

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q**

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Quarterly Period Ended June 30, 2019

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

Commission File Number 001-35406

Illumina, Inc.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

33-0804655

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

5200 Illumina Way , San Diego , CA 92122

(Address of principal executive offices) (Zip code)

(858) 202-4500

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.01 par value	ILMN	The NASDAQ Global Select Market

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 13a of the Exchange Act.

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

As of July 26, 2019, there were 147 million shares of the registrant's common stock outstanding.

ILLUMINA, INC.
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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

ILLUMINA, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In millions)

	June 30, 2019	December 30, 2018
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 1,943	\$ 1,144
Short-term investments	1,230	2,368
Accounts receivable, net	470	514
Inventory	420	386
Prepaid expenses and other current assets	93	78
Total current assets	4,156	4,490
Property and equipment, net	854	1,075
Operating lease right-of-use assets	558	—
Goodwill	824	831
Intangible assets, net	162	185
Deferred tax assets, net	69	70
Other assets	350	308
Total assets	\$ 6,973	\$ 6,959
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 139	\$ 184
Accrued liabilities	473	513
Long-term debt, current portion	—	1,107
Total current liabilities	612	1,804
Operating lease liabilities	698	—
Long-term debt	1,120	890
Other long-term liabilities	211	359
Redeemable noncontrolling interests	—	61
Stockholders' equity:		
Common stock	2	2
Additional paid-in capital	3,436	3,290
Accumulated other comprehensive income (loss)	5	(1)
Retained earnings	3,594	3,083
Treasury stock, at cost	(2,705)	(2,616)
Total Illumina stockholders' equity	4,332	3,758
Noncontrolling interests	—	87
Total stockholders' equity	4,332	3,845
Total liabilities and stockholders' equity	\$ 6,973	\$ 6,959

See accompanying notes to condensed consolidated financial statements.

ILLUMINA, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)
(In millions, except per share amounts)

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Revenue:				
Product revenue	\$ 704	\$ 673	\$ 1,372	\$ 1,301
Service and other revenue	134	157	312	311
Total revenue	838	830	1,684	1,612
Cost of revenue:				
Cost of product revenue	196	181	378	355
Cost of service and other revenue	59	65	130	127
Amortization of acquired intangible assets	10	9	19	17
Total cost of revenue	265	255	527	499
Gross profit	573	575	1,157	1,113
Operating expense:				
Research and development	166	151	335	288
Selling, general and administrative	202	197	412	380
Total operating expense	368	348	747	668
Income from operations	205	227	410	445
Other income (expense):				
Interest income	20	11	43	16
Interest expense	(15)	(11)	(30)	(22)
Other income, net	136	5	157	14
Total other income, net	141	5	170	8
Income before income taxes	346	232	580	453
Provision for income taxes	53	32	63	56
Consolidated net income	293	200	517	397
Add: Net loss attributable to noncontrolling interests	3	9	12	20
Net income attributable to Illumina stockholders	\$ 296	\$ 209	\$ 529	\$ 417
Earnings per share attributable to Illumina stockholders:				
Basic	\$ 2.01	\$ 1.42	\$ 3.60	\$ 2.84
Diluted	\$ 1.99	\$ 1.41	\$ 3.56	\$ 2.82
Shares used in computing earnings per share:				
Basic	147	147	147	147
Diluted	149	148	149	148

See accompanying notes to condensed consolidated financial statements.

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

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Consolidated net income	\$ 293	\$ 200	\$ 517	\$ 397
Unrealized gain on available-for-sale debt securities, net of deferred tax	3	—	6	—
Total consolidated comprehensive income	296	200	523	397
Add: Comprehensive loss attributable to noncontrolling interests	3	9	12	20
Comprehensive income attributable to Illumina stockholders	<u>\$ 299</u>	<u>\$ 209</u>	<u>\$ 535</u>	<u>\$ 417</u>

See accompanying notes to condensed consolidated financial statements.

ILLUMINA, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)
(In millions)

	Illumina Stockholders									Total Stockholders' Equity
	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive (Loss) Income		Retained Earnings	Treasury Stock		Noncontrolling Interests	
	Shares	Amount					Shares	Amount		
Balance as of December 31, 2017	191	\$ 2	\$ 2,833		\$ (1)	\$ 2,256	(44)	\$(2,341)	\$ —	\$ 2,749
Net income (loss)	—	—	—		—	208	—	—	(1)	207
Issuance of common stock, net of repurchases	—	—	21		—	—	—	(13)	—	8
Share-based compensation	—	—	48		—	—	—	—	—	48
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	(5)		—	—	—	—	—	(5)
Contributions from noncontrolling interest owners	—	—	—		—	—	—	—	61	61
Issuance of subsidiary shares in business combination	—	—	—		—	—	—	—	5	5
Balance as of April 1, 2018	191	2	2,897		(1)	2,464	(44)	(2,354)	65	3,073
Net income (loss)	—	—	—		—	209	—	—	(2)	207
Issuance of common stock, net of repurchases	—	—	1		—	—	—	(2)	—	(1)
Share-based compensation	—	—	50		—	—	—	—	—	50
Vesting of redeemable equity awards	—	—	(1)		—	—	—	—	—	(1)
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	(8)		—	—	—	—	—	(8)
Contributions from noncontrolling interest owners	—	—	—		—	—	—	—	31	31
Balance as of July 1, 2018	191	2	2,939		(1)	2,673	(44)	(2,356)	94	3,351
Net income (loss)	—	—	—		—	199	—	—	(3)	196
Unrealized loss on available-for-sale debt securities, net of deferred tax	—	—	—		(1)	—	—	—	—	(1)
Issuance of common stock, net of repurchases	—	—	23		—	—	—	(106)	—	(83)
Share-based compensation	—	—	47		—	—	—	—	—	47
Vesting of redeemable equity awards	—	—	(1)		—	—	—	—	—	(1)
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	(8)		—	—	—	—	—	(8)
Issuance of convertible senior notes, net of tax impact	—	—	93		—	—	—	—	—	93
Balance as of September 30, 2018	191	2	3,093		(2)	2,872	(44)	(2,462)	91	3,594
Net income (loss)	—	—	—		—	210	—	—	(4)	206
Unrealized gain on available-for-sale debt securities, net of deferred tax	—	—	—		1	—	—	—	—	1
Issuance of common stock, net of repurchases	1	—	1		—	—	(1)	(154)	—	(153)
Share-based compensation	—	—	48		—	—	—	—	—	48
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	148		—	—	—	—	—	148

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Cumulative-effect adjustment from adoption of ASU 2016-01	—	—	—	—	1	—	—	—	1
Balance as of December 30, 2018	192	2	3,290	(1)	3,083	(45)	(2,616)	87	3,845
Net income (loss)	—	—	—	—	233	—	—	(2)	231
Unrealized gain on available-for-sale debt securities, net of deferred tax	—	—	—	3	—	—	—	—	3
Issuance of common stock, net of repurchases	—	—	27	—	—	—	(86)	—	(59)
Share-based compensation	—	—	51	—	—	—	—	—	51
Vesting of redeemable equity awards	—	—	(1)	—	—	—	—	—	(1)
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	18	—	—	—	—	—	18
Cumulative-effect adjustment from adoption of ASU 2016-02, net of deferred tax	—	—	—	—	(18)	—	—	—	(18)
Balance as of March 31, 2019	192	2	3,385	2	3,298	(45)	(2,702)	85	4,070
Net income (loss)	—	—	—	—	296	—	—	(1)	295
Unrealized gain on available-for-sale debt securities, net of deferred tax	—	—	—	3	—	—	—	—	3
Issuance of common stock, net of repurchases	1	—	3	—	—	—	(3)	—	—
Share-based compensation	—	—	48	—	—	—	—	—	48
Adjustment to the carrying value of redeemable noncontrolling interests	—	—	(2)	—	—	—	—	—	(2)
Deconsolidation of Helix	—	—	2	—	—	—	—	(84)	(82)
Balance as of June 30, 2019	193	\$ 2	\$ 3,436	\$ 5	\$ 3,594	(45)	\$(2,705)	\$ —	\$ 4,332

See accompanying notes to condensed consolidated financial statements.

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

	Six Months Ended	
	June 30, 2019	July 1, 2018
Cash flows from operating activities:		
Consolidated net income	\$ 517	\$ 397
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	76	65
Amortization of intangible assets	20	19
Share-based compensation expense	99	98
Accretion of debt discount	27	16
Deferred income taxes	6	(22)
Unrealized gains on marketable equity securities	(104)	—
Payment of accreted debt discount	(84)	—
Gains on deconsolidation	(54)	—
Other	(5)	(6)
Changes in operating assets and liabilities:		
Accounts receivable	46	12
Inventory	(36)	(28)
Prepaid expenses and other current assets	(11)	1
Operating lease right-of-use assets and liabilities, net	(3)	—
Other assets	(11)	(5)
Accounts payable	(43)	1
Accrued liabilities	(87)	17
Other long-term liabilities	(12)	(15)
Net cash provided by operating activities	341	550
Cash flows from investing activities:		
Maturities of available-for-sale securities	1,204	556
Purchases of available-for-sale securities	(393)	(1,137)
Sales of available-for-sale securities	386	332
Purchases of property and equipment	(103)	(167)
Deconsolidation of Helix cash	(29)	—
Proceeds from deconsolidation of GRAIL	15	—
Net purchases of strategic investments	(13)	(9)
Net cash paid for acquisitions	—	(100)
Net cash provided by (used in) investing activities	1,067	(525)
Cash flows from financing activities:		
Payments on financing obligations	(550)	(2)
Common stock repurchases	(63)	—
Taxes paid related to net share settlement of equity awards	(26)	(15)
Proceeds from issuance of common stock	30	22
Contributions from noncontrolling interest owners	—	92
Net cash (used in) provided by financing activities	(609)	97
Effect of exchange rate changes on cash and cash equivalents	—	(3)
Net increase in cash and cash equivalents	799	119
Cash and cash equivalents at beginning of period	1,144	1,225
Cash and cash equivalents at end of period	\$ 1,943	\$ 1,344
Supplemental cash flow information:		
Cash paid for operating lease liabilities	\$ 42	\$ —

See accompanying notes to condensed consolidated financial statements.

Illumina, Inc.
Notes to Condensed Consolidated Financial Statements
(Unaudited)

Unless the context requires otherwise, references in this report to “Illumina,” “we,” “us,” the “Company,” and “our” refer to Illumina, Inc. and its consolidated subsidiaries.

1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. Interim financial results are not necessarily indicative of results anticipated for the full year. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and footnotes included in the Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018, from which the prior year balance sheet information herein was derived. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expense, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

The unaudited condensed consolidated financial statements include our accounts, our wholly-owned subsidiaries, majority-owned or controlled companies, and variable interest entities (VIEs) for which we are the primary beneficiary. All intercompany transactions and balances have been eliminated in consolidation. In management’s opinion, the accompanying unaudited condensed consolidated financial statements reflect all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation of the results for the interim periods presented.

We evaluate our ownership, contractual and other interests in entities that are not wholly-owned to determine if these entities are VIEs, and, if so, whether we are the primary beneficiary of the VIE. In determining whether we are the primary beneficiary of a VIE and therefore required to consolidate the VIE, we apply a qualitative approach that determines whether we have both (1) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and (2) the obligation to absorb losses of, or the rights to receive benefits from, the VIE that could potentially be significant to that VIE. We continuously perform this assessment, as changes to existing relationships or future transactions may result in the consolidation or deconsolidation of a VIE. Effective April 25, 2019, we deconsolidated the financial statements of Helix Holdings I, LLC (Helix). See note “2. Balance Sheet Account Details” for further details.

We use the equity method to account for investments through which we have the ability to exercise significant influence, but not control, over the investee. Such investments are recorded in other assets, and our share of net income or loss is recognized on a one quarter lag in other income, net.

Fiscal Year

Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. The three and six months ended June 30, 2019 and July 1, 2018 were both 13 and 26 weeks, respectively.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

Significant Accounting Policies

During the three and six months ended June 30, 2019, there were no changes to our significant accounting policies as described in our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018, except as described below.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which requires lessees to recognize most leases on the balance sheet as lease liabilities with corresponding right-of-use assets and to disclose key information about leasing arrangements. We adopted Topic 842 on its effective date in the first quarter of 2019 using a modified retrospective approach by recognizing a cumulative-effect adjustment to retained earnings as of December 31, 2018. We elected the available package of practical expedients upon adoption, which allowed us to carry forward our historical assessment of whether existing agreements contained a lease and the classification of our existing operating leases. We continue to report our financial position as of December 30, 2018 under the former lease accounting standard (Topic 840) in our condensed consolidated balance sheet.

The following table summarizes the impact of Topic 842 on our condensed consolidated balance sheet upon adoption on December 31, 2018 (in millions):

	December 31, 2018 (unaudited)		
	Pre-adoption	Adoption Impact	Post-adoption
ASSETS			
Prepaid expenses and other current assets	\$ 78	\$ (8)	\$ 70
Property and equipment, net	1,075	(241)	834
Operating lease right-of-use assets	—	579	579
Deferred tax assets, net	70	6	76
Total assets	<u>\$ 1,223</u>	<u>\$ 336</u>	<u>\$ 1,559</u>
LIABILITIES AND STOCKHOLDERS' EQUITY			
Accrued liabilities	\$ 513	\$ 36	\$ 549
Operating lease liabilities	—	722	722
Long-term debt	1,107	(269)	838
Other long-term liabilities	359	(135)	224
Retained earnings	3,083	(18)	3,065
Total liabilities and stockholders' equity	<u>\$ 5,062</u>	<u>\$ 336</u>	<u>\$ 5,398</u>

The adoption impact summarized above was primarily due to the recognition of operating lease liabilities with corresponding right-of-use assets based on the present value of our remaining minimum lease payments, and the derecognition of existing fixed assets and financing obligations related to build-to-suit leasing arrangements that, under Topic 840, did not qualify for sale-leaseback accounting. The difference between these amounts, net of deferred tax, was recorded as a cumulative-effect adjustment to retained earnings.

Accounting Pronouncements Pending Adoption

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments*, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables and available-for-sale debt securities. We expect to adopt the standard on its effective date in the first quarter of 2020 using a modified retrospective approach. We currently do not expect the adoption to have a material impact on our consolidated financial statements.

Revenue Recognition

Our revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in genetic analysis. Service and other revenue primarily consists of revenue generated from genotyping and sequencing services and instrument service contracts.

We recognize revenue when control of our products and services is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the

performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service.

Revenue from product sales is recognized generally upon delivery to the end customer, which is when control of the product is deemed to be transferred. Invoicing typically occurs upon shipment; and payment is typically due within 60 days from invoice. In instances where right of payment or transfer of title is contingent upon the customer's acceptance of the product, revenue is deferred until all acceptance criteria have been met. Revenue from instrument service contracts is recognized as the services are rendered, typically evenly over the contract term. Revenue from genotyping and sequencing services is recognized when earned, which is generally at the time the genotyping or sequencing analysis data is made available to the customer.

Revenue is recorded net of discounts, distributor commissions, and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as selling, general and administrative expenses when incurred as the amortization period for such costs, if capitalized, would have been one year or less.

We regularly enter into contracts with multiple performance obligations. Revenue recognition for contracts with multiple deliverables is based on the separate satisfaction of each distinct performance obligation within the contract. Most performance obligations are generally satisfied within a short time frame, approximately three to six months after the contract execution date. As of June 30, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was \$1,146 million, of which approximately 67% is expected to be converted to revenue in the next twelve months, approximately 13% in the following twelve months, and the remainder thereafter.

The contract price is allocated to each performance obligation in proportion to its standalone selling price. We determine our best estimate of standalone selling price using average selling prices over a rolling 12-month period coupled with an assessment of current market conditions. If the product or service has no history of sales or if the sales volume is not sufficient, we rely upon prices set by management, adjusted for applicable discounts.

Contract liabilities, which consist of deferred revenue and customer deposits, as of June 30, 2019 and December 30, 2018 were \$201 million and \$206 million, respectively, of which the short-term portions of \$167 million and \$175 million, respectively, were recorded in accrued liabilities and the remaining long-term portions were recorded in other long-term liabilities. Revenue recorded during the three and six months ended June 30, 2019 included \$42 million and \$106 million of previously deferred revenue that was included in contract liabilities as of December 30, 2018. Contract assets as of June 30, 2019 and December 30, 2018 were not material.

In certain markets, products and services are sold to customers through distributors. In most sales through distributors, the product is delivered directly to customers by us. The terms of sales transactions through distributors are consistent with the terms of direct sales to customers.

The following table represents revenue by source (in millions):

	Three Months Ended					
	June 30, 2019			July 1, 2018		
	Sequencing	Microarray	Total	Sequencing	Microarray	Total
Consumables	\$ 497	\$ 74	\$ 571	\$ 460	\$ 85	\$ 545
Instruments	129	4	133	124	4	128
Total product revenue	626	78	704	584	89	673
Service and other revenue	102	32	134	106	51	157
Total revenue	\$ 728	\$ 110	\$ 838	\$ 690	\$ 140	\$ 830

	Six Months Ended					
	June 30, 2019			July 1, 2018		
	Sequencing	Microarray	Total	Sequencing	Microarray	Total
Consumables	\$ 978	\$ 149	\$ 1,127	\$ 882	\$ 173	\$ 1,055
Instruments	234	11	245	237	9	246
Total product revenue	1,212	160	1,372	1,119	182	1,301
Service and other revenue	215	97	312	202	109	311
Total revenue	\$ 1,427	\$ 257	\$ 1,684	\$ 1,321	\$ 291	\$ 1,612

Revenue related to our previously consolidated VIE, Helix, is included in sequencing service and other revenue up to April 25, 2019, the date of Helix's deconsolidation.

The following table represents revenue by geographic area, based on region of destination (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Americas	\$ 476	\$ 466	\$ 949	\$ 906
Europe, Middle East, and Africa	208	202	418	396
Greater China (1)	97	107	185	185
Asia-Pacific	57	55	132	125
Total revenue	\$ 838	\$ 830	\$ 1,684	\$ 1,612

(1) Region includes revenue from China, Taiwan, and Hong Kong.

Earnings per Share

Basic earnings per share attributable to Illumina stockholders is computed based on the weighted average number of common shares outstanding during the period. Diluted earnings per share attributable to Illumina stockholders is computed based on the sum of the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Up to April 25, 2019, the date of Helix's deconsolidation, per-share earnings of Helix were included in the consolidated basic and diluted earnings per share computations based on our share of Helix's securities.

Potentially dilutive common shares consist of shares issuable under convertible senior notes and equity awards. Convertible senior notes have a dilutive impact when the average market price of our common stock exceeds the applicable conversion price of the respective notes. Potentially dilutive common shares from equity awards are determined using the average share price for each period under the treasury stock method. In addition, proceeds from exercise of equity awards and the average amount of unrecognized compensation expense for equity awards are assumed to be used to repurchase shares.

The following table presents the calculation of weighted average shares used to calculate basic and diluted earnings per share (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Weighted average shares outstanding	147	147	147	147
Effect of potentially dilutive common shares from:				
Convertible senior notes	1	—	1	—
Equity awards	1	1	1	1
Weighted average shares used in calculating diluted earnings per share	149	148	149	148

2. Balance Sheet Account Details

Short-term investments

Our short-term investments are primarily available-for-sale debt securities that consisted of the following (in millions):

	June 30, 2019			December 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Estimated Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Debt securities in government sponsored entities	\$ 26	\$ —	\$ 26	\$ 21	\$ —	\$ —	\$ 21
Corporate debt securities	553	4	557	1,060	—	(2)	1,058
U.S. Treasury securities	488	2	490	1,250	1	(1)	1,250
Total	\$ 1,067	\$ 6	\$ 1,073	\$ 2,331	\$ 1	\$ (3)	\$ 2,329

Realized gains and losses are determined based on the specific identification method and are reported in interest income.

Contractual maturities of available-for-sale debt securities, as of June 30, 2019, were as follows (in millions):

	Estimated Fair Value
Due within one year	\$ 516
After one but within five years	557
Total	\$ 1,073

We have the ability, if necessary, to liquidate any of our cash equivalents and short-term investments to meet our liquidity needs in the next 12 months. Accordingly, those investments with contractual maturities greater than one year from the date of purchase are classified as short-term on the accompanying condensed consolidated balance sheets.

Strategic Investments

We have strategic investments in privately held companies (non-marketable equity securities) and companies that have completed initial public offerings (marketable equity securities).

Our marketable equity securities are measured at fair value. As of June 30, 2019 and December 30, 2018, the fair value of our marketable equity securities, included in short-term investments, totaled \$157 million and \$39 million, respectively. Total unrealized gains on our marketable equity securities, included in other income, net, were \$102 million and \$104 million for the three and six months ended June 30, 2019, respectively.

Our non-marketable equity securities without readily determinable market values are initially measured at cost and adjusted to fair value for observable transactions for identical or similar investments of the same issuer or impairment. As of June 30, 2019 and December 30, 2018, the aggregate carrying amounts of our non-marketable equity investments without readily determinable fair values, included in other assets, were \$217 million and \$231 million, respectively.

One of our non-marketable equity investments is a VIE for which we have concluded that we are not the primary beneficiary, and therefore, we do not consolidate this VIE in our consolidated financial statements. We have determined our maximum exposure to loss, as a result of our involvement with the VIE, to be the carrying value of our investment, which was \$189 million as of June 30, 2019 and December 30, 2018.

We invest in a venture capital investment fund (the Fund) with a capital commitment of \$100 million that is callable through April 2026, of which \$57 million remained callable as of June 30, 2019. Our investment in the Fund is accounted for as an equity-method investment. The carrying amounts of the Fund, included in other assets, were \$47 million and \$29 million as of June 30, 2019 and December 30, 2018, respectively. In July 2019, we invested in a second venture capital investment fund with a maximum capital commitment of up to \$160 million that is callable through July 2029.

Revenue recognized from transactions with our strategic investees was \$18 million and \$34 million , respectively, for the three and six months ended June 30, 2019 and \$36 million and \$72 million , respectively, for the three and six months ended July 1, 2018 .

Inventory

Inventory consisted of the following (in millions):

	June 30, 2019	December 30, 2018
Raw materials	\$ 124	\$ 117
Work in process	271	218
Finished goods	25	51
Total inventory	<u>\$ 420</u>	<u>\$ 386</u>

Property and Equipment

Property and equipment, net consisted of the following (in millions):

	June 30, 2019	December 30, 2018
Leasehold improvements	\$ 596	\$ 567
Machinery and equipment	400	382
Computer hardware and software	263	217
Furniture and fixtures	47	45
Buildings	44	285
Construction in progress	59	100
Total property and equipment, gross	<u>1,409</u>	<u>1,596</u>
Accumulated depreciation	(555)	(521)
Total property and equipment, net	<u>\$ 854</u>	<u>\$ 1,075</u>

Property and equipment, net included non-cash expenditures of \$18 million and \$42 million for the six months ended June 30, 2019 and July 1, 2018 , respectively, which were excluded from the condensed consolidated statements of cash flows. Such non-cash expenditures included \$16 million recorded under build-to-suit lease accounting for the six months ended July 1, 2018 .

As of December 30, 2018, property and equipment, net included \$241 million of project construction costs paid or reimbursed by our landlord related to our build-to-suit leases that did not qualify for sale-leaseback accounting under Topic 840. Upon adoption of Topic 842 on December 31, 2018, we derecognized the Buildings related to our build-to-suit leasing arrangements and began to account for these leases as operating leases. See note “1. Basis of Presentation and Summary of Significant Accounting Policies” for further details on the adoption impact of Topic 842.

Leases

We lease approximately 2.5 million square feet of office, lab, and manufacturing facilities under various non-cancellable operating lease agreements (real estate leases). Our real estate leases have remaining lease terms of 1 to 20 years, which represent the non-cancellable periods of the leases and include extension options that we determined are reasonably certain to be exercised. We exclude extension options that are not reasonably certain to be exercised from our lease terms, ranging from 6 months to 20 years. Our lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms as well as payments for common-area-maintenance and administrative services. We often receive customary incentives from our landlords, such as reimbursements for tenant improvements and rent abatement periods, which effectively reduce the total lease payments owed for these leases.

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Operating lease right-of-use assets and liabilities on our condensed consolidated balance sheets represent the present value of our remaining lease payments over the remaining lease terms. We do not allocate lease payments to non-lease components; therefore, fixed payments for common-area-maintenance and administrative services are included in our operating lease right-of-use assets and liabilities. We use our incremental borrowing rate to calculate the present value of our lease payments, as the implicit rates in our leases are not readily determinable.

As of June 30, 2019, the maturities of our operating lease liabilities were as follows (in millions):

	Remaining Lease Payments
2019	\$ 35
2020	82
2021	81
2022	83
2023	85
Thereafter	619
Total remaining lease payments (1)	<u>985</u>
Less: imputed interest	(243)
Total operating lease liabilities	<u>742</u>
Less: current portion	(44)
Long-term operating lease liabilities	<u>\$ 698</u>
Weighted-average remaining lease term	11.5 years
Weighted-average discount rate	4.6%

(1) Total remaining lease payments exclude \$53 million of legally binding minimum lease payments for leases signed but not yet commenced.

The components of our lease costs included in our condensed consolidated statements of income were as follows (in millions):

	Three Months Ended	Six Months Ended
	June 30, 2019	June 30, 2019
Operating lease costs	\$ 21	\$ 43
Sublease income	(3)	(6)
Total lease costs	<u>\$ 18</u>	<u>\$ 37</u>

Operating lease costs consist of the fixed lease payments included in our operating lease liabilities and are recorded on a straight-line basis over the lease terms. We sublease certain real estate to third parties and this sublease income is also recorded on a straight-line basis.

Goodwill

We test the carrying value of goodwill in accordance with accounting rules on impairment of goodwill, which require us to estimate the fair value of each reporting unit annually, or when impairment indicators exist, and compare such amounts to their respective carrying values to determine if an impairment is required. We performed the annual assessment for goodwill impairment in the second quarter of 2019, noting no impairment.

Changes to goodwill during the six months ended June 30, 2019 were as follows (in millions):

	Goodwill
Balance as of December 30, 2018	\$ 831
Helix deconsolidation	(7)
Balance as of June 30, 2019	<u>\$ 824</u>

Derivatives

We are exposed to foreign exchange rate risks in the normal course of business. We enter into foreign exchange contracts to manage foreign currency risks related to monetary assets and liabilities that are denominated in currencies other than the U.S. dollar. These foreign exchange contracts are carried at fair value in other current assets or accrued liabilities and are not designated as hedging instruments. Changes in the value of the derivatives are recognized in other income, net, along with the remeasurement gain or loss on the foreign currency denominated assets or liabilities.

As of June 30, 2019, we had foreign exchange forward contracts in place to hedge exposures in the euro, Japanese yen, Australian dollar, Canadian dollar, Singapore dollar, and British pound. As of June 30, 2019 and December 30, 2018, the total notional amounts of outstanding forward contracts in place for foreign currency purchases were \$256 million and \$122 million, respectively.

Accrued Liabilities

Accrued liabilities consisted of the following (in millions):

	June 30, 2019	December 30, 2018
Contract liabilities, current portion	\$ 167	\$ 175
Accrued compensation expenses	132	193
Accrued taxes payable	66	82
Operating lease liabilities, current portion	44	—
Other, including warranties	64	63
Total accrued liabilities	<u>\$ 473</u>	<u>\$ 513</u>

Warranties

We generally provide a one -year warranty on instruments. Additionally, we provide a warranty on consumables through the expiration date, which generally ranges from six to twelve months after the manufacture date. At the time revenue is recognized, an accrual is established for estimated warranty expenses based on historical experience as well as anticipated product performance. We periodically review the warranty reserve for adequacy and adjust the warranty accrual, if necessary, based on actual experience and estimated costs to be incurred. Warranty expense is recorded as a component of cost of product revenue.

Changes in the reserve for product warranties during the three and six months ended June 30, 2019 and July 1, 2018 were as follows (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Balance at beginning of period	\$ 16	\$ 16	\$ 19	\$ 17
Additions charged to cost of product revenue	6	6	9	12
Repairs and replacements	(6)	(7)	(12)	(14)
Balance at end of period	<u>\$ 16</u>	<u>\$ 15</u>	<u>\$ 16</u>	<u>\$ 15</u>

Deconsolidation of Helix

In July 2015, we obtained a 50% voting equity ownership interest in Helix. We determined that we had unilateral power over one of the activities that most significantly impacts the economic performance of Helix through its contractual arrangements and, as a result, we were deemed to be the primary beneficiary of Helix and were required to consolidate Helix.

On April 25, 2019, we entered into an agreement to sell our interest in, and relinquish control over, Helix. As part of the agreement, (i) Helix repurchased all outstanding equity interests previously issued to us in exchange for a contingent value right, (ii) we ceased having a controlling financial interest in Helix, including unilateral power over one of the activities that most significantly impacts the economic performance of Helix, (iii) we were relieved of any potential obligation to redeem

certain noncontrolling interests, and (iv) we no longer have representation on Helix's board of directors. As a result, we deconsolidated Helix's financial statements effective April 25, 2019 and recorded a gain on deconsolidation of \$39 million in other income, net. The gain on deconsolidation includes (i) the contingent value right received from Helix for its repurchase of our ownership interest, recorded at its fair value of \$30 million, (ii) the derecognition of the carrying amounts of Helix's assets and liabilities, and (iii) the derecognition of the noncontrolling interests related to Helix. The operations of Helix, up to the date of deconsolidation, are included in the accompanying condensed consolidated statements of income for the three and six months ended June 30, 2019 and July 1, 2018. During these periods, we absorbed 50% of Helix's losses.

The contingent value right entitles us to receive consideration in an amount dependent upon the outcome of future financing and/or liquidity events related to Helix and has a term of seven years. We elected the fair value option to measure the contingent value right, which is included in other assets. During the three months ended June 30, 2019, the fair value measurement resulted in a \$3 million unrealized loss, included in other income, net. The fair value of the contingent value right is derived using a Monte Carlo simulation. Significant estimates and assumptions required for this valuation include, but are not limited to, probabilities related to the timing and outcome of future financing and/or liquidity events and an assumption regarding collectibility. These unobservable inputs, which represent a Level 3 measurement, are supported by little or no market activity and reflect our own assumptions in measuring fair value.

Concurrent with the agreement to sell all of our outstanding equity interests, we also amended our long-term supply and license agreements with Helix, including the discounted supply terms. Because these agreements were entered into concurrently, we consider them to be one arrangement with multiple elements, as defined under the respective authoritative accounting guidance. We determined that each of the elements, which include the contingent value right and services to be provided in accordance with the long-term supply and license agreements, were at, or approximated, fair value on a stand-alone basis. Therefore, none of the deconsolidation gain was allocated to these elements.

Redeemable Noncontrolling Interests

The activity of the redeemable noncontrolling interests during the six months ended June 30, 2019 was as follows (in millions):

	Redeemable Noncontrolling Interests
Balance as of December 30, 2018	\$ 61
Vesting of redeemable equity awards	1
Net loss attributable to noncontrolling interests	(9)
Adjustment down to the redemption value	(16)
Release of potential obligation to noncontrolling interests	(37)
Balance as of June 30, 2019	\$ —

3. Pending Acquisition

On November 1, 2018, we entered into an [Agreement and Plan of Merger](#) (the Merger Agreement) to acquire Pacific Biosciences of California, Inc. (PacBio) for an all-cash price of approximately \$1.2 billion (or \$8.00 per share). The transaction, which is now expected to close in Q4 2019, is subject to certain customary closing conditions, including the receipt of certain required antitrust approvals. The Merger Agreement contains certain termination rights and provides that, upon termination of the Merger Agreement under specified circumstances, including but not limited to, a termination of the Merger Agreement in connection with PacBio accepting a superior offer or due to the withdrawal by PacBio's board of directors of its recommendation of the merger, PacBio will pay us a cash termination fee of \$43 million. In certain other circumstances related to antitrust approvals, we may be required to pay PacBio a termination fee of \$98 million assuming the other closing conditions not related to antitrust or competition laws have been satisfied.

4. Fair Value Measurements

The following table presents the hierarchy for assets and liabilities measured at fair value on a recurring basis as of June 30, 2019 and December 30, 2018 (in millions):

	June 30, 2019				December 30, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds (cash equivalents)	\$ 1,631	\$ —	\$ —	\$ 1,631	\$ 832	\$ —	\$ —	\$ 832
Debt securities in government-sponsored entities	—	26	—	26	—	21	—	21
Corporate debt securities	—	557	—	557	—	1,058	—	1,058
U.S. Treasury securities	490	—	—	490	1,250	—	—	1,250
Marketable equity securities	157	—	—	157	39	—	—	39
Contingent value right	—	—	27	27	—	—	—	—
Deferred compensation plan assets	—	44	—	44	—	34	—	34
Total assets measured at fair value	\$ 2,278	\$ 627	\$ 27	\$ 2,932	\$ 2,121	\$ 1,113	\$ —	\$ 3,234
Liabilities:								
Deferred compensation plan liability	\$ —	\$ 42	\$ —	\$ 42	\$ —	\$ 33	\$ —	\$ 33

We hold available-for-sale securities that consist of highly-liquid, investment-grade debt securities. We consider information provided by our investment accounting and reporting service provider in the measurement of fair value of our debt securities. The investment service provider provides valuation information from an industry-recognized valuation service. Such valuations may be based on trade prices in active markets for identical assets or liabilities (Level 1 inputs) or valuation models using inputs that are observable either directly or indirectly (Level 2 inputs), such as quoted prices for similar assets or liabilities, yield curve, volatility factors, credit spreads, default rates, loss severity, current market and contractual prices for the underlying instruments or debt, broker and dealer quotes, as well as other relevant economic measures. Our deferred compensation plan assets consist primarily of investments in life insurance contracts carried at cash surrender value, which reflects the net asset value of the underlying publicly traded mutual funds. We perform control procedures to corroborate the fair value of our holdings, including comparing valuations obtained from our investment service provider to valuations reported by our asset custodians, validating pricing sources and models, and reviewing key model inputs, if necessary. Our marketable equity securities are measured at fair value based on quoted trade prices in active markets.

5. Debt and Other Commitments**Summary of debt obligations**

Debt obligations consisted of the following (dollars in millions):

	June 30, 2019	December 30, 2018
Principal amount of 2023 Notes outstanding	\$ 750	\$ 750
Principal amount of 2021 Notes outstanding	517	517
Principal amount of 2019 Notes outstanding	—	633
Unamortized discount of liability component of convertible senior notes	(147)	(175)
Net carrying amount of liability component of convertible senior notes	1,120	1,725
Obligations under financing leases	—	269
Other	—	3
Less: current portion	—	(1,107)
Long-term debt	\$ 1,120	\$ 890
Carrying value of equity component of convertible senior notes, net of debt issuance costs	\$ 213	\$ 287
Fair value of convertible senior notes outstanding (Level 2)	\$ 1,658	\$ 2,222
Weighted-average remaining amortization period of discount on the liability component of convertible senior notes	3.7 years	3.9 years

Convertible Senior Notes**0% Convertible Senior Notes due 2023 (2023 Notes)**

On August 21, 2018, we issued \$750 million aggregate principal amount of convertible senior notes due 2023 (2023 Notes). The 2023 Notes mature on August 15, 2023, and the implied estimated effective rate of the liability component of the Notes was 3.7% , assuming no conversion option.

The 2023 Notes will be convertible into cash, shares of our common stock or a combination of cash and shares of our common stock, at our election, based on an initial conversion rate, subject to adjustment, of 2.1845 shares of common stock per \$1,000 principal amount of notes (which represents an initial conversion price of approximately \$457.77 per share of common stock), only in the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on September 30, 2018 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price in effect on each applicable trading day; (2) during the five business day period after any 10 consecutive trading day period (the “measurement period”) in which the trading price per \$1,000 principal amount of 2023 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; (3) if we call any or all of the notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events described in the indenture. Regardless of the foregoing circumstances, the holders may convert their notes on or after May 15, 2023 until August 11, 2023.

We may redeem for cash all or any portion of the 2023 Notes, at our option, on or after August 20, 2021 if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect (currently \$595.10) for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus any accrued and unpaid special interest to, but excluding, the redemption date.

The 2023 Notes were not convertible as of June 30, 2019 and had no dilutive impact during the six months ended June 30, 2019 . If the 2023 Notes were converted as of June 30, 2019 , the if-converted value would not exceed the principal amount.

0.5% Convertible Senior Notes due 2021 (2021 Notes)

In June 2014, we issued \$517 million aggregate principal amount of 2021 Notes. The 2021 Notes mature on June 15, 2021, and the implied estimated effective rates of the liability component of the Notes was 3.5% , assuming no conversion option.

The 2021 Notes will be convertible into cash, shares of common stock, or a combination of cash and shares of common stock, at our election, based on an initial conversion rate, subject to adjustment, of 3.9318 shares per \$1,000 principal amount of the notes (which represents an initial conversion price of approximately \$254.34 per share), only in the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending September 30, 2014 (and only during such calendar quarter), if the last reported sale price of our common stock for 20 or more trading days in the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeds 130% of the applicable conversion price in effect on the last trading day of the immediately preceding calendar quarter; (2) during the 5 business day period after any 10 consecutive trading day period (the “measurement period”) in which the trading price per 2021 Notes for each day of such measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified events described in the indenture for the 2021 Notes. Regardless of the foregoing circumstances, the holders of the 2021 Notes may convert their notes on or after March 15, 2021 until June 11, 2021.

The potential dilutive impact of the 2021 Notes has been included in our calculation of diluted earnings per share for the three and six months ended June 30, 2019 . If the 2021 Notes were converted as of June 30, 2019 , the if-converted value would exceed the principal amount by \$182 million .

0% Convertible Senior Notes due 2019 (2019 Notes)

In June 2014, we issued \$633 million aggregate principal amount of 2019 Notes, and the implied estimated effective rate of the liability component of the Notes was 2.9% , assuming no conversion option. The 2019 Notes were convertible into cash, shares of common stock, or a combination of common stock, at our election, based on conversion rates as defined in the indenture. The 2019 Notes matured on June 15, 2019, by which time the principal had been converted and was repaid in cash. The excess of the conversion value over the principal amount was paid in shares of common stock.

The following table summarizes information about the conversion of the 2019 Notes during the six months ended June 30, 2019 (in millions):

	2019 Notes	
Cash paid for principal of notes converted	\$	633
Conversion value over principal amount, paid in shares of common stock	\$	153
Number of shares of common stock issued upon conversion		0.4

Obligations under financing leases

As of December 30, 2018, obligations under financing leases of \$269 million represented project construction costs paid or reimbursed by our landlord related to our build-to-suit leases that did not qualify for sale-leaseback accounting under Topic 840. Upon adoption of Topic 842 on December 31, 2018, we derecognized the remaining financing obligations for our build-to-suit leasing arrangements and began to account for these leases as operating leases. See note “1. Basis of Presentation and Summary of Significant Accounting Policies” for further details on the adoption of Topic 842.

6. Stockholders’ Equity

As of June 30, 2019 , approximately 4.9 million shares remained available for future grants under the 2015 Stock Plan.

Restricted Stock

Restricted stock activity for the six months ended June 30, 2019 was as follows (units in thousands):

	Restricted Stock Units (RSU)	Performance Stock Units (PSU)(1)		
			RSU	PSU
Outstanding at December 30, 2018	1,840	660	\$ 227.00	\$ 196.99
Awarded	52	(42)	\$ 305.68	\$ 258.92
Vested	(65)	—	\$ 195.44	—
Cancelled	(83)	(49)	\$ 215.41	\$ 167.43
Outstanding at June 30, 2019	1,744	569	\$ 231.06	\$ 194.97

(1) The number of units reflect the estimated number of shares to be issued at the end of the performance period.

Stock Options

Stock option activity during the six months ended June 30, 2019 was as follows:

	Options (in thousands)	Weighted-Average Exercise Price
Outstanding at December 30, 2018	192	\$ 54.52
Exercised	(85)	\$ 49.82
Outstanding and exercisable at June 30, 2019	107	\$ 58.26

ESPP

The price at which common stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first day of the offering period or purchase date, whichever is lower. During the six months ended June 30, 2019, approximately 0.1 million shares were issued under the ESPP. As of June 30, 2019, there were approximately 13.6 million shares available for issuance under the ESPP.

Share Repurchases

On February 6, 2019, our Board of Directors authorized a new share repurchase program, which supersedes all prior and available repurchase authorizations, to repurchase \$550 million of outstanding common stock. The repurchases may be completed under a 10b5-1 plan or at management's discretion. During the six months ended June 30, 2019, we repurchased 0.2 million shares for approximately \$63 million. Authorizations to repurchase approximately \$488 million of our common stock remained available as of June 30, 2019.

Share-based Compensation

Share-based compensation expense reported in our condensed consolidated statements of income was as follows (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Cost of product revenue	\$ 5	\$ 4	\$ 10	\$ 8
Cost of service and other revenue	1	1	2	2
Research and development	16	15	34	30
Selling, general and administrative	26	30	53	58
Share-based compensation expense before taxes	48	50	99	98
Related income tax benefits	(11)	(11)	(21)	(21)
Share-based compensation expense, net of taxes	\$ 37	\$ 39	\$ 78	\$ 77

The assumptions used for the specified reporting periods and the resulting estimates of weighted-average fair value per share for stock purchased under the Employee Stock Purchase Plan (ESPP) during the six months ended June 30, 2019 were as follows:

	Employee Stock Purchase Rights
Risk-free interest rate	1.89% - 2.56%
Expected volatility	30% - 38%
Expected term	0.5 - 1.0 year
Expected dividends	0%
Weighted-average grant-date fair value per share	\$ 71.48

As of June 30, 2019, approximately \$372 million of total unrecognized compensation cost related to restricted stock and ESPP shares issued to date was expected to be recognized over a weighted-average period of approximately 2.1 years.

7. Legal Proceedings

We are involved in various lawsuits and claims arising in the ordinary course of business, including actions with respect to intellectual property, employment, and contractual matters. In connection with these matters, we assess, on a regular basis, the probability and range of possible loss based on the developments in these matters. A liability is recorded in the consolidated financial statements if it is believed to be probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions could occur, assessing contingencies is highly subjective and requires judgments about future events. We regularly review outstanding legal matters to determine the adequacy of the liabilities accrued and related disclosures in consideration of many factors, which include, but are not limited to, past history, scientific and other evidence, and the specifics and status of each matter. We may change our estimates if our assessment of the various factors changes and the amount of ultimate loss may differ from our estimates, resulting in a material effect on our business, financial condition, results of operations, and/or cash flows.

8. Income Taxes

Our effective tax rate may vary from the U.S. federal statutory tax rate due to the change in the mix of earnings in tax jurisdictions with different statutory rates, benefits related to tax credits, and the tax impact of non-deductible expenses and other permanent differences between income before income taxes and taxable income. The effective tax rates for the three and six months ended June 30, 2019 were 15.4% and 10.8%, respectively. For the three and six months ended June 30, 2019, the decrease from the U.S. federal statutory tax rate of 21% was primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom. For the six months ended June 30, 2019, the decrease from the U.S. federal statutory tax rate was also attributable to a discrete tax benefit related to uncertain tax positions recorded in Q1 2019 and excess tax benefits related to share-based compensation.

9. Segment Information

We report segment information based on the management approach. This approach designates the internal reporting used by the Chief Operating Decision Maker (CODM) for making decisions and assessing performance as the source of our reportable segments. The CODM allocates resources and assesses the performance of each operating segment using information about its revenue and income (loss) from operations. Based on the information used by the CODM, we have determined we have one reportable segment, Core Illumina, which relates to Illumina's core operations. Prior to the Helix deconsolidation on April 25, 2019, our reportable segments included both Core Illumina and Helix.

Core Illumina :

Core Illumina's products and services serve customers in the research, clinical and applied markets, and enable the adoption of a variety of genomic solutions. Core Illumina includes all of our operations, excluding the results of our previously consolidated VIE Helix.

Helix:

Helix was established to enable individuals to explore their genetic information by providing affordable sequencing and database services for consumers through third-party partners, driving the creation of an ecosystem of consumer applications. Helix was deconsolidated on April 25, 2019. See note "2. Balance Sheet Account Details" for further details.

Management evaluates the performance of our reportable segments based upon income (loss) from operations. We do not allocate expenses between segments. Core Illumina sells products and provides services to Helix in accordance with contractual agreements between the entities.

The following table presents the operating performance of each reportable segment (in millions):

	Three Months Ended		Six Months Ended	
	June 30, 2019	July 1, 2018	June 30, 2019	July 1, 2018
Revenue:				
Core Illumina	\$ 838	\$ 829	\$ 1,684	\$ 1,612
Helix	—	3	1	6
Elimination of intersegment revenue	—	(2)	(1)	(6)
Consolidated revenue	<u>\$ 838</u>	<u>\$ 830</u>	<u>\$ 1,684</u>	<u>\$ 1,612</u>
Income (loss) from operations:				
Core Illumina	\$ 211	\$ 246	\$ 433	\$ 484
Helix	(6)	(20)	(24)	(41)
Elimination of intersegment earnings	—	1	1	2
Consolidated income from operations	<u>\$ 205</u>	<u>\$ 227</u>	<u>\$ 410</u>	<u>\$ 445</u>

The following table presents the total assets of each reportable segment (in millions):

	June 30, 2019	December 30, 2018
Core Illumina	\$ 6,973	\$ 6,912
Helix	—	154
Elimination of intersegment assets	—	(107)
Consolidated total assets	<u>\$ 6,973</u>	<u>\$ 6,959</u>

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

Our Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) will help readers understand our results of operations, financial condition, and cash flow. It is provided in addition to the accompanying condensed consolidated financial statements and notes. This MD&A is organized as follows:

- *Business Overview and Outlook* . High level discussion of our operating results and significant known trends that affect our business.
- *Results of Operations* . Detailed discussion of our revenues and expenses.
- *Liquidity and Capital Resources* . Discussion of key aspects of our condensed consolidated statements of cash flows, changes in our financial position, and our financial commitments.
- *Off-Balance Sheet Arrangements* . We have no off-balance sheet arrangements.
- *Critical Accounting Policies and Estimates* . Discussion of significant changes since our most recent Annual Report on Form [10-K](#) that we believe are important to understanding the assumptions and judgments underlying our condensed consolidated financial statements.
- *Recent Accounting Pronouncements* . Summary of recent accounting pronouncements applicable to our condensed consolidated financial statements.

This MD&A discussion contains forward-looking statements that involve risks and uncertainties. Please see "Consideration Regarding Forward-Looking Statements" preceding Item 3 of this report for additional factors relating to such statements. This MD&A should be read in conjunction with our condensed consolidated financial statements and accompanying notes included in this report and our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018 . Operating results are not necessarily indicative of results that may occur in future periods.

Business Overview and Outlook

This overview and outlook provides a high-level discussion of our operating results and significant known trends that affect our business. We believe that an understanding of these trends is important to understanding our financial results for the periods being reported herein as well as our future financial performance. This summary is not intended to be exhaustive, nor is it intended to be a substitute for the detailed discussion and analysis provided elsewhere in this report.

About Illumina

We have one reportable segment, Core Illumina, which relates to Illumina's core operations. Prior to the Helix deconsolidation on April 25, 2019, our reportable segments included both Core Illumina and Helix.

Our focus on innovation has established us as the global leader in DNA sequencing and array-based technologies, serving customers in the research, clinical and applied markets. Our products are used for applications in the life sciences, oncology, reproductive health, agriculture and other emerging segments.

Our customers include a broad range of academic, government, pharmaceutical, biotechnology, and other leading institutions around the globe.

Our comprehensive line of products addresses the scale of experimentation and breadth of functional analysis to advance disease research, drug development, and the development of molecular tests. This portfolio of leading-edge sequencing and array-based solutions addresses a range of genomic complexity and throughput, enabling researchers and clinical practitioners to select the best solution for their scientific challenge.

On November 1, 2018, we entered into an [Agreement and Plan of Merger](#) to acquire Pacific Biosciences of California, Inc. (PacBio) for an all-cash price of approximately \$1.2 billion (or \$8.00 per share), subject to applicable regulatory approvals. We believe PacBio's highly accurate long reads combined with our highly accurate and scalable short reads will provide researchers and clinicians with a more perfect view of the genome, enhancing their ability to make novel discoveries and broaden clinical utility across a range of applications. The transaction is now expected to close in Q4 2019. See note "3. Pending Acquisition" in Part I, Item 1 of this report for further details.

Our financial results have been, and will continue to be, impacted by several significant trends, which are described below. While these trends are important to understanding and evaluating our financial results, this discussion should be read in conjunction with our condensed consolidated financial statements and the notes thereto in Item 1, Part I of this report, and the other transactions, events, and trends discussed in "Risk Factors" in Item 1A, Part II of this report and Item 1A of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018 .

Financial Overview

Consolidated financial highlights for the first half of 2019 included the following:

- Revenue increased 4% during the first half of 2019 to \$1,684 million compared to \$1,612 million in the first half of 2018 primarily due to growth in sequencing consumables. We expect our revenue, as compared to the prior year, to continue to increase in 2019 , although we are anticipating ongoing weakness in the direct-to-consumer (DTC) market and delayed timing of certain population genomics projects.
- Gross profit as a percentage of revenue (gross margin) was 68.7% in the first half of 2019 compared to 69.0% in the first half of 2018 . The gross margin decrease was driven by lower volumes in our service business, partially offset by an increase in revenue from a non-recurring licensing agreement in Q1 2019. Our gross margin in future periods will depend on several factors, including: market conditions that may impact our pricing; sales mix changes among consumables, instruments, and services; product mix changes between established products and new products; excess and obsolete inventories; royalties; our cost structure for manufacturing operations relative to volume; and product support obligations.
- Income from operations as a percentage of revenue decreased to 24.3% in the first half of 2019 compared to 27.6% in the first half of 2018 primarily

due to increased operating expenses as a percentage of revenue. We expect our operating expenses, as compared to the prior year, to continue to grow on an absolute basis in 2019. However, we are focused on reducing operating expenses in the second half of 2019 in response to lower revenue growth expectations.

- Our effective tax rate was 10.8% in the first half of 2019 compared to 12.3% in the first half of 2018. In the first half of 2019, the variance from the U.S. federal statutory tax rate of 21% was primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, a discrete tax benefit related to uncertain tax positions recorded in Q1 2019, and excess tax benefits related to share-based compensation.
- We ended the first half of 2019 with cash, cash equivalents, and short-term investments totaling \$3.2 billion as of June 30, 2019, of which approximately \$476 million was held by our foreign subsidiaries.

Results of Operations

To enhance comparability, the following table sets forth unaudited condensed consolidated statement of operations data for the specified reporting periods, stated as a percentage of total revenue.

	Q2 2019	Q2 2018	YTD 2019	YTD 2018
Revenue:				
Product revenue	84.0 %	81.1 %	81.5 %	80.7 %
Service and other revenue	16.0	18.9	18.5	19.3
Total revenue	100.0	100.0	100.0	100.0
Cost of revenue:				
Cost of product revenue	23.4	21.8	22.4	22.0
Cost of service and other revenue	7.0	7.8	7.8	7.9
Amortization of acquired intangible assets	1.2	1.1	1.1	1.1
Total cost of revenue	31.6	30.7	31.3	31.0
Gross profit	68.4	69.3	68.7	69.0
Operating expense:				
Research and development	19.8	18.2	19.9	17.9
Selling, general and administrative	24.1	23.7	24.5	23.5
Total operating expense	43.9	41.9	44.4	41.4
Income from operations	24.5	27.4	24.3	27.6
Other income (expense):				
Interest income	2.4	1.3	2.6	1.0
Interest expense	(1.8)	(1.3)	(1.8)	(1.4)
Other income, net	16.2	0.6	9.3	0.9
Total other income, net	16.8	0.6	10.1	0.5
Income before income taxes	41.3	28.0	34.4	28.1
Provision for income taxes	6.3	3.9	3.7	3.5
Consolidated net income	35.0	24.1	30.7	24.6
Add: Net loss attributable to noncontrolling interests	0.3	1.1	0.7	1.3
Net income attributable to Illumina stockholders	35.3 %	25.2 %	31.4 %	25.9 %

Percentages may not recalculate due to rounding

Our fiscal year is the 52 or 53 weeks ending the Sunday closest to December 31, with quarters of 13 or 14 weeks ending the Sunday closest to March 31, June 30, September 30, and December 31. The three and six month periods ended June 30, 2019 and July 1, 2018 were both 13 and 26 weeks, respectively.

Revenue

(Dollars in millions)	Q2 2019	Q2 2018	Change	% Change	YTD 2019	YTD 2018	Change	% Change
Consumables	\$ 571	\$ 545	\$ 26	5 %	\$ 1,127	\$ 1,055	\$ 72	7 %
Instruments	133	128	5	4	245	246	(1)	—
Total product revenue	704	673	31	5	1,372	1,301	71	5
Service and other revenue	134	157	(23)	(15)	312	311	1	—
Total revenue	\$ 838	\$ 830	\$ 8	1 %	\$ 1,684	\$ 1,612	\$ 72	4 %

Service and other revenue consists primarily of sequencing and genotyping service revenue as well as instrument service contract revenue. Total revenue relates primarily to Core Illumina for all periods presented.

The increases in consumables revenue in Q2 2019 and the first half of 2019 were primarily due to increases in sequencing consumables revenue of \$37 million and \$96 million, respectively, driven primarily by growth in the instrument installed base. The increases in sequencing consumables revenue were partially offset by decreases in microarray consumables revenue primarily due to ongoing weakness in the direct-to-consumer (DTC) market. Instruments revenue increased in Q2 2019, primarily due to increased shipments of NextSeq. Instruments revenue remained relatively flat in the first half of 2019, primarily due to the timing of NovaSeq shipments offsetting the increased shipments of our NextSeq instruments. Service and other revenue decreased in Q2 2019, primarily due to decreased revenue from genotyping services, which reflects ongoing weakness in the DTC market, and decreased sequencing services revenue. Service and other revenue was relatively flat in the first half of 2019, primarily due to increased licensing and co-development revenue offsetting the decreased revenue from genotyping and sequencing services.

Gross Margin

(Dollars in millions)	Q2 2019	Q2 2018	Change	% Change	YTD 2019	YTD 2018	Change	% Change
Gross profit	\$ 573	\$ 575	\$ (2)	—%	\$ 1,157	\$ 1,113	\$ 44	4%
Gross margin	68.4%	69.3%			68.7%	69.0%		

The gross margin decreases in Q2 2019 and the first half of 2019 were driven primarily due to lower volumes in our service business. The decreases were partially offset by a more favorable mix of sequencing consumables and services in Q2 2019 and, in the first half of 2019, an increase in revenue from a non-recurring licensing agreement in Q1 2019.

Operating Expense

(Dollars in millions)	Q2 2019	Q2 2018	Change	% Change	YTD 2019	YTD 2018	Change	% Change
Research and development	\$ 166	\$ 151	\$ 15	10%	\$ 335	\$ 288	\$ 47	16%
Selling, general and administrative	202	197	5	3	412	380	32	8
Total operating expense	\$ 368	\$ 348	\$ 20	6%	\$ 747	\$ 668	\$ 79	12%

Core Illumina R&D expense increased by \$20 million, or 14%, in Q2 2019 and by \$52 million, or 19%, in the first half of 2019, primarily due to increased headcount as we continue to invest in the research and development of new products and enhancements to existing products, partially offset by a decrease in performance-based compensation. Helix R&D expense decreased by \$5 million in Q2 2019 and the first half of 2019, primarily due to its deconsolidation on April 25, 2019.

Core Illumina SG&A expense increased by \$11 million , or 6% , in Q2 2019 , and by \$40 million , or 11% , in the first half of 2019 , primarily due to expenses related to the pending Pacific Biosciences acquisition, increased headcount, and investment in facilities to support the continued growth and scale of our operations, partially offset by a decrease in performance-based compensation. Helix SG&A expense decreased by \$6 million in Q2 2019 and by \$8 million in the first half of 2019 , primarily due to its deconsolidation on April 25, 2019.

Other Income, Net

(Dollars in millions)	Q2 2019	Q2 2018	Change	% Change	YTD 2019	YTD 2018	Change	% Change
Interest income	\$ 20	\$ 11	\$ 9	82%	\$ 43	\$ 16	\$ 27	169%
Interest expense	(15)	(11)	(4)	36	(30)	(22)	(8)	36
Other income, net	136	5	131	2,620	157	14	143	1,021
Total other income, net	\$ 141	\$ 5	\$ 136	2,720%	\$ 170	\$ 8	\$ 162	2,025%

Other income, net relates primarily to Core Illumina for all periods presented.

Interest income increased in Q2 2019 and in the first half of 2019 as a result of higher yields on our short-term debt securities and higher cash and cash-equivalent balances. Interest expense consisted primarily of accretion of discount on our convertible senior notes and increased in Q2 2019 and the first half of 2019 primarily due to the 2023 Notes issued in August 2018. Other income, net , increased in Q2 2019 and in the first half of 2019 primarily due to mark-to-market adjustments from our strategic investments, which included a \$92 million unrealized gain from a strategic investment that completed an initial public offering in Q2 2019. The increase in other income, net was also due to a \$39 million gain recorded on the deconsolidation of Helix in Q2 2019 and a \$15 million gain recorded in Q1 2019 from the settlement of a contingency related to the deconsolidation of GRAIL in 2017.

Provision for Income Taxes

(Dollars in millions)	Q2 2019	Q2 2018	Change	% Change	YTD 2019	YTD 2018	Change	% Change
Income before income taxes	\$ 346	\$ 232	\$ 114	49%	\$ 580	\$ 453	\$ 127	28%
Provision for income taxes	53	32	21	66	63	56	7	13
Consolidated net income	\$ 293	\$ 200	\$ 93	47%	\$ 517	\$ 397	\$ 120	30%
Effective tax rate	15.4%	13.9%			10.8%	12.3%		

Our effective tax rate was 15.4% for Q2 2019 compared to 13.9% in Q2 2018 . The variances from the U.S. federal statutory tax rate of 21% in Q2 2019 and Q2 2018 were primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom.

Our effective tax rate was 10.8% for the first half of 2019 compared to 12.3% for the first half of 2018 . For the first half of 2019 , the variance from the U.S. federal statutory tax rate of 21% was primarily attributable to the mix of earnings in jurisdictions with lower statutory tax rates than the U.S. federal statutory tax rate, such as in Singapore and the United Kingdom, a discrete tax benefit related to uncertain tax positions recorded in Q1 2019, and excess tax benefits related to share-based compensation. For the first half of 2018 , the variance from the U.S. federal statutory tax rate of 21% was primarily attributable to the mix of earnings in jurisdictions with lower statutory rates than the U.S. federal statutory rate, such as in Singapore and the United Kingdom, and the discrete benefit associated with the recognition of prior year losses from our investment in Helix.

Our future effective tax rate may vary from the U.S. federal statutory tax rate due to the mix of earnings in tax jurisdictions with different statutory tax rates and the other factors discussed in the risk factor “We are subject to risks related to taxation in multiple jurisdictions” in Part I Item 1A of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018 . As a result of the Ninth Circuit decision on June 7, 2019 to overturn a U.S. Tax Court opinion provided in Q3 2015 that stock compensation should be excluded from cost sharing charges, we anticipate our effective tax rate may be adversely impacted. The final resolution of this case is uncertain, and we are still evaluating, but if it is determined that the outcome of this decision is more likely than not, we anticipate a discrete tax expense of less than \$30 million could be recorded.

Liquidity and Capital Resources

At June 30, 2019 , we had approximately \$1.9 billion in cash and cash equivalents, of which approximately \$476 million was held by our foreign subsidiaries. Cash and cash equivalents increased by \$0.8 billion from December 30, 2018 , due to the factors described in the “Cash Flow Summary” below. Our primary source of liquidity, other than our holdings of cash, cash equivalents and investments, has been cash flows from operations and, from time to time, issuances of debt. Our ability to generate cash from operations provides us with the financial flexibility we need to meet operating, investing, and financing needs.

Historically, we have liquidated our short-term investments and/or issued debt and equity securities to finance our business needs as a supplement to cash provided by operating activities. As of June 30, 2019 , we had \$1.2 billion in short-term investments. Our short-term investments are predominantly comprised of marketable securities consisting of U.S. government-sponsored entities, corporate debt securities, and U.S. Treasury securities.

Our 2019 Notes matured on June 15, 2019, by which time the \$633 million in principal had been converted and was paid in cash. The excess of the conversion value over the principal amount was paid in shares of common stock. Our convertible senior notes due in 2021 and 2023 were not convertible as of June 30, 2019 .

We anticipate that our current cash, cash equivalents, and short-term investments, together with cash provided by operating activities are sufficient to fund our near-term capital and operating needs for at least the next 12 months including the pending acquisition of PacBio for a cash price of approximately \$1.2 billion. Operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. Our primary short-

term needs for capital, which are subject to change, include:

- support of commercialization efforts related to our current and future products, including expansion of our direct sales force and field support resources both in the United States and abroad;
- acquisitions of equipment and other fixed assets for use in our current and future manufacturing and research and development facilities;
- the continued advancement of research and development efforts;
- potential strategic acquisitions and investments;
- repayment of debt obligations;
- the expansion needs of our facilities, including costs of leasing and building out additional facilities; and
- repurchases of our outstanding common stock.

On February 6, 2019, our Board of Directors authorized a new share repurchase program, which supersedes all prior and available repurchase authorizations, to repurchase \$550 million of outstanding common stock. The repurchases may be

completed under a 10b5-1 plan or at management's discretion. Authorizations to repurchase \$488 million of our common stock remained available as of June 30, 2019 .

We had \$57 million remaining in our capital commitment to a venture capital investment fund as of June 30, 2019 that is callable through April 2026. In July 2019, we invested in a second venture capital investment fund with a maximum capital commitment of up to \$160 million that is callable through July 2029.

We expect that our revenue and the resulting operating income, as well as the status of each of our new product development programs, will significantly impact our cash management decisions.

Our future capital requirements and the adequacy of our available funds will depend on many factors, including:

- our ability to successfully commercialize and further develop our technologies and create innovative products in our markets;
- scientific progress in our research and development programs and the magnitude of those programs;
- competing technological and market developments; and
- the need to enter into collaborations with other companies or acquire other companies or technologies to enhance or complement our product and service offerings.

Cash Flow Summary

(In millions)	YTD 2019	YTD 2018
Net cash provided by operating activities	\$ 341	\$ 550
Net cash provided by (used in) investing activities	1,067	(525)
Net cash (used in) provided by financing activities	(609)	97
Effect of exchange rate changes on cash and cash equivalents	—	(3)
Net increase in cash and cash equivalents	<u>\$ 799</u>	<u>\$ 119</u>

Operating Activities

Net cash provided by operating activities in the first half of 2019 primarily consisted of net income of \$517 million less net adjustments of \$19 million and net changes in operating assets and liabilities of \$157 million . The primary adjustments to net income included unrealized gains on marketable equity securities of \$104 million, payment of the accreted debt discount related to our 2019 Notes of \$84 million, and gains on deconsolidation of \$54 million, partially offset by share-based compensation of \$99 million , depreciation and amortization expenses of \$96 million , accretion of debt discount of \$27 million , and deferred income taxes of \$6 million . Cash flow impact from changes in net operating assets and liabilities were primarily driven by increases in inventory, prepaid expenses and other current assets, and other assets and decreases in accrued liabilities, accounts payable, and other long-term liabilities, partially offset by decreases in accounts receivable.

Net cash provided by operating activities in the first half of 2018 consisted of net income of \$397 million plus net adjustments of \$170 million , partially offset by net changes in operating assets and liabilities of \$17 million . The primary adjustments to net income included depreciation and amortization expenses of \$84 million , share-based compensation of \$98 million , and accretion of debt discount of \$16 million , partially offset by deferred income taxes of \$22 million . Cash flow impact from changes in net operating assets and liabilities were primarily driven by an increase in inventory and a decrease in other long-term liabilities, partially offset by an increase in accrued liabilities and a decrease in accounts receivable.

Investing Activities

Net cash provided by investing activities totaled \$1,067 million in the first half of 2019 . We purchased \$393 million of available-for-sale securities and \$1,590 million of our available-for-sale securities matured or were sold during the period. We received \$15 million in proceeds from the settlement of a contingency related to the deconsolidation of GRAIL in 2017. We invested \$103 million in capital expenditures, primarily associated with our investment in facilities and paid \$13 million for strategic investments. We removed \$29 million in cash from our balance sheet as a result of the deconsolidation of Helix.

Net cash used in investing activities in the first half of 2018 totaled \$525 million . We purchased \$1,137 million of available-for-sale securities and \$888 million of our available-for-sale securities matured or were sold during the period. Our

net cash paid for acquisitions was \$100 million , and we invested \$167 million in capital expenditures, primarily associated with our investment in facilities.

Financing Activities

Net cash used in financing activities in the first half of 2019 totaled \$609 million . We used \$550 million to repay financing obligations primarily related to our 2019 Notes. We used \$63 million to repurchase our common stock and \$26 million to pay taxes related to net share settlement of equity awards. We received \$30 million in proceeds from the issuance of common stock through the exercise of stock options and the sale of shares under our employee stock purchase plan.

Net cash provided by financing activities in the first half of 2018 totaled \$97 million . We received \$22 million in proceeds from issuance of common stock through the exercise of stock options and the sale of shares under our employee stock purchase plan, and contributions from noncontrolling interest owners were \$92 million . We used \$15 million to pay taxes related to net share settlement of equity awards.

Off-Balance Sheet Arrangements

We do not participate in any transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. During the first half of 2019 , we were not involved in any “off-balance sheet arrangements” within the meaning of the rules of the Securities and Exchange Commission.

Critical Accounting Policies and Estimates

In preparing our condensed consolidated financial statements, we make estimates, assumptions and judgments that can have a significant impact on our net revenue, operating income and net income, as well as on the value of certain assets and liabilities on our balance sheet. We believe that the estimates, assumptions and judgments involved in the accounting policies described in Management’s Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018 have the greatest potential impact on our financial statements, so we consider them to be our critical accounting policies and estimates. There were no material changes to our critical accounting policies and estimates during the first half of 2019 .

Recent Accounting Pronouncements

For summary of recent accounting pronouncements applicable to our condensed consolidated financial statements, see note “1. Summary of Significant Accounting Policies” in Part I, Item 1, Notes to Condensed Consolidated Financial Statements, which is incorporated herein by reference.

Consideration Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains, and our officers and representatives may from time to time make, “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as: “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “continue,” “project,” “estimate,” “expect,” “strategy,” “future,” “likely,” “may,” “potential,” “predict,” “should,” “will,” or similar words or phrases, or the negatives of these words, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward looking. Examples of forward-looking statements include, among others, statements we make regarding:

- our expectations as to our future financial performance, results of operations, cash flows or other operational results or metrics;
- our expectations regarding the launch of new products or services;
- the benefits that we expect will result from our business activities and certain transactions we have completed, such as product introductions, increased revenue, decreased expenses, and avoided expenses and expenditures;
- our expectations of the effect on our financial condition of claims, litigation, contingent liabilities, and governmental investigations, proceedings, and regulations;
- our strategies or expectations for product development, market position, financial results, and reserves;

- our expectations regarding the integration of any acquired technologies with our existing technology; and
- other expectations, beliefs, plans, strategies, anticipated developments, and other matters that are not historical facts.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following:

- our expectations and beliefs regarding prospects and growth for our business and the markets in which we operate;
- the timing and mix of customer orders among our products and services;
- challenges inherent in developing, manufacturing, and launching new products and services, including expanding manufacturing operations and reliance on third-party suppliers for critical components;
- the impact of recently launched or pre-announced products and services on existing products and services;
- our ability to develop and commercialize our instruments and consumables, to deploy new products, services, and applications, and to expand the markets for our technology platforms;
- our ability to manufacture robust instrumentation and consumables;
- our ability to identify and integrate acquired technologies, products, or businesses successfully;
- our expectations regarding the pending acquisition of Pacific Biosciences of California, Inc.;
- the assumptions underlying our critical accounting policies and estimates;
- our assessments and estimates that determine our effective tax rate;
- our assessments and beliefs regarding the outcome of pending legal proceedings and any liability, that we may incur as a result of those proceedings;
- uncertainty, or adverse economic and business conditions, including as a result of slowing or uncertain economic growth in the United States or worldwide; and
- other factors detailed in our filings with the SEC, including the risks, uncertainties, and assumptions described in Item 1A of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018, or in information disclosed in public conference calls, the date and time of which are released beforehand.

The foregoing factors should be considered together with other factors detailed in our filings with the Securities and Exchange Commission, including our most recent filings on Forms [10-K](#) and [10-Q](#), or in information disclosed in public conference calls, the date and time of which are released beforehand. We undertake no obligation, and do not intend, to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, or to review or confirm analysts' expectations, or to provide interim reports or updates on the progress of any current financial quarter, in each case whether as a result of new information, future developments, or otherwise.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

There were no substantial changes to our market risks in the six months ended June 30, 2019, when compared to the disclosures in Item 7A of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018.

Item 4. Controls and Procedures.

We design our internal controls to provide reasonable assurance that (1) our transactions are properly authorized; (2) our assets are safeguarded against unauthorized or improper use; and (3) our transactions are properly recorded and reported in conformity with U.S. generally accepted accounting principles. We also maintain internal controls and procedures to ensure that we comply with applicable laws and our established financial policies.

Based on management’s evaluation (under the supervision and with the participation of our chief executive officer (CEO) and chief financial officer (CFO)), as of the end of the period covered by this report, our CEO and CFO concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)), are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

During Q2 2019 , we continued to monitor and evaluate the design and operating effectiveness of key controls. There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that materially affected or are reasonably likely to materially affect internal control over financial reporting.

PART II — OTHER INFORMATION**Item 1. Legal Proceedings.**

See discussion of legal proceedings in note “7. Legal Proceedings” in Part I, Item 1, Notes to Condensed Consolidated Financial Statements, which is incorporated herein by reference.

Item 1A. Risk Factors.

Our business is subject to various risks, including those described in Item 1A of our Annual Report on Form [10-K](#) for the fiscal year ended December 30, 2018, which we strongly encourage you to review. There have been no material changes from the risk factors disclosed in Item 1A of our Form [10-K](#).

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

None during the quarterly period ended June 30, 2019.

Purchases of Equity Securities by the Issuer

None during the quarterly period ended June 30, 2019.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit Number	Description of Document
3.3	Amended and Restated Certificate of Incorporation (June 2019)
31.1	Certification of Francis A. deSouza pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Sam A. Samad pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Francis A. deSouza pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Sam A. Samad pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase

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.

ILLUMINA, INC.
(registrant)

Date: July 30, 2019

/s/ S AM A. S AMAD

Sam A. Samad
Senior Vice President and Chief Financial Officer

**Amended and Restated Certificate of Incorporation
of
Illumina, Inc.**

ARTICLE I

The name of this corporation is Illumina, Inc.

ARTICLE II

The address of the corporation's registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

The purpose of the corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

ARTICLE IV

The corporation is authorized to issue two classes of shares of stock, which shall be designated, respectively, Common Stock, \$0.01 par value per share, and Preferred Stock, \$0.01 par value per share. The total number of shares that the corporation is authorized to issue is 330,000,000 shares. The number of shares of Common Stock authorized is 320,000,000. The number of shares of Preferred Stock authorized is 10,000,000.

The Preferred Stock may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by the board of directors (authority to do so being hereby expressly vested in the board). The board of directors is further authorized to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon any wholly unissued series of Preferred Stock and to fix the number of shares of any series of Preferred Stock and the designation of any such series of Preferred Stock. The board of directors, within the limits and restrictions stated in any resolution or resolutions of the board of directors originally fixing the number of shares constituting any series, may increase or decrease (but not below the number of shares of any such series then outstanding) the number of shares of any series subsequent to the issue of shares of that series.

The authority of the board of directors with respect to each such class or series shall include, without limitation of the foregoing, the right to determine and fix:

- (a) the distinctive designation of such class or series and the number of shares to constitute such class or series;
 - (b) the rate at which dividends on the shares of such class or series shall be declared and paid, or set aside for payment, whether dividends at the rate so determined shall be cumulative or accruing, and whether the shares of such class or series shall be entitled to any participating or other dividends in addition to dividends at the rate so determined, and if so, on what terms;
 - (c) the right or obligation, if any, of the corporation to redeem shares of the particular class or series of Preferred Stock and, if redeemable, the price, terms and manner of such redemption;
 - (d) the special and relative rights and preferences, if any, and the amount or amounts per share that the shares of such class or series of Preferred Stock shall be entitled to receive upon any voluntary or involuntary liquidation, dissolution or winding up of the corporation;
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- (e) the terms and conditions, if any, upon which shares of such class or series shall be convertible into, or exchangeable for, shares of capital stock of any other class or series, including the price or prices or the rate or rates of conversion or exchange and the terms of adjustment, if any;
- (f) the obligation, if any, of the corporation to retire, redeem or purchase shares of such class or series pursuant to a sinking fund or fund of a similar nature or otherwise, and the terms and conditions of such obligation;
- (g) voting rights, if any, on the issuance of additional shares of such class or series or any shares of any other class or series of Preferred Stock;
- (h) limitations, if any, on the issuance of additional shares of such class or series or any shares of any other class or series of Preferred Stock; and
- (i) such other preferences, powers, qualifications, special or relative rights and privileges thereof as the board of directors of the corporation, acting in accordance with this Restated Certificate of Incorporation, may deem advisable and are not inconsistent with law and the provisions of this Restated Certificate of Incorporation.

ARTICLE V

The corporation reserves the right to amend, alter, change, or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this right.

ARTICLE VI

The corporation is to have perpetual existence.

ARTICLE VII

1. Limitation of Liability. To the fullest extent permitted by the General Corporation Law of the State of Delaware as the same exists or as may hereafter be amended, a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

2. Indemnification. The corporation shall indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or was a director or officer of the corporation, or any predecessor of the corporation, or serves or served at any other enterprise as a director, officer or employee at the request of the corporation or any predecessor to the corporation and may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or was an employee of the corporation, or any predecessor of the corporation, or serves or served at any other enterprise as a director, officer or employee at the request of the corporation or any predecessor to the corporation.

3. Amendments. Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of the corporation's Certificate of Incorporation inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VII, would accrue or arise, prior to such amendment, repeal, or adoption of an inconsistent provision.

ARTICLE VIII

In the event any shares of Preferred Stock shall be redeemed or converted pursuant to the terms hereof, the shares so converted or redeemed shall not revert to the status of authorized but unissued shares, but instead shall be canceled and shall not be re-issuable by the corporation.

ARTICLE IX

Holders of stock of any class or series of the corporation shall not be entitled to cumulate their votes for the election of directors or any other matter submitted to a vote of the stockholders, unless such cumulative voting is required pursuant to Sections 214 of the Delaware General Corporation Law, in which event each such holder shall be entitled to as many votes as shall equal the number of votes which (except for this provision as to cumulative voting) such holder would be entitled to cast for the election of directors with respect to his shares of stock multiplied by the number of directors to be elected by him, and the holder may cast all of such votes for a single director or may distribute them among the number of directors to be voted for, or for any two or more of them as such holder may see fit, so long as the name of the candidate for director shall have been placed in nomination prior to the voting and the stockholder, or any other holder of the same class or series of stock, has given notice at the meeting prior to the voting of the intention to cumulate votes.

1. Number of Directors. The number of directors which constitutes the whole Board of Directors of the corporation shall be designated in the Amended and Restated Bylaws of the corporation. The directors shall, until the annual meeting of stockholders to be held in 2022, be divided, with respect to the time for which they severally hold office, into three classes. The term of office of the class of directors elected at the annual meeting of stockholders held in 2019 shall expire at the 2022 annual meeting of stockholders; the term of office of the class of directors elected at the annual meeting of stockholders held in 2020 shall expire at the 2021 annual meeting of stockholders; and the term of office of the class of directors elected at the annual meeting of stockholders held in 2021 shall expire at the 2022 annual meeting of stockholders. At each annual meeting of stockholders, commencing with the 2020 annual meeting of stockholders, directors shall be elected for a term of office to expire at the annual meeting of stockholders held in the year following the year of their election, with each director to hold office until his or her successor shall been duly elected and qualified, or, if earlier, such director's death, resignation, retirement, disqualification or removal from office.

2. Election of Directors. Elections of directors need not be by written ballot unless the Amended and Restated Bylaws of the corporation shall so provide.

3. Removal of Directors. So long as the directors are divided into three classes, they may be removed only for cause by the affirmative vote of the holders of a majority of the voting power of all then outstanding shares of capital stock of the corporation entitled to vote generally in the election of directors

ARTICLE X

In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter, amend or repeal the Amended and Restated Bylaws of the corporation.

ARTICLE XI

No action shall be taken by the stockholders of the corporation except at an annual or special meeting of the stockholders called in accordance with the Amended and Restated Bylaws, no special meetings of the stockholders shall be called by stockholders without approval of the Board of Directors, and no action, including the removal of directors without cause shall be taken by stockholders by written consent. The affirmative vote of a majority of the then outstanding voting securities of the corporation, voting together as a single class, shall be required for the amendment, repeal or modification of the provisions of Article IX, Article X or Article XII of this Amended and Restated Certificate of Incorporation or Sections 2.3 (Special Meeting), 2.4 (Notice of Stockholders' Meeting), 2.4 (Advanced Notice of Stockholder Nominees and Stockholder Business), 2.8 (Voting), or 2.10 (Stockholder Action

by Written Consent Without a Meeting), or 3.2 (Number of Directors) of the corporation's Amended and Restated Bylaws.

ARTICLE XII

Meetings of stockholders may be held within or without the State of Delaware, as the Amended and Restated Bylaws may provide. The books of the corporation may be kept (subject to any provision contained in the statutes) outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Amended and Restated Bylaws of the corporation.

ARTICLE XIII

This Amended and Restated Certificate of Incorporation shall be effective as of the date of the closing of the Corporation's initial public offering.

[Remainder of Page Intentionally Left Blank]

In Witness Whereof, Illumina, Inc. has caused this instrument to be executed by Francis A. deSouza, its President and Chief Executive Officer, on this June 6, 2019 which execution shall constitute an affirmation, under penalties of perjury, that this instrument is the act and deed of Illumina, Inc. and that the facts stated herein are true.

By: /s/ Francis A. deSouza
Name: Francis A. deSouza
Title: President & Chief Executive Officer

CERTIFICATION OF FRANCIS A. DESOUZA PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Francis A. deSouza, certify that:

- 1 I have reviewed this Quarterly Report on Form 10-Q of Illumina, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 30, 2019

By: /s/ FRANCIS A. DE SOUZA

Francis A. deSouza

President and Chief Executive Officer

CERTIFICATION OF SAM A. SAMAD PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sam A. Samad, certify that:

- 1 I have reviewed this Quarterly Report on Form 10-Q of Illumina, 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 30, 2019

By: /s/ S AM A. S AMAD

Sam A. Samad

Senior Vice President and Chief Financial Officer

CERTIFICATION OF FRANCIS A. DESOUZA PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Illumina, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Francis A. deSouza, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Dated: July 30, 2019

By: /s/ FRANCIS A. DESOUZA

Francis A. deSouza

President and Chief Executive Officer

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.

**CERTIFICATION OF SAM A. SAMAD PURSUANT TO 18 U.S.C.
SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Illumina, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sam A. Samad, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Dated: July 30, 2019

By: /s/ SAM A. SAMAD

Sam A. Samad

Senior Vice President and Chief Financial Officer

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.