AMGEN INC
Form 10-Q
October 31, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-Q
(Mark One)
þ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2018
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number 001-37702
Amgen Inc.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	95-3540776 (I.R.S. Employer Identification No.)
One Amgen Center Drive, Thousand Oaks, California (Address of principal executive offices)	91320-1799 (Zip Code)

(805) 447-1000
(Registrant's telephone number, including area code)
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or Section 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 þ No ¨
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes þ No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ Accelerated filer ¨ Non-accelerated filer ¨

Smaller reporting company ¨ Emerging growth company ¨
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No þ
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.¨
As of October 24, 2018, the registrant had 637,219,244 shares of common stock, $0.0001 par value, outstanding.

AMGEN INC.
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PART I — FINANCIAL INFORMATION
Item 1. FINANCIAL STATEMENTS
AMGEN INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(In millions, except per-share data)
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Revenues:				
Product sales	$5,510	$5,453	$16,532	$16,226
Other revenues	394	320	985	821
Total revenues	5,904	5,773	17,517	17,047
Operating expenses:				
Cost of sales	1,037	990	3,005	3,010
Research and development	926	877	2,555	2,519
Selling, general and administrative	1,293	1,170	3,773	3,443
Other	325	297	303	347
Total operating expenses	3,581	3,334	9,636	9,319
Operating income	2,323	2,439	7,881	7,728
Interest expense, net	355	325	1,040	972
Interest and other income, net	126	267	519	627
Income before income taxes	2,094	2,381	7,360	7,383
Provision for income taxes	235	360	894	1,140
Net income	$1,859	$2,021	$6,466	$6,243
Earnings per share:				
Basic	$2.88	$2.78	$9.67	$8.52
Diluted	$2.86	$2.76	$9.61	$8.46
Shares used in calculation of earnings per share:				
Basic	645	728	669	733
Diluted	649	733	673	738
Dividends paid per share	$1.32	$1.15	$3.96	$3.45

See accompanying notes.

AMGEN INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Net income	$1,859	$2,021	$6,466	$6,243
Other comprehensive income (loss), net of reclassification adjustments and taxes:				
(Losses) gains on foreign currency translation	(71)	41	(153)	100
Gains (losses) on cash flow hedges	41	(50)	270	(324)
Gains (losses) on available-for-sale securities	97	9	(237)	247
Other	(3)	6	(1)	5
Other comprehensive income (loss), net of taxes	64	6	(121)	28
Comprehensive income	$1,923	$2,027	$6,345	$6,271

See accompanying notes.

AMGEN INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions, except per-share data)

	September 30, 2018 (Unaudited)	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 11,956	$ 3,800
Marketable securities	17,965	37,878
Trade receivables, net	3,441	3,237
Inventories	3,017	2,834
Other current assets	1,941	1,727
Total current assets	38,320	49,476
Property, plant and equipment, net	4,899	4,989
Intangible assets, net	7,782	8,609
Goodwill	14,684	14,761
Other assets	1,648	2,119
Total assets	$ 67,333	$ 79,954
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,042	$ 1,352
Accrued liabilities	6,313	6,516
Current portion of long-term debt	5,077	1,152
Total current liabilities	12,432	9,020
Long-term debt	29,350	34,190
Long-term deferred tax liabilities	978	1,166
Long-term tax liabilities	8,832	9,099
Other noncurrent liabilities	1,392	1,238
Contingencies and commitments		
Stockholders' equity:		
Common stock and additional paid-in capital; $0.0001 par value; 2,750.0 shares authorized; outstanding — 640.5 shares in 2018 and 722.2 shares in 2017	31,145	30,992
Accumulated deficit	(15,987)	(5,072)
Accumulated other comprehensive loss	(809)	(679)
Total stockholders' equity	14,349	25,241
Total liabilities and stockholders' equity	$ 67,333	$ 79,954

See accompanying notes.

AMGEN INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)
(Unaudited)

	Nine months ended September 30,	
	2018	2017
Cash flows from operating activities:		
Net income	$6,466	$6,243
Depreciation and amortization	1,456	1,506
Share-based compensation expense	224	244
Deferred income taxes	(294)	(379)
Other items, net	412	381
Changes in operating assets and liabilities, net of acquisition:		
Trade receivables, net	(234)	(229)
Inventories	(93)	(54)
Other assets	(110)	(110)
Accounts payable	(311)	(50)
Accrued income taxes, net	(384)	48
Long-term tax liabilities	204	314
Other liabilities	766	251
Net cash provided by operating activities	8,102	8,165
Cash flows from investing activities:		
Purchases of marketable securities	(12,617)	(26,661)
Proceeds from sales of marketable securities	28,059	18,580
Proceeds from maturities of marketable securities	3,881	4,765
Cash acquired in acquisition, net of cash paid	197	—
Purchases of property, plant and equipment	(513)	(511)
Other	(31)	(119)
Net cash provided by (used in) investing activities	18,976	(3,946)
Cash flows from financing activities:		
Net proceeds from issuance of debt	—	3,485
Repayment of debt	(500)	(4,405)
Net change in commercial paper	—	1,499
Repurchases of common stock	(15,670)	(2,371)
Dividends paid	(2,667)	(2,531)
Other	(85)	(137)
Net cash used in financing activities	(18,922)	(4,460)
Increase (decrease) in cash and cash equivalents	8,156	(241)
Cash and cash equivalents at beginning of period	3,800	3,241
Cash and cash equivalents at end of period	$11,956	$3,000

See accompanying notes.

AMGEN INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2018
(Unaudited)

1. Summary of significant accounting policies

Business

Amgen Inc. (including its subsidiaries, referred to as “Amgen,” “the Company,” “we,” “our” or “us”) is a global biotechnology pioneer that discovers, develops, manufactures and delivers innovative human therapeutics. We operate in one business segment: human therapeutics.

Basis of presentation

The financial information for the three and nine months ended September 30, 2018 and 2017, is unaudited but includes all adjustments (consisting of only normal, recurring adjustments unless otherwise indicated), which Amgen considers necessary for a fair presentation of its condensed consolidated results of operations for those periods. Interim results are not necessarily indicative of results for the full fiscal year.

The condensed consolidated financial statements should be read in conjunction with our consolidated financial statements and the notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2017, and with our condensed consolidated financial statements and the notes thereto contained in our Quarterly Reports on Form 10-Q for the periods ended March 31, 2018 and June 30, 2018.

Principles of consolidation

The condensed consolidated financial statements include the accounts of Amgen as well as its majority-owned subsidiaries. We do not have any significant interests in any variable interest entities. All material intercompany transactions and balances have been eliminated in consolidation.

Use of estimates

The preparation of condensed consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Actual results may differ from those estimates.

Property, plant and equipment, net

Property, plant and equipment is recorded at historical cost, net of accumulated depreciation and amortization of $8.0 billion and $7.6 billion as of September 30, 2018 and December 31, 2017, respectively.

Revenues

Adoption of new revenue recognition standard

In May 2014, the Financial Accounting Standards Board (FASB) issued a new accounting standard that amends the guidance for the recognition of revenue from contracts with customers to transfer goods and services. The FASB subsequently issued additional, clarifying standards to address issues arising from implementation of the new revenue recognition standard. The new revenue recognition standard and clarifying standards require an entity to recognize revenue when control of promised goods or services is transferred to the customer at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. We adopted this new standard as of January 1, 2018, by applying the modified-retrospective method to those contracts that were not completed as of that date.

The results for reporting periods beginning after January 1, 2018, are presented in accordance with the new standard, although comparative information has not been restated and continues to be reported under the accounting standards and policies in effect for those periods. See Note 1, Summary of significant accounting policies, to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2017.

Upon adoption, we recorded a net decrease of $25 million to Accumulated deficit due to the cumulative impact of adopting the new standard—with the impact related primarily to the acceleration of deferred revenue, net of related deferred tax impact. The adoption of this new standard had an immaterial impact on our reported total revenues and operating income as compared to what reported amounts would have been under the prior standard, and we expect the impact of adoption in future periods to also be immaterial. Our accounting policies under the new standard were applied prospectively and are described below. See Note 4, Revenues.

Product sales and sales deductions

Revenue from product sales is recognized upon transfer of control of a product to a customer, generally upon delivery, based on an amount that reflects the consideration to which we expect to be entitled, net of accruals for estimated rebates, wholesaler chargebacks, discounts and other deductions (collectively, sales deductions) and returns established at the time of sale.

We analyze the adequacy of our accruals for sales deductions quarterly. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that an adjustment is appropriate. Accruals are also adjusted to reflect actual results. Accruals for sales deductions are based primarily on estimates of the amounts earned or to be claimed on the related sales. These estimates take into consideration current contractual and statutory requirements, specific known market events and trends, internal and external historical data and forecasted customer buying patterns. Sales deductions are substantially product specific and therefore, for any given period, can be affected by the mix of products sold. Included in sales deductions are immaterial net adjustments related to prior-period sales due to changes in estimates. Historically, such amounts have represented less than 1% of the aggregate sales deductions charged against product sales.

Returns are estimated through comparison of historical return data to their related sales on a production lot basis. Historical rates of return are determined for each product and are adjusted for known or expected changes in the marketplace specific to each product, when appropriate. Historically, sales return provisions have amounted to less than 1% of gross product sales. Changes in estimates for prior-period sales return provisions have historically been immaterial.

Taxes collected from customers and remitted to government authorities and that are related to sales of the Company’s products, primarily in Europe, are excluded from revenues.

As a practical expedient, sales commissions are expensed when incurred because the amortization period would have been one year or less. These costs are recorded in Selling, general and administrative expenses in the Condensed Consolidated Statements of Income.

Other revenues

Other revenues consist primarily of royalty income and corporate partner revenues. Royalties from licensees are based on third-party sales of licensed products and are recorded when the related third-party product sale occurs. Royalty estimates are based on historical and forecasted sales trends. Corporate partner revenues are composed primarily of license fees and milestones earned and our share of commercial profits generated from collaborations. See Arrangements with multiple-performance obligations, discussed below.

Arrangements with multiple-performance obligations

From time to time, we enter into arrangements for the research and development (R&D), manufacture and/or commercialization of products and product candidates. Such arrangements may require us to deliver various rights, services and/or goods, including (i) intellectual property rights or licenses, (ii) R&D services, (iii) manufacturing services, and/or (iv) commercialization services. The underlying terms of these arrangements generally provide for consideration to Amgen in the form of nonrefundable, up-front license fees, development and commercial-performance milestone payments, cost sharing, royalty payments and/or profit sharing.

In arrangements involving more than one performance obligation, each required performance obligation is evaluated to determine whether it qualifies as a distinct performance obligation based on whether (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available and (ii) the good or service is separately identifiable from other promises in the contract. The consideration under the arrangement is then allocated to each separate distinct performance obligation based on its respective relative stand-alone selling price. The estimated selling price of each deliverable reflects our best estimate of what the selling price would be if the deliverable was regularly sold by us on a stand-alone basis or using an adjusted market assessment approach if selling price on a stand-alone basis is not available.

The consideration allocated to each distinct performance obligation is recognized as revenue when control of the related goods or services is transferred. Consideration associated with at-risk substantive performance milestones is recognized as revenue when it is probable that a significant reversal of the cumulative revenue recognized will not occur. We utilize the sales and usage-based royalty exception in arrangements that resulted from the license of intellectual property, recognizing revenues generated from royalties or profit sharing as the underlying sales occur.

Other recently adopted pronouncements

In January 2016, the FASB issued a new accounting standard that amends the accounting and disclosures of financial instruments, including a provision requiring that equity investments (except for investments accounted for under the equity method of accounting) be measured at fair value, with changes in fair value recognized in current earnings. With the exception of equity investments that were previously accounted for at cost, a modified-retrospective approach was used to reflect the cumulative effect of adoption as an adjustment to Accumulated deficit as of the beginning of the fiscal year. The new standard will be applied

prospectively to investments that were previously accounted for at cost. Upon adoption, on January 1, 2018, we recorded an immaterial adjustment to Accumulated deficit from Accumulated other comprehensive income (loss) (AOCI), which represented the net unrealized gain on all equity investments with a readily determinable fair value as of December 31, 2017. The impact that this new standard has on our Condensed Consolidated Statements of Income after adoption will depend on changes in fair values of equity securities in our portfolio in the future. See Note 8, Investments.

In October 2016, the FASB issued a new accounting standard that amends the income tax accounting guidance for intra-entity transfers of assets other than inventory. The new standard requires that entities recognize the income tax consequences of an intercompany transfer of an asset, other than inventory, in the period the transfer occurs. The current exception to defer the recognition of any tax impact on intercompany transfers of inventory until the inventory is sold to a third party remains unaffected. We adopted this standard as of January 1, 2018, and will apply it prospectively to any transaction occurring on or after the adoption date. The adoption of this standard did not have a material impact on our condensed consolidated financial statements, however the impact on our condensed consolidated financial statements in future periods will depend on the facts and circumstances of future transactions.

In January 2017, the FASB issued a new accounting standard that changes the definition of a business to assist entities with the evaluation of when a set of assets acquired or disposed of should be considered a business. The new standard requires that an entity evaluate whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets; if so, the set of assets would not be considered a business. The new standard also requires that a business include at least one substantive process, and it narrows the definition of outputs. We adopted this standard as of January 1, 2018, and will apply it prospectively. Adoption of this new standard may result in more transactions being accounted for as asset acquisitions versus business combinations; however, the impact on our condensed consolidated financial statements in future periods will depend on the facts and circumstances of future transactions.

In August 2017, the FASB issued a new accounting standard that amends the accounting and reporting of hedging activities, which we elected to adopt early during the second quarter of 2018. Among its provisions, the new standard (i) eliminates the separate measurement and reporting of hedge ineffectiveness and (ii) permits an entity to recognize in earnings the initial fair value of an excluded component of a hedging instrument’s fair value under a systematic and rational method over the life of the derivative instrument. In accordance with the transition provisions of the new standard, the separate measurement of ineffectiveness for our cash flow hedging instruments existing as of the date of adoption is required to be eliminated through a cumulative-effect adjustment to Accumulated deficit as of January 1, 2018, the beginning of the fiscal year. The ineffective portions of our cash flow hedges were not material to our previously issued condensed consolidated financial statements. In addition, certain provisions in the guidance require modifications to existing presentation and disclosure requirements on a prospective basis. The adoption of this standard did not have a material impact on our condensed consolidated financial statements. See Note 14, Derivative instruments.

In March 2018, the FASB issued a new accounting standard to incorporate U.S. Securities and Exchange Commission (SEC) Staff Accounting Bulletin No. 118 (SAB 118), which addresses accounting implications of major tax reform legislation Public Law No. 115-97, commonly referred to as the Tax Cuts and Jobs Act (the 2017 Tax Act), enacted on December 22, 2017. SAB 118 allows an entity to record provisional amounts during a measurement period not to extend beyond one year from the enactment date and was effective upon issuance. We continue to analyze the 2017 Tax Act and in certain areas have made reasonable estimates of the effects on our condensed consolidated financial statements and tax disclosures. See Note 5, Income taxes.

Other recent accounting pronouncements

In February 2016, the FASB issued a new accounting standard that amends the guidance for the accounting and disclosure of leases. This new standard requires that lessees recognize on the balance sheet the assets and liabilities that arise from leases, including leases classified as operating leases under current GAAP, and disclose qualitative and quantitative information about leasing arrangements. The new standard requires a modified-retrospective approach to adoption and is effective for interim and annual periods beginning on January 1, 2019, but may be adopted earlier. In July 2018, the FASB further amended this standard to allow for a new transition method that provides the option to use the effective date as the date of initial application. We intend to elect this alternative transition method and

therefore will not adjust comparative-period financial information. In addition, we intend to elect the package of practical expedients permitted under the transition guidance of the new standard to not reassess prior conclusions related to contracts that are or that contain leases, lease classification and initial direct costs. We expect to adopt this standard beginning in the first quarter of 2019. We do not expect that this standard will have a material impact on our Condensed Consolidated Statements of Income, but we do expect that upon adoption, it will have a material impact on our assets and liabilities on our Condensed Consolidated Balance Sheets. The primary effect of adoption will be the requirement to record right-of-use assets and the corresponding present value of lease obligation liabilities for current operating leases. The actual impact will depend on our lease portfolio at the time of adoption. In addition, the standard requires that we update the systems, processes and controls we use to track, record and account for our lease portfolio. We have selected a lease accounting information system, engaged third-party consultants and are progressing through system implementation. System readiness, including the implementation and functionality of software procured from third-party providers, is essential to enable preparation of the financial information required for this standard.

In June 2016, the FASB issued a new accounting standard that amends the guidance for measuring and recording credit losses on financial assets measured at amortized cost by replacing the “incurred loss” model with an “expected loss” model. Accordingly, these financial assets will be presented at the net amount expected to be collected. This new standard also requires that credit losses related to available-for-sale debt securities be recorded as an allowance through net income rather than reducing the carrying amount under the current, other-than-temporary-impairment model. The new standard is effective for interim and annual periods beginning on January 1, 2020, but may be adopted earlier, beginning on January 1, 2019. With certain exceptions, adjustments are to be applied by using a modified-retrospective approach by reflecting adjustments through a cumulative-effect impact on retained earnings as of the beginning of the fiscal year of adoption. We are currently evaluating the impact that this new standard will have on our condensed consolidated financial statements.

2. Restructuring

In 2014, we initiated a restructuring plan to invest in continuing innovation and the launch of our new pipeline molecules, while improving our cost structure. As part of the plan, we closed facilities in Washington State and Colorado and are reducing the number of buildings we occupy at our headquarters in Thousand Oaks, California, as well as at other locations.

We estimate that we will incur $800 million to $850 million of pretax charges in connection with our restructuring, including (i) separation and other headcount-related costs of $540 million to $560 million with respect to staff reductions and (ii) asset-related charges of $260 million to $290 million that consist primarily of asset impairments, accelerated depreciation and other related costs resulting from the consolidation of our worldwide facilities. Through September 30, 2018, we incurred $547 million of separation costs and other headcount-related costs and $251 million of net asset-related charges.

The amounts related to the restructuring recorded in the Condensed Consolidated Statements of Income during the three and nine months ended September 30, 2018 and 2017, were not significant. As of September 30, 2018, the total restructuring liability was not significant.

3. Business combinations

Kirin-Amgen, Inc.

During the first quarter of 2018, we acquired the remaining 50% ownership of Kirin-Amgen, Inc. (K-A), from Kirin Holdings Company, Limited (Kirin), making K-A a wholly owned subsidiary of Amgen. Upon its acquisition, K-A’s operations have been included in our condensed consolidated financial statements commencing on the share acquisition date. The acquisition relieved Amgen of future royalty obligations to K-A.

K-A is a corporation that was established in 1984 as a 50-50 joint venture with Kirin to fund the global development of EPOGEN® (epoetin alfa). Over time, the scope of the collaboration was expanded to also include the products NEUPOGEN® (filgrastim), Neulasta® (pegfilgrastim), Aranesp® (darbepoetin alfa), Nplate® (romiplostim) and brodalumab. K-A held the intellectual property for each of these products and licensed the associated marketing rights in Asia to Kyowa Hakko Kirin (KHK), Kirin’s pharmaceutical subsidiary, and in most other territories to Amgen. In return, Amgen and KHK paid royalties to K-A, and K-A reimbursed Amgen and KHK’s R&D expenses. K-A had also given Johnson & Johnson (J&J) exclusive licenses to manufacture and market recombinant human erythropoietin for all geographic areas of the world outside the United States, China and Japan. Under this agreement, J&J pays royalties to K-A based on product sales.

Prior to the share acquisition date, we owned 50% of K-A and accounted for our interest in K-A by using the equity method of accounting, which included recording our share of K-A’s profits or losses in Selling, general and administrative expenses in the Condensed Consolidated Statements of Income. The carrying value of our equity method investment in K-A was $570 million as of December 31, 2017, and is included in Other assets in the Condensed Consolidated Balance Sheets.

The transaction was accounted for as a step acquisition of a business in which we were required to remeasure our existing 50% ownership interest at fair value. In addition, we were required to effectively settle our preexisting relationship with K-A, which resulted in a loss. Together the gain on the remeasurement of our existing ownership interest and the loss from the settlement of the preexisting relationship resulted in a net gain of $80 million, which was recorded in Interest and other income, net, in the Condensed Consolidated Statements of Income.

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The primary means of consideration for this transaction was a payment of $780 million in cash. The aggregate share acquisition date consideration to acquire the remaining 50% ownership in K-A and the fair value of Amgen's preacquisition investment consisted of the following (in millions):

	Amount
Total cash paid to Kirin	$780
Fair value of contingent consideration obligation	45
Loss on settlement of preexisting relationship	(168)
Total consideration transferred to acquire K-A	657
Fair value of Amgen's investment in K-A	825
Total acquisition date fair value	$1,482

In connection with this acquisition, we are obligated to make single-digit royalty payments to Kirin contingent upon sales of brodalumab. The estimated fair value of this contingent consideration obligation was $45 million as of the share acquisition date.

The fair values of assets acquired and liabilities assumed included cash of $977 million, licensing rights of $470 million, deferred tax liabilities of $102 million, other assets and liabilities of $131 million and goodwill of $6 million. The estimated fair value of acquired licensing rights was determined by using a probability-weighted-income approach, which discounts expected future cash flows to present value by using a discount rate that represents the estimated rate that market participants would use to value the assets. The projected cash flows were based on certain assumptions, including estimates of future revenues and expenses and the time and resources needed to maintain the assets through commercialization. The licensing rights will be amortized over a weighted-average period of four years by using the straight-line method. The excess of the share acquisition date consideration over the fair values assigned to the assets acquired and the liabilities assumed of $6 million was recorded as goodwill, which is not deductible for tax purposes. The $131 million in other assets and liabilities represents primarily receivables for royalties earned by K-A but not yet received, offset partially by payables representing R&D expenses incurred but not yet reimbursed by K-A.

Pro forma results of operations for this acquisition have not been presented because this acquisition is not material to our consolidated results of operations.

4. Revenues

Revenues by product and by geographic area

We operate in one business segment: human therapeutics. Therefore, results of our operations are reported on a consolidated basis for purposes of segment reporting, consistent with internal management reporting. Revenues by product and by geographic area, based on customers' locations, are presented below. Rest-of-world (ROW) revenues relate to products that are sold principally in Europe. Revenues were as follows (in millions):

	Three months ended September 30,					
	2018			2017		
	US	ROW	Total	US	ROW	Total
Enbrel®	$1,242	$50	$1,292	$1,309	$54	$1,363
Neulasta®	897	154	1,051	977	146	1,123
Prolia®	354	178	532	298	166	464
Aranesp®	248	229	477	285	231	516
XGEVA®	323	110	433	282	105	387
Sensipar® / Mimpara®	330	79	409	373	84	457
EPOGEN®	252	—	252	264	—	264
Other products	614	450	1,064	509	370	879
Total product sales[1]	$4,260	$1,250	$5,510	$4,297	$1,156	$5,453
Other revenues			394			320
Total revenues[2]			$5,904			$5,773

	Nine months ended September 30,					
	2018			2017		
	US	ROW	Total	US	ROW	Total
Enbrel®	$3,544	$155	$3,699	$3,838	$172	$4,010
Neulasta®	2,854	452	3,306	2,962	458	3,420
Prolia®	1,070	566	1,636	903	491	1,394
Aranesp®	714	689	1,403	851	711	1,562
XGEVA®	994	336	1,330	872	312	1,184
Sensipar® / Mimpara®	1,069	257	1,326	1,052	253	1,305
EPOGEN®	746	—	746	826	—	826
Other products	1,783	1,303	3,086	1,474	1,051	2,525
Total product sales[(1)]	$12,774	$3,758	$16,532	$12,778	$3,448	$16,226
Other revenues			985			821
Total revenues[(2)]			$17,517			$17,047

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(1) Hedging gains and losses, which are included in product sales, were not material for the three and nine months ended September 30, 2018 and 2017.

(2) Prior-period amounts are not adjusted under the modified-retrospective method of adoption.

Financing and payment

Our payment terms vary by types and locations of customers and the products or services offered. Payment terms differ by jurisdiction and customer, but payment is generally required in a term ranging from 30 to 120 days from date of shipment or satisfaction of the performance obligation.

For certain products or services and certain customer types, we may require payment before products are delivered or services are rendered to customers.

Optional exemptions

We do not disclose the value of unsatisfied performance obligations for (i) contracts with original expected lengths of one year or less or (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for the services performed.

5. Income taxes

The effective tax rates for the three and nine months ended September 30, 2018, were 11.2% and 12.1%, respectively, compared with 15.1% and 15.4%, respectively, for the corresponding periods of the prior year.

The decrease in our effective tax rate for the three and nine months ended September 30, 2018, was due primarily to the impacts of U.S. corporate tax reform.

On December 22, 2017, the United States enacted the 2017 Tax Act, which imposes a repatriation tax on accumulated earnings of foreign subsidiaries, implements a hybrid territorial tax system together with a current tax on certain foreign earnings and lowers the general corporate income tax rate to 21%. In March 2018, the FASB issued a new accounting standard to incorporate SAB 118, which permits us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. We continue to analyze the 2017 Tax Act and in certain areas have made reasonable estimates of the effects on our condensed consolidated financial statements and tax disclosures.

The 2017 Tax Act includes U.S. taxation on certain foreign earnings, referred to as Global Intangible Low-Taxed Income (foreign intangible income), effective January 1, 2018. The FASB allows an entity to make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as foreign intangible income in future years or provide for the tax expense related to the foreign intangible income as a period expense in the year it is incurred. We have recorded no provisional amount for deferred taxes on foreign intangible income because more time is needed to analyze the data in order to make an accounting policy election.

We consider our key estimates on the repatriation tax, the net deferred tax remeasurement, the impact on our unrealized tax benefits and the accounting policy election on temporary basis differences related to foreign intangible income to be incomplete

due to our continuing analysis of final year-end data and tax positions. We are still accumulating and processing data to update our underlying calculations, and we expect the U.S. Treasury and regulators may issue further guidance, among other things; therefore, our estimates may change during 2018. However, we expect to complete our analysis within the measurement period.

The U.S. territory of Puerto Rico imposes an excise tax on the gross intercompany purchase price of goods and services from our manufacturer in Puerto Rico. The rate of 4% is effective through December 31, 2027. We account for the excise tax as a manufacturing cost that is capitalized in inventory and expensed in cost of sales when the related products are sold. For U.S. income tax purposes, the excise tax results in foreign tax credits that are generally recognized in our provision for income taxes when the excise tax is incurred.

One or more of our legal entities file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and certain foreign jurisdictions. Our income tax returns are routinely audited by the tax authorities in those jurisdictions. Significant disputes may arise with authorities involving issues of the timing and amount of deductions, the use of tax credits and allocations of income and expenses among various tax jurisdictions because of differing interpretations of tax laws, regulations and the interpretation of the relevant facts. As previously disclosed, we received a Revenue Agent Report (RAR) from the Internal Revenue Service (IRS) for the years 2010, 2011 and 2012. The RAR proposes to make significant adjustments that relate primarily to the allocation of profits between certain of our entities in the United States and the U.S. territory of Puerto Rico. On November 29, 2017, we received a modified RAR that revised the IRS calculations but continued to propose substantial adjustments. We disagree with the proposed adjustments and are pursuing resolution through the IRS administrative appeals process, which we believe will likely not be concluded within the next 12 months. Final resolution of the IRS audit could have a material impact on our results of operations and cash flows if not resolved favorably, however, we believe our income tax reserves are appropriately provided for all open tax years. We are no longer subject to U.S. federal income tax examinations for years ended on or before December 31, 2009. We are currently under examination by a number of other state and foreign tax jurisdictions.

During the three and nine months ended September 30, 2018, the gross amounts of our unrecognized tax benefits (UTBs) increased $70 million and $225 million, respectively, as a result of tax positions taken during the current year. The UTB balance decreased by approximately $50 million during the third quarter of 2018 due to a state tax audit settlement. Substantially all of the UTBs as of September 30, 2018, if recognized, would affect our effective tax rate.

6. Earnings per share

The computation of basic earnings per share (EPS) is based on the weighted-average number of our common shares outstanding. The computation of diluted EPS is based on the weighted-average number of our common shares outstanding and dilutive potential common shares, which include primarily shares that may be issued under our stock option, restricted stock and performance unit award programs, as determined by using the treasury stock method (collectively, dilutive securities).

The computations for basic and diluted EPS were as follows (in millions, except per-share data):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Income (Numerator):				
Net income for basic and diluted EPS	$1,859	$2,021	$6,466	$6,243
Shares (Denominator):				
Weighted-average shares for basic EPS	645	728	669	733
Effect of dilutive securities	4	5	4	5
Weighted-average shares for diluted EPS	649	733	673	738
Basic EPS	$2.88	$2.78	$9.67	$8.52
Diluted EPS	$2.86	$2.76	$9.61	$8.46

For the three and nine months ended September 30, 2018 and 2017, the number of anti-dilutive employee stock-based awards excluded from the computation of diluted EPS was not significant.

7. Collaborations
A collaborative arrangement is a contractual arrangement that involves a joint operating activity. Such arrangements involve two or more parties that are both (i) active participants in the activity and (ii) exposed to significant risks and rewards dependent on the commercial success of the activity.
From time to time, we enter into collaborative arrangements for the R&D, manufacture and/or commercialization of products and/or product candidates. These collaborations generally provide for nonrefundable up-front license fees, development and commercial-performance milestone payments, cost sharing, royalty payments and/or profit sharing. Our collaboration arrangements are performed with no guarantee of either technological or commercial success, and each is unique in nature. See Note 1, Summary of significant accounting policies, for additional discussion of revenues recognized for these types of arrangements. Operating expenses for costs incurred pursuant to these arrangements are reported in their respective expense line item, net of any payments due to or reimbursements due from our collaboration partners, with such reimbursements being recognized at the time the party becomes obligated to pay. The following describes a significant arrangement that had a material change since the filing of our Annual Report on Form 10-K for the year ended December 31, 2017.
Novartis AG
In April 2017, we expanded our existing migraine collaboration with Novartis AG (Novartis). In the United States, Amgen and Novartis jointly develop and collaborate on the commercialization of Aimovig® (erenumab-aooe). Amgen, as the principal, recognizes product sales of Aimovig® in the United States, shares U.S. commercialization costs with Novartis and pays Novartis a significant royalty on net sales in the United States. Novartis holds global co-development rights and exclusive commercial rights outside the United States and Japan for Aimovig® and other specified migraine programs. Novartis pays Amgen double-digit royalties on net sales of the products in the Novartis exclusive territories and funds a portion of global R&D expenses. As a result of certain regulatory and commercial events, we received milestone payments from Novartis of $147 million and $295 million during the three and nine months ended September 30, 2018, respectively, and $60 million during the three months ended September 30, 2017, which were recorded in Other revenues in the Condensed Consolidated Statements of Income. In addition, Novartis will make a payment to Amgen of up to $100 million if certain commercial and expenditure thresholds are achieved with respect to Aimovig® in the United States. Amgen manufactures and supplies Aimovig® worldwide.
The migraine collaboration will continue for the commercial lives of the products unless terminated in accordance with its terms.
8. Investments
Available-for-sale investments
The amortized cost, gross unrealized gains, gross unrealized losses and fair values of available-for-sale investments by type of security were as follows (in millions):

Types of securities as of September 30, 2018	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ 2,710	$ —	$ (84)	$2,626
U.S. Treasury bills	5,376	—	—	5,376
Other government-related debt securities:				
U.S.	112	—	(3)	109
Foreign and other	1,048	1	(41)	1,008
Corporate debt securities:				
Financial	2,786	—	(89)	2,697
Industrial	2,654	4	(80)	2,578
Other	594	—	(21)	573
Residential-mortgage-backed securities	1,524	—	(62)	1,462
Other mortgage- and asset-backed securities	490	—	(17)	473
Money market mutual funds	8,955	—	—	8,955
Other short-term interest-bearing securities	3,561	—	—	3,561
Total available-for-sale investments	$ 29,810	$ 5	$ (397)	$29,418

Types of securities as of December 31, 2017	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
U.S. Treasury notes	$ 8,313	$ 1	$ (72)	$ 8,242
Other government-related debt securities:				
U.S.	225	—	(2)	223
Foreign and other	2,415	18	(11)	2,422
Corporate debt securities:				
Financial	10,089	17	(34)	10,072
Industrial	9,688	34	(52)	9,670
Other	1,393	3	(6)	1,390
Residential-mortgage-backed securities	2,198	—	(30)	2,168
Other mortgage- and asset-backed securities	2,312	—	(15)	2,297
Money market mutual funds	3,245	—	—	3,245
Other short-term interest-bearing securities	1,440	—	—	1,440
Total interest-bearing securities	41,318	73	(222)	41,169
Equity securities	135	14	—	149
Total available-for-sale investments	$ 41,453	$ 87	$ (222)	$ 41,318

The fair values of available-for-sale investments by location in the Condensed Consolidated Balance Sheets were as follows (in millions):

Condensed Consolidated Balance Sheets locations	September 30, 2018	December 31, 2017
Cash and cash equivalents	$ 11,453	$ 3,291
Marketable securities	17,965	37,878
Other assets	—	149
Total available-for-sale investments	$ 29,418	$ 41,318

Cash and cash equivalents in the above table excludes bank account cash of $503 million and $509 million as of September 30, 2018 and December 31, 2017, respectively. Other assets as of December 31, 2017, consisted of equity securities, which are no longer classified as available-for-sale.

As a result of the adoption of the new accounting standard related to the classification and measurement of financial instruments on January 1, 2018, equity investments (except for investments accounted for under the equity method of accounting) are now measured at fair value, with changes in fair value recognized in earnings. These investments were previously measured at fair value, with changes in fair value recognized in AOCI. Accordingly, these securities are no longer classified as available-for-sale and their presentation is not comparable to the presentation as of December 31, 2017. See Equity securities, discussed below, and Note 1, Summary of significant accounting policies.

The fair values of available-for-sale interest-bearing security investments by contractual maturity, except for mortgage- and asset-backed securities that do not have a single maturity date, were as follows (in millions):

Contractual maturities	September 30, 2018	December 31, 2017
Maturing in one year or less	$ 17,943	$ 6,733
Maturing after one year through three years	2,947	12,820
Maturing after three years through five years	5,585	13,836
Maturing after five years through ten years	1,008	3,263
Maturing after ten years	—	52
Mortgage- and asset-backed securities	1,935	4,465
Total interest-bearing securities	$ 29,418	$ 41,169

For the three months ended September 30, 2018 and 2017, realized gains on interest-bearing securities were $5 million and $26 million, respectively, and realized losses on interest-bearing securities were $108 million and $12 million, respectively. For the nine months ended September 30, 2018 and 2017, realized gains on interest-bearing securities were $27 million and $91 million, respectively, and realized losses on interest-bearing securities were $379 million and $183 million, respectively. Realized gains and losses on interest-bearing securities are recorded in Interest and other income, net, in the Condensed Consolidated Statements of Income. The cost of securities sold is based on the specific-identification method.

The fair values and gross unrealized losses of available-for-sale investments in an unrealized loss position aggregated by type and length of time that the securities have been in a continuous loss position were as follows (in millions):

	Less than 12 months		12 months or more	
Types of securities as of September 30, 2018	Fair values	Unrealized losses	Fair values	Unrealized losses
U.S. Treasury notes	$1,795	$ (58)	$831	$ (26)
Other government-related debt securities:				
U.S.	43	(1)	66	(2)
Foreign and other	855	(38)	74	(3)
Corporate debt securities:				
Financial	2,262	(74)	397	(15)
Industrial	1,970	(68)	318	(12)
Other	533	(21)	13	—
Residential-mortgage-backed securities	673	(27)	782	(35)
Other mortgage- and asset-backed securities	135	(4)	337	(13)
Total	$8,266	$ (291)	$2,818	$ (106)

	Less than 12 months		12 months or more	
Types of securities as of December 31, 2017	Fair values	Unrealized losses	Fair values	Unrealized losses
U.S. Treasury notes	$7,728	$ (70)	$195	$ (2)
Other government-related debt securities:				
U.S.	188	(1)	34	(1)
Foreign and other	1,163	(9)	115	(2)
Corporate debt securities:				
Financial	5,928	(28)	462	(6)
Industrial	5,760	(43)	612	(9)
Other	868	(4)	117	(2)
Residential-mortgage-backed securities	1,838	(24)	276	(6)
Other mortgage- and asset-backed securities	1,777	(12)	250	(3)
Total	$25,250	$ (191)	$2,061	$ (31)

The primary objective of our investment portfolio is to enhance overall returns in an efficient manner while maintaining safety of principal, prudent levels of liquidity and acceptable levels of risk. Our investment policy limits interest-bearing security investments to certain types of debt and money market instruments issued by institutions with primarily investment-grade credit ratings, and it places restrictions on maturities and concentration by asset class and issuer.

We review our available-for-sale investments for other-than-temporary declines in fair value below our cost basis each quarter and whenever events or changes in circumstances indicate that the cost basis of an asset may not be recoverable. The evaluation is based on a number of factors, including the length of time and the extent to which the fair value has been below our cost basis and adverse conditions related specifically to the security, including any changes to the credit rating of the security, and the intent to sell or whether we will more likely than not be required to sell the security before recovery of its amortized cost basis. Our assessment of whether a security is

other-than-temporarily impaired could change in the future based on new developments or changes in assumptions related to that particular security. As of September 30, 2018, unrealized losses on available-for-sale investments were due primarily to higher interest rates on that date than at the time the securities were purchased. As of

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September 30, 2018 and December 31, 2017, we believe the cost bases for our available-for-sale investments were recoverable in all material respects.

Equity securities

We held investments in equity securities with readily determinable fair values of $217 million and $149 million as of September 30, 2018 and December 31, 2017, respectively, which are included in Other assets in the Condensed Consolidated Balance Sheets. As a result of the adoption of the new accounting standard related to the classification and measurement of financial instruments on January 1, 2018, equity investments (except for investments accounted for under the equity method of accounting) are now measured at fair value, with changes in fair value recognized in earnings. These investments were previously measured at fair value, with changes in fair value recognized in AOCI. Accordingly, these securities are no longer classified as available-for-sale and their presentation is not comparable to the presentation as of December 31, 2017. See Available-for-sale investments, discussed above, and Note 1, Summary of significant accounting policies. Gains and losses recognized on equity securities, including gains and losses recognized on sales, were not material for the three and nine months ended September 30, 2018 and 2017.

Limited partnership investments

We held limited partnership investments of $292 million and $213 million as of September 30, 2018 and December 31, 2017, respectively, which are included in Other assets in the Condensed Consolidated Balance Sheets. These investments are measured by using the net asset values of the underlying investments as a practical expedient. These investments are typically redeemable only through distributions upon liquidation of the underlying assets. As of September 30, 2018, unfunded additional commitments to be made during the next several years for these investments were not material. Gains and losses recognized on our limited partnership investments were not material.

9. Inventories

Inventories consisted of the following (in millions):

	September 30, 2018	December 31, 2017
Raw materials	$ 288	$ 232
Work in process	1,771	1,668
Finished goods	958	934
Total inventories	$ 3,017	$ 2,834

10. Goodwill and other intangible assets

Goodwill

The change in the carrying amount of goodwill was as follows (in millions):

	Nine months ended September 30, 2018
Beginning balance	$ 14,761
Addition from K-A acquisition	6
Currency translation adjustment	(83)
Ending balance	$ 14,684

Other intangible assets

Other intangible assets consisted of the following (in millions):

	September 30, 2018			December 31, 2017		
	Gross carrying amounts	Accumulated amortization	Intangible assets, net	Gross carrying amounts	Accumulated amortization	Intangible assets, net
Finite-lived intangible assets:						
Developed-product-technology rights	$12,586	$ (7,312)	$ 5,274	$12,589	$ (6,796)	$ 5,793
Licensing rights	3,771	(1,921)	1,850	3,275	(1,601)	1,674
Marketing-related rights	1,285	(982)	303	1,319	(920)	399
R&D technology rights	1,159	(860)	299	1,161	(804)	357
Total finite-lived intangible assets	18,801	(11,075)	7,726	18,344	(10,121)	8,223
Indefinite-lived intangible assets:						
In-process research and development	56	—	56	386	—	386
Total other intangible assets	$18,857	$ (11,075)	$ 7,782	$18,730	$ (10,121)	$ 8,609

Developed-product-technology rights consist of rights related to marketed products acquired in business combinations. Licensing rights consist primarily of contractual rights acquired in business combinations to receive future milestone, royalty and profit sharing payments; capitalized payments to third parties for milestones related to regulatory approvals to commercialize products; and up-front payments associated with royalty obligations for marketed products. During the nine months ended September 30, 2018, licensing rights increased due to the K-A share acquisition. See Note 3, Business combinations. Marketing-related intangible assets consist primarily of rights related to the sale and distribution of marketed products. R&D technology rights consist of technology used in R&D with alternative future uses.

In-process research and development (IPR&D) consists of R&D projects acquired in a business combination that are not complete at the time of acquisition due to remaining technological risks and/or lack of receipt of required regulatory approvals. During the three months ended September 30, 2018, we discontinued the internal development of a non-key program, resulting in an impairment charge of $330 million, which was recognized in Other operating expenses in the Condensed Consolidated Statements of Income and included in Other items, net, in the Condensed Consolidated Statements of Cash Flows.

All IPR&D projects have major risks and uncertainties associated with the timely and successful completion of the development and commercialization of product candidates, including our ability to confirm safety and efficacy based on data from clinical trials, our ability to obtain necessary regulatory approvals and our ability to successfully complete these tasks within budgeted costs. We are not permitted to market a human therapeutic without obtaining regulatory approvals, and such approvals require the completion of clinical trials that demonstrate that a product candidate is safe and effective. In addition, the availability and extent of coverage and reimbursement from third-party payers, including government healthcare programs and private insurance plans as well as competitive product launches, affect the revenues a product can generate. Consequently, the eventual realized value, if any, of acquired IPR&D projects may vary from their estimated fair values. We review IPR&D projects for impairment annually, whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable and upon the establishment of technological feasibility or regulatory approval.

During the three months ended September 30, 2018 and 2017, we recognized amortization expense associated with our finite-lived intangible assets of $331 million and $308 million, respectively. During the nine months ended September 30, 2018 and 2017, we recognized amortization expense associated with our finite-lived intangible assets of $983 million and $1.1 billion, respectively. Amortization of intangible assets is included primarily in Cost of sales in the Condensed Consolidated Statements of Income. The total estimated amortization expense for our finite-lived intangible assets for the remaining three months ending December 31, 2018, and the years ending December 31, 2019, 2020, 2021, 2022 and 2023, are $0.3 billion, $1.3 billion, $1.2 billion, $1.0 billion, $0.9 billion and $0.9 billion, respectively.

11. Financing arrangements

Our borrowings consisted of the following (in millions):

	September 30, 2018	December 31, 2017
6.15% notes due 2018 (6.15% 2018 Notes)	$ —	$ 500
4.375% €550 million notes due 2018 (4.375% 2018 euro Notes)	648	653
5.70% notes due 2019 (5.70% 2019 Notes)	1,000	1,000
1.90% notes due 2019 (1.90% 2019 Notes)	700	700
Floating Rate Notes due 2019	550	550
2.20% notes due 2019 (2.20% 2019 Notes)	1,400	1,400
2.125% €675 million notes due 2019 (2.125% 2019 euro Notes)	783	810
4.50% notes due 2020 (4.50% 2020 Notes)	300	300
2.125% notes due 2020 (2.125% 2020 Notes)	750	750
Floating Rate Notes due 2020	300	300
2.20% notes due 2020 (2.20% 2020 Notes)	700	700
3.45% notes due 2020 (3.45% 2020 Notes)	900	900
4.10% notes due 2021 (4.10% 2021 Notes)	1,000	1,000
1.85% notes due 2021 (1.85% 2021 Notes)	750	750
3.875% notes due 2021 (3.875% 2021 Notes)	1,750	1,750
1.25% €1,250 million notes due 2022 (1.25% 2022 euro Notes)	1,451	1,501
2.70% notes due 2022 (2.70% 2022 Notes)	500	500
2.65% notes due 2022 (2.65% 2022 Notes)	1,500	1,500
3.625% notes due 2022 (3.625% 2022 Notes)	750	750
0.41% CHF700 million bonds due 2023 (0.41% 2023 Swiss franc Bonds)	713	719
2.25% notes due 2023 (2.25% 2023 Notes)	750	750
3.625% notes due 2024 (3.625% 2024 Notes)	1,400	1,400
3.125% notes due 2025 (3.125% 2025 Notes)	1,000	1,000
2.00% €750 million notes due 2026 (2.00% 2026 euro Notes)	870	901
2.60% notes due 2026 (2.60% 2026 Notes)	1,250	1,250
5.50% £475 million notes due 2026 (5.50% 2026 pound sterling Notes)	619	642
3.20% notes due 2027 (3.20% 2027 Notes)	1,000	1,000
4.00% £700 million notes due 2029 (4.00% 2029 pound sterling Notes)	912	946
6.375% notes due 2037 (6.375% 2037 Notes)	552	552
6.90% notes due 2038 (6.90% 2038 Notes)	291	291
6.40% notes due 2039 (6.40% 2039 Notes)	466	466
5.75% notes due 2040 (5.75% 2040 Notes)	412	412
4.95% notes due 2041 (4.95% 2041 Notes)	600	600
5.15% notes due 2041 (5.15% 2041 Notes)	974	974
5.65% notes due 2042 (5.65% 2042 Notes)	487	487
5.375% notes due 2043 (5.375% 2043 Notes)	261	261
4.40% notes due 2045 (4.40% 2045 Notes)	2,250	2,250
4.563% notes due 2048 (4.563% 2048 Notes)	1,415	1,415
4.663% notes due 2051 (4.663% 2051 Notes)	3,541	3,541
Other notes due 2097	100	100
Unamortized discounts, premiums, issuance costs and fair value adjustments, net	(1,168)	(929)
Total carrying value of debt	34,427	35,342
Less current portion	(5,077)	(1,152)
Total long-term debt	$ 29,350	$ 34,190

There are no material differences between the effective interest rates and coupon rates of any of our borrowings, except for the 4.563% 2048 Notes and the 4.663% 2051 Notes, which have effective interest rates of 6.3% and 5.6%,

respectively.

12. Stockholders’ equity

Stock repurchase program

Activity under our stock repurchase program, on a trade date basis, was as follows (in millions):

	2018		2017	
	Shares *	Dollars	Shares	Dollars
First quarter	56.4	$10,787	3.4	$555
Second quarter	18.2	3,190	6.2	1,006
Third quarter	8.7	1,713	4.4	769
Total stock repurchases	83.4	$15,690	14.0	$2,330

* Total shares may not add due to rounding.

In January 2018, the Board of Directors authorized an increase of $10.0 billion available under our stock repurchase program. Repurchase activity for the three months ended March 31, 2018, included 52.1 million shares of our common stock acquired under a tender offer at an aggregate cost of $10.0 billion. In April 2018, the Board of Directors increased the amount authorized under our stock repurchase program by an additional $5.0 billion. As of September 30, 2018, $3.7 billion remained available under our stock repurchase program.

Dividends

In July 2018, March 2018 and December 2017, the Board of Directors declared quarterly cash dividends of $1.32 per share of common stock, which were paid in September 2018, June 2018 and March 2018, respectively. In October 2018, the Board of Directors declared a quarterly cash dividend of $1.32 per share, which will be paid on December 7, 2018.

Accumulated other comprehensive income (loss)

The components of AOCI were as follows (in millions):

	Foreign currency translation	Cash flow hedges	Available-for-sale securities	Other	AOCI
Balance as of December 31, 2017	$ (529)	$ (6)	$ (144)	$ —	$ (679)
Cumulative effect of change in accounting principle, net of tax[1]	—	—	(9)	—	(9)
Foreign currency translation adjustments	29	—	—	—	29
Unrealized gains (losses)	—	149	(482)	—	(333)
Reclassification adjustments to income	—	(130)	134	—	4
Other	—	—	—	2	2
Income taxes	—	(13)	5	—	(8)
Balance as of March 31, 2018	(500)	—	(496)	2	(994)
Foreign currency translation adjustments	(111)	—	—	—	(111)
Unrealized losses	—	(34)	(106)	—	(140)
Reclassification adjustments to income	—	318	115	—	433
Income taxes	—	(61)	—	—	(61)
Balance as of June 30, 2018	(611)	223	(487)	2	(873)
Foreign currency translation adjustments	(71)	—	—	—	(71)
Unrealized gains (losses)	—	19	(7)	—	12
Reclassification adjustments to income	—	33	103	—	136
Other	—	—	—	(3)	(3)
Income taxes	—	(11)	1	—	(10)
Balance as of September 30, 2018	$ (682)	$ 264	$ (390)	$ (1)	$ (809)

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[1] See Note 1, Summary of significant accounting policies, for additional information regarding the adoption on January 1, 2018, of the new accounting standard related to the classification and measurement of financial instruments and the related cumulative effect from the change in accounting principle.

Reclassifications out of AOCI and into earnings were as follows (in millions):

	Three months ended September 30,		
Components of AOCI	2018	2017	Condensed Consolidated Statements of Income locations
Cash flow hedges:			
Foreign currency contract gains (losses)	$3	$(2)	Product sales
Cross-currency swap contract (losses) gains	(36)	143	Interest and other income, net
Forward interest rate contract losses	—	(1)	Interest expense, net
	(33)	140	Income before income taxes
	7	(49)	Provision for income taxes
	$(26)	$91	Net income
Available-for-sale securities:			
Net realized (losses) gains	$(103)	$26	Interest and other income, net
	1	(5)	Provision for income taxes
	$(102)	$21	Net income

	Nine months ended September 30,		
Components of AOCI	2018	2017	Condensed Consolidated Statements of Income locations
Cash flow hedges:			
Foreign currency contract (losses) gains	$(51)	$88	Product sales
Cross-currency swap contract (losses) gains	(170)	514	Interest and other income, net
Forward interest rate contract losses	—	(1)	Interest expense, net
	(221)	601	Income before income taxes
	47	(213)	Provision for income taxes
	$(174)	$388	Net income
Available-for-sale securities:			
Net realized losses	$(352)	$(70)	Interest and other income, net
	3	(7)	Provision for income taxes
	$(349)	$(77)	Net income

13. Fair value measurement

To estimate the fair value of our financial assets and liabilities, we use valuation approaches within a hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing an asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the inputs that market participants would use in pricing an asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is divided into three levels based on the source of inputs as follows:

Level 1 — Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access

Level 2 — Valuations for which all significant inputs are observable, either directly or indirectly, other than Level 1 inputs

Level 3 — Valuations based on inputs that are unobservable and significant to the overall fair value measurement

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the

determination of fair value requires more judgment. In certain cases, the inputs used for measuring fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level of input used that is significant to the overall fair value measurement.

The fair values of each major class of the Company’s financial assets and liabilities measured at fair value on a recurring basis were as follows (in millions):

Fair value measurement as of September 30, 2018, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Interest-bearing securities:				
U.S. Treasury notes	$ 2,626	$ —	$ —	$2,626
U.S. Treasury bills	5,376	—	—	5,376
Other government-related debt securities:				
U.S.	—	109	—	109
Foreign and other	—	1,008	—	1,008
Corporate debt securities:				
Financial	—	2,697	—	2,697
Industrial	—	2,578	—	2,578
Other	—	573	—	573
Residential-mortgage-backed securities	—	1,462	—	1,462
Other mortgage- and asset-backed securities	—	473	—	473
Money market mutual funds	8,955	—	—	8,955
Other short-term interest-bearing securities	—	3,561	—	3,561
Equity securities	217	—	—	217
Derivatives:				
Foreign currency contracts	—	121	—	121
Cross-currency swap contracts	—	261	—	261
Total assets	$ 17,174	$ 12,843	$ —	$30,017
Liabilities:				
Derivatives:				
Foreign currency contracts	$ —	$ 49	$ —	$49
Cross-currency swap contracts	—	306	—	306
Interest rate swap contracts	—	310	—	310
Contingent consideration obligations	—	—	66	66
Total liabilities	$ —	$ 665	$ 66	$731

Fair value measurement as of December 31, 2017, using:	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Interest-bearing securities:				
U.S. Treasury notes	$ 8,242	$ —	$ —	$8,242
Other government-related debt securities:				
U.S.	—	223	—	223
Foreign and other	—	2,422	—	2,422
Corporate debt securities:				
Financial	—	10,072	—	10,072
Industrial	—	9,670	—	9,670
Other	—	1,390	—	1,390
Residential-mortgage-backed securities	—	2,168	—	2,168
Other mortgage- and asset-backed securities	—	2,297	—	2,297
Money market mutual funds	3,245	—	—	3,245
Other short-term interest-bearing securities	—	1,440	—	1,440
Equity securities	149	—	—	149
Derivatives:				
Foreign currency contracts	—	6	—	6
Cross-currency swap contracts	—	270	—	270
Interest rate swap contracts	—	10	—	10
Total assets	$ 11,636	$ 29,968	$ —	$41,604
Liabilities:				
Derivatives:				
Foreign currency contracts	$ —	$ 204	$ —	$204
Cross-currency swap contracts	—	220	—	220
Interest rate swap contracts	—	61	—	61
Contingent consideration obligations	—	—	69	69
Total liabilities	$ —	$ 485	$ 69	$554

Interest-bearing and equity securities

The fair values of our U.S. Treasury securities, money market mutual funds and equity securities are based on quoted market prices in active markets with no valuation adjustment.

Most of our other government-related and corporate debt securities are investment grade and have maturity dates of five years or less from the balance sheet date. Our other government-related debt securities portfolio is composed of securities with weighted-average credit ratings of A– or equivalent by Standard & Poor’s Financial Services LLC (S&P), Moody’s Investors Service, Inc. (Moody’s) or Fitch Ratings, Inc. (Fitch); and our corporate debt securities portfolio has a weighted-average credit rating of A– or equivalent by Fitch, and BBB + or equivalent by S&P or Moody’s. We estimate the fair values of these securities by taking into consideration valuations obtained from third-party pricing services. The pricing services use industry standard valuation models, including both income- and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. The inputs include reported trades of and broker-dealer quotes on the same or similar securities; issuer credit spreads; benchmark securities; and other observable inputs.

Our residential-mortgage-, other-mortgage- and asset-backed-securities portfolio is composed entirely of senior tranches, with credit ratings of AAA by S&P, Moody’s or Fitch. We estimate the fair values of these securities by taking into consideration valuations obtained from third-party pricing services. The pricing services use industry standard valuation models, including both income- and market-based approaches, for which all significant inputs are

observable, either directly or indirectly, to estimate fair value. The inputs include reported trades of and broker-dealer quotes on the same or similar securities; issuer credit spreads; benchmark securities; prepayment or default projections based on historical data; and other observable inputs.

We value our other short-term interest-bearing securities at amortized cost, which approximates fair value given their near-term maturity dates.

Derivatives

All of our foreign currency forward and option derivative contracts have maturities of three years or less, and all are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by taking into consideration valuations obtained from a third-party valuation service that uses an income-based industry standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include foreign currency exchange rates, the London Interbank Offered Rate (LIBOR), swap rates and obligor credit default swap rates. In addition, inputs for our foreign currency option contracts include implied volatility measures. These inputs, where applicable, are at commonly quoted intervals. See Note 14, Derivative instruments.

Our cross-currency swap contracts are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by taking into consideration valuations obtained from a third-party valuation service that uses an income-based industry standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include foreign currency exchange rates, LIBOR, swap rates, obligor credit default swap rates and cross-currency basis swap spreads. See Note 14, Derivative instruments.

Our interest rate swap contracts are with counterparties that have minimum credit ratings of A– or equivalent by S&P, Moody's or Fitch. We estimate the fair values of these contracts by using an income-based industry standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include LIBOR, swap rates and obligor credit default swap rates. See Note 14, Derivative instruments.

Contingent consideration obligations

As a result of our business acquisitions, we incurred contingent consideration obligations, as discussed below. The contingent consideration obligations are recorded at their fair values by using probability-adjusted discounted cash flows, and we revalue these obligations each reporting period until the related contingencies have been resolved. The fair value measurements of these obligations are based on significant unobservable inputs related to licensing rights and product candidates acquired in business combinations, and are reviewed quarterly by management in our R&D and commercial sales organizations. These inputs include, as applicable, estimated probabilities and timing of achieving specified regulatory and commercial milestones and estimated annual sales. Significant changes that increase or decrease the probabilities of achieving the related regulatory and commercial events, or that shorten or lengthen the time required to achieve such events, or that increase or decrease estimated annual sales would result in corresponding increases or decreases in the fair values of the obligations, as applicable. Changes in the fair values of contingent consideration obligations are recognized in Other operating expenses in the Condensed Consolidated Statements of Income.

Changes in the carrying amounts of contingent consideration obligations were as follows (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Beginning balance	$72	$182	$69	$179
Addition from K-A acquisition	—	—	45	—
Net changes in valuations	(6)	(114)	(48)	(111)
Ending balance	$66	$68	$66	$68

As a result of our acquisition of BioVex Group, Inc., in 2011, we are obligated to pay its former shareholders additional consideration contingent upon achieving certain sales-related milestones with regard to IMLYGIC® (talimogene laherparepvec).

As a result of our acquisition of K-A in 2018, we are obligated to make single-digit royalty payments to Kirin contingent upon sales of brodalumab. See Note 3, Business combinations.

During 2017, we decided to discontinue the internal development of AMG 899, an IPR&D asset, and accordingly, reduced from $116 million to zero the related contingent consideration liabilities. The remeasurement of these liabilities is included in Other items, net, in the Condensed Consolidated Statements of Cash Flows.

During the nine months ended September 30, 2018 and 2017, there were no transfers of assets or liabilities between fair value measurement levels. During the nine months ended September 30, 2018 and 2017, there were no material remeasurements

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to fair values of assets and liabilities that are not measured at fair value on a recurring basis, except with respect to IPR&D assets discussed above, and in Note 10, Goodwill and other intangible assets.

Summary of the fair values of other financial instruments

Cash equivalents

The fair values of cash equivalents approximate their carrying values due to the short-term nature of such financial instruments.

Borrowings

We estimated the fair values of our borrowings by using Level 2 inputs. As of September 30, 2018 and December 31, 2017, the aggregate fair values of our borrowings were $36.0 billion and $38.6 billion, respectively, and the carrying values were $34.4 billion and $35.3 billion, respectively.

14. Derivative instruments

The Company is exposed to foreign currency exchange rate and interest rate risks related to its business operations. To reduce our risks related to such exposures, we use or have used certain derivative instruments, including foreign currency forward, foreign currency option, cross-currency swap, forward interest rate and interest rate swap contracts. We do not use derivatives for speculative trading purposes.

During the second quarter of 2018, we adopted early a new accounting standard that amends the accounting and reporting of hedging activities. Certain required disclosures have been made on a prospective basis in accordance with the guidance of the standard. See Note 1, Summary of significant accounting policies.

Cash flow hedges

We are exposed to possible changes in the values of certain anticipated foreign currency cash flows resulting from changes in foreign currency exchange rates associated primarily with our euro-denominated international product sales. Increases and decreases in the cash flows associated with our international product sales due to movements in foreign currency exchange rates are offset partially by corresponding increases and decreases in the cash flows from our international operating expenses resulting from these foreign currency exchange rate movements. To further reduce our exposure to foreign currency exchange rate fluctuations with regard to our international product sales, we enter into foreign currency forward and option contracts to hedge a portion of our projected international product sales primarily over a three-year time horizon, with, at any given point in time, a higher percentage of nearer-term projected product sales being hedged than in successive periods.

As of September 30, 2018 and December 31, 2017, we had foreign currency forward contracts with notional amounts of $4.5 billion and $4.6 billion, respectively, and foreign currency option contracts with notional amounts of $21 million and $74 million, respectively. We have designated these foreign currency forward and foreign currency option contracts, which are primarily euro based, as cash flow hedges. Accordingly, we report the unrealized gains and losses on these contracts in AOCI in the Condensed Consolidated Balance Sheets, and we reclassify them to Product sales in the Condensed Consolidated Statements of Income in the same periods during which the hedged transactions affect earnings.

To hedge our exposure to foreign currency exchange rate risk associated with certain of our long-term debt denominated in foreign currencies, we enter into cross-currency swap contracts. Under the terms of such contracts, we paid euros, pounds sterling and Swiss francs and received U.S. dollars for the notional amounts at the inception of the contracts; and based on these notional amounts, we exchange interest payments at fixed rates over the lives of the contracts by paying U.S. dollars and receiving euros, pounds sterling and Swiss francs. In addition, we will pay U.S. dollars to and receive euros, pounds sterling and Swiss francs from the counterparties at the maturities of the contracts for these same notional amounts. The terms of these contracts correspond to the related hedged debt, thereby effectively converting the interest payments and principal repayment on the debt from euros, pounds sterling and Swiss francs to U.S. dollars. We have designated these cross-currency swap contracts as cash flow hedges. Accordingly, the unrealized gains and losses on these contracts are reported in AOCI in the Condensed Consolidated Balance Sheets and reclassified to Interest and other income, net, in the Condensed Consolidated Statements of Income in the same periods during which the hedged debt affects earnings.

The notional amounts and interest rates of our cross-currency swaps as of September 30, 2018, were as follows (notional amounts in millions):

Hedged notes	Foreign currency			U.S. dollars	
	Notional amounts		Interest rates	Notional amounts	Interest rates
2.125% 2019 euro Notes	€	675	2.125 %	$864	2.6 %
1.25% 2022 euro Notes	€	1,250	1.25 %	$1,388	3.2 %
0.41% 2023 Swiss franc Bonds	CHF	700	0.41 %	$704	3.4 %
2.00% 2026 euro Notes	€	750	2.00 %	$833	3.9 %
5.50% 2026 pound sterling Notes	£	475	5.50 %	$747	6.0 %
4.00% 2029 pound sterling Notes	£	700	4.00 %	$1,111	4.5 %

In connection with the anticipated issuance of long-term fixed-rate debt, we occasionally enter into forward interest rate contracts in order to hedge the variability in cash flows due to changes in the applicable U.S. Treasury rate between the time we enter into these contracts and the time the related debt is issued. Gains and losses on forward interest rate contracts, which are designated as cash flow hedges, are recognized in AOCI in the Condensed Consolidated Balance Sheets and are amortized into Interest expense, net, in the Condensed Consolidated Statements of Income over the lives of the associated debt issuances. Amounts recognized in connection with forward interest rate swaps during the nine months ended September 30, 2018, and amounts expected to be recognized during the subsequent 12 months are not material.

The unrealized gains and losses recognized in AOCI for our derivative instruments designated as cash flow hedges were as follows (in millions):

Derivatives in cash flow hedging relationships	Three months ended September 30, 2018	Nine months ended September 30,