery, the court selected *Sweet v. Merck* as the next *Fosamax* Femur Fracture MDL case to be tried on May 5, 2014, but plaintiffs subsequently dismissed that case. As a result, the May 2014 trial date was withdrawn.

In addition, Judge Pisano entered an order in August 2013 requiring plaintiffs in the *Fosamax* Femur Fracture MDL to show cause why those cases asserting claims for a femur fracture injury that took place prior to September 14, 2010, should not be dismissed based on the court's preemption decision in the *Glynn* case. Plaintiffs filed their responses to the show cause order at the end of September 2013 and Merck filed its reply to those responses at the end of October 2013. A hearing on the show cause order was held in January 2014 and, on March 26, 2014, Judge Pisano issued an opinion finding that all claims of the approximately 650 plaintiffs who allegedly suffered injuries prior to September 14, 2010 were preempted and ordered that those cases be dismissed. The majority of those plaintiffs are appealing that ruling to the U.S. Court of Appeals for the Third Circuit. Furthermore, on June 17, 2014, Judge Pisano granted Merck summary judgment in the *Gaynor* case and found that Merck's updates in January 2011 to the *Fosamax* label regarding atypical femur fractures were adequate as a matter of law and that Merck adequately communicated those changes.

As of June 30, 2014, approximately 2,880 cases alleging Femur Fractures have been filed in New Jersey state court and are pending before Judge Higbee in Atlantic County Superior Court. The parties selected an initial group of 30 cases to be reviewed through fact discovery. Two additional groups of 50 cases each to be reviewed through fact discovery were selected in November 2013 and March 2014, respectively.

As of June 30, 2014, approximately 515 cases alleging Femur Fractures have been filed in California state court. A petition was filed seeking to coordinate all Femur Fracture cases filed in California state court before a single judge in Orange County, California. The petition was granted and Judge Steven Perk is now presiding over the coordinated proceedings. In March 2014, Judge Perk directed that a group of 10 discovery pool cases be reviewed through fact discovery and scheduled dates in February, April and June 2015 for trials of three individual cases that will be selected from that group.

Additionally, there are four Femur Fracture cases pending in other state courts.

Discovery is ongoing in the *Fosamax* Femur Fracture MDL and in state courts where Femur Fracture cases are pending and the Company intends to defend against these lawsuits.

#### *Januvia/Janumet*

As previously disclosed, Merck is a defendant in product liability lawsuits in the United States involving *Januvia* and/or *Janumet*. As of June 30, 2014, approximately 490 product user claims were served on, and are pending against, Merck alleging generally that use of *Januvia* and/or *Janumet* caused the development of pancreatic cancer. These complaints were filed in several different state and federal courts. Most of the claims are pending in a consolidated multidistrict litigation proceeding in the U.S. District Court for the Southern District of California called "In re Incretin-Based Therapies Products Liability Litigation." That proceeding includes federal lawsuits alleging pancreatic cancer due to use of the following medicines: *Januvia*, *Janumet*, Byetta and Victoza, the latter two of which are products manufactured by other pharmaceutical companies. In addition to the cases noted above, the Company has agreed, as of June 30, 2014, to toll the statute of limitations for 16 additional claims. The Company intends to defend against these lawsuits.

#### *NuvaRing*

As previously disclosed, beginning in May 2007, a number of complaints were filed in various jurisdictions asserting claims against the Company's subsidiaries Organon USA, Inc., Organon Pharmaceuticals USA, Inc., Organon International (collectively, "Organon"), and the Company arising from Organon's marketing and sale of *NuvaRing* (the "*NuvaRing* Litigation"), a combined hormonal contraceptive vaginal ring. The plaintiffs contend that Organon and Schering-Plough, among other things, failed to adequately design and manufacture *NuvaRing* and failed to adequately warn of the alleged increased risk of venous thromboembolism ("VTE") posed by *NuvaRing*, and/or downplayed the risk of VTE. The plaintiffs seek damages for injuries allegedly sustained from their product use, including some alleged deaths, heart attacks and strokes. The majority of the cases are currently pending in a federal multidistrict litigation (the "*NuvaRing* MDL") venued in Missouri and in a coordinated proceeding in New Jersey state court.

As of June 30, 2014, there were approximately 1,940 *NuvaRing* cases (excluding unfiled cases). Of these cases, approximately 1,720 are or will be pending in the *NuvaRing* MDL in the U.S. District Court for the Eastern District of Missouri before Judge Rodney Sippel, and approximately 210 are pending in coordinated proceedings in the Bergen County Superior Court of New Jersey before Judge Brian R. Martinotti. Eight additional cases are pending in various other state courts, including cases in a coordinated state proceeding in the San Francisco Superior Court in California before Judge John E. Munter.

Merck and negotiating plaintiffs' counsel agreed to a settlement of the *NuvaRing* Litigation to resolve all filed cases as of February 7, 2014, and all unfiled claims under retainer by counsel prior to that date. Pursuant to this settlement agreement, which became effective as of June 4, 2014, Merck will pay a lump total settlement of \$100 million to resolve more than 95% of the cases filed and under retainer by counsel as of February 7, 2014. The vast majority of the plaintiffs with pending lawsuits have opted into the settlement and all participants in the settlement have tendered dismissals of their cases to the settlement administrator. The dismissals will be filed with the courts upon completion of the settlement administration process. The Company has certain insurance coverage available to it, which is currently being used to partially fund the Company's legal fees. This insurance coverage will also be used to fund the settlement. Any plaintiffs not participating in the settlement who choose to proceed with their case, as well as any future plaintiffs, in the *NuvaRing* MDL or New Jersey state court will be obligated to meet various discovery and evidentiary requirements under the case management orders of the *NuvaRing* MDL and New Jersey state courts. Plaintiffs who fail to fully and timely satisfy these requirements under set deadlines will be subject to dismissal with prejudice.

#### *Propecia/Proscar*

As previously disclosed, Merck is a defendant in product liability lawsuits in the United States involving *Propecia* and/or *Proscar*. As of June 30, 2014, approximately 1,280 lawsuits involving a total of approximately 1,550 plaintiffs (in a few instances spouses are joined as plaintiffs in the suits) who allege that they have experienced persistent sexual side effects following cessation of treatment with *Propecia* and/or *Proscar* have been filed against Merck. Approximately 45 of the plaintiffs also allege that *Propecia* or *Proscar* has caused or can cause prostate cancer or male breast cancer. The lawsuits have been filed in various federal courts and in state court in New Jersey. The federal lawsuits have been consolidated for pretrial purposes in a federal multidistrict litigation before Judge John Gleeson of the Eastern District of New York. The matters pending in state court in New Jersey have been consolidated before Judge Jessica Mayer in Middlesex County. The Company intends to defend against these lawsuits.

#### **Governmental Proceedings**

The Company's subsidiaries in China have received and may continue to receive inquiries regarding their operations from various Chinese governmental agencies. Some of these inquiries may be related to matters involving other multinational pharmaceutical companies, as well as Chinese entities doing business with such companies. The Company's policy is to cooperate with these authorities and to provide responses as appropriate.

#### **Commercial Litigation**

##### *Coupon Litigation*

In 2012, as previously disclosed, a number of private health plans filed separate putative class action lawsuits against the Company alleging that Merck's coupon programs injured health insurers by reducing beneficiary co-payment amounts and, thereby, allegedly causing beneficiaries to purchase higher-priced drugs than they otherwise would have purchased and increasing the insurers' reimbursement costs. The actions, which were assigned to a District Judge in the U.S. District Court for the District of New Jersey, sought damages and injunctive relief barring the Company from issuing coupons that would reduce beneficiary co-pays on behalf of putative nationwide classes of health insurers. Similar actions relating to manufacturer coupon programs were filed against several other pharmaceutical manufacturers in a variety of federal courts. On June 30, 2014, the District Court granted in part and denied in part Merck's motion to dismiss the consolidated amended complaint, dismissing without prejudice plaintiffs' claims under the federal Racketeering Influenced and Corrupt Organizations statute, but allowing plaintiffs to proceed with their claims of tortious interference with contract under state law.

#### **Patent Litigation**

From time to time, generic manufacturers of pharmaceutical products file Abbreviated New Drug Applications with the U.S. Food and Drug Administration (the "FDA") seeking to market generic forms of the Company's products prior to the expiration of relevant patents owned by the Company. To protect its patent rights, the Company may file patent infringement lawsuits against such generic companies. Certain products of the Company (or products marketed via agreements with other companies) currently involved in such patent infringement litigation in the United States include: *Cancidas*, *Emend* for Injection, *Invanz*, *Nasonex*, and *NuvaRing*. Similar lawsuits defending the Company's patent rights may exist in other countries. The Company intends to vigorously defend its patents, which it believes are valid, against infringement by generic companies attempting to market products prior to the expiration of such patents. As with any litigation, there can be no assurance of the outcomes, which, if adverse, could result in significantly shortened periods of exclusivity for these products and, with respect to products acquired through mergers and acquisitions, potentially significant intangible asset impairment charges.

*Cancidas* — In February 2014, a patent infringement lawsuit was filed in the United States against Xellia Pharmaceuticals ApS ("Xellia") with respect to Xellia's application to the FDA seeking pre-patent expiry approval to market a generic version of *Cancidas*. The lawsuit automatically stays FDA approval of Xellia's application until July 2016 or until an adverse court decision, if any, whichever may occur earlier.

*Emend* for Injection — In May 2012, a patent infringement lawsuit was filed in the United States against Sandoz Inc. (“Sandoz”) in respect of Sandoz’s application to the FDA seeking pre-patent expiry approval to market a generic version of *Emend* for Injection. The lawsuit automatically stays FDA approval of Sandoz’s application until July 2015 or until an adverse court decision, if any, whichever may occur earlier. In June 2012, a patent infringement lawsuit was filed in the United States against Accord Healthcare, Inc. US, Accord Healthcare, Inc. and Intas Pharmaceuticals Ltd (collectively, “Intas”) in respect of Intas’ application to the FDA seeking pre-patent expiry approval to market a generic version of *Emend* for Injection. The Company has agreed with Intas to stay the lawsuit pending the outcome of the lawsuit with Sandoz. In July 2014, a patent infringement lawsuit was filed in the United States against Fresenius Kabi USA, LLC (“Fresenius”) in respect of Fresenius’ application to the FDA seeking pre-patent expiry approval to market a generic version of *Emend* for Injection. The lawsuit automatically stays FDA approval of Fresenius’ application until November 2016 or until an adverse court decision, if any, whichever may occur earlier.

*Invanz* — In July 2014, a patent infringement lawsuit was filed in the United States against Hospira Inc. (“Hospira”) in respect of Hospira’s application to the FDA seeking pre-patent expiry approval to market a generic version of *Invanz*. The lawsuit automatically stays FDA approval of Hospira’s application until November 2016 or until an adverse court decision, if any, whichever may occur earlier. Also in July 2014, a patent infringement lawsuit was filed in the United States against Sandoz in respect of Sandoz’s application to the FDA seeking pre-patent expiry approval to market a generic version of *Invanz*. As neither Hospira nor Sandoz challenged an earlier patent covering *Invanz*, both parties’ application to the FDA will not be approved until at least that patent expires in May 2015.

*Nasonex* — In July 2014, a patent infringement lawsuit was filed in the United States against Teva Pharmaceuticals USA, Inc. (“Teva”) in respect of Teva’s application to the FDA seeking pre-patent expiry approval to market a generic version of *Nasonex*. The lawsuit automatically stays FDA approval of Teva’s application until November 2016 or until an adverse court decision, if any, whichever may occur earlier. A decision issued in June 2013 held that the Merck patent covering mometasone furoate monohydrate was valid, but that it was not infringed by Apotex Corp.’s proposed product.

*NuvaRing* — In December 2013, the Company filed a lawsuit against Warner Chilcott Company LLC (“Warner Chilcott”) in the United States in respect of Warner Chilcott’s application to the FDA seeking pre-patent expiry approval to sell a generic version of *NuvaRing*.

#### **Anti-PD-1 Antibody Patent Oppositions and Litigation**

As previously disclosed, Ono Pharmaceutical Co. (“Ono”) has a European patent (EP 1 537 878) (“’878”) that broadly claims the use of an anti-PD-1 antibody, such as the Company’s immunotherapy, pembrolizumab (MK-3475), for the treatment of cancer. Ono has previously licensed its commercial rights to an anti-PD-1 antibody to Bristol-Myers Squibb (“BMS”) in certain markets. The Company believes that the ‘878 patent is invalid and filed an opposition in the European Patent Office (the “EPO”) seeking its revocation. In June 2014, the Opposition Division of the EPO found the claims in the ‘878 patent are valid. The Company expects to receive the Opposition Division’s written opinion in the third quarter of 2014, after which it will begin the appeal process. On April 30, 2014, the Company, and three other companies, opposed another European patent (EP 2 161 336) (“’336”) owned by BMS and Ono that it believes is invalid. The ‘336 patent, if valid, broadly claims anti-PD-1 antibodies that could include pembrolizumab.

In May 2014, the Company filed a lawsuit in the United Kingdom (“UK”) seeking revocation of the UK national versions of both the ‘878 and ‘336 patents. In July 2014, Ono and BMS sued the Company seeking a declaration that the ‘878 patent would be infringed in the UK by the marketing of pembrolizumab. Separately, the Company has sought confirmation from Ono and BMS that pembrolizumab would not infringe the ‘336 patent in the UK. The Company will seek a declaration of non-infringement from the UK court if BMS does not provide such confirmation. It is anticipated that the issues of validity and infringement of both patents will be heard at the same time by the UK court, which has scheduled the trial to begin in July 2015.

The Company can file lawsuits seeking revocation of the ‘336 and ‘878 patents in other national courts in Europe at any time, and Ono and BMS can file patent infringement actions against the Company in other national courts in Europe at or around the time the Company launches pembrolizumab (if approved). If a national court determines that the Company infringed a valid claim in the ‘878 or ‘336 patent, Ono may be entitled to monetary damages, including royalties on future sales of pembrolizumab, and potentially could seek an injunction to prevent the Company from marketing pembrolizumab in that country.

The United States Patent and Trademark Office recently granted US Patent Nos. 8,728,474 to Ono and 8,779,105 to Ono and BMS. These patents, which the Company believes are invalid, are equivalent to the ‘878 and ‘336 patents, respectively. Ono and BMS have similar and other patents and applications, which the Company is closely monitoring, pending in the United States, Japan and other countries.

The Company is confident that it will be able to market pembrolizumab in any country in which it is approved and that it will not be prevented from doing so by the Ono or BMS patents or any pending applications.

## Other Litigation

There are various other pending legal proceedings involving the Company, principally product liability and intellectual property lawsuits. While it is not feasible to predict the outcome of such proceedings, in the opinion of the Company, either the likelihood of loss is remote or any reasonably possible loss associated with the resolution of such proceedings is not expected to be material to the Company's financial position, results of operations or cash flows either individually or in the aggregate.

## Legal Defense Reserves

Legal defense costs expected to be incurred in connection with a loss contingency are accrued when probable and reasonably estimable. Some of the significant factors considered in the review of these legal defense reserves are as follows: the actual costs incurred by the Company; the development of the Company's legal defense strategy and structure in light of the scope of its litigation; the number of cases being brought against the Company; the costs and outcomes of completed trials and the most current information regarding anticipated timing, progression, and related costs of pre-trial activities and trials in the associated litigation. The amount of legal defense reserves as of June 30, 2014 and December 31, 2013 of approximately \$190 million and \$160 million, respectively, represents the Company's best estimate of the minimum amount of defense costs to be incurred in connection with its outstanding litigation; however, events such as additional trials and other events that could arise in the course of its litigation could affect the ultimate amount of legal defense costs to be incurred by the Company. The Company will continue to monitor its legal defense costs and review the adequacy of the associated reserves and may determine to increase the reserves at any time in the future if, based upon the factors set forth, it believes it would be appropriate to do so.

## 9. Equity

(\$ and shares in millions)	Common Stock		Other Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock		Non-Controlling Interests	Total
	Shares	Par Value				Shares	Cost		
Balance at January 1, 2013	3,577	\$ 1,788	\$ 40,646	\$ 39,985	\$ (4,682)	550	\$ (24,717)	\$ 2,443	\$ 55,463
Net income attributable to Merck & Co., Inc.	—	—	—	2,499	—	—	—	—	2,499
Cash dividends declared on common stock	—	—	—	(2,569)	—	—	—	—	(2,569)
Treasury stock shares purchased	—	—	(500)	—	—	124	(5,605)	—	(6,105)
Share-based compensation plans and other	—	—	(371)	—	—	(23)	988	1	618
Other comprehensive loss	—	—	—	—	(78)	—	—	—	(78)
Supera joint venture	—	—	116	—	—	—	—	112	228
Net income attributable to noncontrolling interests	—	—	—	—	—	—	—	52	52
Distributions attributable to noncontrolling interests	—	—	—	—	—	—	—	(3)	(3)
Balance at June 30, 2013	3,577	\$ 1,788	\$ 39,891	\$ 39,915	\$ (4,760)	651	\$ (29,334)	\$ 2,605	\$ 50,105
Balance at January 1, 2014	3,577	\$ 1,788	\$ 40,508	\$ 39,257	\$ (2,197)	650	\$ (29,591)	\$ 2,561	\$ 52,326
Net income attributable to Merck & Co., Inc.	—	—	—	3,709	—	—	—	—	3,709
Cash dividends declared on common stock	—	—	—	(2,600)	—	—	—	—	(2,600)
Treasury stock shares purchased	—	—	—	—	—	60	(3,413)	—	(3,413)
Share-based compensation plans and other	—	—	(309)	—	—	(33)	1,453	1	1,145
Other comprehensive loss	—	—	—	—	(247)	—	—	—	(247)
AstraZeneca option exercise	—	—	—	—	—	—	—	(2,400)	(2,400)
Net income attributable to noncontrolling interests	—	—	—	—	—	—	—	55	55
Distributions attributable to noncontrolling interests	—	—	—	—	—	—	—	(59)	(59)
Balance at June 30, 2014	3,577	\$ 1,788	\$ 40,199	\$ 40,366	\$ (2,444)	677	\$ (31,551)	\$ 158	\$ 48,516

On May 20, 2013, Merck entered into an accelerated share repurchase ("ASR") agreement with Goldman, Sachs & Co. ("Goldman Sachs"). Under the ASR, Merck agreed to purchase \$5.0 billion of Merck's common stock, in total, with an initial delivery of approximately 99.5 million shares of Merck's common stock, based on current market price, made by Goldman Sachs to Merck, and payment of \$5.0 billion made by Merck to Goldman Sachs, on May 21, 2013. The payment to Goldman Sachs was recorded as a reduction to shareholders' equity, consisting of a \$4.5 billion increase in treasury stock, which reflects the value of the initial 99.5 million shares received upon execution, and a \$500 million decrease in other-paid-in capital, which reflects the value of the stock held back by Goldman Sachs pending final settlement. Upon settlement of the ASR on October 31, 2013, Merck received an additional 5.5 million shares as determined by the average daily volume weighted-average price of Merck's common stock during the term of the ASR program bringing the total shares received by Merck under this program to 105 million. The ASR was entered into pursuant to a share repurchase program announced on May 1, 2013.

In connection with the 1998 restructuring of Astra Merck Inc., the Company assumed \$2.4 billion par value preferred stock with a dividend rate of 5% per annum, which was carried by KBI and included in *Noncontrolling interests* on the Consolidated Balance Sheet. As discussed in Note 7, on June 30, 2014, AstraZeneca exercised its option to acquire Merck's interest in AZLP and this preferred stock obligation was retired.

## 10. Share-Based Compensation Plans

The Company has share-based compensation plans under which the Company grants restricted stock units ("RSUs") and performance share units ("PSUs") to certain management level employees. In addition, employees, non-employee directors and employees of certain of the Company's equity method investees may be granted options to purchase shares of Company common stock at the fair market value at the time of grant.

The following table provides amounts of share-based compensation cost recorded in the Consolidated Statement of Income:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Pretax share-based compensation expense	\$ 78	\$ 75	\$ 134	\$ 142
Income tax benefit	(24)	(23)	(41)	(43)
Total share-based compensation expense, net of taxes	\$ 54	\$ 52	\$ 93	\$ 99

During the first six months of 2014 and 2013, the Company granted 5 million RSUs with a weighted-average grant date fair value of \$58.18 per RSU and 6 million RSUs with a weighted-average grant date fair value of \$44.96 per RSU, respectively.

During the first six months of 2014 and 2013, the Company granted 5 million stock options with a weighted-average exercise price of \$56.94 per option and 6 million stock options with a weighted-average exercise price of \$44.98 per option, respectively. The weighted-average fair value of options granted for the first six months of 2014 and 2013 was \$6.79 and \$6.21 per option, respectively, and was determined using the following assumptions:

	Six Months Ended June 30, 2014	
	2014	2013
Expected dividend yield	4.3%	4.2%
Risk-free interest rate	2.0%	1.2%
Expected volatility	22.0%	25.0%
Expected life (years)	6.4	7.0

At June 30, 2014, there was \$572 million of total pretax unrecognized compensation expense related to nonvested stock options, RSU and PSU awards which will be recognized over a weighted-average period of 2.1 years. For segment reporting, share-based compensation costs are unallocated expenses.

## 11. Pension and Other Postretirement Benefit Plans

The Company has defined benefit pension plans covering eligible employees in the United States and in certain of its international subsidiaries. The net periodic benefit cost of such plans consisted of the following components:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Service cost	\$ 150	\$ 170	\$ 300	\$ 345
Interest cost	176	165	352	331
Expected return on plan assets	(301)	(272)	(602)	(547)
Net amortization	27	82	55	166
Termination benefits	17	3	31	5
Curtailments	(23)	(2)	(32)	(2)
	\$ 46	\$ 146	\$ 104	\$ 298



Notes to Interim Consolidated Financial Statements (unaudited) (continued)

The Company provides medical benefits, principally to its eligible U.S. retirees and similar benefits to their dependents, through its other postretirement benefit plans. The net cost of such plans consisted of the following components:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Service cost	\$ 19	\$ 24	\$ 38	\$ 48
Interest cost	29	27	57	54
Expected return on plan assets	(35)	(32)	(69)	(63)
Net amortization	(17)	(12)	(35)	(24)
Termination benefits	4	2	8	2
Curtailments	(6)	(2)	(26)	(2)
	\$ (6)	\$ 7	\$ (27)	\$ 15

In connection with restructuring actions (see Note 2), termination charges were recorded on pension and other postretirement benefit plans related to expanded eligibility for certain employees exiting Merck. Also, in connection with these restructuring actions, curtailments were recorded on pension and other postretirement benefit plans as reflected in the tables above.

## 12. Other (Income) Expense, Net

Other (income) expense, net, consisted of:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Interest income	\$ (59)	\$ (65)	\$ (121)	\$ (122)
Interest expense	188	201	376	385
Exchange losses	20	55	53	267
Other, net	(707)	10	(904)	(46)
	\$ (558)	\$ 201	\$ (596)	\$ 484

The lower exchange losses in the first six months of 2014 as compared with the first six months of 2013 are due primarily to a Venezuelan currency devaluation. In February 2013, the Venezuelan government devalued its currency (Bolívar Fuertes) from 4.30 VEF per U.S. dollar to 6.30 VEF per U.S. dollar. The Company recognized losses due to exchange of approximately \$140 million in the first quarter of 2013 resulting from the remeasurement of the local monetary assets and liabilities at the new rate. Since January 2010, Venezuela has been designated hyperinflationary and, as a result, local foreign operations are remeasured in U.S. dollars with the impact recorded in results of operations. Other, net in the second quarter and first six months of 2014, includes a gain of \$741 million related to AstraZeneca's option exercise (see Note 7). In addition, Other, net in the first six months of 2014 includes a net gain of \$168 million related to the divestiture of Sirna (see Note 3).

Interest paid for the six months ended June 30, 2014 and 2013 was \$376 million and \$303 million, respectively.

## 13. Taxes on Income

The effective income tax rates of (7.5)% and 24.9% for the second quarter of 2014 and 2013, respectively, and 5.5% and 8.7% for the first six months of 2014 and 2013, respectively, reflect the impacts of acquisition-related costs and restructuring costs, partially offset by the beneficial impact of foreign earnings. The effective income tax rates for the second quarter and first six months of 2014 also reflect a net tax benefit of \$517 million recorded in connection with AstraZeneca's option exercise (see Note 7). In addition, the effective income tax rate for the first six months of 2014 includes a benefit of approximately \$300 million associated with a capital loss generated in the first quarter related to the sale of Sirna (see Note 3). The effective income tax rates for the second quarter and first six months of 2013 also reflect net benefits from reductions in tax reserves upon expiration of applicable statute of limitations. Additionally, the effective income tax rate for the first six months of 2013 reflects the favorable impact of tax legislation enacted in the first quarter of 2013 that extended the R&D tax credit for both 2012 and 2013, as well as a benefit of approximately \$160 million associated with the resolution of a previously disclosed federal income tax issue as discussed below.

In 2010, the Internal Revenue Service (the "IRS") finalized its examination of Schering-Plough's 2003-2006 tax years. In this audit cycle, the Company reached an agreement with the IRS on an adjustment to income related to intercompany pricing matters. This income adjustment mostly reduced net operating loss carryforwards and other tax credit carryforwards. The Company's reserves for uncertain tax positions were adequate to cover all adjustments related to this examination period.



Notes to Interim Consolidated Financial Statements (unaudited) (continued)

Additionally, as previously disclosed, the Company was seeking resolution of one issue raised during this examination through the IRS administrative appeals process. In the first quarter of 2013, the Company recorded an out-of-period net tax benefit of \$160 million related to this issue, which was settled in the fourth quarter of 2012, with final resolution relating to interest owed being reached in the first quarter of 2013. The Company's unrecognized tax benefits related to this issue exceeded the settlement amount. Management concluded that the exclusion of this benefit was not material to prior period financial statements.

#### 14. Earnings Per Share

The calculations of earnings per share are as follows:

(\$ and shares in millions except per share amounts)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Net income attributable to Merck & Co., Inc.	\$ 2,004	\$ 906	\$ 3,709	\$ 2,499
Average common shares outstanding	2,917	2,977	2,925	3,000
Common shares issuable <sup>(1)</sup>	32	33	32	30
Average common shares outstanding assuming dilution	2,949	3,010	2,957	3,030
Basic earnings per common share attributable to Merck & Co., Inc. common shareholders	\$ 0.69	\$ 0.30	\$ 1.27	\$ 0.83
Earnings per common share assuming dilution attributable to Merck & Co., Inc. common shareholders	\$ 0.68	\$ 0.30	\$ 1.25	\$ 0.82

<sup>(1)</sup> Issuable primarily under share-based compensation plans.

For the three months ended June 30, 2014 and 2013, 4 million and 23 million, respectively, and for the first six months of 2014 and 2013, 3 million and 32 million, respectively, of common shares issuable under share-based compensation plans were excluded from the computation of earnings per common share assuming dilution because the effect would have been antidilutive.

#### 15. Other Comprehensive Income (Loss)

Changes in AOCI by component are as follows:

(\$ in millions)	Three Months Ended June 30,				
	Derivatives	Investments	Employee Benefit Plans	Cumulative Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance April 1, 2013, net of taxes	\$ 139	\$ 74	\$ (3,506)	\$ (1,336)	\$ (4,629)
Other comprehensive income (loss) before reclassification adjustments, pretax	64	(80)	11	(125)	(130)
Tax	(30)	4	(7)	(11)	(44)
Other comprehensive income (loss) before reclassification adjustments, net of taxes	34	(76)	4	(136)	(174)
Reclassification adjustments, pretax	1	(6)	70	—	65
Tax	—	1	(23)	—	(22)
Reclassification adjustments, net of taxes	1 <sup>(1)</sup>	(5) <sup>(2)</sup>	47 <sup>(3)</sup>	—	43
Other comprehensive income (loss), net of taxes	35	(81)	51	(136)	(131)
Balance June 30, 2013, net of taxes	\$ 174	\$ (7)	\$ (3,455)	\$ (1,472)	\$ (4,760)
Balance April 1, 2014, net of taxes	\$ 66	\$ 52	\$ (910)	\$ (1,387)	\$ (2,179)
Other comprehensive income (loss) before reclassification adjustments, pretax	(55)	44	(558)	45	(524)
Tax	19	(2)	216	(4)	229
Other comprehensive income (loss) before reclassification adjustments, net of taxes	(36)	42	(342)	41	(295)
Reclassification adjustments, pretax	(4)	35	11	—	42
Tax	1	(13)	—	—	(12)
Reclassification adjustments, net of taxes	(3) <sup>(1)</sup>	22 <sup>(2)</sup>	11 <sup>(3)</sup>	—	30
Other comprehensive income (loss), net of taxes	(30)	64	(331)	41	(265)



Balance June 30, 2014, net of taxes	\$	27	\$	116	\$	(1,241)	\$	(1,346)	\$	(2,444)
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Notes to Interim Consolidated Financial Statements (unaudited) (continued)

(\$ in millions)	Six Months Ended June 30,				
	Derivatives	Investments	Employee Benefit Plans	Cumulative Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance January 1, 2013, net of taxes	\$ (97)	\$ 73	\$ (3,667)	\$ (991)	\$ (4,682)
Other comprehensive income (loss) before reclassification adjustments, pretax	413	(44)	144	(378)	135
Tax	(163)	(8)	(30)	(103)	(304)
Other comprehensive income (loss) before reclassification adjustments, net of taxes	250	(52)	114	(481)	(169)
Reclassification adjustments, pretax	33	(34)	142	—	141
Tax	(12)	6	(44)	—	(50)
Reclassification adjustments, net of taxes	21 <sup>(1)</sup>	(28) <sup>(2)</sup>	98 <sup>(3)</sup>	—	91
Other comprehensive income (loss), net of taxes	271	(80)	212	(481)	(78)
Balance June 30, 2013, net of taxes	\$ 174	\$ (7)	\$ (3,455)	\$ (1,472)	\$ (4,760)
Balance January 1, 2014, net of taxes	\$ 132	\$ 54	\$ (909)	\$ (1,474)	\$ (2,197)
Other comprehensive income (loss) before reclassification adjustments, pretax	(157)	39	(572)	121	(569)
Tax	55	5	223	7	290
Other comprehensive income (loss) before reclassification adjustments, net of taxes	(102)	44	(349)	128	(279)
Reclassification adjustments, pretax	(4)	30	20	—	46
Tax	1	(12)	(3)	—	(14)
Reclassification adjustments, net of taxes	(3) <sup>(1)</sup>	18 <sup>(2)</sup>	17 <sup>(3)</sup>	—	32
Other comprehensive income (loss), net of taxes	(105)	62	(332)	128	(247)
Balance June 30, 2014, net of taxes	\$ 27	\$ 116	\$ (1,241)	\$ (1,346)	\$ (2,444)

<sup>(1)</sup> Relates to foreign currency cash flow hedges that were reclassified from AOCI to Sales.

<sup>(2)</sup> Represents net realized (gains) losses on the sales of available-for-sale investments that were reclassified from AOCI to Other (income) expense, net.

<sup>(3)</sup> Includes net amortization of prior service cost and actuarial gains and losses included in net periodic benefit cost (see Note 11).

## 16. Segment Reporting

The Company's operations are principally managed on a products basis and are comprised of four operating segments – Pharmaceutical, Animal Health, Consumer Care and Alliances (which includes revenue and equity income from the Company's relationship with AZLP until the June 30, 2014 termination date). The Animal Health, Consumer Care and Alliances segments are not material for separate reporting. The Pharmaceutical segment includes human health pharmaceutical and vaccine products marketed either directly by the Company or through joint ventures. Human health pharmaceutical products consist of therapeutic and preventive agents, generally sold by prescription, for the treatment of human disorders. The Company sells these human health pharmaceutical products primarily to drug wholesalers and retailers, hospitals, government agencies and managed health care providers such as health maintenance organizations, pharmacy benefit managers and other institutions. Vaccine products consist of preventive pediatric, adolescent and adult vaccines, primarily administered at physician offices. The Company sells these human health vaccines primarily to physicians, wholesalers, physician distributors and government entities. A large component of pediatric and adolescent vaccines is sold to the U.S. Centers for Disease Control and Prevention Vaccines for Children program, which is funded by the U.S. government. Additionally, the Company sells vaccines to the Federal government for placement into vaccine stockpiles. The Company also has animal health operations that discover, develop, manufacture and market animal health products, including vaccines, which the Company sells to veterinarians, distributors and animal producers. Additionally, the Company has consumer care operations that develop, manufacture and market over-the-counter, foot care and sun care products, which are sold through wholesale and retail drug, food chain and mass merchandiser outlets, as well as club stores and specialty channels. In May 2014, the Company announced that it had entered into an agreement to sell its Consumer Care business to Bayer (see Note 3).

Notes to Interim Consolidated Financial Statements (unaudited) (continued)

Sales of the Company's products were as follows:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
<b>Primary Care and Women's Health</b>				
Cardiovascular				
<i>Zetia</i>	\$ 717	\$ 650	\$ 1,328	\$ 1,279
<i>Vytorin</i>	417	417	777	810
Diabetes				
<i>Januvia</i>	1,058	1,072	1,916	1,956
<i>Janumet</i>	519	474	995	883
General Medicine and Women's Health				
<i>NuvaRing</i>	178	171	346	322
<i>Implanon</i>	119	102	221	187
<i>Follistim AQ</i>	102	134	213	257
<i>Dulera</i>	103	79	205	147
<b>Hospital and Specialty</b>				
Hepatitis				
<i>PegIntron</i>	103	142	216	268
<i>Victrelis</i>	46	116	105	226
HIV				
<i>Isentress</i>	453	412	843	775
Hospital				
<i>Cancidas</i>	156	163	322	326
<i>Invanz</i>	134	120	249	230
<i>Noxafil</i>	98	71	172	136
<i>Bridion</i>	82	69	155	131
<i>Primaxin</i>	81	85	151	168
Immunology				
<i>Remicade</i>	607	527	1,211	1,076
<i>Simponi</i>	174	120	330	228
Other				
<i>Cosopt/Trusopt</i>	100	103	198	209
<b>Oncology</b>				
<i>Emend</i>	144	135	266	250
<i>Temodar</i>	93	219	176	434
<b>Diversified Brands</b>				
Respiratory				
<i>Nasonex</i>	258	325	570	711
<i>Singulair</i>	284	281	554	618
<i>Clarinex</i>	69	64	131	125
Other				
<i>Cozaar/Hyzaar</i>	214	255	419	522
<i>Arcoxia</i>	141	121	268	242
<i>Fosamax</i>	121	144	245	281
<i>Zocor</i>	69	74	133	156
<i>Propecia</i>	58	67	131	135
<i>Remeron</i>	40	53	90	106
<b>Vaccines <sup>(1)</sup></b>				
<i>Gardasil</i>	409	383	792	773
<i>ProQuad/M-M-R II /Varivax</i>	326	339	606	611
<i>RotaTeq</i>	147	144	316	306
<i>Zostavax</i>	156	141	298	290

<i>Pneumovax 23</i>	102	108	203	219
Other pharmaceutical <sup>(2)</sup>	1,209	1,430	2,387	2,789
Total Pharmaceutical segment sales	9,087	9,310	17,538	18,201
Other segment sales <sup>(3)</sup>	1,796	1,631	3,336	3,343
Total segment sales	10,883	10,941	20,874	21,544
Other <sup>(4)</sup>	51	69	324	137
	\$ 10,934	\$ 11,010	\$ 21,198	\$ 21,681

<sup>(1)</sup> These amounts do not reflect sales of vaccines sold in most major European markets through the Company's joint venture, Sanofi Pasteur MSD, the results of which are reflected in Equity income from affiliates. These amounts do, however, reflect supply sales to Sanofi Pasteur MSD.

<sup>(2)</sup> Other pharmaceutical primarily reflects sales of other human health pharmaceutical products, including products within the franchises not listed separately.

<sup>(3)</sup> Represents the non-reportable segments of Animal Health, Consumer Care and Alliances. The Alliances segment includes revenue from the Company's relationship with AZLP. Effective July 1, 2014, the Company no longer records supply sales from AZLP (see Note 7).

<sup>(4)</sup> Other revenues are primarily comprised of miscellaneous corporate revenues, sales related to divested products or businesses and other supply sales not included in segment results. Other revenues in the first six months of 2014 include \$232 million received by Merck in connection with the sale of the U.S. marketing rights to Saphris (see Note 3). Other revenues also include third-party manufacturing sales, a substantial portion of which was divested in October 2013 (see Note 2).

A reconciliation of segment profits to *Income before taxes* is as follows:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Segment profits:				
Pharmaceutical segment	\$ 5,507	\$ 5,693	\$ 10,703	\$ 11,039
Other segments	814	793	1,513	1,693
Total segment profits	6,321	6,486	12,216	12,732
Other profits (losses)	76	4	291	(19)
Unallocated:				
Interest income	59	65	121	122
Interest expense	(188)	(201)	(376)	(385)
Equity income from affiliates	29	(12)	84	(15)
Depreciation and amortization	(681)	(458)	(1,301)	(937)
Research and development	(1,363)	(1,846)	(2,651)	(3,509)
Amortization of purchase accounting adjustments	(1,064)	(1,185)	(2,190)	(2,369)
Restructuring costs	(163)	(155)	(288)	(274)
AstraZeneca option exercise	741	—	741	—
Other unallocated, net	(1,876)	(1,453)	(2,665)	(2,551)
	\$ 1,891	\$ 1,245	\$ 3,982	\$ 2,795

Segment profits are comprised of segment sales less standard costs and certain operating expenses directly incurred by the segments. For internal management reporting presented to the chief operating decision maker, Merck does not allocate materials and production costs, other than standard costs, the majority of research and development expenses or general and administrative expenses, nor the cost of financing these activities. Separate divisions maintain responsibility for monitoring and managing these costs, including depreciation related to fixed assets utilized by these divisions and, therefore, they are not included in segment profits. In addition, costs related to restructuring activities, as well as the amortization of purchase accounting adjustments are not allocated to segments.

Other profits (losses) are primarily comprised of miscellaneous corporate profits (losses), as well as operating profits (losses) related to third-party manufacturing sales, divested products and other supply sales.

Other unallocated, net includes expenses from corporate and manufacturing cost centers, product intangible asset impairment charges, gains or losses on sales of businesses and other miscellaneous income or expense items.

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

### **Business Developments**

In May 2014, the Company announced that it had entered into a definitive agreement to sell its Merck Consumer Care ("MCC") business to Bayer AG ("Bayer") for \$14.2 billion. Under the terms of the agreement, Bayer will acquire Merck's existing over-the-counter ("OTC") business, including the global trademark and prescription rights for *Claritin* and *Afrin*. The Company expects the pretax gain from the sale of MCC to be between \$11.0 billion and \$11.3 billion. Merck expects to close the sale of MCC in the second half of 2014, subject to customary closing conditions, including regulatory approvals.

The Company also announced a worldwide clinical development collaboration with Bayer to market and develop its portfolio of soluble guanylate cyclase ("sGC") modulators. This includes Bayer's Adempas (riociguat), the first member of this novel class of compounds. Adempas is approved to treat pulmonary arterial hypertension ("PAH") and is the first and only drug treatment approved for patients with chronic thromboembolic pulmonary hypertension ("CTEPH"). Adempas is currently marketed in the United States and Europe for both PAH and CTEPH and in Japan for CTEPH. The two companies will equally share costs and profits from the collaboration and implement a joint development and commercialization strategy. The collaboration also includes clinical development of Bayer's vericiguat, which is currently in Phase 2 trials for worsening heart failure, as well as opt-in rights for other early-stage sGC compounds in development at Bayer. Merck will in turn make available its early-stage sGC compounds under similar terms. In return for these broad collaboration rights, Merck will make an upfront payment to Bayer of \$1.0 billion with the potential for additional milestone payments upon the achievement of agreed-upon sales goals. For Adempas, Bayer will continue to lead commercialization in the Americas, while Merck will lead commercialization in the rest of the world. For vericiguat and other potential opt-in products, Bayer will lead in the rest of world and Merck will lead in the Americas. For all products and candidates included in the agreement, both companies will share in development costs and profits on sales and will have the right to co-promote in territories where they are not the lead. The formation of this collaboration is subject to the closing of the MCC sale to Bayer.

Also, in May 2014, Merck entered into an agreement to sell certain ophthalmic products to Santen Pharmaceutical Co., Ltd. ("Santen") in Japan and markets in Europe and Asia Pacific. The ophthalmic products included in the agreement are *Cosopt* (dorzolamide hydrochloride-timolol maleate ophthalmic solution), *Cosopt PF* (dorzolamide hydrochloride-timolol maleate ophthalmic solution) 2%/0.5%, *Trusopt* (dorzolamide hydrochloride ophthalmic solution) sterile ophthalmic solution 2%, *Trusopt PF* (dorzolamide hydrochloride ophthalmic solution) preservative-free, *Timoptic* (timolol maleate ophthalmic solution), *Timoptic PF* (timolol maleate preservative free ophthalmic solution in unit dose dispenser), *Timoptic XE* (timolol maleate ophthalmic gel forming solution), *Saflutan* (tafluprost) and *Taptiqom* (tafluprost-timolol maleate ophthalmic solution, in development). The agreement provides that Santen make upfront payments of approximately \$600 million and additional payments based on defined sales milestones. Santen will also purchase supply of ophthalmology products covered by the agreement for a two- to five-year period. Upon closing of the transaction in most markets on July 1, 2014, Santen made \$548 million of the upfront payments to the Company. The remaining markets continue to be subject to certain closing conditions and are expected to close by the end of 2014.

In August 2014, Merck completed the acquisition of Idenix Pharmaceuticals, Inc. ("Idenix") for \$24.50 per share in cash for a total of approximately \$3.85 billion. Idenix is a biopharmaceutical company engaged in the discovery and development of medicines for the treatment of human viral diseases, whose primary focus is on the development of next-generation oral antiviral therapeutics to treat hepatitis C virus ("HCV") infection. Idenix currently has three HCV drug candidates in clinical development: two nucleotide prodrugs (IDX21437 and IDX21459) and a NS5A inhibitor (samatasvir). These novel candidates are being evaluated for their potential inclusion in the development of all oral, pan-genotypic fixed-dose combination regimens.

## Operating Results

### Sales

Worldwide sales were \$10.9 billion for the second quarter of 2014, a decline of 1% compared with the second quarter of 2013. The revenue decline in the second quarter of 2014 was driven primarily by lower sales of *Temodar* (temozolomide), *Victrelis* (boceprevir), *Nasonex* (mometasone furoate monohydrate), *Cozaar* (losartan potassium)/ *Hyzaar* (losartan potassium and hydrochlorothiazide), and *PegIntron* (peginterferon alpha-2b). The sales decline was also attributable to lower revenue as a result of product divestitures that occurred in 2013 as discussed below. These declines were partially offset by growth in *Remicade* (infliximab), *Zetia* (ezetimibe), *Simponi* (golimumab), *Janumet* (sitagliptin and metformin HCl), and *Isentress* (raltegravir), as well as by higher revenue from the Company's relationship with AstraZeneca LP ("AZLP").

Worldwide sales were \$21.2 billion for the first six months of 2014, a decline of 2% compared with the same period in 2013. Foreign exchange unfavorably affected global sales performance by 1% in the first six months of 2014. The revenue decline was driven primarily by lower sales of *Temodar*, *Nasonex*, *Victrelis*, *Cozaar/Hyzaar*, *Singulair* (montelukast sodium) and *PegIntron*. Lower revenue as a result of product divestitures and from AZLP also contributed to the sales decline. These declines were partially offset by higher sales of *Remicade*, *Janumet*, *Simponi*, *Isentress*, *Dulera* Inhalation Aerosol (mometasone furoate/formoterol fumarate dihydrate) and *Zetia*. In addition, the Company recognized revenue of \$232 million in the first six months of 2014 in connection with the sale of the U.S. marketing rights to *Saphris* (asenapine).

Global efforts toward health care cost containment continue to exert pressure on product pricing and market access worldwide. In the United States, health care reform is contributing to an increase in the number of patients in the Medicaid program under which sales of pharmaceutical products are subject to substantial rebates. In many international markets, government-mandated pricing actions have reduced prices of generic and patented drugs. In addition, other austerity measures negatively affected the Company's revenue performance in the first six months of 2014. The Company anticipates these pricing actions, including the biennial price reductions in Japan, and other austerity measures will continue to negatively affect revenue performance for the remainder of 2014.

As discussed in Note 2 to the interim consolidated financial statements, on October 1, 2013, the Company sold its active pharmaceutical ingredient ("API") manufacturing business and, effective December 31, 2013, certain related products within Diversified Brands. In November 2013, Merck sold the U.S. rights to certain ophthalmic products and in January 2014 sold the U.S. marketing rights to *Saphris*. The aggregate sales in 2013 associated with these divested assets were approximately \$570 million. The sales in 2013 associated with the divested products were approximately \$420 million of which approximately \$380 million related to the Pharmaceutical segment and \$40 million related to the Consumer Care segment. The sales recorded in 2013 associated with the divested API manufacturing business were approximately \$150 million and related to non-segment revenues.

In addition to the above transactions, other divestitures that remain pending will also negatively impact future sales upon closing. Sales in 2013 of the OTC business being sold to Bayer include Consumer Care segment sales of \$1.9 billion, as well as Pharmaceutical segment sales of approximately \$200 million related to sale of the prescription rights to *Claritin* and *Afrin*. In addition, sales of the ophthalmic products in the international markets being divested to Santen (most of which closed on July 1, 2014) were approximately \$400 million in 2013 and related to the Pharmaceutical segment.

Sales of the Company's products were as follows:

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
<b>Primary Care and Women's Health</b>				
Cardiovascular				
<i>Zetia</i>	\$ 717	\$ 650	\$ 1,328	\$ 1,279
<i>Vytorin</i>	417	417	777	810
Diabetes				
<i>Januvia</i>	1,058	1,072	1,916	1,956
<i>Janumet</i>	519	474	995	883
General Medicine and Women's Health				
<i>NuvaRing</i>	178	171	346	322
<i>Implanon</i>	119	102	221	187
<i>Follistim AQ</i>	102	134	213	257
<i>Dulera</i>	103	79	205	147
<b>Hospital and Specialty</b>				
Hepatitis				
<i>PegIntron</i>	103	142	216	268
<i>Victrelis</i>	46	116	105	226
HIV				
<i>Isentress</i>	453	412	843	775
Hospital				
<i>Candidas</i>	156	163	322	326
<i>Invanz</i>	134	120	249	230
<i>Noxafil</i>	98	71	172	136
<i>Bridion</i>	82	69	155	131
<i>Primaxin</i>	81	85	151	168
Immunology				
<i>Remicade</i>	607	527	1,211	1,076
<i>Simponi</i>	174	120	330	228
Other				
<i>Cosopt/Trusopt</i>	100	103	198	209
<b>Oncology</b>				
<i>Emend</i>	144	135	266	250
<i>Temodar</i>	93	219	176	434
<b>Diversified Brands</b>				
Respiratory				
<i>Nasonex</i>	258	325	570	711
<i>Singulair</i>	284	281	554	618
<i>Clarinx</i>	69	64	131	125
Other				
<i>Cozaar/Hyzaar</i>	214	255	419	522
<i>Arcoxia</i>	141	121	268	242
<i>Fosamax</i>	121	144	245	281
<i>Zocor</i>	69	74	133	156
<i>Propecia</i>	58	67	131	135
<i>Remeron</i>	40	53	90	106
<b>Vaccines <sup>(1)</sup></b>				
<i>Gardasil</i>	409	383	792	773
<i>ProQuad/M-M-R II /Varivax</i>	326	339	606	611
<i>RotaTeq</i>	147	144	316	306



<i>Zostavax</i>	156	141	298	309
<i>Pneumovax 23</i>	102	108	203	219
Other pharmaceutical <sup>(2)</sup>	1,209	1,430	2,387	2,789
Total Pharmaceutical segment sales	9,087	9,310	17,538	18,201
Other segment sales <sup>(3)</sup>	1,796	1,631	3,336	3,343
Total segment sales	10,883	10,941	20,874	21,544
Other <sup>(4)</sup>	51	69	324	137
	\$ 10,934	\$ 11,010	\$ 21,198	\$ 21,681

<sup>(1)</sup> These amounts do not reflect sales of vaccines sold in most major European markets through the Company's joint venture, Sanofi Pasteur MSD, the results of which are reflected in Equity income from affiliates. These amounts do, however, reflect supply sales to Sanofi Pasteur MSD.

<sup>(2)</sup> Other pharmaceutical primarily reflects sales of other human health pharmaceutical products, including products within the franchises not listed separately.

<sup>(3)</sup> Represents the non-reportable segments of Animal Health, Consumer Care and Alliances. The Alliances segment includes revenue from the Company's relationship with AZLP. Effective July 1, 2014, the Company no longer records supply sales from AZLP.

<sup>(4)</sup> Other revenues are primarily comprised of miscellaneous corporate revenues, sales related to divested products or businesses, and other supply sales not included in segment results. Other revenues in the first six months of 2014 include \$232 million received by Merck in connection with the sale of the U.S. marketing rights to Saphris. Other revenues also include third-party manufacturing sales, a substantial portion of which was divested in October 2013.

The provision for discounts includes indirect customer discounts that occur when a contracted customer purchases directly through an intermediary wholesale purchaser, known as chargebacks, as well as indirectly in the form of rebates owed based upon definitive contractual agreements or legal requirements with private sector and public sector (Medicaid and Medicare Part D) benefit providers, after the final dispensing of the product by a pharmacy to a benefit plan participant. These discounts, in the aggregate, reduced sales by \$1.7 billion and \$1.3 billion for the three months ended June 30, 2014 and 2013, respectively, and by \$3.1 billion and \$2.5 billion for the six months ended June 30, 2014 and 2013, respectively. Inventory levels at key U.S. wholesalers for each of the Company's major pharmaceutical products are generally less than one month.

## **Pharmaceutical Segment**

### *Primary Care and Women's Health*

#### Cardiovascular

Combined global sales of *Zetia* and *Vytorin* (ezetimibe/simvastatin), medicines for lowering LDL cholesterol were \$1.1 billion in the second quarter of 2014, an increase of 6% compared with the second quarter of 2013 including a 1% favorable effect from foreign exchange. Combined global sales of *Zetia* and *Vytorin* were \$2.1 billion in the first six months of 2014, an increase of 1% compared with the same period in 2013.

Worldwide sales of *Zetia* (marketed outside the United States as *Ezetrol*), a cholesterol absorption inhibitor, were \$717 million in the second quarter of 2014 and \$1.3 billion in the first six months of 2014, increases of 10% and 4%, respectively, compared with the same periods of 2013. Foreign exchange unfavorably affected global sales performance by 1% in the first six months of 2014. The increase in both periods was driven primarily by higher sales in the United States reflecting higher pricing and, for the second quarter of 2014, increased wholesaler purchases.

Global sales of *Vytorin* (marketed outside the United States as *Inegy*), a combination product containing the active ingredients of both *Zetia* and *Zocor* (simvastatin), a statin for modifying cholesterol, were \$417 million in the second quarter of 2014, essentially flat as compared with the second quarter of 2013, and were \$777 million in the first six months of 2014, a decline of 4% compared with the first six months of 2013. Foreign exchange favorably affected global sales performance by 2% and 1% in the second quarter and first six months of 2014, respectively. The sales decline in the year-to-date period primarily reflects lower volumes in the United States.

The IMPROVE-IT trial is an approximately 18,000 patient, event-driven cardiovascular outcomes study evaluating ezetimibe/simvastatin against simvastatin alone in patients presenting with acute coronary syndrome. Based on the targeted number of 5,250 clinical endpoints and the rate of event reporting, the trial is projected to conclude later in 2014. After final data collection and confirmation, and analysis of key endpoints, the results will be presented at a scientific meeting. If the results of the IMPROVE-IT trial fail to demonstrate an incremental benefit of ezetimibe/simvastatin on cardiovascular morbidity and mortality over and above that demonstrated for simvastatin, sales of *Zetia* and *Vytorin* could be materially adversely affected and, if so, the Company may take non-cash impairment charges with respect to the carrying values of the *Zetia* and *Vytorin* intangible assets, which were \$4.2 billion and \$2.3 billion, respectively, at June 30, 2014 and such charges could be material.

#### Diabetes

Worldwide combined sales of *Januvia* (sitagliptin) and *Janumet*, medicines that help lower blood sugar levels in adults with type 2 diabetes, were \$1.6 billion in the second quarter of 2014, an increase of 2% compared with the second quarter of 2013, and were \$2.9 billion in the first six months of 2014, an increase of 3% compared with the same period in 2013.

Global sales of *Januvia*, Merck's dipeptidyl peptidase-4 ("DPP-4") inhibitor for the treatment of type 2 diabetes, were \$1.1 billion in the second quarter of 2014, a decrease of 1% compared with the second quarter of 2013, driven by lower sales in Japan due to pricing, partially offset by volume growth in Europe. In April 2014, all DPP-4 inhibitors, including *Januvia*, were subject to repricing in Japan. Worldwide sales of *Januvia* were \$1.9 billion for the first six months of 2014, a decline of 2% compared with the first six months of 2013, driven primarily by lower sales in Japan, reflecting lower volumes and lower pricing, partially offset by volume growth in Europe. Foreign exchange unfavorably affected global sales performance by 1% in the first six months of 2014.

The Trial Evaluating Cardiovascular Outcomes after treatment with Sitagliptin ("TECOS"), an event-driven, cardiovascular outcomes study for sitagliptin, began in 2008 and has over 14,000 patients enrolled. TECOS will evaluate the impact of sitagliptin when added to usual care compared to usual care without sitagliptin in a large, high-risk type 2 diabetes population across multiple countries. TECOS is expected to be completed later in 2014 with results presented in 2015.

Worldwide sales of *Janumet*, Merck's oral antihyperglycemic agent that combines sitagliptin (*Januvia*) with metformin in a single tablet, grew 9% in the second quarter of 2014 to \$519 million compared with the second quarter of 2013 driven largely by volume growth in Europe. Foreign exchange favorably affected global sales performance by 1% in the second quarter of 2014. Global sales of *Janumet* grew 13% in the first six months of 2014 to \$995 million compared with the same period of 2013 driven primarily by volume growth across the emerging markets and in Europe.

## General Medicine and Women's Health

Worldwide sales of *NuvaRing* (etonogestrel/ethinyl estradiol vaginal ring), a vaginal contraceptive product, increased 4% in the second quarter of 2014 to \$178 million and grew 7% in the first six months of 2014 to \$346 million compared with the same periods in 2013 . The sales growth in both periods primarily reflects higher pricing in the United States.

Worldwide sales of *Implanon* (etonogestrel implant), a single-rod subdermal contraceptive implant, grew 16% to \$119 million in the second quarter of 2014 and increased 18% to \$221 million in the first six months of 2014 compared with the same periods of 2013 driven primarily by higher demand in the United States.

Global sales of *Follistim AQ* (follitropin beta injection) (marketed in most countries outside the United States as *Puregon* ), a fertility treatment, declined 24% in the second quarter of 2014 to \$102 million and decreased 17% in the first six months of 2014 to \$213 million compared with the same periods in 2013 . The sales declines were driven largely by lower volumes in the United States. Foreign exchange unfavorably affected global sales performance by 1% in both the second quarter and first six months of 2014 .

Global sales of *Dulera* Inhalation Aerosol, a combination medicine for the treatment of asthma, were \$103 million in the second quarter of 2014 compared with \$79 million in the second quarter of 2013 and were \$205 million in the first six months of 2014 compared with \$147 million in the first six months of 2013. Sales growth in both periods was driven by higher demand in the United States.

## Hospital and Specialty

### Hepatitis

Worldwide sales of *PegIntron* , a treatment for chronic hepatitis C, were \$103 million in the second quarter of 2014 and \$216 million in the first six months of 2014, declines of 27% and 19%, respectively, compared with the same periods in 2013 . The sales declines were driven by lower volumes in nearly all regions, particularly within the emerging markets, as the availability of new therapeutic options has resulted in loss of market share or patient treatment delays in markets anticipating the availability of new therapeutic options. Foreign exchange unfavorably affected global sales performance by 1% and 2% in the second quarter and first six months of 2014 , respectively.

Worldwide sales of *Victrelis* , an oral medicine for the treatment of chronic hepatitis C, were \$46 million in the second quarter of 2014 , a decline of 60% compared with the second quarter of 2013 , and were \$105 million in the first six months of 2014, a decline of 53% compared with the same period in 2013. The sales declines were driven by lower volumes in nearly all regions, particularly within the United States, as the availability of new therapeutic options has resulted in loss of market share or patient treatment delays in markets anticipating the availability of new therapeutic options.

Sales of the Company's products indicated for the treatment of chronic hepatitis C including *PegIntron* and *Victrelis* discussed above, as well as *Rebetol* (ribavirin USP), continue to be adversely affected by new therapeutic options becoming available as discussed above. During the second quarter, these trends accelerated more rapidly than previously anticipated by the Company, which led to changes in the cash flow assumptions for both *PegIntron* and *Victrelis*. These revisions to cash flows indicated that the *PegIntron* and *Victrelis* intangible asset values were not recoverable on an undiscounted cash flows basis. The Company utilized market participant assumptions to determine its best estimate of the fair values of the intangible assets related to *PegIntron* and *Victrelis* that, when compared with their related carrying values, resulted in impairment charges of \$523 million and \$137 million , respectively, in the second quarter of 2014 recorded within *Materials and production* costs. In the event that the availability of new treatment options adversely affects sales of products currently marketed by the Company for the treatment of chronic hepatitis C to a greater extent than anticipated by the Company, or in the event other circumstances arise that significantly reduce cash flow projections for these products, the Company may record additional intangible asset impairment charges in the future and such charges could be material. The remaining carrying value of the intangible assets related to these three products was \$552 million in the aggregate at June 30, 2014 .

### HIV

Global sales of *Isentress* , an HIV integrase inhibitor for use in combination with other antiretroviral agents for the treatment of HIV-1 infection, grew 10% in the second quarter of 2014 to \$453 million and increased 9% in the first six months of 2014 to \$843 million compared with the same periods in 2013 reflecting growth in Europe, Latin America and the United States.

### Hospital

Global sales of *Cancidas* (caspofungin acetate), an anti-fungal product, declined 5% in the second quarter of 2014 to \$156 million driven largely by the timing of shipments in China. Sales of *Cancidas* decreased 1% in the first six months of 2014 to \$322 million . Foreign exchange favorably affected global sales performance by 2% in the second quarter of 2014 and by 1% in the first six months of 2014.

*Bridion* (sugammadex sodium injection) , for the reversal of certain muscle relaxants used during surgery, is approved and has been launched in many countries outside of the United States. Sales of *Bridion* grew 20% to \$82 million in the second

quarter of 2014 and rose 18% to \$155 million in the first six months of 2014 compared with the same periods of 2013 . Sales growth in both periods was driven by volume growth in most markets. Foreign exchange unfavorably affected global sales performance by 1% and 5% in the second quarter and first six months of 2014 , respectively. In September 2013, the Company received a Complete Response Letter (“CRL”) from the FDA for the resubmission of the New Drug Application (“NDA”) for sugammadex sodium injection (see “Research and Development” below).

#### Immunology

Sales of *Remicade*, a treatment for inflammatory diseases (marketed by the Company in Europe, Russia and Turkey), were \$607 million in the second quarter of 2014 and \$1.2 billion for the first six months of 2014, increases of 15% and 13%, respectively, compared with the same periods of 2013 . Foreign exchange favorably affected sales performance by 6% and 5% in the second quarter and first six months of 2014 , respectively. Sales growth in both periods reflects volume growth in Europe. In September 2013, the European Commission (the “EC”) approved an infliximab biosimilar. While the Company is experiencing generic competition in certain smaller European markets, the Company anticipates a more substantial decline in *Remicade* sales following loss of market exclusivity in major European markets in February 2015.

Sales of *Simponi* , a once-monthly subcutaneous treatment for certain inflammatory diseases (marketed by the Company in Europe, Russia and Turkey), were \$174 million in the second quarter of 2014 compared with \$120 million in the second quarter of 2013 and were \$330 million in the first six months of 2014 compared with \$228 million in the first six months of 2013. Sales growth was driven by continued launch activities, as well as a positive impact from the ulcerative colitis indication. In September 2013, the EC approved *Simponi* for the treatment of adult patients with moderately to severely active ulcerative colitis who have had an inadequate response to conventional therapy or who are intolerant to or have medical contraindications for such therapies.

#### Other

Worldwide sales of ophthalmic products *Cosopt* and *Trusopt* declined 3% to \$100 million in the second quarter of 2014 and declined 5% to \$198 million in the first six months of 2014 compared with the same periods in 2013. Foreign exchange unfavorably affected global sales performance by 3% in the first six months of 2014 . The decline was driven in part by the divestiture of the U.S. rights to *Cosopt* and *Cosopt PF* as noted below. Additionally, the patent for *Cosopt* expired in a number of major European markets in March 2013 and the Company is experiencing sales declines in those markets. The patents that provided market exclusivity for *Trusopt* in a number of major European markets had previously expired. The sales declines in the United States and Europe were partially offset by volume growth in Japan.

In November 2013, Merck sold the U.S. rights to ophthalmic products *Cosopt* and *Cosopt PF* , as well as AzaSite to Akorn, Inc (“Akorn”). Also, as discussed above, in May 2014, Merck entered into an agreement to sell certain ophthalmic products, including *Cosopt* and *Trusopt* , to Santen in Japan and markets in Europe and Asia Pacific. The transaction closed in most markets on July 1, 2014. The remaining markets continue to be subject to certain closing conditions and are expected to close by the end of 2014. Merck will continue to sell its ophthalmic products in markets not included in the transactions with Santen and Akorn.

Merck’s sales of *Saphris* (asenapine), an antipsychotic indicated for the treatment of schizophrenia and bipolar I disorder in adults, were \$21 million and \$42 million in the second quarter of 2014 and 2013 , respectively, and were \$46 million and \$73 million in the first six months of 2014 and 2013, respectively. In January 2014, Merck sold the U.S. marketing rights to *Saphris* to Forest Laboratories, Inc. (“Forest”). Under the terms of the agreement, Forest made upfront payments of \$232 million , which are reflected in *Sales* in the first six months of 2014, and will make additional payments to Merck based on defined sales milestones. In addition, as part of this transaction, Merck has agreed to supply product to Forest until patent expiry. Asenapine, sold under the brand name *Sycrest* , is also approved in the EU for the treatment of bipolar I disorder in adults. Under a commercialization agreement for *Sycrest* sublingual tablets (5 mg, 10 mg), H. Lundbeck A/S makes product supply payments in exchange for exclusive commercial rights to *Sycrest* in all markets outside the United States, China and Japan. During the second quarter of 2013, the Company recorded an impairment charge on the *Saphris/Sycrest* intangible asset (see Note 6 to the interim consolidated financial statements).

#### Oncology

Global sales of *Emend* (aprepitant), for the prevention of chemotherapy-induced and post-operative nausea and vomiting, were \$144 million in the second quarter of 2014 , an increase of 7% compared with the second quarter of 2013 , and were \$266 million in the first six months of 2014, an increase of 6% compared with the same period in 2013. The sales growth in both periods largely reflects volume growth in the United States and Europe. Foreign exchange favorably affected global sales performance by 1% in the second quarter of 2014.

Sales of *Temodar* (marketed as *Temodal* outside the United States), a treatment for certain types of brain tumors, dropped 57% to \$93 million in the second quarter of 2014 , and declined 59% to \$176 million in the first six months of 2014 compared with the same periods of 2013 . Foreign exchange unfavorably affected global sales performance by 1% and 2% in the second quarter and first six months of 2014 , respectively. The sales declines were driven primarily by generic competition in the United States. As previously disclosed, by agreement, a generic manufacturer launched a generic version of *Temodar* in the United States

in August 2013. The U.S. patent and exclusivity periods otherwise expired in February 2014. Accordingly, the Company is experiencing a significant sales decline in the United States and expects the decline to continue.

Other products contained in Hospital and Specialty Care include among others, *Invanz* (ertapenem sodium) for the treatment of certain infections; *Noxafil* (posaconazole) for the prevention of certain invasive fungal infections; and *Primaxin* (imipenem and cilastatin sodium), an anti-bacterial product.

#### *Diversified Brands*

Merck's diversified brands include human health pharmaceutical products that are approaching the expiration of their marketing exclusivity or are no longer protected by patents in developed markets, but continue to be a core part of the Company's offering in other markets around the world.

#### *Respiratory*

Global sales of *Nasonex*, an inhaled nasal corticosteroid for the treatment of nasal allergy symptoms, declined 21% to \$258 million in the second quarter of 2014 and decreased 20% to \$570 million in the first six months of 2014 compared with the same periods of 2013. Foreign exchange unfavorably affected global sales performance by 1% and 2% in the second quarter and first six months of 2014, respectively. The declines were driven primarily by lower volumes in the United States, as well as by lower volumes in Europe and Canada from generic competition. By agreement, generic manufacturers were able to launch a generic version of *Nasonex* in most European markets on January 1, 2014 and generic versions of *Nasonex* have since launched in several of these markets. Accordingly, the Company is experiencing a rapid decline in *Nasonex* sales in Europe in 2014. In 2009, Apotex Inc. and Apotex Corp. (collectively, "Apotex") filed an application with the FDA seeking approval to sell its generic version of *Nasonex*. In June 2012, the U.S. District Court for the District of New Jersey ruled against the Company in a patent infringement suit against Apotex holding that Apotex's generic version of *Nasonex* does not infringe on the Company's formulation patent. In June 2013, the Court of Appeals for the Federal Circuit issued a decision affirming the U.S. District Court decision and the Company has exhausted all of its appeal options. If Apotex's generic version becomes available, significant losses of U.S. *Nasonex* sales could occur and the Company may take a non-cash impairment charge with respect to the carrying value of the *Nasonex* intangible asset, which was \$1.0 billion at June 30, 2014. If the *Nasonex* intangible asset is determined to be impaired, the impairment charge could be material. U.S. sales of *Nasonex* were \$681 million for the full year of 2013.

Worldwide sales of *Singulair*, a once-a-day oral medicine for the chronic treatment of asthma and for the relief of symptoms of allergic rhinitis, were \$284 million in the second quarter of 2014, an increase of 1% compared with the second quarter of 2013 including a 2% unfavorable effect from foreign exchange, reflecting higher sales in Japan due to the timing of shipments, partially offset by lower sales in Europe as a result of generic competition. Global sales of *Singulair* were \$554 million for the first six months of 2014, a decline of 10% compared with the same period of 2013 including a 5% unfavorable effect from foreign exchange, driven primarily by lower sales in Europe as a result of generic competition, partially offset by higher sales in Japan due to the timing of shipments. The patents that provided market exclusivity for *Singulair* expired in a number of major European markets in February 2013 and the Company experienced a significant and rapid decline in *Singulair* sales in those markets following the patent expiries and expects the decline to continue.

#### *Other*

Global sales of *Cozaar* and its companion agent *Hyzaar* (a combination of *Cozaar* and hydrochlorothiazide), treatments for hypertension, were \$214 million in the second quarter of 2014, a decline of 16% compared with the second quarter of 2013, and were \$419 million for the first six months of 2014, a decline of 20% compared with the same period of 2013. Foreign exchange unfavorably affected global sales performance by 2% and 4% for the second quarter and first six months of 2014, respectively. The patents that provided market exclusivity for *Cozaar* and *Hyzaar* in the United States and in most major international markets have expired. Accordingly, the Company is experiencing declines in *Cozaar* and *Hyzaar* sales and expects the declines to continue.

Worldwide sales of *Fosamax* (alendronate sodium) (marketed as *Fosamac* in Japan) and *Fosamax Plus D* (alendronate sodium/cholecalciferol) (marketed as *Fosavance* throughout the European Union (the "EU")) for the treatment and, in the case of *Fosamax*, prevention of osteoporosis declined 16% to \$121 million in the second quarter of 2014 and 13% to \$245 million in the first six months of 2014 compared with the same periods of 2013 driven by declines in nearly all regions. These medicines have lost market exclusivity in the United States and in most major international markets. The Company expects the sales declines within the *Fosamax* product franchise to continue.

Other products contained in Diversified Brands include among others, *Clarinox* (desloratadine), a non-sedating antihistamine; *Arcoxia* (etoricoxib) for the treatment of arthritis and pain; *Zocor*, a statin for modifying cholesterol; *Propecia* (finasteride), a product for the treatment of male pattern hair loss, and *Remeron* (mirtazapine), an antidepressant.

#### *Vaccines*

The following discussion of vaccines does not include sales of vaccines sold in most major European markets through Sanofi Pasteur MSD ("SPMSD"), the Company's joint venture with Sanofi Pasteur, the results of which are reflected in *Equity*



income from affiliates (see “Selected Joint Venture and Affiliate Information” below). Supply sales to SPMSD, however, are included.

Merck’s sales of *Gardasil* (Human Papillomavirus Quadrivalent [Types 6, 11, 16 and 18] Vaccine, Recombinant), a vaccine to help prevent certain diseases caused by four types of human papillomavirus (“HPV”), grew 7% in the second quarter of 2014 to \$409 million and increased 3% in the first six months of 2014 to \$792 million compared with the same periods of 2013. Foreign exchange unfavorably affected global sales performance by 2% and 3% in the second quarter and first six months of 2014, respectively. The results reflect higher public sector purchases in the United States, as well as higher government tenders in Brazil from the national immunization program, partially offset by declines in Asia Pacific and in Japan. In June 2013, the Japanese government suspended active promotion of HPV vaccines.

Merck’s sales of *ProQuad* (Measles, Mumps, Rubella and Varicella Virus Vaccine Live), a pediatric combination vaccine to help protect against measles, mumps, rubella and varicella, were \$94 million in the second quarter of 2014 compared with \$82 million in the second quarter of 2013 and were \$159 million in the first six months of 2014 compared with \$144 million in the first six months of 2013. Merck’s sales of *Varivax* (Varicella Virus Vaccine Live), a vaccine to help prevent chickenpox (varicella), were \$148 million for the second quarter of 2014 compared with \$184 million for the second quarter of 2013 and were \$284 million in the first six months of 2014 compared with \$327 million in the first six months of 2013. Merck’s sales of *M-M-R II* (Measles, Mumps and Rubella Virus Vaccine Live), a vaccine to help protect against measles, mumps and rubella, were \$85 million for the second quarter of 2014 compared with \$73 million for the second quarter of 2013 and were \$163 million in the first six months of 2014 compared with \$140 million in the first six months of 2013.

Merck’s sales of *RotaTeq* (Rotavirus Vaccine, Live Oral, Pentavalent), a vaccine to help protect against rotavirus gastroenteritis in infants and children, were \$147 million in the second quarter of 2014 and \$316 million in the first six months of 2014, increases of 3% compared with the same periods in 2013, reflecting higher sales in the United States. Volume growth in Japan and certain emerging markets also contributed to the sales increase in the year-to-date period. Foreign exchange unfavorably affected global sales performance by 1% in the first six months of 2014.

Merck’s sales of *Zostavax* (Zoster Vaccine Live), a vaccine to help prevent shingles (herpes zoster) in adults 50 years of age and older, were \$156 million in the second quarter of 2014, an increase of 11% compared with the second quarter of 2013, driven primarily by ongoing launches in the Asia Pacific region. Foreign exchange favorably affected global sales performance by 1% in the second quarter of 2014. Merck’s sales of *Zostavax* were \$298 million for the first six months of 2014, a decline of 3% compared with the same period of 2013, driven by lower demand in the United States, as well as in Canada, partially offset by higher sales in the Asia Pacific region due to ongoing launches. The Company is continuing to educate U.S. customers on the broad managed care coverage for *Zostavax* and the process for getting reimbursement. Merck is continuing to launch *Zostavax* outside of the United States.

## Other Segments

The Company’s other segments are the Animal Health, Consumer Care and Alliances segments, which are not material for separate reporting. In January 2014, the Company announced that it was evaluating the respective roles of Merck’s Animal Health and Consumer Care businesses in the Company’s strategy for long-term value creation and that it could reach different decisions about the two businesses. In May 2014, the Company announced that it had entered into an agreement to sell its Consumer Care business to Bayer (see “Business Developments” above) and that it will continue to explore ways to augment its Animal Health business. At June 30, 2014, the assets and liabilities of Merck Consumer Care are reflected as held for sale in the Consolidated Balance Sheet.

### Animal Health

Animal Health includes pharmaceutical and vaccine products for the prevention, treatment and control of disease in all major farm and companion animal species. Animal Health sales are affected by competition and the frequent introduction of generic products. Global sales of Animal Health products totaled \$872 million for the second quarter of 2014, growth of 2% compared with the second quarter of 2013, and were \$1.7 billion for the first six months of 2014, essentially flat compared with the same period in 2013. Foreign exchange unfavorably affected global sales performance by 1% in both the second quarter and first six months of 2014. Sales growth in both periods was driven primarily by higher sales of companion animal products, reflecting the launch of *Bravecto* (fluralaner) in Europe and the United States, as well as higher sales of poultry products, partially offset by lower sales of *Zilmax* (zilpaterol hydrochloride). In August 2013, Merck Animal Health voluntarily suspended sales of *Zilmax*, a feed supplement for beef cattle, in the United States and Canada. The suspension of *Zilmax* unfavorably affected Animal Health sales by 7% in both the second quarter and first six months of 2014, respectively, excluding the unfavorable effect of foreign exchange.

In May 2014, Merck announced that the FDA approved *Bravecto* chewable tablets for dogs to treat fleas and ticks. *Bravecto* is the first and only treatment that has been shown to quickly and effectively kill fleas and multiple tick species for 12 weeks in a single dose. *Bravecto* also is effective for eight weeks against *Amblyomma americanum* ticks.

### *Consumer Care*

Consumer Care products include over-the-counter, foot care and sun care products such as *Claritin* non-drowsy antihistamines; *MiraLAX*, for the relief of occasional constipation; *Dr. Scholl's* foot care products; and *Coppertone* sun care products. Consumer Care product sales are affected by competition and consumer spending patterns. Global sales of Consumer Care products were \$583 million for the second quarter of 2014, an increase of 19% compared with the second quarter of 2013, and were \$1.1 billion in the first six months of 2014, an increase of 6% compared with the same period in 2013. Foreign exchange unfavorably affected global sales performance by 1% and 2% in the second quarter and first six months of 2014, respectively. The sales increase in both periods largely reflect sales reversals recorded in 2013 resulting from the termination in China of certain Consumer Care distribution arrangements together with associated termination costs. Excluding these items, Consumer Care global sales grew 4% in the second quarter of 2014 compared with the second quarter of 2013 and were essentially flat in the first six months of 2014 as compared with the same period in 2013 including a 1% unfavorable effect from foreign exchange in both periods. Sales performance in the second quarter and first six months of 2014 reflects higher sales of *Claritin* and *Coppertone*, partially offset by lower sales from the divestiture of certain products to Aspen as discussed above.

### *Alliances*

The alliances segment includes results from the Company's relationship with AZLP. Revenue from AZLP, primarily relating to sales of Nexium and Prilosec, was \$316 million and \$245 million in the second quarter of 2014 and 2013, respectively, and was \$463 million and \$507 million in the first six months of 2014 and 2013, respectively. On June 30, 2014, AstraZeneca exercised its option to buy Merck's interest in a subsidiary and, through it, Merck's interest in Nexium and Prilosec. As a result, as of July 1, 2014, the Company no longer records equity income from AZLP and supply sales to AZLP have terminated (see "Selected Joint Venture and Affiliate Information" below).

### **Costs, Expenses and Other**

In October 2013, the Company announced a global restructuring program (the "2013 Restructuring Program") as part of a global initiative to sharpen its commercial and research and development focus. As part of the program, the Company expects to reduce its total workforce by approximately 8,500 positions. These workforce reductions will primarily come from the elimination of positions in sales, administrative and headquarters organizations, as well as research and development. The Company will also reduce its global real estate footprint and continue to improve the efficiency of its manufacturing and supply network. The Company will continue to hire employees in strategic growth areas of the business as necessary. The Company recorded total pretax costs of \$229 million and \$389 million in the second quarter and first six months of 2014, respectively, related to this restructuring program. The actions under the 2013 Restructuring Program are expected to be substantially completed by the end of 2015 with the cumulative pretax costs estimated to be approximately \$2.5 billion to \$3.0 billion. The Company estimates that approximately two-thirds of the cumulative pretax costs will result in cash outlays, primarily related to employee separation expense. Approximately one-third of the cumulative pretax costs are non-cash, relating primarily to the accelerated depreciation of facilities to be closed or divested. The Company expects the actions under the 2013 Restructuring Program to result in annual net cost savings of approximately \$2.0 billion by the end of 2015. The Company anticipates that the actions under the 2013 Restructuring Program, combined with remaining actions under the Merger Restructuring Program (discussed below), will result in annual net cost savings of \$2.5 billion by the end of 2015 compared with full-year 2012 expense levels.

In 2010, subsequent to the Merck and Schering-Plough Corporation ("Schering-Plough") merger (the "Merger"), the Company commenced actions under a global restructuring program (the "Merger Restructuring Program") designed to streamline the cost structure of the combined company. Further actions under this program were initiated in 2011. The actions under this program primarily reflect the elimination of positions in sales, administrative and headquarters organizations, as well as from the sale or closure of certain manufacturing and research and development sites and the consolidation of office facilities. The Company recorded total pretax costs of \$192 million and \$265 million in the second quarter of 2014 and 2013, respectively, and \$358 million and \$418 million in the first six months of 2014 and 2013, respectively, related to this restructuring program. The non-manufacturing related restructuring actions under the Merger Restructuring Program were substantially completed by the end of 2013. The remaining actions under this program relate to ongoing manufacturing facility rationalizations, which are expected to be substantially completed by 2016. The Company expects the estimated total cumulative pretax costs for this program to be approximately \$7.9 billion to \$8.2 billion. The Company estimates that approximately two-thirds of the cumulative pretax costs relate to cash outlays, primarily related to employee separation expense. Approximately one-third of the cumulative pretax costs are non-cash, relating primarily to the accelerated depreciation of facilities to be closed or divested. The Company expects the Merger Restructuring Program to yield annual savings upon completion of the program of approximately \$4.0 billion to \$4.6 billion.

In 2008, Merck announced a global restructuring program (the "2008 Restructuring Program") to reduce its cost structure, increase efficiency, and enhance competitiveness. Pretax costs of \$13 million and \$54 million were recorded in the second quarter and first six months of 2013, respectively, related to the 2008 Restructuring Program. Any remaining activities under the 2008 Restructuring Program are being accounted for as part of the Merger Restructuring Program effective July 1, 2013.

The Company anticipates that total costs associated with restructuring activities in 2014 for the 2013 Restructuring Program and the Merger Restructuring Program will be in the range of \$1.2 billion to \$1.5 billion.

The costs associated with all of these restructuring activities are primarily comprised of accelerated depreciation recorded in *Materials and production* , *Marketing and administrative* and *Research and development* and separation costs recorded in *Restructuring costs* (see Note 2 to the interim consolidated financial statements).

#### *Materials and Production*

Materials and production costs were \$4.9 billion for the second quarter of 2014 , an increase of 14% compared with the second quarter of 2013 , and were \$8.8 billion for the first six months of 2014, an increase of 7% compared with the first six months of 2013. Costs in the second quarter of 2014 and 2013 include \$1.1 billion and \$1.2 billion, respectively, and in the first six months of 2014 and 2013 include \$2.2 billion and \$2.4 billion, respectively, of expenses for the amortization of intangible assets recognized in connection with mergers and acquisitions. In addition, expenses include intangible asset impairment charges of \$660 million for the second quarter and first six months of 2014 and \$330 million for the second quarter and first six months of 2013 (see Note 6 to the interim consolidated financial statements). Also included in materials and production costs are costs associated with restructuring activities which amounted to \$171 million and \$93 million in the second quarter of 2014 and 2013 , respectively, and \$290 million and \$136 million in the first six months of 2014 and 2013, respectively, including accelerated depreciation and asset write-offs related to the planned sale or closure of manufacturing facilities. Separation costs associated with manufacturing-related headcount reductions have been incurred and are reflected in *Restructuring costs* as discussed below.

Gross margin was 55.2% in the second quarter of 2014 compared with 61.1% in the second quarter of 2013 and was 58.5% in the first six months of 2014 compared with 62.0% for the first six months of 2013. The amortization of intangible assets, as well as the restructuring and impairment charges noted above reduced gross margin by 17.4 and 14.6 percentage points for the second quarter of 2014 and 2013 , respectively, and by 14.8 and 13.1 percentage points for the first six months of 2014 and 2013, respectively. The gross margin declines were driven primarily by the unfavorable effects of product mix and ongoing generic erosion, as well as inventory write-offs largely related to *Victrelis* . In the year-to-period, these unfavorable impacts to gross margin were partially offset by the sale of the U.S. marketing rights to *Saphris* .

#### *Marketing and Administrative*

Marketing and administrative expenses declined 5% to \$3.0 billion in the second quarter of 2014 and decreased 7% to \$5.7 billion in the first six months of 2014 compared with the same periods of 2013 . The declines were largely due to lower selling costs and promotional spending. Expenses for the second quarter of 2014 and 2013 include \$44 million and \$16 million , respectively, and for the first six months of 2014 and 2013 include \$75 million and \$33 million , respectively, of restructuring costs, related primarily to accelerated depreciation for facilities to be closed or divested. Separation costs associated with sales force reductions have been incurred and are reflected in *Restructuring costs* as discussed below. Marketing and administrative expenses also include \$32 million and \$19 million of acquisition and divestiture-related costs in the second quarter of 2014 and 2013 , respectively, and \$43 million and \$42 million for the first six months of 2014 and 2013, respectively, consisting of incremental, third-party integration costs related to the Merger, including costs related to legal entity and systems integration, as well as transaction and certain other costs related to business acquisitions and divestitures.

#### *Research and Development*

Research and development expenses were \$1.7 billion for the second quarter of 2014 , a decline of 21% compared with the second quarter of 2013 , and were \$3.2 billion for the first six months of 2014, a decline of 19% compared with the same period in 2013. Research and development expenses are comprised of the costs directly incurred by Merck Research Laboratories (“MRL”), the Company’s research and development division that focuses on human health-related activities, which were approximately \$900 million and \$1.1 billion in the second quarter of 2014 and 2013 , respectively, and were \$1.8 billion and \$2.2 billion for the first six months of 2014 and 2013, respectively. Also included in research and development expenses are costs incurred by other divisions in support of research and development activities, including depreciation, production and general and administrative, as well as licensing activity, certain costs from operating segments, including the Pharmaceutical, Animal Health and Consumer Care segments, which in the aggregate were \$721 million and \$713 million for the second quarter of 2014 and 2013 , respectively, and \$1.4 billion and \$1.5 billion in the first six months of 2014 and 2013, respectively. The declines in research and development expenses in the second quarter and first six months of 2014 as compared with the same periods of 2013 were driven by cost savings resulting from restructuring activities, targeted reductions and lower clinical development spend as a result of portfolio prioritization.

Research and development expenses also include in-process research and development (“IPR&D”) impairment charges and research and development-related restructuring charges. During the second quarter and first six months of 2013, the Company recorded \$234 million and \$264 million , respectively, of IPR&D impairment charges. Of the IPR&D impairment charges recorded, approximately \$181 million related to the write-off of the intangible asset associated with preladenant as a result of the discontinuation of the clinical development program for this compound. In addition, the Company recorded impairment charges resulting from changes in cash flow assumptions for certain compounds. The remaining impairment charges related to pipeline



programs that had previously been deprioritized and were subsequently deemed to have no alternative use during the period. The Company may recognize additional non-cash impairment charges in the future for the cancellation or delay of other pipeline programs that were measured at fair value and capitalized in connection with mergers and acquisitions and such charges could be material. Research and development expenses also reflect accelerated depreciation and asset abandonment costs associated with restructuring activities of \$43 million and \$14 million in the second quarter of 2014 and 2013, respectively, and \$94 million and \$29 million for the first six months of 2014 and 2013, respectively.

#### *Restructuring Costs*

Restructuring costs, primarily representing separation and other related costs associated with restructuring activities, were \$163 million and \$155 million for the second quarter of 2014 and 2013, respectively, and were \$288 million and \$274 million for the first six months of 2014 and 2013, respectively. Costs in the second quarter and first six months of 2014 include \$42 million and \$48 million, respectively, of costs related to the 2013 Restructuring Program. The remaining costs in 2014 and nearly all of the costs in 2013 related to the Merger Restructuring Program. Separation costs were incurred associated with actual headcount reductions, as well as estimated expenses under existing severance programs for headcount reductions that were probable and could be reasonably estimated. Merck eliminated approximately 1,805 positions in the second quarter of 2014 (1,375 related to the 2013 Restructuring Program and 430 related to the Merger Restructuring Program). During the first six months of 2014, Merck eliminated approximately 3,385 positions (2,595 related to the 2013 Restructuring Program and 790 related to the Merger Restructuring Program). Merck eliminated approximately 680 positions and 1,460 positions in the second quarter and first six months of 2013, respectively, most of which related to the Merger Restructuring Program. These position eliminations are comprised of actual headcount reductions, and the elimination of contractors and vacant positions. Also included in restructuring costs are curtailment, settlement and termination charges associated with pension and other postretirement benefit plans, share-based compensation and shutdown costs. For segment reporting, restructuring costs are unallocated expenses. Additional costs associated with the Company's restructuring activities are included in *Materials and production*, *Marketing and administrative* and *Research and development* as discussed above.

#### *Equity Income from Affiliates*

Equity income from affiliates, which reflects the performance of the Company's joint ventures and other equity method affiliates, was \$92 million in the second quarter of 2014 compared with \$116 million in the second quarter of 2013 and was \$217 million in the first six months of 2014 compared with \$249 million in the first six months of 2013. The declines were driven primarily by lower equity income from AZLP. As noted below, on June 30, 2014, AstraZeneca exercised its option to purchase Merck's interest in a subsidiary and, through it, Merck's interest in Nexium and Prilosec. Effective July 1, 2014, the Company no longer records equity income from AZLP. (See "Selected Joint Venture and Affiliate Information" below.)

#### *Other (Income) Expense, Net*

Other (income) expense, net was \$558 million of income in the second quarter of 2014 compared with \$201 million of expense in the second quarter of 2013 driven primarily by a \$741 million gain recognized in the second quarter of 2014 related to AstraZeneca's option exercise (see Note 7 to the interim consolidated financial statements). Other (income) expense, net was \$596 million of income for the first six months of 2014 compared with \$484 million of expense for the first six months of 2013 driven by the AstraZeneca gain in 2014 noted above, as well as a net gain of \$168 million in 2014 related to the sale of the Company's Sirna Therapeutics, Inc. ("Sirna") subsidiary (see Note 3 to the interim consolidated financial statements) and lower exchange losses. Exchange losses in the first six months of 2013 include losses from a Venezuelan currency devaluation. In February 2013, the Venezuelan government devalued its currency (Bolívar Fuertes) from 4.30 VEF per U.S. dollar to 6.30 VEF per U.S. dollar. The Company recognized losses due to exchange of approximately \$140 million in the first quarter of 2013 resulting from the remeasurement of the local monetary assets and liabilities at the new rate. Since January 2010, Venezuela has been designated hyperinflationary and, as a result, local foreign operations are remeasured in U.S. dollars with the impact recorded in results of operations.

In March 2013, the Venezuelan government announced the creation of a new foreign exchange mechanism called the "Complimentary System of Foreign Currency Acquirement" (known as SICAD1) that operates similar to an auction system and allows entities in specific sectors to bid for U.S. dollars to be used for payments related to international investments and certain intangibles. In March 2014, the Venezuelan government launched another foreign exchange mechanism (known as SICAD2) and indicated that all industry sectors will be able to access SICAD2 and its use will not be restricted as to purpose. Both the SICAD1 and SICAD2 average rates are published by the Central Bank of Venezuela and at June 30, 2014, the average exchange rates inferred were 10.6 VEF per U.S. dollar and 49.98 VEF per U.S. dollar, respectively. Neither SICAD1 nor SICAD2 eliminated or changed the official rate of 6.30 VEF per U.S. dollar. At June 30, 2014, the Company had approximately \$600 million (U.S. dollar equivalent at the 6.30 official rate) of net monetary assets in its Venezuelan entities, of which the large majority was cash. Thus far in 2014, the Company has received approximately \$130 million from Venezuela for transactions that were settled at the official rate of 6.30 VEF per U.S. dollar, and has approximately \$300 million pending approval for future settlement at the official rate. The Company has not used, and does not anticipate using, either SICAD mechanism to settle any transactions. Accordingly, the

Company concluded it was appropriate to continue to use the official rate of 6.30 VEF per U.S. dollar for remeasurement purposes. If circumstances change such that the Company concludes it would be appropriate to use a SICAD rate, or if a devaluation of the official rate occurs, it could result in a significant charge to the Company's future results of operations.

### Segment Profits

(\$ in millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Pharmaceutical segment profits	\$ 5,507	\$ 5,693	\$ 10,703	\$ 11,039
Other non-reportable segment profits	814	793	1,513	1,693
Other	(4,430)	(5,241)	(8,234)	(9,937)
Income before income taxes	\$ 1,891	\$ 1,245	\$ 3,982	\$ 2,795

Segment profits are comprised of segment sales less standard costs, certain operating expenses directly incurred by the segment, components of equity income or loss from affiliates and depreciation and amortization expenses. For internal management reporting presented to the chief operating decision maker, Merck does not allocate materials and production costs, other than standard costs, the majority of research and development expenses or general and administrative expenses, nor the cost of financing these activities. Separate divisions maintain responsibility for monitoring and managing these costs, including depreciation related to fixed assets utilized by these divisions and, therefore, they are not included in segment profits. Also excluded from the determination of segment profits are the amortization of purchase accounting adjustments and other acquisition-related costs, intangible asset impairment charges, restructuring costs, taxes paid at the joint venture level and a portion of equity income. Additionally, segment profits do not reflect other expenses from corporate and manufacturing cost centers and other miscellaneous income or expense. These unallocated items, including the gain on AstraZeneca's option exercise, are reflected in "Other" in the above table. Also included in "Other" are miscellaneous corporate profits (losses), as well as operating profits (losses) related to third-party manufacturing sales, divested products or businesses, and other supply sales.

Pharmaceutical segment profits declined 3% in both the second quarter and first six months of 2014 as compared with the same periods in 2013, driven primarily by the unfavorable effects of product mix and loss of market exclusivity for certain products, partially offset by cost savings from productivity measures.

### Taxes on Income

The effective income tax rates of (7.5)% and 24.9% for the second quarter of 2014 and 2013, respectively, and 5.5% and 8.7% for the first six months of 2014 and 2013, respectively, reflect the impacts of acquisition-related costs and restructuring costs, partially offset by the beneficial impact of foreign earnings. The effective income tax rates for the second quarter and first six months of 2014 also reflect a net tax benefit of \$517 million recorded in connection with AstraZeneca's option exercise (see Note 7 to the interim consolidated financial statements). In addition, the effective income tax rate for the first six months of 2014 includes a benefit of approximately \$300 million associated with a capital loss generated in the first quarter related to the sale of Sirna. The effective income tax rates for the second quarter and first six months of 2013 also reflect net benefits from reductions in tax reserves upon expiration of applicable statute of limitations. Additionally, the effective income tax rate for the first six months of 2013 reflects the favorable impact of tax legislation enacted in the first quarter of 2013 that extended the R&D tax credit for both 2012 and 2013, as well as an out-of-period net tax benefit of approximately \$160 million associated with the resolution of a previously disclosed federal income tax issue (see Note 13 to the interim consolidated financial statements).

### Net Income and Earnings per Common Share

Net income attributable to Merck & Co., Inc. was \$2.0 billion for the second quarter of 2014 compared with \$906 million for the second quarter of 2013 and was \$3.7 billion for the first six months of 2014 compared with \$2.5 billion for the first six months of 2013. Earnings per common share assuming dilution attributable to Merck & Co., Inc. common shareholders ("EPS") for the second quarter of 2014 were \$0.68 compared with \$0.30 in the second quarter of 2013 and were \$1.25 for the first six months of 2014 compared with \$0.82 for the first six months of 2013. The increases in net income and EPS in the second quarter and first six months of 2014 as compared with the same periods in 2013 were due primarily to a gain recognized on AstraZeneca's option exercise, lower operating expenses, higher favorability from discrete tax items, a net gain related to the divestiture of Sirna and, for the year-to-date period, revenue recognized from the sale of the U.S. marketing rights to Saphris, partially offset by lower sales. EPS in the first six months of 2014 benefited from lower average shares outstanding.

### Non-GAAP Income and Non-GAAP EPS

Non-GAAP income and non-GAAP EPS are alternative views of the Company's performance used by management that Merck is providing because management believes this information enhances investors' understanding of the Company's results. Non-GAAP income and non-GAAP EPS exclude certain items because of the nature of these items and the impact that they have

on the analysis of underlying business performance and trends. The excluded items consist of acquisition and divestiture-related costs, restructuring costs and certain other items. These excluded items are significant components in understanding and assessing financial performance. Therefore, the information on non-GAAP income and non-GAAP EPS should be considered in addition to, but not in lieu of, net income and EPS prepared in accordance with generally accepted accounting principles in the United States (“GAAP”). Additionally, since non-GAAP income and non-GAAP EPS are not measures determined in accordance with GAAP, they have no standardized meaning prescribed by GAAP and, therefore, may not be comparable to the calculation of similar measures of other companies.

Non-GAAP income and non-GAAP EPS are important internal measures for the Company. Senior management receives a monthly analysis of operating results that includes non-GAAP income and non-GAAP EPS and the performance of the Company is measured on this basis along with other performance metrics. Senior management’s annual compensation is derived in part using non-GAAP income and non-GAAP EPS.

A reconciliation between GAAP financial measures and non-GAAP financial measures is as follows:

(\$ in millions except per share amounts)	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Pretax income as reported under GAAP	\$ 1,891	\$ 1,245	\$ 3,982	\$ 2,795
Increase (decrease) for excluded items:				
Acquisition and divestiture-related costs	1,756	1,768	2,893	3,005
Restructuring costs	421	278	747	472
Other items:				
Gain on AstraZeneca option exercise	(741)	—	(741)	—
Other	—	(13)	—	(13)
	3,327	3,278	6,881	6,259
Taxes on income as reported under GAAP	(142)	310	218	244
Estimated tax benefit on excluded items <sup>(1)</sup>	947	409	1,214	688
Tax benefit related to sale of Sirna Therapeutics, Inc. subsidiary	—	—	300	—
Net tax benefit from resolution of federal income tax issue	—	—	—	160
	805	719	1,732	1,092
Non-GAAP net income	2,522	2,559	5,149	5,167
Less: Net income attributable to noncontrolling interests	29	29	55	52
Non-GAAP net income attributable to Merck & Co., Inc.	\$ 2,493	\$ 2,530	\$ 5,094	\$ 5,115
EPS assuming dilution as reported under GAAP	\$ 0.68	\$ 0.30	\$ 1.25	\$ 0.82
EPS difference <sup>(2)</sup>	0.17	0.54	0.47	0.87
Non-GAAP EPS assuming dilution	\$ 0.85	\$ 0.84	\$ 1.72	\$ 1.69

<sup>(1)</sup> Amounts in 2014 include a net benefit of \$517 million recorded in connection with AstraZeneca’s option exercise.

<sup>(2)</sup> Represents the difference between calculated GAAP EPS and calculated non-GAAP EPS, which may be different than the amount calculated by dividing the impact of the excluded items by the weighted-average shares for the applicable period.

#### Acquisition and Divestiture-Related Costs

Non-GAAP income and non-GAAP EPS exclude the impact of certain amounts recorded in connection with mergers, acquisitions and divestitures. These amounts include the amortization of intangible assets, as well as intangible asset impairment charges. Also excluded are incremental, third-party integration costs associated with the Merger, such as costs related to legal entity and systems integration, as well as transaction and certain other costs associated with business acquisitions and divestitures. These costs are excluded because management believes that these costs are not representative of ongoing normal business activities.

#### Restructuring Costs

Non-GAAP income and non-GAAP EPS exclude costs related to restructuring actions (see Note 2 to the interim consolidated financial statements). These amounts primarily include employee separation costs and accelerated depreciation associated with facilities to be closed or divested. Accelerated depreciation costs represent the difference between the depreciation expense to be recognized over the revised useful life of the site, based upon the anticipated date the site will be closed or divested, and depreciation expense as determined utilizing the useful life prior to the restructuring actions. Restructuring costs also include asset abandonment, shut-down and other related costs, as well as employee-related costs such as curtailment, settlement and termination charges associated with pension and other postretirement benefit plans and share-based compensation costs. The Company has undertaken restructurings of different types during the covered periods and, therefore, these charges should not be



considered non-recurring; however, management excludes these amounts from non-GAAP income and non-GAAP EPS because it believes it is helpful for understanding the performance of the continuing business.

#### Certain Other Items

Non-GAAP income and non-GAAP EPS exclude certain other items. These items represent substantive, unusual items that are evaluated on an individual basis. Such evaluation considers both the quantitative and the qualitative aspect of their unusual nature and generally represent items that, either as a result of their nature or magnitude, management would not anticipate that they would occur as part of the Company's normal business on a regular basis. Excluded from non-GAAP income and non-GAAP EPS is a gain recognized in conjunction with AstraZeneca's option exercise, including a related net tax benefit on the transaction (see Note 7 to the interim consolidated financial statements), a tax benefit from the sale of Sirna (see Note 3 to the interim consolidated financial statements) and a tax benefit from the resolution of a federal income tax issue (see Note 13 to the interim consolidated financial statements).

#### Research and Development Update

In May 2014, Merck announced that the FDA approved *Zontivity* (vorapaxar), a protease-activated receptor-1 (PAR-1) antagonist for the reduction of thrombotic cardiovascular events in patients with a history of myocardial infarction or with peripheral arterial disease. The prescribing information for *Zontivity* includes a boxed warning regarding bleeding risk. *Zontivity* is not for use in patients with a history of stroke, transient ischemic attack or intracranial hemorrhage, or with active pathological bleeding.

In April 2014, Merck announced that the FDA approved *Grastek* (Timothy Grass Pollen Allergen Extract) and *Ragwitek* (Short Ragweed Pollen Allergen Extract) tablets for sublingual use. *Grastek* is an allergen extract indicated as immunotherapy for the treatment of grass pollen-induced allergic rhinitis with or without conjunctivitis confirmed by positive skin test or *in vitro* testing for pollen-specific IgE antibodies for Timothy Grass or cross-reactive grass pollens. *Grastek* is approved for use in persons 5 through 65 years of age. *Ragwitek* is an allergen extract indicated as immunotherapy for the treatment of short ragweed pollen-induced allergic rhinitis with or without conjunctivitis confirmed by positive skin test or *in vitro* testing for pollen-specific IgE antibodies for short ragweed pollen. *Ragwitek* is approved for use in adults 18 through 65 years of age. Neither *Grastek* nor *Ragwitek* is indicated for the immediate relief of allergic symptoms. The prescribing information for *Grastek* and *Ragwitek* includes a boxed warning regarding severe allergic reactions. Both *Grastek* and *Ragwitek*, as well as an ongoing Phase 3 program for sublingual immunotherapy tablets to treat allergic rhinitis associated with house dust mites, are part of a North America partnership between Merck and ALK-Abello.

In May 2014, Merck announced that the FDA has accepted for review the Biologics License Application ("BLA") for pembrolizumab (MK-3475), Merck's investigational anti-PD-1 antibody, for the treatment of unresectable or metastatic melanoma in patients who have been previously treated with ipilimumab. The FDA granted Priority Review designation with a Prescription Drug User Fee Act ("PDUFA") date of October 28, 2014 and the pembrolizumab BLA will be reviewed under FDA's Accelerated Approval program. The FDA previously granted pembrolizumab Breakthrough Therapy designation for advanced melanoma, the most dangerous type of skin cancer. The designation of an investigational drug as a Breakthrough Therapy is intended to expedite the development and review of a candidate that is planned for use, alone or in combination, to treat a serious or life-threatening disease or condition when preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. If approved by the FDA, pembrolizumab has the potential to be the first anti-PD-1 antibody in a new class of immune checkpoint modulators in the United States. In June 2014, Merck announced the European Medicines Agency (the "EMA") accepted for review a Marketing Authorization Application ("MAA") for pembrolizumab for the treatment of advanced melanoma. If approved by the EC, pembrolizumab has the potential to be the first anti-PD-1 antibody in Europe. Additional regulatory filings in other countries outside of Europe are planned by the end of 2014.

The pembrolizumab clinical development program also includes studies across a broad range of cancer types including: bladder, colorectal, gastric, head and neck, melanoma, non-small cell lung, renal, triple negative breast and hematological malignancies. In addition, the Company has announced four collaborations with other pharmaceutical companies to evaluate novel combination regimens with pembrolizumab.

In April 2014, the FDA accepted the Company's resubmission of its NDA for MK-4305, suvorexant, an investigational insomnia medicine in a new class of medicines called orexin receptor antagonists for use in patients with difficulty falling or staying asleep. In July 2013, the Company announced that it had received a CRL from the FDA regarding the NDA for suvorexant. In the CRL, the FDA advised Merck that: (1) the efficacy of suvorexant has been established at doses of 10 mg to 40 mg in elderly and non-elderly adult patients; (2) 10 mg should be the starting dose for most patients and must be available before suvorexant can be approved; (3) 15 mg and 20 mg doses would be appropriate in patients in whom the 10 mg dose is well-tolerated but not effective; and (4), for patients taking concomitant moderate CYP3A4 inhibitors, a 5 mg dose would be necessary. In addition, the FDA determined that the safety data do not support the approval of suvorexant 30 mg and 40 mg. As previously disclosed, both FDA approval and a separate scheduling determination by the U.S. Drug Enforcement Administration are required before Merck can introduce suvorexant in the United States. The Company has submitted a new drug application for suvorexant to the health authorities in Japan and is continuing with plans to seek approval for suvorexant in other countries around the world.

In July 2014, Merck received a CRL from the FDA for its NDA for MK-8962, corifollitropin alfa injection, a sustained follicle stimulant for controlled ovarian stimulation in women participating in assisted reproductive technologies. Merck is evaluating the information provided in the CRL. Corifollitropin alfa injection is marketed as *Elonva* in certain markets outside the United States.

In May 2014, the Company confirmed plans to submit, in the second half of 2014, an NDA for MK-0822, odanacatib, an oral-once weekly investigational treatment for patients with osteoporosis. Abstracts for efficacy and safety data from the Company's large fracture outcomes study have been submitted for presentation at a medical meeting later in 2014. In the Phase 3 fracture study, odanacatib substantially reduced the risk of osteoporotic fractures vs. placebo, including vertebral, non-vertebral and hip fractures, and the risk reduction was robust and sustained. Adverse experiences were generally balanced between the odanacatib and placebo groups. Among adjudicated adverse effects associated with odanacatib, morphea (areas of skin thickening with itching) was reported uncommonly (<0.2%), with improvement after discontinuation, and femoral shaft fractures of an atypical type were rare (<0.1%). Both were higher than placebo. There were no reported cases of osteonecrosis of the jaw. Numerical imbalances were also seen for adjudicated atrial fibrillation and strokes, though major cardiovascular events were balanced overall.

In June 2014, MK-5172A, an all-oral combination regimen consisting of MK-5172, an investigational hepatitis C virus ("HCV") NS3/4A protease inhibitor, and MK-8742, an investigational HCV NS5A replication complex inhibitor, began Phase 3 clinical trials. MK-5172A was granted Breakthrough Therapy designation in October 2013 by the FDA for treatment of chronic HCV infection. MK-5172A is being investigated in a broad clinical program that includes studies in patients with multiple HCV genotypes who are treatment-naïve, treatment failures as well as other important HCV subpopulations such as patients with cirrhosis and those co-infected with HIV.

In August 2014, Merck completed the acquisition of Idenix for approximately \$3.85 billion. Idenix is a biopharmaceutical company engaged in the discovery and development of medicines for the treatment of human viral diseases, whose primary focus is on the development of next-generation oral antiviral therapeutics to treat HCV infection. Idenix currently has three HCV drug candidates in clinical development: two nucleotide prodrugs (IDX21437 and IDX21459) and a NS5A inhibitor (samatasvir). These novel candidates are being evaluated for their potential inclusion in the development of all oral, pan-genotypic fixed-dose combination regimens.

In May 2014, Merck and Endocyte, Inc. ("Endocyte") (the Company's collaboration partner) announced the withdrawal of the conditional MAA from the EMA for vintafolide for the treatment of adult patients with folate receptor-positive, platinum-resistant ovarian cancer, in combination with pegylated liposomal doxorubicin ("PLD"). The Companies' decision was based on review of interim data from the PROCEED trial. The PROCEED trial has been terminated based on the Data Safety Monitoring Board's (the "DSMB") recommendation that the study be stopped because vintafolide in combination with PLD versus PLD alone did not meet the pre-specified criteria for progression-free survival to allow continuation of the study. The DSMB did not identify any safety concerns for the patients enrolled in the PROCEED trial. In June 2014, Merck returned worldwide rights for vintafolide in all indications to Endocyte.



The chart below reflects the Company's research pipeline as of July 31, 2014. Candidates shown in Phase 3 include specific products and the date such candidate entered into Phase 3 development. Candidates shown in Phase 2 include the most advanced compound with a specific mechanism or, if listed compounds have the same mechanism, they are each currently intended for commercialization in a given therapeutic area. Small molecules and biologics are given MK-number designations and vaccine candidates are given V-number designations. Except as otherwise noted, candidates in Phase 1, additional indications in the same therapeutic area and additional claims, line extensions or formulations for in-line products are not shown.

Phase 2	Phase 3 (Phase 3 entry date)	Under Review
<b>Alzheimer's Disease</b> MK-7622 <b>Asthma</b> MK-1029 <b>Bacterial Infection</b> MK-7655 <b>Cancer</b> MK-2206 <b>Contraception, Medicated IUS</b> MK-8342 <b>Contraception, Next Generation Ring</b> MK-8175A MK-8342B <b>HIV</b> MK-1439 (doravirine) <b>Non-Small Cell Lung Cancer</b> MK-3475 (pembrolizumab) <sup>(1)</sup> <b>Pneumoconjugate Vaccine</b> V114	<b>Allergy</b> MK-8237, House Dust Mite (March 2014) <sup>(2)</sup> <b>Atherosclerosis</b> MK-0859 (anacetrapib) (May 2008) <b>Alzheimer's Disease</b> MK-8931 (December 2013) <b>Clostridium difficile Infection</b> MK-3415A (actoxumab/bezlotoxumab) (November 2011) <b>CMV Prophylaxis in Transplant Patients</b> MK-8228 (letermovir) (June 2014) <b>Diabetes Mellitus</b> MK-3102 (omarigliptin) (September 2012) MK-8835 (ertugliflozin) (November 2013) MK-1293 (February 2014) <b>Hepatitis C</b> MK-5172A (June 2014) <sup>(3)</sup> <b>Herpes Zoster</b> V212 (inactivated VZV vaccine) (December 2010) <b>Osteoporosis</b> MK-0822 (odanacatib) (September 2007) <b>Pediatric Hexavalent Combination Vaccine</b> V419 (April 2011) <b>Psoriasis</b> MK-3222 (tildrakizumab) (December 2012)	<b>Fertility</b> MK-8962 (corifollitropin alfa injection) (U.S.) <sup>(4)</sup> <b>Hepatitis C</b> MK-7009 (vaniprevir) (Japan) <b>HPV-Related Cancers</b> V503 (HPV vaccine (9 valent)) (U.S.) (EU) <b>Insomnia</b> MK-4305 (suvorexant) (U.S.) <sup>(5)</sup> <b>Melanoma</b> MK-3475 (pembrolizumab) (U.S.) (EU) <b>Neuromuscular Blockade Reversal</b> MK-8616 (sugammadex sodium injection) (U.S.) <sup>(6)</sup> <b>Thrombosis</b> MK-5348 Zontivity (EU)
		<b>Footnotes:</b> <sup>(1)</sup> Phase 2/3 adaptive design. <sup>(2)</sup> North American rights only. <sup>(3)</sup> MK-5172A is the combination of MK-5172 and MK-8742. <sup>(4)</sup> In July 2014, Merck received a CRL from the FDA for corifollitropin alfa injection (MK-8962). Merck is evaluating the information provided in the CRL. <sup>(5)</sup> In June 2013, Merck received a CRL from the FDA for suvorexant (MK-4305). In April 2014, the FDA accepted the Company's resubmitted NDA. <sup>(6)</sup> In September 2013, Merck received a CRL from the FDA for the resubmission of the NDA for sugammadex sodium injection (MK-8616). To address the CRL, the Company is conducting a hypersensitivity study and anticipates filing an NDA resubmission with the FDA in 2014.

The pipeline chart above does not reflect candidates obtained in connection with the acquisition of Idenix which closed in August 2014 as discussed above.

## Selected Joint Venture and Affiliate Information

### AstraZeneca LP

In 1998, Merck and Astra completed the restructuring of the ownership and operations of their existing joint venture whereby Merck acquired Astra's interest in KBI Inc. ("KBI") and contributed KBI's operating assets to a new U.S. limited partnership, Astra Pharmaceuticals L.P. (the "Partnership"), in exchange for a 1% limited partner interest. Astra contributed the net assets of its wholly owned subsidiary, Astra USA, Inc., to the Partnership in exchange for a 99% general partner interest. The Partnership, renamed AstraZeneca LP ("AZLP") upon Astra's 1999 merger with Zeneca Group Plc, became the exclusive distributor of the products for which KBI retained rights.

On June 30, 2014, AstraZeneca exercised its option to purchase Merck's interest in KBI for \$419 million in cash. Of this amount, \$327 million reflects an estimate of the fair value of Merck's interest in Nexium and Prilosec. This portion of the exercise price, which is subject to a true-up in 2018 based on actual sales from closing in 2014 to June 2018, was deferred and will be recognized over time in *Other (income) expense, net* as the contingency is eliminated as sales occur. The remaining exercise price of \$91 million primarily represents a multiple of ten times Merck's average 1% annual profit allocation in the partnership.

for the three years prior to exercise. Merck recognized the \$91 million as a gain in the second quarter and first six months of 2014 within *Other (income) expense, net*. As a result of AstraZeneca's option exercise, the Company's remaining interest in AZLP was redeemed. Accordingly, the Company also recognized a non-cash gain of approximately \$650 million in the second quarter and first six months of 2014 within *Other (income) expense, net* resulting from the retirement of \$2.4 billion of KBI preferred stock (see Note 9 to the interim consolidated financial statements), the elimination of the Company's \$1.4 billion investment in AZLP and a \$340 million reduction of goodwill. This transaction resulted in a net tax benefit of \$517 million in the second quarter and first six months of 2014 primarily reflecting the reversal of deferred taxes on the AZLP investment balance.

As a result of AstraZeneca exercising its option, as of July 1, 2014, the Company no longer records equity income from AZLP and supply sales to AZLP have terminated.

#### *Sanofi Pasteur MSD*

In 1994, Merck and Pasteur Mérieux Connaught (now Sanofi Pasteur S.A.) established an equally-owned joint venture to market vaccines in Europe and to collaborate in the development of combination vaccines for distribution in Europe. Total vaccine sales reported by SPMSD were \$213 million and \$207 million in the second quarter of 2014 and 2013, respectively, and were \$430 million and \$437 million for the first six months of 2014 and 2013, respectively. SPMSD sales of *Gardasil* were \$55 million and \$61 million for the second quarter of 2014 and 2013, respectively, and were \$119 million and \$134 million for the first six months of 2014 and 2013, respectively.

The Company records the results from its interest in AZLP and SPMSD in *Equity income from affiliates*.

### **Liquidity and Capital Resources**

(\$ in millions)	June 30, 2014	December 31, 2013
Cash and investments	\$ 26,013	\$ 27,256
Working capital	15,659	17,817
Total debt to total liabilities and equity	23.6%	23.7%

Cash provided by operating activities was \$4.7 billion in both the first six months of 2014 and 2013. Cash provided by operating activities in the first six months of 2014 includes \$232 million received in connection with the sale of the U.S. marketing rights to *Saphris*. Cash provided by operating activities for the first six months of 2013 includes a payment of \$480 million in connection with the previously disclosed settlement of certain litigation. Cash provided by operating activities continues to be the Company's primary source of funds to finance operating needs, capital expenditures, treasury stock purchases and dividends paid to shareholders. Global economic conditions and ongoing sovereign debt issues, among other factors, have adversely affected foreign receivables in certain European countries (see Note 4 to the interim consolidated financial statements). Additionally, the Company continues to expand in the emerging markets where payment terms tend to be longer. While the Company continues to receive payment on these receivables, these conditions have resulted in an increase in the average length of time it takes to collect accounts receivable outstanding thereby adversely affecting cash provided by operating activities.

Cash used in investing activities was \$3.9 billion in the first six months of 2014 compared with \$2.3 billion in the first six months of 2013 primarily reflecting higher purchases of securities and other investments, partially offset by higher proceeds from the sales of securities and other investments, cash received from the dispositions of businesses primarily related to the transaction with Aspen (see Note 2 to the interim consolidated financial statements) and cash received in connection with AstraZeneca's option exercise (see Note 7 to the interim consolidated financial statements). Cash used in financing activities was \$6.7 billion in the first six months of 2014 compared with \$451 million in the first six months of 2013 driven primarily by lower proceeds from the issuance of debt and a decrease in short-term borrowings, partially offset by lower purchases of treasury stock, lower payments on debt and higher proceeds from the exercise of stock options.

At June 30, 2014, the total of worldwide cash and investments was \$26.0 billion, including \$13.4 billion of cash, cash equivalents and short-term investments and \$12.6 billion of long-term investments. Generally 80%-90% of these cash and investments are held by foreign subsidiaries and would be subject to significant tax payments if such cash and investments were repatriated in the form of dividends. The Company records U.S. deferred tax liabilities for certain unremitted earnings, but when amounts earned overseas are expected to be indefinitely reinvested outside of the United States, no accrual for U.S. taxes is provided. The amount of cash and investments held by U.S. and foreign subsidiaries fluctuates due to a variety of factors including the timing and receipt of payments in the normal course of business. Cash provided by operating activities in the United States continues to be the Company's primary source of funds to finance domestic operating needs, capital expenditures, a portion of treasury stock purchases and dividends paid to shareholders.

Capital expenditures totaled \$507 million and \$764 million for the first six months of 2014 and 2013, respectively.



Dividends paid to stockholders were \$2.6 billion for both the first six months of 2014 and 2013 . In May 2014, the Board of Directors declared a quarterly dividend of \$0.44 per share on the Company's common stock that was paid in July 2014. In July 2014, the Board of Directors declared a quarterly dividend for the fourth quarter of \$0.44 per share on the Company's common stock that is payable in October 2014.

On May 1, 2013, the Company announced that its board of directors authorized additional purchases of up to \$15 billion of Merck's common stock for its treasury. Purchases may be made in open-market transactions, block transactions on or off an exchange, or in privately negotiated transactions. During the first six months of 2014 , the Company purchased \$3.4 billion (60 million shares) for its treasury. As of June 30, 2014 , the Company had approximately \$7.0 billion remaining under the May share repurchase program.

As discussed above, in May 2014, the Company announced that it had entered into a definitive agreement to sell its MCC business to Bayer for \$14.2 billion. The Company expects after-tax proceeds from the sale of MCC to be between \$8.0 billion and \$9.0 billion. Merck will use the after-tax proceeds, consistent with its capital allocation strategy, to resource those areas within its business that represent the highest potential growth opportunities, such as pembrolizumab (Merck's investigational anti-PD-1 antibody), to augment the Company's pipeline with external assets that can create value and to continue to provide return of capital to shareholders. Merck expects to close the sale of MCC in the second half of 2014, subject to customary closing conditions, including regulatory approvals. The Company also announced a worldwide clinical development collaboration with Bayer to market and develop sGC modulators under which Merck will make an upfront payment to Bayer of \$1.0 billion with the potential for additional milestone payments upon the achievement of agreed-upon sales goals. Also as discussed above, in August 2014, Merck acquired Idenix for approximately \$3.85 billion in cash.

In August 2014, the Company terminated its existing credit facility and entered into a new \$6.0 billion, five-year credit facility that matures in August 2019. The facility provides backup liquidity for the Company's commercial paper borrowing facility and is to be used for general corporate purposes. The Company has not drawn funding from this facility.

### **Critical Accounting Policies**

The Company's significant accounting policies, which include management's best estimates and judgments, are included in Note 2 to the consolidated financial statements for the year ended December 31, 2013 included in Merck's Form 10-K filed on February 27, 2014. Certain of these accounting policies are considered critical as disclosed in the Critical Accounting Policies section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in Merck's Form 10-K because of the potential for a significant impact on the financial statements due to the inherent uncertainty in such estimates. There have been no significant changes in the Company's critical accounting policies since December 31, 2013 .

### **Recently Issued Accounting Standards**

In May 2014, the Financial Accounting Standards Board issued amended accounting guidance on revenue recognition that will be applied to all contracts with customers. The objective of the new guidance is to improve comparability of revenue recognition practices across entities and to provide more useful information to users of financial statements through improved disclosure requirements. This guidance is effective for annual and interim periods beginning in 2017. Early adoption is not permitted. The Company is currently assessing the impact of adoption on its consolidated financial statements.

### **Item 4. Controls and Procedures**

Management of the Company, with the participation of its Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures over financial reporting for the period covered by this Form 10-Q. Based on this assessment, the Company's Chief Executive Officer and Chief Financial Officer have concluded that as of June 30, 2014 , the Company's disclosure controls and procedures are effective.

### **CAUTIONARY FACTORS THAT MAY AFFECT FUTURE RESULTS**

This report and other written reports and oral statements made from time to time by the Company may contain so-called "forward-looking statements," all of which are based on management's current expectations and are subject to risks and uncertainties which may cause results to differ materially from those set forth in the statements. One can identify these forward-looking statements by their use of words such as "anticipates," "expects," "plans," "will," "estimates," "forecasts," "projects" and other words of similar meaning. One can also identify them by the fact that they do not relate strictly to historical or current facts. These statements are likely to address the Company's growth strategy, financial results, product development, product approvals, product potential and development programs. One must carefully consider any such statement and should understand that many factors could cause actual results to differ materially from the Company's forward-looking statements. These factors include inaccurate assumptions and a broad variety of other risks and uncertainties, including some that are known and some that are not. No forward-looking statement can be guaranteed and actual future results may vary materially.

The Company does not assume the obligation to update any forward-looking statement. One should carefully evaluate such statements in light of factors, including risk factors, described in the Company's filings with the Securities and Exchange Commission, especially on Forms 10-K, 10-Q and 8-K. In Item 1A. "Risk Factors" of the Company's Annual Report on Form 10-K for the year ended December 31, 2013, as filed on February 27, 2014, the Company discusses in more detail various important risk factors that could cause actual results to differ from expected or historic results. The Company notes these factors for investors as permitted by the Private Securities Litigation Reform Act of 1995. One should understand that it is not possible to predict or identify all such factors. Consequently, the reader should not consider any such list to be a complete statement of all potential risks or uncertainties.

## **PART II - Other Information**

### **Item 1. Legal Proceedings**

The information called for by this Item is incorporated herein by reference to Note 8 included in Part I, Item 1, Financial Statements (unaudited) — Notes to Consolidated Financial Statements.

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

Issuer purchases of equity securities for the three months ended June 30, 2014 were as follows:

#### **ISSUER PURCHASES OF EQUITY SECURITIES**

Period	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid Per Share	(\$ in millions)
			Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs <sup>(1)</sup>
April 1 - April 30	9,218,670	\$56.24	\$8,693
May 1 - May 31	12,800,899	\$56.37	\$7,972
June 1 - June 30	17,325,900	\$58.06	\$6,966
Total	39,345,469	\$57.09	\$6,966

<sup>(1)</sup> All shares purchased during the period were made as part of a plan approved by the Board of Directors in May 2013 to purchase up to \$15 billion in Merck shares.

### **Item 6. Exhibits**

<b><u>Number</u></b>	<b><u>Description</u></b>
3.1	— Restated Certificate of Incorporation of Merck & Co., Inc. (November 3, 2009) – Incorporated by reference to Current Report on Form 8-K filed on November 4, 2009 (No. 1-6571)
3.2	— By-Laws of Merck & Co., Inc. (effective February 25, 2014) – Incorporated by reference to Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2013 (No. 1-6571)
31.1	— Rule 13a – 14(a)/15d – 14(a) Certification of Chief Executive Officer
31.2	— Rule 13a – 14(a)/15d – 14(a) Certification of Chief Financial Officer
32.1	— Section 1350 Certification of Chief Executive Officer
32.2	— Section 1350 Certification of Chief Financial Officer
101	— The following materials from Merck & Co., Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, formatted in XBRL (Extensible Business Reporting Language): (i) the Interim Consolidated Statement of Income, (ii) the Interim Consolidated Statement of Comprehensive Income, (iii) the Interim Consolidated Balance Sheet, (iv) the Consolidated Statement of Cash Flows, and (v) Notes to Interim Consolidated Financial Statements.

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.

MERCK & CO., INC.

Date: August 7, 2014

/s/ Bruce N. Kuhlik

BRUCE N. KUHLIK

Executive Vice President and General Counsel

Date: August 7, 2014

/s/ Rita A. Karachun

RITA A. KARACHUN

Senior Vice President Finance - Global Controller

## EXHIBIT INDEX

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**CERTIFICATION**

I, Kenneth C. Frazier, certify that:

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

Date: August 7, 2014

By: /s/ Kenneth C. Frazier  
KENNETH C. FRAZIER  
Chairman, President and Chief Executive Officer

**CERTIFICATION**

I, Robert M. Davis, certify that:

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

Date: August 7, 2014

By: /s/ Robert M. Davis  
ROBERT M. DAVIS  
Executive Vice President & Chief Financial Officer

**Section 1350**  
**Certification of Chief Executive Officer**

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of Merck & Co., Inc. (the “Company”), hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (the “Report”) fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 7, 2014

/s/ Kenneth C. Frazier

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Name: KENNETH C. FRAZIER

Title: Chairman, President and Chief Executive Officer

**Section 1350**  
**Certification of Chief Financial Officer**

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of Merck & Co., Inc. (the “Company”), hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (the “Report”) fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 7, 2014

/s/ Robert M. Davis

Name: ROBERT M. DAVIS

Title: Executive Vice President & Chief Financial Officer