
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

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

For the transition period from _____ to _____

Commission file number 000-30713

Intuitive Surgical, Inc.
(Exact name of Registrant as specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

77-0416458
(I.R.S. Employer
Identification No.)

1020 Kifer Road
Sunnyvale, California 94086
(Address of principal executive offices) (Zip Code)

(408) 523-2100
(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.001 per share	ISRG	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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definition 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 13(a) of the Exchange Act.

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

The Registrant had 115,573,505 shares of Common Stock, \$0.001 par value per share, outstanding as of October 15, 2019.

INTUITIVE SURGICAL, INC.
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PART I - FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

<i>in millions (except par values)</i>	September 30, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 969.6	\$ 857.9
Short-term investments	1,928.0	2,205.2
Accounts receivable, net	639.0	682.3
Inventory	579.6	409.0
Prepays and other current assets	200.8	178.8
Total current assets	4,317.0	4,333.2
Property, plant, and equipment, net	1,136.8	812.0
Long-term investments	2,533.0	1,771.3
Deferred tax assets	424.1	428.6
Intangible and other assets, net	415.7	261.0
Goodwill	304.7	240.6
Total assets	\$ 9,131.3	\$ 7,846.7
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 132.4	\$ 100.7
Accrued compensation and employee benefits	187.4	193.8
Deferred revenue	307.6	294.3
Other accrued liabilities	303.5	231.8
Total current liabilities	930.9	820.6
Other long-term liabilities	423.3	338.6
Total liabilities	1,354.2	1,159.2
Contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, 2.5 shares authorized, \$0.001 par value, issuable in series; no shares issued and outstanding as of September 30, 2019, and December 31, 2018	—	—
Common stock, 300.0 shares authorized, \$0.001 par value, 115.6 shares and 114.5 shares issued and outstanding as of September 30, 2019, and December 31, 2018, respectively	0.1	0.1
Additional paid-in capital	5,600.9	5,170.3
Retained earnings	2,142.6	1,521.7
Accumulated other comprehensive income (loss)	17.8	(13.3)
Total Intuitive Surgical, Inc. stockholders' equity	7,761.4	6,678.8
Noncontrolling interest in joint venture	15.7	8.7
Total stockholders' equity	7,777.1	6,687.5
Total liabilities and stockholders' equity	\$ 9,131.3	\$ 7,846.7

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(UNAUDITED)

<i>in millions (except per share amounts)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue:				
Product	\$ 944.8	\$ 760.9	\$ 2,666.9	\$ 2,209.2
Service	183.4	160.0	533.9	468.5
Total revenue	1,128.2	920.9	3,200.8	2,677.7
Cost of revenue:				
Product	277.3	225.1	807.1	654.7
Service	65.3	53.5	179.5	154.6
Total cost of revenue	342.6	278.6	986.6	809.3
Gross profit	785.6	642.3	2,214.2	1,868.4
Operating expenses:				
Selling, general and administrative	284.0	221.4	836.6	702.8
Research and development	135.9	107.6	400.7	298.2
Total operating expenses	419.9	329.0	1,237.3	1,001.0
Income from operations	365.7	313.3	976.9	867.4
Interest and other income, net	33.3	21.9	93.6	53.3
Income before taxes	399.0	335.2	1,070.5	920.7
Income tax expense	0.3	43.4	51.4	87.0
Net income	398.7	291.8	1,019.1	833.7
Less: net income (loss) attributable to noncontrolling interest in joint venture	1.9	(0.7)	(2.5)	(1.7)
Net income attributable to Intuitive Surgical, Inc.	\$ 396.8	\$ 292.5	\$ 1,021.6	\$ 835.4
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	\$ 3.44	\$ 2.57	\$ 8.86	\$ 7.37
Diluted	\$ 3.33	\$ 2.45	\$ 8.56	\$ 7.04
Shares used in computing net income per share attributable to Intuitive Surgical, Inc.:				
Basic	115.4	114.0	115.3	113.4
Diluted	119.3	119.2	119.4	118.6
Total comprehensive income attributable to Intuitive Surgical, Inc.	\$ 398.5	\$ 292.2	\$ 1,052.7	\$ 834.2

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

INTUITIVE SURGICAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

<i>in millions</i>	Nine Months Ended September 30,	
	2019	2018
Operating activities:		
Net income	\$ 1,019.1	\$ 833.7
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and loss on disposal of property, plant, and equipment	108.0	76.8
Amortization of intangible assets	31.2	9.7
Loss (gain) on investments, accretion, and amortization, net	(6.6)	3.2
Deferred income taxes	(8.3)	52.3
Share-based compensation expense	246.6	190.8
Amortization of contract acquisition assets	9.2	7.9
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable	50.6	(65.2)
Inventory	(293.4)	(205.8)
Prepays and other assets	(95.1)	(89.3)
Accounts payable	24.7	13.4
Accrued compensation and employee benefits	(6.8)	(21.5)
Deferred revenue	5.8	34.7
Other liabilities	(39.5)	(9.2)
Net cash provided by operating activities	1,045.5	831.5
Investing activities:		
Purchase of investments	(2,543.4)	(1,694.0)
Proceeds from sales of investments	82.1	274.0
Proceeds from maturities of investments	2,028.5	1,048.7
Purchase of property, plant, and equipment and intellectual property	(283.6)	(131.9)
Acquisition of businesses, net of cash	(31.8)	(60.1)
Net cash used in investing activities	(748.2)	(563.3)
Financing activities:		
Proceeds from issuance of common stock relating to employee stock plans	205.7	199.6
Taxes paid related to net share settlement of equity awards	(152.9)	(115.0)
Repurchase of common stock	(269.5)	—
Capital contribution from noncontrolling interest	10.0	8.0
Other financing activities	(12.5)	—
Net cash provided by (used in) financing activities	(219.2)	92.6
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(2.9)	(0.7)
Net increase in cash, cash equivalents, and restricted cash	75.2	360.1
Cash, cash equivalents, and restricted cash, beginning of period	909.4	663.2
Cash, cash equivalents, and restricted cash, end of period	\$ 984.6	\$ 1,023.3

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements (Unaudited).

INTUITIVE SURGICAL, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

In this report, “Intuitive Surgical,” “Intuitive,” the “Company,” “we,” “us,” and “our” refer to Intuitive Surgical, Inc. and its wholly- and majority-owned subsidiaries.

NOTE 1. DESCRIPTION OF THE BUSINESS

Intuitive Surgical, Inc. (“Intuitive” or the “Company”) develops, manufactures, and markets the da Vinci® Surgical System and the Ion™ endoluminal system. The Company’s products and related services enable physicians and healthcare providers to improve the quality of and access to minimally invasive care. The da Vinci Surgical System consists of a surgeon console or consoles, a patient-side cart, a high-performance vision system, and proprietary instruments and accessories. The Ion endoluminal system is a flexible, robotic-assisted, catheter-based platform that utilizes instruments and accessories for lung biopsies.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

In the opinion of management, the accompanying unaudited Condensed Consolidated Financial Statements (“Financial Statements”) of Intuitive Surgical, Inc. and its wholly- and majority-owned subsidiaries have been prepared on a consistent basis with the audited Consolidated Financial Statements for the fiscal year ended December 31, 2018, and include all adjustments, consisting of only normal recurring adjustments, necessary to fairly state the information set forth herein. The Financial Statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission (“SEC”) and, therefore, omit certain information and footnote disclosure necessary to present the Financial Statements in accordance with United States (“U.S.”) generally accepted accounting principles (“U.S. GAAP”). These Financial Statements should be read in conjunction with the audited Consolidated Financial Statements and notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which was filed with the SEC on February 4, 2019. The results of operations for the first nine months of fiscal year 2019 are not necessarily indicative of the results to be expected for the entire fiscal year or any future periods.

The Financial Statements include the results and the balances of the Company’s majority-owned joint venture (referred to herein as the “Joint Venture”) with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. (“Fosun Pharma”). The Company holds a controlling financial interest in the Joint Venture and the noncontrolling interest is reflected as a separate component of consolidated stockholders’ equity. The noncontrolling interest’s share of the earnings in the Joint Venture is presented separately in the consolidated statements of income.

Recently Adopted Accounting Pronouncements

Leases

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2016-02, *Leases (Topic 842)* (“Topic 842”), which amended prior accounting standards for leases. The Company adopted Topic 842 on January 1, 2019, using the alternative modified transition method, which requires a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated. There was no cumulative-effect adjustment recorded on January 1, 2019. Please see the description of the Company’s “Leases” accounting policy in the “Significant Accounting Policies” section below.

The Company elected the following practical expedients when assessing the transition impact from both the lessee and lessor perspectives: (i) not to reassess whether any expired or existing contracts as of January 1, 2019, are or contain leases; (ii) not to reassess the lease classification for any expired or existing leases as of January 1, 2019; (iii) not to reassess initial direct costs for any existing leases as of January 1, 2019; and (iv) not to reassess whether land easements meet the definition of a lease.

The primary impact for the Company was the balance sheet recognition of right-of-use (“ROU”) assets and lease liabilities for operating leases as a lessee.

Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles (Topic 350): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*, which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This standard also requires customers to amortize the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement. The Company early adopted this standard, as of January 1, 2019, on a prospective basis for applicable implementation costs.

The adoption did not have a material impact on the Company's financial position and the results of operations in fiscal year 2019.

Significant Accounting Policies

With the exception of the change for the accounting of leases as a result of the adoption of Topic 842, there have been no new or material changes to the significant accounting policies discussed in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, that are of significance, or potential significance, to the Company.

Leases

The Company determines if an arrangement contains a lease at inception. For arrangements where the Company is the lessee, operating leases are included in intangible and other assets, net; other accrued liabilities; and other long-term liabilities on the Condensed Consolidated Balance Sheet as of September 30, 2019. The Company currently does not have any finance leases.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentives received. The Company uses its incremental borrowing rate based on the information available at the commencement date in determining the lease liabilities as the Company's leases generally do not provide an implicit rate. Lease terms may include options to extend or terminate when the Company is reasonably certain that the option will be exercised. Lease expense is recognized on a straight-line basis over the lease term.

The Company also has lease arrangements with lease and non-lease components. The Company elected the practical expedient not to separate non-lease components from lease components for the Company's real estate and automobile leases. Additionally, the Company applied a portfolio approach to effectively account for the operating lease ROU assets and lease liabilities for the Company's automobile leases. The Company also elected to apply the short-term lease measurement and recognition exemption in which ROU assets and lease liabilities are not recognized for leases with terms of 12 months or less.

NOTE 3. FINANCIAL INSTRUMENTS

Cash, Cash Equivalents, and Investments

The following tables summarize the Company's cash and available-for-sale marketable securities' amortized cost, gross unrealized gains, gross unrealized losses, and fair value by significant investment category reported as cash and cash equivalents, short-term, or long-term investments as of September 30, 2019, and December 31, 2018 (in millions):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Reported as:		
					Cash and Cash Equivalents	Short-term Investments	Long-term Investments
September 30, 2019							
Cash	\$ 325.2	\$ —	\$ —	\$ 325.2	\$ 325.2	\$ —	\$ —
Level 1:							
Money market funds	641.4	—	—	641.4	641.4	—	—
U.S. treasuries	1,846.9	10.6	(0.7)	1,856.8	—	932.8	924.0
Subtotal	2,488.3	10.6	(0.7)	2,498.2	641.4	932.8	924.0
Level 2:							
Commercial paper	117.5	—	—	117.5	3.0	114.5	—
Corporate debt securities	1,958.9	18.0	(0.4)	1,976.5	—	637.0	1,339.5
U.S. government agencies	481.1	1.0	(0.4)	481.7	—	227.9	253.8
Municipal securities	31.2	0.3	—	31.5	—	15.8	15.7
Subtotal	2,588.7	19.3	(0.8)	2,607.2	3.0	995.2	1,609.0
Total assets measured at fair value	\$ 5,402.2	\$ 29.9	\$ (1.5)	\$ 5,430.6	\$ 969.6	\$ 1,928.0	\$ 2,533.0

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Reported as:		
					Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2018							
Cash	\$ 269.4	\$ —	\$ —	\$ 269.4	\$ 269.4	\$ —	\$ —
Level 1:							
Money market funds	569.1	—	—	569.1	569.1	—	—
U.S. treasuries	1,477.8	1.7	(5.3)	1,474.2	10.0	897.8	566.4
Subtotal	2,046.9	1.7	(5.3)	2,043.3	579.1	897.8	566.4
Level 2:							
Commercial paper	110.7	—	—	110.7	1.4	109.3	—
Corporate debt securities	1,607.8	1.3	(4.8)	1,604.3	8.0	724.5	871.8
U.S. government agencies	791.8	0.3	(3.8)	788.3	—	468.9	319.4
Municipal securities	18.4	—	—	18.4	—	4.7	13.7
Subtotal	2,528.7	1.6	(8.6)	2,521.7	9.4	1,307.4	1,204.9
Total assets measured at fair value	\$ 4,845.0	\$ 3.3	\$ (13.9)	\$ 4,834.4	\$ 857.9	\$ 2,205.2	\$ 1,771.3

As of December 31, 2018, the Company also recorded \$36.5 million of restricted cash equivalents (comprised of money market funds and U.S. treasuries that would be considered highly liquid investments with original maturity dates that are 90 days or less) in connection with a concluded legal matter in prepaids and other current assets in the accompanying Condensed Consolidated Balance Sheets.

The following table summarizes the contractual maturities of the Company's cash equivalents and available-for-sale investments (excluding cash and money market funds), as of September 30, 2019 (in millions):

	Amortized Cost	Fair Value
Mature in less than one year	\$ 1,976.2	\$ 1,980.0
Mature in one to five years	2,459.4	2,484.0
Total	\$ 4,435.6	\$ 4,464.0

Actual maturities may differ from contractual maturities because certain borrowers have the right to call or prepay certain obligations. Realized gains and losses, recognized on the sale of investments, were not material for any of the periods presented.

Foreign Currency Derivatives

The objective of the Company's hedging program is to mitigate the impact of changes in currency exchange rates on cash flow from foreign currency-denominated sales, expenses, intercompany balances, and other monetary assets or liabilities denominated in currencies other than the U.S. dollar ("USD"). The terms of the Company's derivative contracts are generally twelve months or shorter. The derivative assets and liabilities are measured using Level 2 fair value inputs.

Cash Flow Hedges

The Company enters into currency forward contracts as cash flow hedges to hedge certain forecasted revenue transactions denominated in currencies other than the USD, primarily the European Euro ("EUR"), the British Pound ("GBP"), the Japanese Yen ("JPY"), and the Korean Won ("KRW"). The Company also enters into currency forward contracts as cash flow hedges to hedge certain forecasted expense transactions denominated in EUR and the Swiss Franc ("CHF").

For these derivatives, the Company reports the unrealized after-tax gain or loss from the hedge as a component of accumulated other comprehensive gain (loss) in stockholders' equity and reclassifies it into earnings in the same period in which the hedged transaction affects earnings. The amounts reclassified to revenue and expenses related to the hedged transactions and the ineffective portions of cash flow hedges were not material for the periods presented.

Other Derivatives Not Designated as Hedging Instruments

Other derivatives not designated as hedging instruments consist primarily of forward contracts that the Company uses to hedge intercompany balances and other monetary assets or liabilities denominated in currencies other than the USD, primarily the EUR, GBP, JPY, KRW, CHF, Indian Rupee, and New Taiwan Dollar. The net gains (losses) recognized in interest and

other income, net in the Condensed Consolidated Statements of Comprehensive Income for the three and nine months ended September 30, 2019, and 2018, were not material.

The notional amounts for derivative instruments provide one measure of the transaction volume. Total gross notional amounts (in USD) for outstanding derivatives and aggregate gross fair value at the end of each period were as follows (in millions):

	Derivatives Designated as Hedging Instruments		Derivatives Not Designated as Hedging Instruments	
	September 30, 2019	December 31, 2018	September 30, 2019	December 31, 2018
Notional amounts:				
Forward contracts	\$ 192.6	\$ 183.0	\$ 255.4	\$ 182.7
Gross fair value recorded in:				
Prepays and other current assets	\$ 4.5	\$ 3.1	\$ 3.3	\$ 4.1
Other accrued liabilities	\$ 0.6	\$ 0.9	\$ 0.6	\$ 1.1

NOTE 4. BALANCE SHEET DETAILS AND OTHER FINANCIAL INFORMATION

Balance Sheet Details

The following tables provide details of selected balance sheet items (in millions):

	As of	
	September 30, 2019	December 31, 2018
Inventory		
Raw materials	\$ 208.1	\$ 164.1
Work-in-process	70.9	40.0
Finished goods	300.6	204.9
Total inventory	\$ 579.6	\$ 409.0

	As of	
	September 30, 2019	December 31, 2018
Other accrued liabilities—short-term		
Taxes payable	\$ 26.2	\$ 39.1
Litigation-related accruals	5.9	55.0
Other accrued liabilities	170.6	133.1
Current portion of deferred purchase consideration payments	59.8	4.6
Current portion of contingent consideration	41.0	—
Total other accrued liabilities—short-term	\$ 303.5	\$ 231.8

	As of	
	September 30, 2019	December 31, 2018
Other long-term liabilities		
Income taxes—long-term	\$ 258.6	\$ 270.2
Deferred revenue—long-term	27.9	33.0
Other long-term liabilities	136.8	35.4
Total other long-term liabilities	\$ 423.3	\$ 338.6

Goodwill and Intangible Assets

The increases in goodwill and intangible assets from December 31, 2018, to September 30, 2019, primarily relate to two transactions accounted for as business combinations.

Chindex

During the first quarter of 2019, the Company's majority-owned Joint Venture with Fosun Pharma acquired certain assets from Chindex and its affiliates, a subsidiary of Fosun Pharma, including distribution rights, customer relationships, and certain personnel on January 5, 2019, which collectively met the definition of a business. Chindex was the Company's distributor of da

Vinci products and services in China. The transaction enhances the Company's ability to serve patients, surgeons, and hospitals in China.

The total purchase consideration of \$66.0 million, as of the acquisition date, included a contingent consideration liability of \$64.7 million and an upfront cash payment of \$1.3 million. The amount and timing of the future contingent consideration payments are based upon the underlying performance of the business in 2019 and 2020. As of the acquisition date, the estimated total undiscounted contingent consideration was approximately \$81 million. The undiscounted contingent consideration has decreased by approximately \$6 million as of September 30, 2019, due to a change in the timing of the projected future revenues. The contingent consideration liability was measured at estimated fair value using a discounted cash flow model, which requires significant inputs not observable in the market and, thus, represents a Level 3 measurement. Key assumptions include (1) the probability and timing of milestone achievements based on projected future revenues in 2019 and 2020, and (2) the discount rate used to calculate the present value of the milestone payments. On each reporting period until the contingent consideration is settled, the Company will re-measure the contingent consideration liability and record changes in fair value within selling, general and administrative expenses. For the nine months ended September 30, 2019, the contingent consideration liability changed due to payments of \$8.5 million and net additional expense of \$4.1 million. Changes to the contingent consideration liability can result from adjustments to discount rates, accretion due to the passage of time, or changes in estimates in the performance of the business. The assumptions related to determining the fair value of contingent consideration include a significant amount of judgment, and any changes in the underlying estimates could have a material impact on the amount of contingent consideration adjustment recorded in any given period.

The Company recorded \$1.7 million of net tangible assets, \$58.6 million of intangible assets, and \$5.7 million of residual goodwill. Intangible assets included distribution rights of \$48.2 million and customer relationships of \$10.4 million, which are being amortized over a weighted-average period of 2.9 years. The goodwill is not amortizable for income tax purposes. The allocation of purchase consideration was completed in the third quarter of 2019. There were no adjustments to the provisional amounts in the measurement period.

Schölly

During the third quarter of 2019, the Company acquired certain assets and operations from Schölly Fiberoptic GmbH ("Schölly"), including manufacturing process technology, a non-compete agreement, certain personnel, and net tangible assets on August 31, 2019, which collectively met the definition of a business. The Company believes that the transaction strengthens the Company's supply chain and manufacturing capacity for imaging products used in the Company's da Vinci systems. The total purchase consideration of \$100.6 million, as of the acquisition date, consisted of an initial cash payment of \$34.4 million and deferred cash payments totaling approximately \$66.2 million. The timing of the future payments is based upon achieving certain integration steps, which occur during 2019 and 2020 and are expected to be completed around the end of 2020.

The Company preliminarily recorded \$10.8 million of net tangible assets, which included \$6.1 million of inventory and \$1.5 million of cash, \$30.5 million of intangible assets, and \$59.3 million of residual goodwill. Intangible assets included manufacturing process technology and non-compete provisions, which are being amortized over a weighted-average period of 6.6 years. The allocation of purchase consideration is considered preliminary with provisional amounts primarily related to intangible assets and working capital. Goodwill primarily consists of the manufacturing and other synergies of the combined operations and the value of the assembled workforce. The majority of goodwill is not deductible for income tax purposes.

The Company has included the results of the acquired businesses, since their acquisition dates, in its Financial Statements, and the revenues and earnings have not been material to date. Pro forma results of operations related to the acquisitions have not been presented, because the operating results of the acquired businesses are not considered material to the Financial Statements.

Supplemental Cash Flow Information

The following table provides supplemental non-cash investing and financing activities (in millions):

	Nine Months Ended September 30,	
	2019	2018
Equipment transfers, including operating lease assets, from inventory to property, plant, and equipment	\$ 147.6	\$ 84.4
Deferred payments and contingent consideration related to business combinations	\$ 130.9	\$ 16.7

NOTE 5. REVENUE AND CONTRACT ACQUISITION COSTS

The following table presents revenue disaggregated by types and geography (in millions):

U.S.	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Instruments and accessories	\$ 450.7	\$ 368.1	\$ 1,286.7	\$ 1,066.0
Systems	217.2	193.6	610.5	490.0
Services	128.5	114.8	376.1	337.6
Total U.S. revenue	\$ 796.4	\$ 676.5	\$ 2,273.3	\$ 1,893.6
Outside of U.S. ("OUS")				
Instruments and accessories	\$ 155.5	\$ 118.2	\$ 450.3	\$ 356.7
Systems	121.4	81.0	319.4	296.5
Services	54.9	45.2	157.8	130.9
Total OUS revenue	\$ 331.8	\$ 244.4	\$ 927.5	\$ 784.1
Total				
Instruments and accessories	\$ 606.2	\$ 486.3	\$ 1,737.0	\$ 1,422.7
Systems	338.6	274.6	929.9	786.5
Services	183.4	160.0	533.9	468.5
Total revenue	\$ 1,128.2	\$ 920.9	\$ 3,200.8	\$ 2,677.7

Remaining Performance Obligations

The transaction price allocated to remaining performance obligations relates to amounts allocated to products and services for which revenue has not yet been recognized. A significant portion of this amount relates to performance obligations in the Company's service contracts that will be satisfied and recognized as revenue in future periods. The transaction price allocated to the remaining performance obligations was \$1,419.4 million as of September 30, 2019. The remaining performance obligations are expected to be satisfied over the term of the individual sales arrangements, which generally are 5 years.

Contract Assets and Liabilities

The following information summarizes the Company's contract assets and liabilities (in millions):

	As of	
	September 30, 2019	December 31, 2018
Contract assets	\$ 21.8	\$ 12.4
Deferred revenue	\$ 335.6	\$ 327.3

The Company invoices its customers based on the billing schedules in its sales arrangements. Payments are generally due 30 days from date of invoice. Contract assets for the periods presented primarily represent the difference between the revenue that was recognized based on the relative standalone selling price of the related performance obligations satisfied and the contractual billing terms in the arrangements. Deferred revenue for the periods presented primarily relates to service contracts where the service fees are billed up-front, generally quarterly or annually, prior to those services having been performed. The associated deferred revenue is generally recognized over the term of the service period. The Company did not have any significant impairment losses on its contract assets for the periods presented.

During the three and nine months ended September 30, 2019, the Company recognized revenue of \$57.7 million and \$281.4 million, respectively, which was included in the deferred revenue balance as of December 31, 2018. During the three and nine months ended September 30, 2018, the Company recognized revenue of \$47.0 million and \$244.8 million, respectively, which was included in the deferred revenue balance as of December 31, 2017.

Intuitive Surgical da Vinci System Leasing

The Company enters into sales-type and operating lease arrangements with certain qualified customers. Sales-type leases have terms that generally range from 24 to 84 months and are usually collateralized by a security interest in the underlying assets. Revenue related to multiple-element arrangements are allocated to lease and non-lease elements based on their relative

standalone selling prices as prescribed by the Company's revenue recognition policy. Lease elements generally include a da Vinci Surgical System or system component, while non-lease elements generally include service, instruments, and accessories. For some lease arrangements, the customers are provided with the right to purchase the leased system at some point during and/or at the end of the lease term. Except for certain usage-based lease arrangements, lease arrangements generally do not provide rights for the customers to exit or terminate the lease without incurring a penalty. For some leases, lease payments are based on the usage of the systems.

In determining whether a transaction should be classified as a sales-type or operating lease, the Company considers the following terms at lease commencement: (1) whether title of the system transfers automatically or for a nominal fee by the end of the lease term, (2) whether the present value of the minimum lease payments equals or exceeds substantially all of the fair value of the leased system, (3) whether the lease term is for the major part of the remaining economic life of the leased system, (4) whether the lease grants the lessee an option to purchase the leased system that the lessee is reasonably certain to exercise, and (5) whether the underlying system is of such a specialized nature that it is expected to have no alternative use to the Company at the end of the lease term.

The Company generally recognizes revenue from sales-type lease arrangements at the time the system is accepted by the customer, assuming all other revenue recognition criteria have been met. Revenue from sales-type leases is presented as product revenue. Revenue from operating lease arrangements is generally recognized on a straight-line basis over the lease term or based upon system usage and is presented as product revenue.

The following table presents revenue from our lease arrangements (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Sales-type lease revenue	\$ 14.8	\$ 23.0	\$ 34.7	\$ 48.3
Operating lease revenue	\$ 27.4	\$ 14.0	\$ 72.9	\$ 35.0

Assets Recognized from the Costs to Obtain a Contract with a Customer

The Company has determined that certain sales incentives provided to the Company's sales team are required to be capitalized when the Company expects to generate future economic benefits from the related revenue-generating contracts subsequent to the initial capital sales transaction. When determining the economic life of the contract acquisition assets recognized, the Company considers historical service renewal rates, expectations of future customer renewals of service contracts, and other factors that could impact the economic benefits that the Company expects to generate from the relationship with its customers. The costs capitalized as contract acquisition costs included in intangible and other assets, net in the Company's Condensed Consolidated Balance Sheets were \$43.4 million and \$34.2 million as of September 30, 2019, and December 31, 2018, respectively. The Company did not incur any impairment losses during the periods presented.

NOTE 6. LEASES

Lessor Information

Sales-type Leases. Lease receivables relating to sales-type lease arrangements are presented on the Condensed Consolidated Balance Sheets as follows (in millions):

	As of	
	September 30, 2019	December 31, 2018
Gross lease receivables	\$ 162.1	\$ 150.4
Unearned income	(8.2)	(6.3)
Allowance for credit loss	(1.0)	(1.0)
Net investment in sales-type leases	\$ 152.9	\$ 143.1
Reported as:		
Prepays and other current assets	\$ 52.7	\$ 51.2
Intangible and other assets, net	100.2	91.9
Total, net	\$ 152.9	\$ 143.1

Contractual maturities of gross lease receivables at September 30, 2019, are as follows (in millions):

Fiscal Year	Amount
2019	\$ 11.1
2020	57.7
2021	41.6
2022	25.5
2023	16.6
2024 and thereafter	9.6
Total	\$ 162.1

Operating Leases. The Company's operating lease terms are generally five years or less with its customers. As of September 30, 2019, the maturities of lease payments are as follows (in millions):

Fiscal Year	Amount
2019	\$ 29.9
2020	130.7
2021	116.2
2022	98.5
2023	67.4
2024 and thereafter	22.9
Total	\$ 465.6

Contingent rental revenue relating to operating lease arrangements was not material for the periods presented.

The components of operating lease assets, which are presented within property, plant, and equipment, net, on the Condensed Consolidated Balance Sheets, are as follows (in millions):

	As of	
	September 30, 2019	December 31, 2018
Gross operating lease assets	\$ 244.6	\$ 150.2
Less: Accumulated depreciation	(51.0)	(32.1)
Total operating lease assets, net	\$ 193.6	\$ 118.1

Lessee Information

The Company enters into operating leases for real estate, automobiles, and certain equipment. Operating lease expense was \$4.9 million and \$13.8 million for the three and nine months ended September 30, 2019, respectively. For leases with terms of 12 months or less, the related expense for the three and nine months ended September 30, 2019, was not material.

Supplemental cash flow information for the nine months ended September 30, 2019, related to operating leases was as follows (in millions):

	Amount
Cash paid for leases that were included within operating cash outflows	\$ 13.2
Right-of-use assets recognized related to new lease obligations	\$ 17.8

Supplemental balance sheet information, as of September 30, 2019, related to operating leases was as follows (in millions, except lease term and discount rate):

Reported as:	Amount
Intangible and other assets, net (Right-of-use assets)	\$ 74.0
Other accrued liabilities	\$ 4.8
Other long-term liabilities	72.2
Total lease liabilities	\$ 77.0
Weighted average remaining lease term	6.2 years
Weighted average discount rate	3.5%

As of September 30, 2019, the future payments related to the Company's operating lease liabilities are scheduled as follows (in millions):

Fiscal Year	Amount
2019	\$ —
2020	13.3
2021	18.3
2022	13.5
2023	12.0
2024 and thereafter	31.3
Total lease payments	\$ 88.4
Less imputed interest	(11.4)
Total operating lease liabilities	\$ 77.0

ASC 840 Disclosures

The Company elected the alternative modified transition method and is required to present previously disclosed information under the prior accounting standards for leases.

Lessor Information

Sales-type Leases. Contractual maturities of gross lease receivables as of December 31, 2018, are as follows (in millions):

Fiscal Year	Amount
2019	\$ 50.8
2020	46.5
2021	29.7
2022	14.9
2023	7.5
2024 and thereafter	1.0
Total	\$ 150.4

Operating Leases. Future minimum lease payments related to non-cancellable portion of operating leases as of December 31, 2018, are as follows (in millions):

Fiscal Year	Amount
2019	\$ 88.0
2020	85.8
2021	68.8
2022	51.3
2023	25.4
2024 and thereafter	1.9
Total	\$ 321.2

Lessee Information

Operating Leases. Future minimum lease commitments under the Company's operating leases as of December 31, 2018, are as follows (in millions):

Fiscal Year	Amount
2019	\$ 15.1
2020	14.5
2021	12.7
2022	11.2
2023	11.0
2024 and thereafter	30.9
Total	\$ 95.4

NOTE 7. CONTINGENCIES

From time to time, the Company is involved in a variety of claims, lawsuits, investigations, and proceedings relating to securities laws, product liability, intellectual property, insurance, contract disputes, employment, and other matters. Certain of these lawsuits and claims are described in further detail below. It is not possible to predict what the outcome of these matters will be, and the Company cannot guarantee that any resolution will be reached on commercially reasonable terms, if at all.

A liability and related charge to earnings are recorded in the Financial Statements for legal contingencies when the loss is considered probable and the amount can be reasonably estimated. The assessment is re-evaluated each accounting period and is based on all available information, including the impact of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to each case. Nevertheless, it is possible that additional future legal costs (including settlements, judgments, legal fees, and other related defense costs) could have a material adverse effect on the Company's business, financial position, and future results of operations.

During the three and nine months ended September 30, 2019, the Company recorded no litigation charges (recoveries) related to the tolled product liability claims described below, compared with \$(1.8) million and \$2.7 million during the three and nine months ended September 30, 2018, respectively. A total of \$4.2 million and \$10.5 million associated with these matters were included in other accrued liabilities in the accompanying Condensed Consolidated Balance Sheets as of September 30, 2019, and December 31, 2018, respectively.

Product Liability Litigation

The Company is currently named as a defendant in a number of individual product liability lawsuits filed in various state and federal courts. The plaintiffs generally allege that they or a family member underwent surgical procedures that utilized the da Vinci Surgical System and sustained a variety of personal injuries and, in some cases, death as a result of such surgery. Several of these cases have trial dates in the next 12 months.

The cases raise a variety of allegations including, to varying degrees, that plaintiffs' injuries resulted from purported defects in the da Vinci Surgical System and/or failure on the Company's part to provide adequate training resources to the healthcare professionals who performed plaintiffs' surgeries. The cases further allege that the Company failed to adequately disclose and/or misrepresented the potential risks and/or benefits of the da Vinci Surgical System. Plaintiffs also assert a variety of causes of action, including, for example, strict liability based on purported design defects, negligence, fraud, breach of express and implied warranties, unjust enrichment, and loss of consortium. Plaintiffs seek recovery for alleged personal injuries and, in many cases, punitive damages. The Company disputes these allegations and is defending against these claims.

In addition to the filed cases, the Company previously reported on a substantial number of claims relating to alleged complications from surgeries performed with certain versions of Monopolar Curved Scissor ("MCS") instruments, which included an MCS tip cover accessory that was the subject of a market withdrawal in 2012 and MCS instruments that were the subject of a recall in 2013. In an effort to avoid the expense and distraction of defending multiple lawsuits, the Company entered into tolling agreements to pause the applicable statutes of limitations for many of these claims and engaged in confidential mediation efforts. It is the Company's position that, as of September 30, 2019, all such "tolling agreements" have expired, and the majority of the "tolled claims" have either been resolved or the claims have been filed.

The Company's estimate of the anticipated cost of resolving the pending cases is based on negotiations with attorneys for the claimants. The final outcome of the pending lawsuits and claims, and others that might arise, is dependent on many variables that are difficult to predict, and the ultimate cost associated with these product liability lawsuits and claims may be materially different than the amount of the current estimate and accruals and could have a material adverse effect on the Company's business, financial position, and future results of operations. Although there is a reasonable possibility that a loss in

excess of the amount recognized exists, the Company is unable to estimate the possible loss or range of loss in excess of the amount recognized at this time.

Patent Litigation

On June 30, 2017, Ethicon LLC, Ethicon Endo-Surgery, Inc., and Ethicon US LLC (collectively, “Ethicon”) filed a complaint for patent infringement against the Company in the U.S. District Court for the District of Delaware. The complaint, which was served on the Company on July 12, 2017, alleges that the Company’s EndoWrist Stapler instruments infringe several of Ethicon’s patents. Ethicon asserts infringement of U.S. Patent Nos. 9,585,658, 8,479,969, 9,113,874, 8,998,058, 8,991,677, 9,084,601, and 8,616,431. A claim construction hearing occurred on October 1, 2018, and the court issued a scheduling order on December 28, 2018. On March 20, 2019, the court granted the Company’s Motion to Stay pending an Inter Partes Review to be held at the Patent Trademark and Appeals Board to review patentability of six of the seven patents noted above and vacated the trial date. On August 1, 2019, the court granted the parties’ joint stipulation to modify the stay in light of Ethicon’s U.S. International Trade Commission (“USITC”) complaint against Intuitive involving U.S. Patent Nos. 8,479,969 and 9,113,874, discussed below.

On August 27, 2018, Ethicon filed a second complaint for patent infringement against the Company in the U.S. District Court for the District of Delaware. The complaint alleges that the Company’s SureForm 60 Staplers infringe five of Ethicon’s patents. Ethicon asserts infringement of U.S. Patent Nos. 9,884,369, 7,490,749, 8,602,288, 8,602,287, and 9,326,770. The Company filed an answer denying all claims. On March 19, 2019, Ethicon filed a Motion for Leave to File a First Amended Complaint, removing allegations related to U.S. Patent No. 9,326,770 and adding allegations related to U.S. Patent Nos. 9,844,379 and 8,479,969. On July 17, 2019, the court entered an order denying the amendment, without prejudice, and granting the parties’ joint stipulation to stay the case in its entirety in light of the USITC investigation involving U.S. Patent Nos. 9,844,369 and 7,490,749 discussed below.

On May 30, 2019, Ethicon filed a complaint with the USITC, asserting infringement of U.S. Patent Nos. 9,884,369, 7,490,749, 9,844,379, 9,113,874, and 8,479,969. On June 28, 2019, the USITC voted to institute an investigation (No. 337-TA-1167) with respect to the claims in this complaint. On September 24, 2019, Ethicon filed a motion to amend its complaint to accuse the Company’s EndoWrist 30, EndoWrist 45, SureForm 45, and SureForm 60 Staplers, in addition to the stapler reload cartridges. The Administrative Law Judge has not yet ruled on the motion to amend. The evidentiary hearing is set for April 20-24, 2020, and the target for the completion of the investigation is December 7, 2020. An unfavorable ruling by the USITC could have an adverse effect on our results of operations, including a prohibition on importing the accused products into the U.S. or necessitating workarounds that may limit certain features of our products.

Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from these matters.

NOTE 8. STOCKHOLDERS' EQUITY
Stockholders' Equity

The following tables present the changes in stockholders' equity (in millions):

	Three Months Ended September 30, 2019							
	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	115.2	\$ 0.1	\$ 5,430.1	\$ 1,819.0	\$ 16.1	\$ 7,265.3	\$ 14.3	\$ 7,279.6
Issuance of common stock through employee stock plans	0.6		86.1			86.1		86.1
Shares withheld related to net share settlement of equity awards	—		(0.5)	(7.4)		(7.9)		(7.9)
Share-based compensation expense related to employee stock plans			88.9			88.9		88.9
Repurchase and retirement of common stock	(0.2)		(3.7)	(65.8)		(69.5)		(69.5)
Net income attributable to Intuitive Surgical, Inc.				396.8		396.8		396.8
Other comprehensive income (loss)					1.7	1.7	(0.5)	1.2
Net income attributable to noncontrolling interest in joint venture						—	1.9	1.9
Ending balance	115.6	\$ 0.1	\$ 5,600.9	\$ 2,142.6	\$ 17.8	\$ 7,761.4	\$ 15.7	\$ 7,777.1

	Three Months Ended September 30, 2018							
	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	113.7	\$ 0.1	\$ 4,928.8	\$ 948.1	\$ (16.4)	\$ 5,860.6	\$ 8.6	\$ 5,869.2
Issuance of common stock through employee stock plans	0.5		64.7			64.7		64.7
Shares withheld related to net share settlement of equity awards	—		(0.4)	(6.6)		(7.0)		(7.0)
Share-based compensation expense related to employee stock plans			70.1			70.1		70.1
Net income attributable to Intuitive Surgical, Inc.				292.5		292.5		292.5
Other comprehensive loss					(0.3)	(0.3)		(0.3)
Net loss attributable to noncontrolling interest in joint venture						—	(0.7)	(0.7)
Ending balance	114.2	\$ 0.1	\$ 5,063.2	\$ 1,234.0	\$ (16.7)	\$ 6,280.6	\$ 7.9	\$ 6,288.5

Nine Months Ended September 30, 2019

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	114.5	\$ 0.1	\$ 5,170.3	\$ 1,521.7	\$ (13.3)	\$ 6,678.8	\$ 8.7	\$ 6,687.5
Issuance of common stock through employee stock plans	2.0		205.7			205.7		205.7
Shares withheld related to net share settlement of equity awards	(0.3)		(7.2)	(145.7)		(152.9)		(152.9)
Share-based compensation expense related to employee stock plans			246.6			246.6		246.6
Repurchase and retirement of common stock	(0.6)		(14.5)	(255.0)		(269.5)		(269.5)
Net income attributable to Intuitive Surgical, Inc.				1,021.6		1,021.6		1,021.6
Other comprehensive income (loss)					31.1	31.1	(0.5)	30.6
Capital contribution from noncontrolling interest							10.0	10.0
Net loss attributable to noncontrolling interest in joint venture							(2.5)	(2.5)
Ending balance	<u>115.6</u>	<u>\$ 0.1</u>	<u>\$ 5,600.9</u>	<u>\$ 2,142.6</u>	<u>\$ 17.8</u>	<u>\$ 7,761.4</u>	<u>\$ 15.7</u>	<u>\$ 7,777.1</u>

Nine Months Ended September 30, 2018

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
	Shares	Amount						
Beginning balance	112.3	\$ 0.1	\$ 4,679.2	\$ 115.0	\$ (15.5)	\$ 4,778.8	\$ 1.6	\$ 4,780.4
Adoption of new accounting standards				392.1	(1.3)	390.8		390.8
Issuance of common stock through employee stock plans	2.2		199.6			199.6		199.6
Shares withheld related to net share settlement of equity awards	(0.3)		(6.5)	(108.5)		(115.0)		(115.0)
Share-based compensation expense related to employee stock plans			190.9			190.9		190.9
Net income attributable to Intuitive Surgical, Inc.				835.4		835.4		835.4
Other comprehensive income					0.1	0.1		0.1
Capital contribution from noncontrolling interest							8.0	8.0
Net loss attributable to noncontrolling interest in joint venture							(1.7)	(1.7)
Ending balance	<u>114.2</u>	<u>\$ 0.1</u>	<u>\$ 5,063.2</u>	<u>\$ 1,234.0</u>	<u>\$ (16.7)</u>	<u>\$ 6,280.6</u>	<u>\$ 7.9</u>	<u>\$ 6,288.5</u>

Stock Repurchase Program

The Company's Board of Directors (the "Board") has authorized an aggregate of \$7.5 billion of funding for the Company's common stock repurchase program (the "Repurchase Program") since its establishment in March 2009. The most recent authorization occurred in January 2019 when the Board increased the authorized amount available under the Repurchase Program to \$2.0 billion. As of September 30, 2019, the remaining amount of share repurchases authorized by the Board was \$1.7 billion.

The following table provides share repurchase activities (in millions, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Shares repurchased	0.2	—	0.6	—
Average price per share	\$ 492.94	\$ —	\$ 481.35	\$ —
Value of shares repurchased	\$ 69.5	\$ —	\$ 269.5	\$ —

Accumulated Other Comprehensive Income (Loss) Attributable to Intuitive

The components of accumulated other comprehensive income (loss), net of tax, attributable to Intuitive are as follows (in millions):

	Three Months Ended September 30, 2019				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	\$ 0.5	\$ 19.7	\$ (0.8)	\$ (3.3)	\$ 16.1
Other comprehensive income (loss) before reclassifications	4.1	1.7	(3.0)	—	2.8
Amounts reclassified from accumulated other comprehensive income (loss)	(1.0)	(0.2)	—	0.1	(1.1)
Net current-period other comprehensive income (loss)	3.1	1.5	(3.0)	0.1	1.7
Ending balance	\$ 3.6	\$ 21.2	\$ (3.8)	\$ (3.2)	\$ 17.8

	Three Months Ended September 30, 2018				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	\$ 3.4	\$ (16.7)	\$ 0.9	\$ (4.0)	\$ (16.4)
Other comprehensive income (loss) before reclassifications	1.4	0.6	(1.2)	—	0.8
Amounts reclassified from accumulated other comprehensive income (loss)	(1.1)	(0.1)	—	0.1	(1.1)
Net current-period other comprehensive income (loss)	0.3	0.5	(1.2)	0.1	(0.3)
Ending balance	\$ 3.7	\$ (16.2)	\$ (0.3)	\$ (3.9)	\$ (16.7)

Nine Months Ended September 30, 2019					
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	\$ 0.2	\$ (9.8)	\$ (0.3)	\$ (3.4)	\$ (13.3)
Other comprehensive income (loss) before reclassifications	7.4	31.3	(3.5)	(0.1)	35.1
Amounts reclassified from accumulated other comprehensive income (loss)	(4.0)	(0.3)	—	0.3	(4.0)
Net current-period other comprehensive income (loss)	3.4	31.0	(3.5)	0.2	31.1
Ending balance	\$ 3.6	\$ 21.2	\$ (3.8)	\$ (3.2)	\$ 17.8

Nine Months Ended September 30, 2018					
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	\$ (2.4)	\$ (11.3)	\$ 2.3	\$ (4.1)	\$ (15.5)
Other comprehensive income (loss) before reclassifications	4.6	(6.0)	(2.6)	—	(4.0)
Amounts reclassified from accumulated other comprehensive income (loss)	1.5	1.1	—	0.2	2.8
Net current-period other comprehensive income (loss)	6.1	(4.9)	(2.6)	0.2	(1.2)
Ending balance	\$ 3.7	\$ (16.2)	\$ (0.3)	\$ (3.9)	\$ (16.7)

NOTE 9. SHARE-BASED COMPENSATION

In April 2019, the Company's shareholders approved an amended and restated 2010 Incentive Award Plan to provide for an increase in the number of shares of common stock reserved for issuance thereunder from 24,450,000 to 28,450,000. As of September 30, 2019, approximately 6.2 million shares of common stock were reserved for future issuance under the Company's stock plans. A maximum of approximately 2.7 million of these shares can be awarded as restricted stock units ("RSUs").

Stock Option Information

A summary of stock option activity under all stock plans for the nine months ended September 30, 2019, is presented as follows (in millions, except per share amounts):

	Stock Options Outstanding	
	Number Outstanding	Weighted Average Exercise Price Per Share
Balance at December 31, 2018	6.2	\$ 200.79
Granted	0.6	\$ 521.46
Exercised	(1.0)	\$ 154.71
Forfeited/expired	(0.1)	\$ 344.13
Balance at September 30, 2019	5.7	\$ 239.91

As of September 30, 2019, options to purchase an aggregate of \$4.5 million shares of common stock were exercisable at a weighted average price of \$188.20 per share.

Restricted Stock Units Information

A summary of RSUs activity for the nine months ended September 30, 2019, is presented as follows (in millions, except per share amounts):

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at December 31, 2018	2.0	\$ 295.70
Granted	0.8	\$ 541.18
Vested	(0.8)	\$ 255.09
Forfeited	(0.1)	\$ 368.66
Unvested balance at September 30, 2019	1.9	\$ 405.39

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan (“ESPP”), employees purchased approximately 0.2 million shares for \$56.4 million and approximately 0.2 million shares for \$46.8 million during the nine months ended September 30, 2019, and 2018, respectively.

Share-based Compensation Expense

The following table summarizes share-based compensation expense for the three and nine months ended September 30, 2019, and 2018 (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Cost of sales - products	\$ 12.4	\$ 10.1	\$ 34.8	\$ 27.2
Cost of sales - services	5.6	4.5	14.9	12.5
Total cost of sales	18.0	14.6	49.7	39.7
Selling, general and administrative	44.7	35.9	124.0	98.1
Research and development	26.6	20.2	74.5	54.4
Share-based compensation expense before income taxes	89.3	70.7	248.2	192.2
Income tax benefit	18.1	14.9	51.0	40.0
Share-based compensation expense after income taxes	\$ 71.2	\$ 55.8	\$ 197.2	\$ 152.2

The Black-Scholes option pricing model is used to estimate the fair value of stock options granted under the Company’s stock plans and rights to acquire stock granted under the ESPP. The weighted-average estimated fair values of stock options and rights to acquire stock under the ESPP, as well as the weighted-average assumptions used in calculating those fair values, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Stock Options				
Risk-free interest rate	1.5%	2.7%	2.0%	2.7%
Expected term (in years)	3.9	4.3	4.1	4.3
Expected volatility	30%	32%	30%	33%
Fair value at grant date	\$127.19	\$159.67	\$142.22	\$145.15
ESPP				
Risk-free interest rate	1.9%	2.5%	2.1%	2.1%
Expected term (in years)	1.2	1.3	1.2	1.3
Expected volatility	29%	31%	29%	32%
Fair value at grant date	\$146.48	\$153.72	\$148.99	\$135.84

NOTE 10. INCOME TAXES

Income tax expense for the three months ended September 30, 2019, was \$0.3 million, or 0.1% of income before taxes, compared with \$43.4 million, or 12.9% of income before taxes, for the three months ended September 30, 2018. Income tax

expense for the nine months ended September 30, 2019, was \$51.4 million, or 4.8% of income before taxes, compared with \$87.0 million, or 9.4% of income before taxes, for the nine months ended September 30, 2018.

The effective tax rates for the three and nine months ended September 30, 2019, differed from the U.S. federal statutory rate of 21% primarily due to the tax benefit from the re-measurement of our Swiss deferred tax assets (discussed below), excess tax benefits associated with employee equity plans, the effect of income earned by certain overseas entities being taxed at rates lower than the federal statutory rate, releases of previously unrecognized tax benefits as a result of the expiration of the statute of limitations in various jurisdictions, and the federal research and development (“R&D”) credit benefit, partially offset by state income taxes (net of federal benefit) and U.S. tax on foreign earnings. The lower effective tax rates for the three and nine months ended September 30, 2019, compared with the same periods of 2018, were primarily due to the tax benefit from the re-measurement of our Swiss deferred tax assets.

In August 2019, Swiss tax reform was enacted, which results in a higher statutory tax rate for our Swiss entity for years after 2019. Under U.S. GAAP, changes in tax rates and tax law are accounted for in the period of enactment, and deferred tax assets and liabilities are measured at the enacted tax rate. The impact of the re-measurement of our Swiss deferred tax assets was a benefit of \$51.3 million, which reduced our effective tax rate for the three and nine months ended September 30, 2019 by 12.9 and 4.8 percentage points, respectively.

As of September 30, 2019, the Company had gross unrecognized tax benefits of \$86.2 million compared with \$78.8 million as of December 31, 2018. The net increase is the effect of increases for the first nine months of 2019, partially offset by releases of previously unrecognized tax benefits as a result of the expiration of the statute of limitations in various jurisdictions and an audit conclusion. If recognized, the gross unrecognized tax benefits would reduce the effective tax rate in the period of recognition.

In July 2015, a U.S. Tax Court opinion (the “2015 Opinion”) was issued involving an independent third party related to intercompany charges for share-based compensation. Based on the findings of the U.S. Tax Court, the Company was required to, and did, refund to its foreign subsidiaries the share-based compensation element of certain intercompany charges made in prior periods. Starting from 2015, share-based compensation has been excluded from intercompany charges. In June 2019, the Ninth Circuit Court of Appeals reversed the 2015 Opinion (the “Ninth Circuit Opinion”). Since the Ninth Circuit Opinion potentially is subject to further judicial review, the Company continues to treat its share-based compensation expense in accordance with the 2015 Opinion and continues to recognize the related tax benefits in its financial statements based upon its evaluation of the position in light of the present facts. In the event of a final opinion which reverses the 2015 Opinion, there may be an adverse impact to the Company’s income tax expense and effective tax rate.

The Company files federal, state, and foreign income tax returns in many U.S. and OUS jurisdictions. Years before 2016 are closed for the significant jurisdictions. Certain of the Company’s unrecognized tax benefits could change due to activities of various tax authorities, including potential assessment of additional tax, possible settlement of audits, or through normal expiration of various statutes of limitations, which could affect the Company’s effective tax rate in the period in which they change. Due to the uncertainty related to the timing and potential outcome of audits, the Company cannot estimate the range of reasonably possible change in unrecognized tax benefits that may occur in the next 12 months.

The Company is subject to the examination of its income tax returns by the Internal Revenue Service and other tax authorities. The outcome of these audits cannot be predicted with certainty. The Company’s management regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of the Company’s provision for income taxes. If any issues addressed in the Company’s tax audits are resolved in a manner not consistent with management’s expectations, the Company could be required to adjust its provision for income taxes in the period such resolution occurs.

NOTE 11. NET INCOME PER SHARE

The following table presents the computation of basic and diluted net income per share attributable to Intuitive Surgical, Inc., for the three and nine months ended September 30, 2019, and 2018 (in millions, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Numerator:				
Net income attributable to Intuitive Surgical, Inc.	\$ 396.8	\$ 292.5	\$ 1,021.6	\$ 835.4
Denominator:				
Weighted average shares outstanding used in basic calculation	115.4	114.0	115.3	113.4
Add: dilutive effect of potential common shares	3.9	5.2	4.1	5.2
Weighted average shares outstanding used in diluted calculation	119.3	119.2	119.4	118.6
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	\$ 3.44	\$ 2.57	\$ 8.86	\$ 7.37
Diluted	\$ 3.33	\$ 2.45	\$ 8.56	\$ 7.04

Share-based compensation awards of approximately 0.8 million and 0.4 million shares for the three months ended September 30, 2019, and 2018, respectively, and approximately 0.6 million and 0.3 million for the nine months ended September 30, 2019, and 2018, respectively, were outstanding but were not included in the computation of diluted net income per share attributable to Intuitive Surgical, Inc. common stockholders, because the effect of including such shares would have been anti-dilutive in the periods presented.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In this report, “Intuitive Surgical,” “Intuitive,” the “Company,” “we,” “us,” and “our” refer to Intuitive Surgical, Inc. and its wholly- and majority-owned subsidiaries.

This management’s discussion and analysis of financial condition as of September 30, 2019, and results of operations for the three and nine months ended September 30, 2019, and 2018, should be read in conjunction with management’s discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2018.

This report contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements relate to expectations concerning matters that are not historical facts. Words such as “estimates,” “projects,” “believes,” “anticipates,” “plans,” “expects,” “intends,” “may,” “will,” “could,” “should,” “would,” “targeted,” and similar words and expressions are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements related to our acquisitions, expected business, new product introductions, procedures and procedure adoption, future results of operations, future financial position, our ability to increase our revenues, the anticipated mix of our revenues between product and service revenues, our financing plans and future capital requirements, anticipated costs of revenue, anticipated expenses, our potential tax assets or liabilities, the effect of recent accounting pronouncements, our investments, anticipated cash flows, our ability to finance operations from cash flows and similar matters, and statements based on current expectations, estimates, forecasts, and projections about the economies and markets in which we operate and our beliefs and assumptions regarding these economies and markets. These forward-looking statements should, therefore, be considered in light of various important factors, including, but not limited to, the following: the impact of global and regional economic and credit market conditions on healthcare spending; healthcare reform legislation in the U.S. and its impact on hospital spending, reimbursement, and fees levied on certain medical device revenues; changes in hospital admissions and actions by payers to limit or manage surgical procedures; the timing and success of product development and market acceptance of developed products; our ability to integrate acquisitions; the results of any collaborations, in-licensing arrangements, joint ventures, strategic alliances, or partnerships, including the joint venture with Shanghai Fosun Pharmaceutical (Group) Co., Ltd.; our completion of and ability to successfully integrate the acquisition of Schölly Fiberoptic’s robotic endoscope business; procedure counts; regulatory approvals, clearances and restrictions, or any dispute that may occur with any regulatory body; guidelines and recommendations in the healthcare and patient communities; intellectual property positions and litigation; competition in the medical device industry and in the specific markets of surgery in which we operate; unanticipated manufacturing disruptions or the inability to meet demand for products; the results of legal proceedings to which we are or may become a party; product liability and other litigation claims; adverse publicity regarding us and the safety of our products and adequacy of training; our ability to expand into foreign markets; the impact of changes to tax legislation, guidance, and interpretations; and other risk factors. Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on current expectations and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those risk factors described throughout this filing and in the Annual Report on Form 10-K for the fiscal year ended December 31, 2018, and other periodic filings with the Securities and Exchange Commission. Our actual results may differ materially and adversely from those expressed in any forward-looking statement. We undertake no obligation to publicly update or release any revisions to these forward-looking statements, except as required by law.

Intuitive®, Intuitive Surgical®, da Vinci®, da Vinci S®, da Vinci S HD Surgical System®, da Vinci Si®, da Vinci Si HD Surgical System®, da Vinci Xi®, da Vinci SP®, EndoWrist®, Firefly®, InSite®, da Vinci Connect®, Intuitive Surgical EcoSystem®, da Vinci X®, SureForm™, Single-Site®, Ion™, and IRIS™ are trademarks or registered trademarks of the Company.

Overview

At Intuitive, we believe that minimally invasive care is life-enhancing care. Intuitive brings more than two decades of leadership in robotic-assisted surgical technology and solutions to its offerings, and develops, manufactures, and markets the da Vinci Surgical System and the Ion endoluminal system. While surgery and acute interventions have improved significantly in the past decades, there remains a significant need for better outcomes and decreased variability of these outcomes across care teams. The current health care environment is exerting a large and increasing burden on critical resources, including the professionals who staff care teams: surgeons, anesthesiologists, nurses, and other staff. At the same time, governments are straining to cover the healthcare needs of their populations and are demanding lower total cost per patient to treat disease. In the face of these challenges, we believe scientific, process, and technology advances in biology, computing, imaging, algorithms, and robotics offer the promise of new methods to solve old and difficult problems.

At Intuitive, we address these needs by focusing on what hospitals have termed the quadruple aim. First, we focus on products and services that can improve outcomes and decrease variability in the hands of care teams. Second, we seek to

improve the patient experience by minimizing disruption to lives and creating greater predictability for the treatment experience. Third, we seek to improve care team satisfaction by creating products and services that are dependable, smart, and optimized for the care environment in which they are used. Finally, we seek to lower the total cost to treat per patient episode when compared with existing treatment alternatives, providing a return on investment for hospitals and healthcare systems and value for payers.

Da Vinci Surgical Systems enable surgeons to extend the benefits of minimally invasive surgery (“MIS”) to many patients who would otherwise undergo a more invasive surgery by using computational, robotic, and imaging technologies to overcome many of the limitations of traditional open surgery or conventional MIS. Surgeons using a da Vinci Surgical System operate while seated comfortably at a console viewing a 3D, high-definition image of the surgical field. This immersive console connects surgeons to the surgical field and their instruments. While seated at the console, the surgeon manipulates instrument controls in a natural manner, similar to open surgical technique. Our technology is designed to provide surgeons with a range of articulation of the surgical instruments used in the surgical field analogous to the motions of a human wrist, while filtering out the tremor inherent in a surgeon’s hand. In designing our products, we focus on making our technology easy and safe to use.

Our da Vinci products fall into five broad categories: da Vinci Surgical Systems; da Vinci instruments; da Vinci Stapling; da Vinci Energy; and da Vinci Vision, including Firefly Fluorescence imaging systems and da Vinci Endoscopes. We also provide a comprehensive suite of services, training, and education programs. Within our integrated ecosystem, our products are designed to decrease variability in surgery by offering dependable, consistent functionality and user experiences for surgeons seeking better outcomes. We take a holistic ‘systems’ approach to offer intelligent technology and systems designed to work together to make MIS intervention more available and applicable.

We have commercialized the following da Vinci Surgical Systems: the da Vinci standard Surgical System in 1999, the da Vinci S Surgical System in 2006, the da Vinci Si Surgical System in 2009, and the fourth generation da Vinci Xi Surgical System in 2014. We have extended our fourth generation platform by adding the da Vinci X Surgical System, commercialized in the second quarter of 2017, and the da Vinci SP Surgical system, commercialized in the third quarter of 2018. We are early in the launch of our da Vinci SP Surgical System and have placed 38 da Vinci SP Surgical Systems through September 30, 2019. Our plans for the rollout of the da Vinci SP Surgical System include putting systems in the hands of experienced da Vinci users first while we optimize training pathways and our supply chain. We received U.S. Food and Drug Administration (“FDA”) clearances for the da Vinci SP Surgical System for urological and certain transoral procedures. We also received clearance in South Korea where the da Vinci SP Surgical System may be used for a broad set of procedures. We plan to seek U.S. FDA clearances for additional indications for da Vinci SP over time. The success of the da Vinci SP Surgical System is dependent on positive experiences and improved clinical outcomes for the procedures for which it has been cleared as well as securing additional clinical clearances. All da Vinci systems include a surgeon’s console (or consoles), imaging electronics, a patient-side cart, and computational hardware and software.

We offer over 80 different multi-port da Vinci instruments to provide surgeons flexibility in choosing the types of tools needed to perform a particular surgery. These multi-port instruments are generally robotically controlled and provide end effectors (tips) that are similar to those used in either open or laparoscopic surgery. We offer advanced instrumentation for the da Vinci Xi and da Vinci X platforms, including the da Vinci Vessel Sealer Extend and da Vinci Stapler products, to provide surgeons with sophisticated, computer-aided tools to precisely and efficiently interact with tissue. Da Vinci X and da Vinci Xi Surgical Systems share the same instruments whereas the da Vinci Si Surgical System uses instruments that are not compatible with X or Xi systems. We currently offer nine core instruments on our da Vinci SP Surgical System. We plan to expand the SP instrument offering over time.

Training technologies include our da Vinci Skills Simulator, our da Vinci Connect remote case observation and mentoring tool, and our dual console for use in surgeon proctoring and collaborative surgery.

During the first quarter of 2019, the U.S. FDA cleared our Ion endoluminal system to enable minimally invasive biopsy in the peripheral lung. Our Ion system will extend our commercial offering beyond surgery into diagnostics with this first application. We are introducing the Ion system in the U.S. in a measured fashion while we optimize training pathways and our supply chain and collect additional clinical data. We are early in the launch and have sold 3 Ion systems through September 30, 2019, which are not included in our da Vinci Surgical System installed base. The success of new product introductions depends on a number of factors including, but not limited to, pricing, competition, market and consumer acceptance, the effective forecasting and management of product demand, inventory levels, the management of manufacturing and supply costs, and the risk that new products may have quality or other defects in the early stages of introduction.

Business Model

Overview

We generate revenue from the placements of da Vinci Surgical Systems, in sales or sales-type lease arrangements where revenue is recognized up-front or in operating lease transactions where revenue is recognized over time. We earn recurring

revenue from the sales of instruments, accessories, and services, as well as the revenue from operating leases. The da Vinci Surgical System generally sells for between \$0.5 million and \$2.5 million, depending upon the model, configuration, and geography, and represents a significant capital equipment investment for our customers when purchased. Our instruments and accessories have limited lives and will either expire or wear out as they are used in surgery, at which point they need to be replaced. We generally earn between \$700 and \$3,500 of instrument and accessory revenue per surgical procedure performed, depending on the type and complexity of the specific procedures performed and the number and type of instruments used. We typically enter into service contracts at the time systems are sold at an annual fee between \$80,000 and \$190,000, depending upon the configuration of the underlying system and composition of the services offered under the contract. These service contracts have generally been renewed at the end of the initial contractual service periods.

The Ion endoluminal system program has a business model consistent with the da Vinci Surgical System model described above. Consistent with da Vinci Surgical Systems, we initially place the Ion system as a piece of capital equipment. Once the system is installed, we earn recurring revenue from sales of consumables used in biopsies and ongoing services. Ion systems will be presented separately from our da Vinci Surgical Systems installed base. For 2019, we are introducing the Ion system in the U.S. in a measured fashion. The associated impact to revenue and gross margin is not expected to be significant.

Recurring Revenue

Recurring revenue consists of instrument and accessory revenue, service revenue, and operating lease revenue. Recurring revenue increased to \$2.6 billion, or 71% of total revenue in 2018, compared with \$2.2 billion, or 71% of total revenue in 2017, and \$1.9 billion, or 71% of total revenue in 2016.

Instrument and accessory revenue has grown at a faster rate than systems revenue over time. Instrument and accessory revenue increased to \$2.0 billion in 2018, compared with \$1.6 billion in 2017 and \$1.4 billion in 2016. The growth of instrument and accessory revenue largely reflects continued procedure adoption.

Service revenue growth has been driven by the growth of the base of installed da Vinci Surgical Systems. The installed base of da Vinci Surgical Systems grew 13% to approximately 4,986 at December 31, 2018; 13% to approximately 4,409 at December 31, 2017; and 9% to approximately 3,919 at December 31, 2016. Service revenue increased to \$635.1 million in 2018, compared with \$572.9 million in 2017 and \$510.7 million in 2016.

Intuitive Surgical da Vinci System Leasing

Since 2013, we have entered into sales-type and operating lease arrangements directly with certain qualified customers as a way to offer customers flexibility in how they acquire da Vinci Surgical Systems and expand their robotic-assisted surgery programs while leveraging our balance sheet. These leases generally have commercially competitive terms as compared with other third-party entities that offer equipment leasing. We include both operating and sales-type leases in our system shipment and installed base disclosures. We exclude operating leases and Ion systems from our da Vinci Surgical System average selling price ("ASP") computations.

In the years ended December 31, 2018, 2017, and 2016, we shipped 272, 139, and 95 systems, respectively, under lease arrangements, of which 229, 108, and 62 systems, respectively, were operating leases or usage-based arrangements. Revenue from operating lease arrangements is generally recognized on a straight-line basis over the lease term. More recently, we have entered into usage-based arrangements with certain large customers whereby system and service revenue is recognized as the systems are used. We set operating lease and usage-based pricing at a modest premium relative to purchased systems reflecting the time value of money and, in the case of usage-based arrangements, the risk that system utilization may fall short of anticipated levels. The proportion of revenue recognized from usage-based arrangements has not been significant and has been included in our operating lease metrics herein. Operating lease revenue has grown faster than overall systems revenue and was \$51.4 million, \$25.9 million, and \$16.6 million for the years ended December 31, 2018, 2017, and 2016, respectively. Generally, lease transactions generate similar gross margins as our sale transactions. As of September 30, 2019, a total of 560 da Vinci Surgical Systems were installed at customers under operating lease arrangements.

Our da Vinci system leasing provides customers with flexibility regarding how they acquire or obtain access to da Vinci Surgical Systems. We believe leasing and alternative financing structures, such as usage-based payment models, have been effective and well-received, and we are willing to expand the proportion of these structures based on customer demand. As revenue for operating leases is recognized over the lease terms, total systems revenue growth is reduced in a period when the number of operating lease placements increases as a proportion of total system placements.

For some operating lease arrangements, our customers are provided with the right to purchase the leased system at certain points during and/or at the end of the lease term. Revenue generated from customer purchases of systems under operating lease arrangements ("Lease Buyouts") was \$48.8 million, \$39.5 million, and \$38.2 million for the years ended December 31, 2018, 2017, and 2016, respectively. We expect that revenue recognized from customer exercises of the buyout options will fluctuate based on the timing of when, and if, customers choose to exercise their buyout options.

Systems Revenue

System placements are driven by procedure growth in most markets. In geographies where da Vinci procedure adoption is in an early stage, system sales will precede procedure growth. System placements also vary due to seasonality largely aligned with hospital budgeting cycles. We typically place a higher proportion of annual system placements in the fourth quarter and a lower proportion in the first quarter as customer budgets are reset. System revenue grew 21% to \$1,127.1 million in 2018; 16% to \$928.4 million in 2017; and 11% to \$800.0 million in 2016. Systems revenue is also affected by the proportion of systems placed that are under operating lease arrangements, recurring operating lease revenue, operating lease buyouts, product mix, ASPs, trade-in activities, and customer mix.

Procedure Mix / Products

Our da Vinci Surgical Systems are generally used for soft tissue surgery for areas of the body between the pelvis and the neck, primarily in general surgery, gynecologic surgery, urologic surgery, cardiothoracic surgery, and head and neck surgery. Within these categories, procedures range in complexity from cancer and other highly complex procedures to less complex procedures for benign conditions. Cancer and other highly complex procedures tend to be reimbursed at higher rates than less complex procedures for benign conditions. Thus, hospitals are more sensitive to the costs associated with treating less complex, benign conditions. Our strategy is to provide hospitals with attractive clinical and economic solutions across the spectrum of procedure complexity. Our fully featured da Vinci Xi Surgical System with advanced instruments, including the EndoWrist Vessel Sealer and EndoWrist Stapler products, and our Integrated Table Motion product targets the more complex procedure segment. Our da Vinci X Surgical System and Single-Site instruments are targeted towards price sensitive markets and procedures. Our da Vinci SP Surgical System complements the da Vinci Xi and X Surgical Systems by enabling surgeons to access narrow workspaces.

Procedure Seasonality

More than half of da Vinci procedures performed are for benign conditions, most notably benign hernia repairs, hysterectomies, and cholecystectomies. These benign procedures and other short-term elective procedures tend to be more seasonal than cancer operations and surgeries for other life threatening conditions. Seasonality in the U.S. for these procedures for benign conditions typically results in higher fourth quarter procedure volume when more patients have met annual deductibles and lower first quarter procedure volume when deductibles are reset. Seasonality outside the U.S. varies and is more pronounced around local holidays and vacation periods.

Distribution Channels

We provide our products through direct sales organizations in the U.S., Europe (excluding Spain, Portugal, Italy, Greece, and most Eastern European countries), Japan, South Korea, India, Taiwan, and China. In May and December 2018, we began direct operations in India and Taiwan, respectively. In January 2019, our Intuitive-Fosun joint venture began direct operations for da Vinci products and services in China. In the remainder of our OUS markets, we provide our products through distributors.

Regulatory Activities

Overview

Our products must meet the requirements of a large and growing body of international standards that govern the product safety, efficacy, advertising, labeling, safety reporting design, manufacture, materials content and sourcing, testing, certification, packaging, installation, use, and disposal of our products. Examples of such standards include electrical safety standards, such as those of the International Electrotechnical Commission, and composition standards, such as the Reduction of Hazardous Substances and the Waste Electrical and Electronic Equipment Directives. Failure to meet these standards could limit our ability to market our products in those regions that require compliance to such standards.

Our products and operations are also subject to increasingly stringent medical device, privacy, and other regulations by regional, federal, state, and local authorities. We anticipate that timelines for the introduction of new products and/or indications may be extended relative to past experience as a result of these regulations.

Clearances and Approvals

We have obtained the clearances required to market our multi-port products associated with all of our da Vinci Surgical Systems (Standard, S, Si, Xi, and X systems) for our targeted surgical specialties within the U.S., South Korea, Japan, and the European markets in which we operate.

In July 2019, we obtained U.S. FDA clearance for our SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload, which round out our SureForm 45 portfolio (see the descriptions of the SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload in the New Product Introductions section below).

In June 2019, we received CE mark clearance for our da Vinci Endoscope Plus for the da Vinci X/Xi Surgical Systems in Europe. Following the CE mark, in July 2019, we obtained U.S. FDA clearance for our da Vinci Endoscope Plus (see the description of the da Vinci Endoscope Plus in the New Product Introductions section below).

In June 2019, we obtained U.S. FDA clearance for our da Vinci Handheld Camera (see the description of the da Vinci Handheld Camera in the New Product Introductions section below).

In February 2019, we obtained U.S. FDA clearance for our Ion endoluminal system, our new flexible, robotic-assisted, catheter-based platform, designed to navigate through very small lung airways to reach peripheral nodules for biopsies (see the description of the Ion endoluminal system in the New Product Introductions section below). We are introducing the Ion endoluminal system in a measured fashion while we optimize training pathways and our supply chain and collect additional clinical data. We have sold 3 Ion systems through September 30, 2019.

In February 2019, we obtained U.S. FDA clearance for our IRISTM augmented reality product (see the description of IRIS in the New Product Introductions section below). IRIS is a service that delivers a 3D image of the patient anatomy (initially targeting kidneys) to aid surgeons in both pre- and intra-operative settings. We are in the early stages of an IRIS pilot study in the field at a small group of U.S. hospitals to gain initial product experience and insights.

In December 2018, we received clearance for our da Vinci Xi Surgical System in China. The Xi clearance does not include advanced energy, stapling, or wireless table motion products that attach to the Xi system. Separate clearances are required for each of these products by China National Medical Products Administration (“NMPA”).

In October 2018, the China National Health Commission published on its official website the quota for major medical equipment to be imported and sold in China through 2020. The government will allow the sale of 154 new surgical robots into China, which could include da Vinci Surgical Systems as well as surgical systems introduced by others. Sales of da Vinci Surgical Systems under the quota are uncertain, as they are dependent on hospitals completing a tender process and receiving associated approvals.

In July 2018, we received U.S. FDA clearance to market SureForm 60, our da Vinci EndoWrist 60mm Stapler. In January 2019, we received U.S. FDA clearance to market SureForm 45. We have also received regulatory clearance in South Korea and Japan to market SureForm 60 and SureForm 45 and 60 (see the description of the SureForm 60 and SureForm 45 Staplers in the New Product Introductions section below).

In May 2018, we obtained U.S. FDA clearance for the da Vinci SP Surgical System for urologic surgical procedures that are appropriate for a single port approach (see the description of the da Vinci SP Surgical System in the New Product Introductions section below). In March 2019, we received U.S. FDA clearance for the da Vinci SP Surgical System for certain transoral procedures. We also received regulatory clearance for the da Vinci SP Surgical System in South Korea in May 2018. We continue to introduce the da Vinci SP Surgical System in a measured fashion while we optimize training pathways and our supply chain. We have placed 38 da Vinci SP systems with customers through September 30, 2019.

In April 2018, we received U.S. FDA clearance for our da Vinci Vessel Sealer Extend (see the description of the da Vinci Vessel Sealer Extend in the New Product Introductions section below).

In April 2017, we received CE mark clearance for our da Vinci X Surgical System in Europe. Following the CE mark, in May 2017, we received U.S. FDA clearance to market our da Vinci X Surgical System in the U.S. We received regulatory clearance for the da Vinci X Surgical System in South Korea and Japan in September 2017 and April 2018, respectively (see the description of the da Vinci X Surgical System in the New Product Introductions section below). Regulatory clearances for the da Vinci X Surgical System may be received in other markets over time.

The Japanese Ministry of Health, Labor, and Welfare (“MHLW”) considers reimbursement for procedures in April of even-numbered years. The process for obtaining reimbursement requires Japanese university hospitals and surgical societies, with our support, to seek reimbursement. There are multiple pathways to obtain reimbursement for procedures, including those that require in-country clinical data/economic data. In April 2012 and April 2016, the MHLW granted reimbursement status for da Vinci Prostatectomy (“dVP”) and partial nephrectomy, respectively. Most prostatectomies and partial nephrectomies were open procedures prior to da Vinci reimbursement. Da Vinci procedure reimbursement for dVP and partial nephrectomy procedures are higher than open procedure reimbursements. An additional 12 da Vinci procedures were granted reimbursement effective April 1, 2018, including gastrectomy, low anterior resection, lobectomy, and hysterectomy, for both malignant and benign conditions. These additional 12 reimbursed procedures have varying levels of conventional, laparoscopic penetration and will be reimbursed at rates equal to the conventional, laparoscopic procedures. Given the reimbursement level and laparoscopic penetration for these 12 procedures, there can be no assurance that adoption will occur or that the adoption pace for these procedures will be similar to any other da Vinci procedures. If these procedures are not adopted and we are not successful in obtaining adequate procedure reimbursements for additional procedures, then the demand for our products in Japan could be limited.

Recalls and Corrections

Medical device companies have regulatory obligations to correct or remove medical devices in the field that could pose a risk to health. The definition of “recalls and corrections” is expansive and includes repair, replacement, inspections, relabeling, and issuance of new or additional instructions for use or reinforcement of existing instructions for use and training when such actions are taken for specific reasons of safety or compliance. These field actions require stringent documentation, reporting, and monitoring worldwide. There are other actions that a medical device manufacturer may take in the field without reporting including, but not limited to, routine servicing and stock rotations.

As we determine whether a field action is reportable in any regulatory jurisdiction, we prepare and submit notifications to the appropriate regulatory agency for the particular jurisdiction. Regulators can require the expansion, reclassification, or change in scope and language of the field action. In general, upon submitting required notifications to regulators regarding a field action that is a recall or correction, we will notify customers regarding the field action, provide any additional documentation required in their national language, and arrange, as required, return or replacement of the affected product or a field service visit to perform the correction.

Field actions as well as certain outcomes from regulatory activities can result in adverse effects on our business, including damage to our reputation, delays by customers of purchase decisions, reduction or stoppage of the use of installed systems, and reduced revenue as well as increased expenses.

Procedures

We model patient value as equal to *procedure efficacy / invasiveness*. In this equation, *procedure efficacy* is defined as a measure of the success of the surgery in resolving the underlying disease and *invasiveness* is defined as a measure of patient pain and disruption of regular activities. When the patient value of a da Vinci procedure is greater than that of alternative treatment options, patients may benefit from seeking out surgeons and hospitals that offer da Vinci Surgery, which could potentially result in a local market share shift. Adoption of da Vinci procedures occurs procedure by procedure and market by market and is driven by the relative patient value and total treatment costs of da Vinci procedures as compared to alternative treatment options for the same disease state or condition.

Worldwide Procedures

Our da Vinci systems and instruments are regulated independently in various countries and regions of the world. The discussion of indications for use and representative or target procedures is intended solely to provide an understanding of the market for da Vinci products and is not intended to promote for sale or use any Intuitive Surgical product outside of its licensed or cleared labeling and indications for use.

The adoption of robotic-assisted surgery using the da Vinci Surgical System has the potential to grow for those procedures that offer greater patient value than non-da Vinci alternatives and competitive total economics for healthcare providers. Our da Vinci Surgical Systems are used primarily in general surgery, gynecologic surgery, urologic surgery, cardiothoracic surgery, and head and neck surgery. We focus our organization and investments on developing, marketing, and training products and services for procedures in which da Vinci can bring patient value relative to alternative treatment options and/or economic benefit to healthcare providers. Target procedures in general surgery include hernia repair (both ventral and inguinal) and colorectal procedures. Target procedures in gynecology include da Vinci hysterectomy (“dVH”), for both cancer and benign conditions, and sacrocolpopexy. Target procedures in urology include dVP and partial nephrectomy. In cardiothoracic surgery, target procedures include da Vinci lobectomy and da Vinci mitral valve repair. In head and neck surgery, target procedures include certain procedures resecting benign and malignant tumors classified as T1 and T2. Not all the indications, procedures, or products described may be available in a given country or region or on all generations of da Vinci Surgical Systems. Surgeons and their patients need to consult the product labeling in their specific country and for each product in order to determine the cleared uses, as well as important limitations, restrictions, or contraindications.

In 2018, approximately 1,037,000 surgical procedures were performed with da Vinci Surgical Systems, compared with approximately 877,000 and 753,000 surgical procedures performed with da Vinci Surgical Systems in 2017 and 2016, respectively. The growth in our overall procedure volume in 2018 was driven by growth in U.S. general surgery procedures and worldwide urologic procedures.

U.S. Procedures

Overall U.S. procedure volume with da Vinci Surgical Systems grew to approximately 753,000 in 2018, compared with approximately 644,000 in 2017 and approximately 563,000 in 2016. General surgery was our largest and fastest growing U.S. specialty in 2018 with procedure volume that grew to approximately 325,000 in 2018, compared with approximately 246,000 in 2017 and 186,000 in 2016. Gynecology was our second largest U.S. surgical specialty in 2018 with procedure volume of approximately 265,000 in 2018, compared with 252,000 in 2017 and 246,000 in 2016. U.S. urology procedure volume was approximately 128,000 in 2018, compared with approximately 118,000 in 2017 and 109,000 in 2016.

Procedures Outside of the U.S.

Overall OUS procedure volume with da Vinci Surgical Systems grew to approximately 284,000 in 2018, compared with approximately 233,000 in 2017 and approximately 190,000 in 2016. Procedure growth in most OUS markets was driven largely by urology procedure volume, which grew to approximately 175,000 in 2018, compared with approximately 149,000 in 2017 and approximately 124,000 in 2016. General surgery and gynecologic oncology procedures also contributed to OUS procedure growth.

Recent Business Events and Trends

Procedures

Overall. Total da Vinci procedures grew approximately 18% for the nine months ended September 30, 2019, compared with approximately 18% for the nine months ended September 30, 2018. U.S. procedure growth was approximately 17% for the nine months ended September 30, 2019, compared with approximately 17% for the nine months ended September 30, 2018. Consistent year-to-date 2019 U.S. procedure growth was largely attributable to growth in general surgery procedures, most notably hernia repair, cholecystectomy, colorectal, and bariatric procedures. Year-to-date U.S. procedure growth was also driven by growth in thoracic procedures, as well as moderate growth in more mature urologic and gynecologic procedure categories.

Procedure volume OUS grew approximately 21% for the nine months ended September 30, 2019, compared with approximately 21% for the nine months ended September 30, 2018. Consistent year-to-date 2019 OUS procedure growth was driven by continued growth in dVP procedures and earlier stage growth in general surgery (particularly colorectal), gynecology, kidney cancer, and thoracic procedures. We believe growth in these global markets is being driven by increased acceptance among surgeons and health systems, supported by expanded global evidence validating the clinical and economic value of da Vinci procedures.

U.S. General Surgery. Growth in general surgery procedures continued to drive the majority of incremental procedures during the nine months ended September 30, 2019. Inguinal and ventral hernia repairs contributed the most incremental cases during the nine months ended September 30, 2019, as they did in 2018 and 2017. We believe that growth in da Vinci hernia repair reflects improved clinical outcomes within certain patient populations as well as potential cost benefits relative to certain alternative treatments. We believe hernia repair procedures represent a significant opportunity with the potential to drive growth in future periods. However, given the differences in surgical complexity associated with treatment of various hernia patient populations and varying surgeon opinion regarding optimal surgical technique, it is difficult to estimate the timing of and to what extent da Vinci hernia repair procedure volume will grow in the future. We expect a large portion of hernia repairs will continue to be performed via different modalities of surgery.

Adoption of da Vinci for colorectal procedures, which includes several underlying procedures, including low anterior resections for rectal cancers and certain colon procedures for benign and cancerous conditions, has been ongoing for several years and is supported by our recently launched technologies, such as the da Vinci Xi Surgical System, EndoWrist Stapler, EndoWrist Vessel Sealer, and Integrated Table Motion.

In recent quarters, we have seen increasing contributions to growth from other U.S. general surgery procedures, including cholecystectomy and bariatric procedures. Our third quarter 2018 introduction of the SureForm 60mm stapler product provides surgeons a better optimized robotic tool set for bariatric procedures.

U.S. Gynecology. Growth in gynecology procedures during the nine months ended September 30, 2019, increased modestly compared to 2018, driven by growth in benign hysterectomy procedures and, to a lesser extent, growth in hysterectomy for cancer. Combining robotic, laparoscopic, and vaginal approaches, MIS represents about 80% of the U.S. hysterectomy market for benign conditions. We believe that our growth in gynecologic procedures over the past several years has primarily been driven by consolidation of gynecologic procedures into higher volume surgeons that focus on cancer and complex surgeries.

Global Urology. Global urology procedures have also been a strong contributor to our overall procedure growth. In the U.S., dVP is the standard of care for the surgical treatment of prostate cancer, and we believe growth is largely aligned with surgical volumes of prostate cancer. For OUS, dVP is at various stages of adoption in different areas of the world but is the largest overall da Vinci procedure. Year-to-date 2019 growth in OUS dVP was consistent with growth in 2018.

Kidney cancer procedures have also been a strong contributor to our recent global urology growth. Clinical publications have demonstrated that the use of a da Vinci system increases the likelihood that a patient will receive nephron sparing surgery through a partial nephrectomy, which is typically surgical society guideline-recommended therapy.

OUS Procedures. Year-to-date 2019 OUS procedure growth rate reflects continued da Vinci adoption in European and Asian markets. In 2018 and through the first quarter of 2019, procedure growth in China moderated, as the previous systems quota expired at the end of 2015 and systems installed in China are highly utilized. In October 2018, the China National Health

Commission announced a new quota to allow the sale of 154 new surgical robots into China through 2020, which could include da Vinci Surgical Systems. In the second and third quarter of 2019, procedure growth in China accelerated, as initial systems placed during these quarters provided additional capacity in the field. This quota applies to the da Vinci Si and recently approved Xi Surgical Systems (refer to the previous discussion in the “Clearances and Approvals” section), as well as competitors’ products when and if cleared by NMPA. Sales of da Vinci Surgical Systems under the quota are uncertain, as they are dependent on provincial allocation processes and hospitals completing a tender process and receiving associated approvals. In Japan, we experienced strong procedure growth after receiving the national reimbursements for dVP and partial nephrectomy, in 2012 and 2016, respectively. However, as adoption for these procedures has progressed towards higher levels of penetration, growth in these two urologic procedures has moderated. A total of 12 additional da Vinci procedures were granted national reimbursement status effective April 1, 2018, including gastrectomy, anterior resection, lobectomy, and hysterectomy, for both malignant and benign conditions. Procedure growth in Japan has accelerated since the new procedures were granted reimbursement status. However, these additional 12 reimbursed procedures have varying levels of conventional laparoscopic penetration and are reimbursed at rates equal to the conventional laparoscopic procedures. Given the reimbursement level and laparoscopic penetration for these procedures, there can be no assurance that adoption will occur or that the adoption pace for these procedures will be similar to any other da Vinci procedure. If these procedures are not adopted and we are not successful in obtaining adequate procedure reimbursement for additional procedures, then the demand for our products in Japan could be limited.

System Demand

Future demand for da Vinci Surgical Systems will be impacted by factors including hospital response to the evolving health care environment under the current U.S. administration, procedure growth rates, hospital consolidation trends, evolving system utilization and point of care dynamics, capital replacement trends, additional reimbursements in various global markets, including Japan, the timing around governmental tenders and authorizations, including China, the timing of when we receive regulatory clearance in our other OUS markets for our da Vinci Xi Surgical System, da Vinci X Surgical System, and da Vinci SP Surgical System, and related instruments, market response as well as other economic and geopolitical factors. Market acceptance of our recently launched da Vinci SP Surgical System and the nature and timing of additional da Vinci SP regulatory indications may also impact future system placements. Demand may also be impacted by robotic surgery competition, including from companies that have introduced products in the field of robotic surgery or have made explicit statements about their efforts to enter the field including, but not limited to, Avatera Medical GmbH; CMR Surgical Limited; Johnson & Johnson (including their recent acquisition of Auris Health, Inc.); Medcaroid Inc.; MedRobotics Corp.; Medtronic PLC.; meerecompany Inc.; Olympus Corp.; Samsung Corporation; Smart Robot Technology Group Co. Ltd.; Titan Medical, Inc.; TransEnterix, Inc.; Verb Surgical Inc. (a joint venture between Johnson & Johnson and Google Inc.); and Wego Holding Co., Ltd.

Many of the above factors will also impact future demand for our recently cleared Ion system, as we extend our commercial offering into diagnostics, along with additional factors associated with a new product introduction, such as, but not limited to, our ability to optimize manufacturing and our supply chain, competition, clinical data to demonstrate value, and market acceptance.

New Product Introductions

SureForm 45 Curved-Tip and Gray Reload. In July 2019, we obtained U.S. FDA clearance for the SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload. SureForm 45 Curved-Tip is a single-use, fully wristed stapling instrument with a curved tip intended for resection, transection, and/or creation of anastomoses. SureForm 45 Gray reload is a new, single-use cartridge that contains multiple staggered rows of implantable staples and a stainless steel knife. The SureForm 45 Curved-Tip stapler and Gray reload have particular utility in thoracic procedures and round out our SureForm 45 portfolio, which includes the SureForm 45 stapler and White, Blue, Green, and Black reloads. Not all reloads or staplers are available for use on all systems or in all countries.

Da Vinci Endoscope Plus. In June 2019, we received CE mark clearance in Europe for our da Vinci Endoscope Plus, an enhanced 3D endoscope for use with our da Vinci X and Xi Surgical Systems. Following the CE mark, in July 2019, we obtained U.S. FDA clearance for our da Vinci Endoscope Plus. The da Vinci Endoscope Plus leverages new sensor technology to allow for increased sharpness and color accuracy. The da Vinci Endoscope Plus is currently available in Europe and is expected to launch in the U.S. later in 2019.

Da Vinci Handheld Camera. In June 2019, we obtained U.S. FDA clearance for our da Vinci Handheld Camera, a lightweight, 2D camera head, which can be connected to third-party laparoscopes. This allows the laparoscopic image to be displayed on the da Vinci X/Xi vision cart to address aspects of da Vinci procedures that may require use of a laparoscope, thus eliminating the need for redundant equipment in the operating room and increasing procedure efficiency. We are introducing the da Vinci Handheld Camera in a measured fashion in 2019 with a broad launch expected in early 2020.

Ion endoluminal system. In February 2019, we obtained U.S. FDA clearance for the Ion endoluminal system, our new flexible, robotic-assisted, catheter-based platform designed to navigate through very small lung airways to reach peripheral nodules for biopsies. The Ion system uses an ultra-thin articulating robotic catheter that can move 180 degrees in all directions. The outer diameter of the catheter is 3.5mm, which physicians can navigate through small and tortuous airways to reach nodules in any airway segment within the lung. The Ion system's flexible biopsy needle can also pass through very tight bends via Ion's catheter to collect tissue in the peripheral lung. The catheter's 2mm working channel can also accommodate other biopsy tools, such as biopsy forceps or cytology brushes, if necessary. We are introducing Ion in a measured fashion while we optimize training pathways and our supply chain and collect additional clinical data. We have sold 3 Ion systems through September 30, 2019.

IRIS. In February 2019, we obtained U.S. FDA clearance for our IRIS augmented reality product. IRIS is a service that delivers a 3D image of the patient anatomy (initially targeting kidneys) to aid surgeons in both the pre- and intra-operative settings. We are now in the early stages of an IRIS pilot study in the field at a small group of U.S. hospitals to gain initial product experience and insights.

Da Vinci SP Surgical System. In May 2018, we obtained U.S. FDA clearance for the da Vinci SP Surgical System for urologic surgical procedures that are appropriate for a single port approach. In March 2019, we received U.S. FDA clearance for the da Vinci SP Surgical System for certain transoral procedures. The da Vinci SP Surgical System includes three, multi-jointed, wristed instruments and the first da Vinci fully wristed, 3DHD camera. The instruments and the camera all emerge through a single cannula and are triangulated around the target anatomy to avoid external instrument collisions that can occur in narrow surgical workspaces. The system enables flexible port placement and broad internal and external range of motion (e.g., 360 degrees of anatomical access) through the single SP arm. Surgeons control the fully articulating instruments and the camera on the da Vinci SP system, which uses the same fourth generation surgeon console as the da Vinci X and Xi systems. The da Vinci SP Surgical System provides surgeons with robotic-assisted technology designed for deep and narrow access to tissue in the body. We anticipate pursuing further regulatory clearances for the da Vinci SP Surgical System, including colorectal applications, broadening the applicability of the SP platform over time. We continue to introduce the da Vinci SP Surgical System in a measured fashion while we optimize training pathways and our supply chain. We have placed 38 da Vinci SP Surgical Systems with customers through September 30, 2019.

Da Vinci X Surgical System. In May 2017, we launched a new da Vinci model, the da Vinci X, in the U.S. The da Vinci X system provides surgeons and hospitals with access to some of the most advanced fourth generation da Vinci surgery technology at a lower cost. The da Vinci X system uses the same vision cart and surgeon console that are found on our flagship product, the da Vinci Xi system. For new customers, the da Vinci X system provides a cost effective capital entry point while providing a pathway for upgrading to other fourth generation systems. Existing customers may negotiate to trade in their older da Vinci systems in order to standardize their robotics programs onto the fourth generation platform, choosing which system model by considering clinical and economic factors.

The da Vinci X system enables optimized, focused-quadrant surgery, including procedures like prostatectomy, hernia repair, and benign hysterectomy, among others. The system features flexible port placement and 3D digital optics, while incorporating the same advanced instruments and accessories as the da Vinci Xi. The da Vinci X system drives operational efficiencies through set-up technology that uses voice and laser guidance, drape design that simplifies surgery preparations, and a lightweight, fully integrated endoscope.

SureForm 60 and SureForm 45 Staplers. In July 2018, we received U.S. FDA clearance for the SureForm 60 instrument with White, Blue, Green, and Black 60mm reloads. In January 2019, we received U.S. FDA clearance for the SureForm 45 instrument with White, Blue, Green, and Black 45mm reloads. Additionally, we received regulatory clearance in South Korea for the SureForm 60 instrument and 60mm reloads in June 2018 and July 2018, respectively, and for the SureForm 45 instrument and 45mm reloads in June 2019 and September 2019, respectively. Also, we received regulatory clearance in Japan for the SureForm 60 instrument and 60mm reloads in June 2018 and November 2018, respectively, and for the SureForm 45 instrument and 45mm reloads in September 2019. The SureForm 60 and SureForm 45 Staplers are single-use, fully wristed stapling instruments intended for resection, transection, and/or creation of anastomoses. The SureForm 60 instrument has particular utility in bariatric procedures, while the SureForm 45 instrument has particular utility in colorectal procedures. SureForm 60 and SureForm 45 Staplers broaden our existing stapler product line, which also includes EndoWrist Stapler 45 with White, Blue, and Green, 45mm reloads and EndoWrist Stapler 30 with White, Blue, Green, and Gray 30mm reloads. Not all reloads or staplers are available for use on all systems or in all countries.

Da Vinci Vessel Sealer Extend. In April 2018, we received U.S. FDA clearance for da Vinci Vessel Sealer Extend, our newest instrument in the Vessel Sealing family of products. Da Vinci Vessel Sealer Extend is a single-use, fully wristed bipolar electro-surgical instrument compatible with our fourth generation multiport systems. It is intended for grasping and blunt dissection of tissue and for bipolar coagulation and mechanical transection of vessels up to 7mm in diameter and tissue bundles that fit in the jaws of the instrument.

Acquisition of Certain Assets from Schölly Fiberoptic

In July 2019, we entered into an agreement to acquire certain assets and operations from Schölly Fiberoptic GmbH ("Schölly"), a supplier of endoscopes and other visualization equipment (the "Schölly Acquisition"). On August 31, 2019, upon the satisfaction of closing conditions, we acquired control of these assets and operations, which collectively met the definition of a business. Total purchase consideration of \$100.6 million, as of the acquisition date, consisted of an initial cash payment of \$34.4 million and deferred cash payments totaling approximately \$66.2 million. The timing of the future payments is based upon achieving certain integration steps, which occur during 2019 and 2020 and are expected to be completed around the end of 2020.

The process to manufacture endoscopes is complex, and we cannot assure you that we can successfully integrate the endoscope manufacturing operations of the acquired business. For example, we may be unable to retain the employees of Schölly or its current suppliers. The integration process will be complex and involves the integration of manufacturing operations across multiple sites globally. The integration may require expenses and time in excess of expectations. Integrating the Schölly Acquisition will also involve getting certain regulatory approvals and re-certification of manufacturing sites. If we cannot successfully integrate or manufacture endoscopes subsequent to the Schölly Acquisition, it may have an adverse impact on our business, financial condition, results of operations, or cash flows.

Third Quarter 2019 Financial Highlights

- Total revenue increased by 23% to \$1,128.2 million during the three months ended September 30, 2019, compared with \$920.9 million during the three months ended September 30, 2018.
- Approximately 307,000 da Vinci procedures were performed during the three months ended September 30, 2019, an increase of nearly 20% compared with approximately 256,000 for the three months ended September 30, 2018.
- Instrument and accessory revenue increased by 25% to \$606.2 million during the three months ended September 30, 2019, compared with \$486.3 million during the three months ended September 30, 2018.
- Systems revenue increased by 23% to \$338.6 million during the three months ended September 30, 2019, compared with \$274.6 million during the three months ended September 30, 2018.
- A total of 275 da Vinci Surgical Systems were shipped during the three months ended September 30, 2019, an increase of 19% compared with 231 systems during the three months ended September 30, 2018. As of September 30, 2019, we had a da Vinci Surgical System installed base of approximately 5,406 systems, an increase of approximately 12% compared with the installed base as of September 30, 2018.
- During the three months ended September 30, 2019, we began commercial sales of the Ion system and shipped the first 3 commercial systems.
- Gross profit as a percentage of revenue was 69.6% for the three months ended September 30, 2019, compared with 69.7% for the three months ended September 30, 2018.
- Operating income increased by 17% to \$365.7 million during the three months ended September 30, 2019, compared with \$313.3 million during the three months ended September 30, 2018. Operating income included \$89.3 million and \$70.7 million of share-based compensation expense related to employee stock plans during the three months ended September 30, 2019, and 2018, respectively. Operating income included intangible asset charges of \$10.7 million and \$9.0 million for the three months ended September 30, 2019 and 2018, respectively.
- As of September 30, 2019, we had \$5.4 billion in cash, cash equivalents, and investments. Cash, cash equivalents, and investments increased by \$0.6 billion, compared with December 31, 2018, primarily as a result of cash generated from operating activities, partially offset by share repurchases and capital expenditures.

Results of Operations

The following table sets forth, for the periods indicated, certain unaudited Condensed Consolidated Statements of Income information (in millions, except percentages):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2019	% of total revenue	2018	% of total revenue	2019	% of total revenue	2018	% of total revenue
Revenue:								
Product	\$ 944.8	84 %	\$ 760.9	83 %	\$ 2,666.9	83 %	\$ 2,209.2	83 %
Service	183.4	16 %	160.0	17 %	533.9	17 %	468.5	17 %
Total revenue	1,128.2	100 %	920.9	100 %	3,200.8	100 %	2,677.7	100 %
Cost of revenue:								
Product	277.3	25 %	225.1	24 %	807.1	25 %	654.7	24 %
Service	65.3	6 %	53.5	6 %	179.5	6 %	154.6	6 %
Total cost of revenue	342.6	31 %	278.6	30 %	986.6	31 %	809.3	30 %
Product gross profit	667.5	59 %	535.8	59 %	1,859.8	58 %	1,554.5	59 %
Service gross profit	118.1	10 %	106.5	11 %	354.4	11 %	313.9	11 %
Gross profit	785.6	69 %	642.3	70 %	2,214.2	69 %	1,868.4	70 %
Operating expenses:								
Selling, general and administrative	284.0	25 %	221.4	24 %	836.6	26 %	702.8	26 %
Research and development	135.9	12 %	107.6	12 %	400.7	13 %	298.2	11 %
Total operating expenses	419.9	37 %	329.0	36 %	1,237.3	39 %	1,001.0	37 %
Income from operations	365.7	32 %	313.3	34 %	976.9	30 %	867.4	33 %
Interest and other income, net	33.3	3 %	21.9	2 %	93.6	3 %	53.3	2 %
Income before taxes	399.0	35 %	335.2	36 %	1,070.5	33 %	920.7	35 %
Income tax expense	0.3	— %	43.4	5 %	51.4	2 %	87.0	3 %
Net income	398.7	35 %	291.8	31 %	1,019.1	31 %	833.7	32 %
Less: net income (loss) attributable to noncontrolling interest in joint venture	1.9	— %	(0.7)	— %	(2.5)	— %	(1.7)	— %
Net income attributable to Intuitive Surgical, Inc.	\$ 396.8	35 %	\$ 292.5	31 %	\$ 1,021.6	31 %	\$ 835.4	32 %

Total Revenue

Total revenue was \$1,128.2 million for the three months ended September 30, 2019, compared with \$920.9 million for the three months ended September 30, 2018, resulting from 25% higher instrument and accessory revenue, driven by nearly 20% higher procedure volume, 23% higher systems revenue, and 15% higher service revenue.

Revenue denominated in foreign currencies as a percentage of total revenue was approximately 20% and 19% for the three and nine months ended September 30, 2019, respectively, and 19% and 20% for the three and nine months ended September 30, 2018, respectively. We generally sell our products and services in local currencies where we have direct distribution channels. Foreign currency rate fluctuations did not have a material impact on total revenue for the three months ended September 30, 2019, as compared with the three months ended September 30, 2018.

Revenue generated in the U.S. accounted for 71% of total revenue for both three and nine months ended September 30, 2019, respectively, and 73% and 71% for the three and nine months ended September 30, 2018, respectively. We believe that U.S. revenue has accounted for the large majority of total revenue due to U.S. patients' ability to choose their provider and method of treatment, reimbursement structures supportive of innovation and minimally invasive surgery, and our initial investments focused on U.S. infrastructure. We have been investing in our business in the OUS markets, and our OUS procedures have grown faster in proportion to U.S. procedures. We expect that our OUS procedures and revenue will make up a greater portion of our business in the long term.

The following table summarizes our revenue and system unit shipments for the three and nine months ended September 30, 2019, and 2018, respectively (in millions, except percentages and unit shipments):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue				
Instruments and accessories	\$ 606.2	\$ 486.3	\$ 1,737.0	\$ 1,422.7
Systems	338.6	274.6	929.9	786.5
Total product revenue	944.8	760.9	2,666.9	2,209.2
Services	183.4	160.0	533.9	468.5
Total revenue	\$ 1,128.2	\$ 920.9	\$ 3,200.8	\$ 2,677.7
United States	\$ 796.4	\$ 676.5	\$ 2,273.3	\$ 1,893.6
OUS	331.8	244.4	927.5	784.1
Total revenue	\$ 1,128.2	\$ 920.9	\$ 3,200.8	\$ 2,677.7
% of Revenue - U.S.	71 %	73 %	71 %	71 %
% of Revenue - OUS	29 %	27 %	29 %	29 %
Instruments and accessories	\$ 606.2	\$ 486.3	\$ 1,737	\$ 1,422.7
Services	183.4	160.0	533.9	468.5
Operating lease revenue	27.4	14.0	72.9	35.0
Total recurring revenue	\$ 817.0	\$ 660.3	\$ 2,343.8	\$ 1,926.2
% of Total revenue	72 %	72 %	73 %	72 %

Da Vinci Surgical Systems Shipments by Region:

U.S. unit shipments	185	156	532	406
OUS unit shipments	90	75	251	230
Total unit shipments*	275	231	783	636
*Systems shipped under operating leases (included in total unit shipments)	92	58	258	145
Ion Systems Shipments	3	—	3	—

Da Vinci Surgical Systems Shipments involving System Trade-ins:

Unit shipments involving trade-ins	116	65	304	196
Unit shipments not involving trade-ins	159	166	479	440

Product Revenue

Three months ended September 30, 2019

Product revenue increased by 24% to \$944.8 million for the three months ended September 30, 2019, compared with \$760.9 million for the three months ended September 30, 2018.

Instrument and accessory revenue increased by 25% to \$606.2 million for the three months ended September 30, 2019, compared with \$486.3 million for the three months ended September 30, 2018. The increase in instrument and accessory revenue was driven primarily by procedure growth of nearly 20%, incremental sales of our advanced instruments, and customer buying patterns. Third quarter 2019 U.S. procedure growth of approximately 18% was driven by strong growth in general surgery procedures, most notably hernia repair, cholecystectomy, colorectal, and bariatric procedures, and thoracic procedures as well as moderate growth in the more mature gynecologic and urologic procedures categories. OUS procedure growth was approximately 23% for the third quarter of 2019 and was driven by continued growth in dVP procedures and earlier stage growth in general surgery, gynecology, and kidney cancer procedures. Geographically, third quarter 2019 OUS procedure growth was driven by procedure expansion in Japan, Germany, Korea, and China.

Systems revenue increased by 23% to \$338.6 million for the three months ended September 30, 2019, compared with \$274.6 million for the three months ended September 30, 2018. Higher third quarter 2019 systems revenue was primarily driven by higher system shipments, higher third quarter 2019 ASPs, higher operating lease revenue, and higher lease buyouts, partially offset by a higher proportion of system shipments under operating leases.

During the third quarter of 2019, a total of 275 da Vinci Surgical Systems were shipped compared with 231 systems during the third quarter of 2018. By geography, 185 systems were shipped into the U.S., 36 into Europe, 43 into Asia, and 11 into other markets during the third quarter of 2019, compared with 156 systems shipped into the U.S., 30 into Europe, 37 into Asia, and 8 into other markets during the third quarter of 2018. The increase in systems shipments was primarily driven by procedure growth, the need for hospitals to expand or establish capacity, and more customers trading in older da Vinci models for fourth generation da Vinci Xi and da Vinci X systems.

We shipped 102 and 75 da Vinci Surgical Systems under lease arrangements, of which 92 and 58 systems were classified as operating leases, in the three months ended September 30, 2019, and 2018, respectively. Operating lease revenue was \$27.4 million for the three months ended September 30, 2019, compared with \$14.0 million for the three months ended September 30, 2018. Systems placed as operating leases represented 33% of total shipments during the third quarter of 2019, compared with 25% during the third quarter of 2018. A total 560 of da Vinci Surgical Systems were installed at customers under operating lease arrangements as of September 30, 2019. Revenue from Lease Buyouts was \$19.8 million for the three months ended September 30, 2019, compared with \$8.3 million for the three months ended September 30, 2018. We expect revenue from Lease Buyouts to fluctuate period to period based on the timing of when, and if, customers choose to exercise the buyout options embedded in their leases.

The da Vinci Surgical System ASP, excluding the impact of systems shipped under operating leases and Ion systems, was approximately \$1.57 million for the three months ended September 30, 2019, compared with approximately \$1.45 million for the three months ended September 30, 2018. The higher third quarter 2019 ASP was largely driven by favorable product and geographic mix. ASP fluctuates from period to period based on geographic and product mix, product pricing, systems shipped involving trade-ins, and changes in foreign exchange rates.

Nine months ended September 30, 2019

Product revenue increased by 21% to \$2.7 billion for the nine months ended September 30, 2019, compared with \$2.2 billion for the nine months ended September 30, 2018.

Instrument and accessory revenue increased by 22% to \$1,737.0 million for the nine months ended September 30, 2019, compared with \$1,422.7 million for the nine months ended September 30, 2018. The increase in instrument and accessory revenue was driven by procedure growth of approximately 18% and incremental sales of our advanced instruments. Year-to-date 2019 U.S. procedure growth of approximately 17% was driven by growth in general surgery procedures, most notably hernia repair, cholecystectomy, colorectal, and bariatric procedures, and thoracic procedures as well as moderate growth in more mature gynecologic and urologic procedure categories. OUS procedure growth was approximately 21% for the nine months ended September 30, 2019, driven by continued growth in dVP procedures and earlier stage growth in general surgery, gynecology, and kidney cancer procedures.

Systems revenue increased by 18% to \$929.9 million for the nine months ended September 30, 2019, compared with \$786.5 million for the nine months ended September 30, 2018. Higher year-to-date 2019 systems revenue was primarily driven by higher system shipments and higher lease-related revenue, partially offset by a higher number of system placements under operating lease arrangements.

During the nine months ended September 30, 2019, a total of 783 da Vinci Surgical Systems were shipped, compared with 636 systems during the nine months ended September 30, 2018. By geography, 532 systems were shipped into the U.S., 115 into Europe, 104 into Asia, and 32 into other markets during the nine months ended September 30, 2019, compared with 406 systems shipped into the U.S., 114 into Europe, 76 into Asia, and 40 into other markets during the nine months ended September 30, 2018.

During the nine months ended September 30, 2019, 258 of the 783 da Vinci Surgical Systems were shipped under operating lease arrangements, compared with 145 of 636 systems shipped during the nine months ended September 30, 2018.

Operating lease revenue was \$72.9 million for the nine months ended September 30, 2019, compared with \$35.0 million for the nine months ended September 30, 2018. The increase in systems shipments was primarily driven by procedure growth, the need for hospitals to expand or establish capacity, and more customers trading in older da Vinci models for fourth generation da Vinci Xi and da Vinci X systems.

The da Vinci Surgical System ASP, excluding the impact of systems shipped under operating leases and Ion systems, was approximately \$1.48 million for the nine months ended September 30, 2019, compared with approximately \$1.45 million for nine months ended September 30, 2018. The higher year-to-date 2019 ASP was largely driven by favorable product and geographic mix. ASP fluctuates period to period based on geographic and product mix, product pricing, systems shipped involving trade-ins, and changes in foreign exchange rates.

Service Revenue

Service revenue increased by 15% to \$183.4 million for the three months ended September 30, 2019, compared with \$160.0 million for the three months ended September 30, 2018. Service revenue increased by 14% to \$533.9 million for the nine months ended September 30, 2019, compared with \$468.5 million for the nine months ended September 30, 2018. Higher service revenue for the three and nine months ended September 30, 2019, was primarily driven by a larger installed base of da Vinci Surgical Systems producing service revenue.

Gross Profit

Product gross profit for the three months ended September 30, 2019, increased 25% to \$667.5 million, representing 70.6% of product revenue, compared with \$535.8 million, representing 70.4% of product revenue, for the three months ended September 30, 2018. Product gross profit for the nine months ended September 30, 2019, increased 20% to \$1.9 billion, representing 69.7% of product revenue, compared with \$1.6 billion, representing 70.4% of product revenue, for the nine months ended September 30, 2018. The higher product gross profit for the three and nine months ended September 30, 2019, was primarily driven by higher product revenue.

Higher gross profit margin for the three months ended September 30, 2019, was driven by improved manufacturing efficiencies, partially offset by higher intangible assets amortization expense. Lower gross profit margin for the nine months ended September 30, 2019, was driven by higher intangible assets amortization expense, partially offset by improved manufacturing efficiencies. Product gross profit for the three and nine months ended September 30, 2019, included share-based compensation expense of \$12.4 million and \$34.8 million, respectively, compared with \$10.1 million and \$27.2 million for the three and nine months ended September 30, 2018, respectively. Product gross profit for the three and nine months ended September 30, 2019 included intangible assets amortization expense of \$7.9 million and \$22.9 million, respectively, compared with \$1.8 million and \$4.1 million for the three and nine months ended September 30, 2018, respectively.

In prior periods, we were subject to the Medical Device Excise Tax (“MDET”) in the United States. MDET initially became effective on January 1, 2013, and we treated MDET as a reduction in gross profit. In December 2015, the Consolidated Appropriations Act, 2016 (the “Appropriations Act”) was signed into law. The Appropriations Act included a two-year moratorium on MDET such that medical device sales in 2016 and 2017 were exempt from the excise tax. This moratorium was extended through December 31, 2019, by the Extension of Continuing Appropriations Act of 2018, signed into law on January 22, 2018. MDET is scheduled to be reinstated on January 1, 2020.

Service gross profit for the three months ended September 30, 2019, was \$118.1 million, or 64.4% of service revenue, compared with \$106.5 million, or 66.6% of service revenue for the three months ended September 30, 2018. Service gross profit for the nine months ended September 30, 2019, was \$354.4 million, or 66.4% of service revenue, compared with \$313.9 million, or 67.0% of service revenue, for the nine months ended September 30, 2018.

The higher service gross profit for the three and nine months ended September 30, 2019, was driven by higher service revenue, reflecting a larger installed base of da Vinci Surgical Systems.

Service gross profit for the three and nine months ended September 30, 2019, included share-based compensation expense of \$5.6 million and \$14.9 million, respectively, compared with \$4.5 million and \$12.5 million for the three and nine months ended September 30, 2018, respectively. Service gross profit for the three and nine months ended September 30, 2019, included

intangible assets amortization expense of \$0.9 million and \$2.8 million, respectively, compared with \$0.2 million and \$0.5 million for the three and nine months ended September 30, 2018, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include costs for sales, marketing and administrative personnel, sales and marketing activities, tradeshow expenses, legal expenses, regulatory fees, and general corporate expenses.

Selling, general and administrative expenses for the three months ended September 30, 2019, increased by 28% to \$284.0 million, compared with \$221.4 million for the three months ended September 30, 2018. Selling, general and administrative expenses for the nine months ended September 30, 2019, increased by 19% to \$836.6 million, compared with \$702.8 million for the nine months ended September 30, 2018. The higher selling, general and administrative expenses for the three and nine months ended September 30, 2019, were primarily associated with our expanded Asian and European teams, including establishing our direct organizations in China, India, and Taiwan, and increased infrastructure to support our growth.

Selling, general and administrative expenses for the three and nine months ended September 30, 2019, included net pre-tax litigation charges (recoveries) of \$0.2 million, compared with \$(1.8) million and \$45.9 million for the three and nine months ended September 30, 2018, respectively.

Selling, general and administrative expenses for the three and nine months ended September 30, 2019 reflected share-based compensation expense of \$44.7 million and \$124.0 million, respectively, as compared with \$35.9 million and \$98.1 million for the three and nine months ended September 30, 2018, respectively.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses include costs associated with the design, development, testing, and significant enhancement of our products.

Research and development expenses for the three months ended September 30, 2019, increased by 26% to \$135.9 million, compared with \$107.6 million for the three months ended September 30, 2018. Research and development expenses for the nine months ended September 30, 2019, increased by 34% to \$400.7 million, compared with \$298.2 million for the nine months ended September 30, 2018. The increase was primarily due to higher personnel-related expenses, intangible asset charges, and other project costs incurred to support a broader set of product development initiatives (including Ion and SP platform investments, informatics, advanced instrumentation, advanced imaging, and future generations of robotics).

Share-based compensation expense included within research and development expense was \$26.6 million and \$74.5 million for the three and nine months ended September 30, 2019, respectively, compared with \$20.2 million and \$54.4 million for the three and nine months ended September 30, 2018. For the three and nine months ended September 30, 2019, intangible asset charges were \$0.5 million and \$21.8 million, respectively, as compared with \$1.5 million and \$12.2 million for the three and nine months ended September 30, 2018, respectively.

Research and development expenses fluctuate with project timing. Based upon our broader set of product development initiatives and the stage of the underlying projects, we expect to continue to make substantial investments in research and development and anticipate that research and development expenses will continue to increase in the future.

Interest and Other Income, Net

Interest and other income, net, for the three and nine months ended September 30, 2019, was \$33.3 million and \$93.6 million, respectively, compared with \$21.9 million and \$53.3 million for the three and nine months ended September 30, 2018, respectively. The increase was primarily driven by higher interest earned during the three and nine months ended September 30, 2019, due to higher interest rates and higher cash and investment balances.

Income Tax Expense

Income tax expense for the three months ended September 30, 2019, was \$0.3 million, or 0.1% of income before taxes, compared with \$43.4 million, or 12.9% of income before taxes, for the three months ended September 30, 2018. Income tax expense for the nine months ended September 30, 2019, was \$51.4 million, or 4.8% of income before taxes, compared with \$87.0 million, or 9.4% of income before taxes, for the nine months ended September 30, 2018. The lower effective tax rates for the three and nine months ended September 30, 2019, compared with the same periods of 2018, were primarily due to the tax benefit from the re-measurement of our Swiss deferred tax assets (discussed below).

In August 2019, Swiss tax reform was enacted, which results in a higher statutory tax rate for our Swiss entity for years after 2019. Under U.S. GAAP, changes in tax rates and tax law are accounted for in the period of enactment, and deferred tax assets and liabilities are measured at the enacted tax rate. The impact of the re-measurement of our Swiss deferred tax assets was a benefit of \$51.3 million, which reduced our effective tax rate for the three and nine months ended September 30, 2019 12.9 and 4.8 percentage points, respectively.

Our provision for income taxes for the three and nine months ended September 30, 2019, also included excess tax benefits associated with employee equity plans of \$28.8 million and \$112.8 million, which reduced our effective tax rate by 7.2 and 10.5 percentage points, for the three and nine months ended September 30, 2019, respectively. Our income tax provision is subject to volatility as the amount of excess tax benefits or deficiencies fluctuates from period to period based on the price of our stock, the volume of share-based instruments settled or vested, and the value assigned to employee equity awards under U.S. GAAP.

We are subject to the examination of our income tax returns by the Internal Revenue Service and other tax authorities. The outcome of these audits cannot be predicted with certainty. Management regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. If any issues addressed in our tax audits are resolved in a manner not consistent with management's expectations, we could be required to adjust our provision for income taxes in the period such resolution occurs.

In July 2015, a U.S. Tax Court opinion (the "2015 Opinion") was issued involving an independent third party related to intercompany charges for share-based compensation. Based on the findings of the U.S. Tax Court, we were required to, and did, refund to our foreign subsidiaries the share-based compensation element of certain intercompany charges made in prior periods. Starting from 2015, share-based compensation has been excluded from intercompany charges. In June 2019, the Ninth Circuit Court of Appeals reversed the 2015 Opinion (the "Ninth Circuit Opinion"). Since the Ninth Circuit Opinion potentially is subject to further judicial review, we continue to treat our share-based compensation expense in accordance with the 2015 Opinion and continue to recognize the related tax benefits in our financial statements based upon our evaluation of the position in light of the present facts. In the event of a final opinion which reverses the 2015 Opinion, there may be an adverse impact to our income tax expense and effective tax rate.

Net Income (Loss) Attributable to Noncontrolling Interest in Joint Venture

The Company's majority-owned joint venture (the "Joint Venture") with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. ("Fosun Pharma"), a subsidiary of Fosun International Limited, was established to research, develop, manufacture, and sell robotic-assisted, catheter-based medical devices. The Joint Venture is owned 60% by us and 40% by Fosun Pharma. The catheter-based technology will initially target early diagnosis and cost-effective treatment of lung cancer, one of the most commonly diagnosed forms of cancer in the world. Distribution of catheter-based medical devices in China will be conducted by the joint venture, while distribution outside of China will be conducted by us. The Joint Venture is located in China. In January 2019, the Joint Venture acquired certain assets, including distribution rights, customer relationships, and certain personnel, from Chindex and its affiliates, a subsidiary of Fosun Pharma, and began direct operations for da Vinci products and services in China. As of September 30, 2019, the companies have contributed \$55 million of up to \$100 million required by the joint venture agreement.

We do not expect the Joint Venture to generate revenue in 2019 related to the sale of robotic-assisted, catheter-based medical devices. There can be no assurance that we and the Joint Venture can successfully complete the development of the robotic-assisted, catheter-based medical devices or that we and the Joint Venture will successfully commercialize such products. There can also be no assurance that the joint venture will not require additional contributions to fund its business, that the Joint Venture will become profitable, or that the acquired Chindex assets will be successfully integrated and the expected benefits will be realized.

Net income (loss) attributable to noncontrolling interest in Joint Venture for the three months ended September 30, 2019 was \$1.9 million, compared with \$(0.7) million for the three months ended September 30, 2018. The increase in net income attributable to noncontrolling interest in Joint Venture was primarily due to the re-measurement gain related to the contingent consideration, which reduced costs during the three months ended September 30, 2019. Net loss attributable to noncontrolling interest in Joint Venture for the nine months ended September 30, 2019 was \$2.5 million, compared with \$1.7 million for the nine months ended September 30, 2018. The increased net loss was primarily due to intangible assets amortization expense and higher costs to ramp up operations in China during the nine months ended September 30, 2019.

Liquidity and Capital Resources

Sources and Uses of Cash

Our principal source of liquidity is cash provided by operations and by the issuance of common stock through the exercise of stock options and our employee stock purchase program. Cash and cash equivalents plus short- and long-term investments increased from \$4.8 billion as of December 31, 2018, to \$5.4 billion as of September 30, 2019, primarily from cash provided by our operations. Cash generation is one of our fundamental strengths and provides us with substantial financial flexibility in meeting our operating, investing, and financing needs.

See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" on our Form 10-K for the fiscal year ended December 31, 2018, for discussion on the impact of interest rate risk and market risk on our investment portfolio.

Condensed Consolidated Cash Flow Data (Unaudited)

The following table summarizes our cash flows for the nine months ended September 30, 2019, and 2018 (in millions):

	Nine Months Ended September 30,	
	2019	2018
Net cash provided by (used in)		
Operating activities	\$ 1,045.5	\$ 831.5
Investing activities	(748.2)	(563.3)
Financing activities	(219.2)	92.6
Effect of exchange rates on cash, cash equivalents, and restricted cash	(2.9)	(0.7)
Net increase in cash, cash equivalents, and restricted cash	<u>\$ 75.2</u>	<u>\$ 360.1</u>

Operating Activities

For the nine months ended September 30, 2019, net cash provided by operating activities of \$1,045.5 million exceeded our net income of \$1,019.1 million primarily due to the following reasons:

1. Our net income included non-cash charges: share-based compensation of \$246.6 million; depreciation expense of \$108.0 million; amortization of intangible assets of \$31.2 million; and amortization of contract acquisition assets of \$9.2 million.
2. The non-cash charges outlined above were partially offset by changes in operating assets and liabilities that resulted in \$353.7 million of cash used by operating activities. Operating assets and liabilities are primarily comprised of accounts receivable, inventory, prepaid expenses and other assets, deferred revenue, and other accrued liabilities. Inventory, including the transfer of equipment from inventory to property, plant, and equipment, increased by \$293.4 million, primarily due to more systems under operating lease arrangements and build-up to address the growth in the business as well as to mitigate risks of disruption that could arise from trade, supply, or other matters. Prepaid expenses and other assets increased by \$95.1 million, primarily due to an increase in prepaid taxes, driven by the timing of tax payments. Other accrued liabilities decreased by \$39.5 million, primarily due to the settlement of a legal matter. Accrued compensation and employee benefits decreased by \$6.8 million, primarily due to the payments of 2018 incentive compensation. The unfavorable impact of these items on cash used by operating activities was partially offset by a \$50.6 million decrease in accounts receivable, primarily due to the timing of billings and collections and a \$24.7 million increase in accounts payable, primarily due to the inventory build.

Investing Activities

Net cash used in investing activities during the nine months ended September 30, 2019, consisted primarily of purchases of investments (net of proceeds from sales and maturities of investments) of \$432.8 million, the acquisition of property and equipment of \$283.6 million, and the Schölly Acquisition, net of cash acquired, of \$32.9 million. We invest predominantly in high quality, fixed income securities. Our investment portfolio may, at any time, contain investments in U.S. treasury and U.S. government agency securities, taxable and tax-exempt municipal notes, corporate notes and bonds, commercial paper, non-U.S. government agency securities, cash deposits, and money market funds.

Financing Activities

Net cash used in financing activities during the nine months ended September 30, 2019, consisted primarily of cash used in the repurchase of approximately 0.6 million shares of our common stock in the open market for \$269.5 million and \$152.9 million in taxes paid on behalf of employees related to net share settlements of vested employee equity awards, partially offset by \$205.7 million of proceeds from stock option exercises and employee stock purchases.

Capital Expenditures

Our business is not capital equipment intensive. However, with the growth of our business and our investments in property and facilities and in manufacturing automation, capital investments in these areas have increased. We expect these capital investments to exceed \$300 million in both 2019 and 2020. We intend to fund these needs with cash generated from operations.

Our cash requirements depend on numerous factors, including market acceptance of our products, the resources we devote to developing and supporting our products, and other factors. We expect to continue to devote substantial resources to expand procedure adoption and acceptance of our products. We have made substantial investments in our commercial operations, product development activities, facilities, and intellectual property. Based upon our business model, we anticipate that we will continue to be able to fund future growth through cash provided from operations. We believe that our current cash, cash

equivalents, and investment balances, together with income to be derived from the sale of our products, will be sufficient to meet our liquidity requirements for the foreseeable future.

Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations are based upon our Financial Statements, which have been prepared in accordance with U.S. GAAP. The preparation of these Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses. On an ongoing basis, we evaluate our critical accounting estimates. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. There have been no new or material changes to the critical accounting estimates discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, that are of significance, or potential significance, to the Company.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes in our market risk during the nine months ended September 30, 2019, compared to the disclosures in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2018.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure.

As required by SEC Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION**ITEM 1. LEGAL PROCEEDINGS**

The information included in Note 7 to the Condensed Consolidated Financial Statements (Unaudited) included in Part I, Item 1 of this quarterly report is incorporated herein by reference.

ITEM 1A. RISK FACTORS

You should carefully consider the factors discussed in Part I, “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which could materially affect our business, financial position, or future results of operations. The risks described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial position, or future results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

There were no unregistered sales of equity securities during the period covered by this report.

(c) Issuer Purchases of Equity Securities

The table below summarizes our stock repurchase activity for the quarter ended September 30, 2019.

Fiscal Period	Total Number of Shares Repurchased	Average Price Paid Per Share	Total Number of Shares Purchased As Part of a Publicly Announced Program	Approximate Dollar Amount of Shares That May Yet be Purchased Under the Program (1)
July 1 to July 31, 2019	—	\$ —	—	\$ 1.8 billion
August 1 to August 31, 2019	112,170	\$ 492.26	112,170	\$ 1.7 billion
September 1 to September 30, 2019	28,911	\$ 495.61	28,911	\$ 1.7 billion
Total during quarter ended September 30, 2019	141,081	\$ 492.94	141,081	

(1) Since March 2009, we have had an active stock repurchase program. As of September 30, 2019, our Board of Directors (the “Board”) had authorized an aggregate amount of up to \$7.5 billion for stock repurchases, of which the most recent authorization occurred in January 2019, when the Board increased the authorized amount available under our share repurchase program to \$2.0 billion. The remaining \$1.7 billion represents the amount available to repurchase shares under the authorized repurchase program as of September 30, 2019. The authorized stock repurchase program does not have an expiration date.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

As previously announced, Mr. Salvatore J. Brogna will transition from Executive Vice President and Chief Operating Officer at the end of 2019 and plans to serve as a consultant and advisor to the Company starting in 2020.

On October 14, 2019, the Company entered into a consulting agreement with Mr. Brogna, which provides that, contingent upon the parties’ execution of a Separation Agreement and Release, the Company will engage Mr. Brogna as a business consultant to provide, at the Company’s request, advisory and consultative services, including strategic and business planning and other specialized services, for the period beginning January 1, 2020, and ending on December 31, 2022 (the “Term”). For services rendered during the Term and further subject to Mr. Brogna’s full compliance with the terms of the Proprietary Rights Agreement between the Company and Mr. Brogna, dated March 7, 2017 (the “Proprietary Rights Agreement”), Mr. Brogna will receive a quarterly fee of \$500,000 to be paid in arrears on the last day of each quarter. Pursuant to the terms of the consulting agreement, Mr. Brogna may not provide services to other companies that will conflict with any of Mr. Brogna’s obligations under the Proprietary Rights Agreement and, further, Mr. Brogna may not provide any services to a “competitor” of the Company (as defined in the consulting agreement). Engaging in any such conflict of interest shall constitute a material breach of the consulting agreement and will excuse the Company’s payment of fees for services that have not already been made. Mr. Brogna may terminate the consulting agreement before the end of the Term, for any or no reason, by giving not less than six months’ prior written notice to Company. The Company may terminate the consulting agreement only upon Mr. Brogna’s material breach of any of the provisions of the consulting agreement or the Proprietary Rights Agreement.

On October 14, 2019, Mr. Brogna also entered into a Separation Agreement and Release with an effective date of December 31, 2019. Pursuant to the terms of the Separation Agreement and Release, subject to compliance with the terms of the Proprietary Rights Agreement and Mr. Brogna's release of claims against the Company, Mr. Brogna will remain eligible for his 2019 Corporate Incentive Plan ("CIP") bonus payable in 2020, which will be paid in accordance with the terms and conditions of the 2019 CIP bonus plan. For purposes of determining Mr. Brogna's 2019 CIP bonus, any component of the 2019 CIP bonus that relates to Mr. Brogna's individual performance will be deemed to have been performed at 100%, based on Mr. Brogna's deemed continuous employment through December 31, 2019.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description
3.1	<u>Amended and Restated Certificate of Incorporation of Intuitive Surgical, Inc., as amended (incorporated by reference to Exhibit 3.1 on Form 10-Q filed with the Securities and Exchange Commission on October 20, 2017).</u>
3.2	<u>Amended and Restated Bylaws of Intuitive Surgical, Inc. (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 13, 2016).</u>
10.1	<u>2010 Incentive Award Plan, as amended and restated (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on April 26, 2019).</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
32.1	<u>Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101	The following materials from Intuitive Surgical, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, formatted in XBRL (Extensible Business Reporting Language): (i) the unaudited Condensed Consolidated Balance Sheets, (ii) the unaudited Condensed Consolidated Statements of Comprehensive Income, (iii) the unaudited Condensed Consolidated Statements of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements (unaudited), tagged at Level I through IV.
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, formatted in Inline XBRL and contained in Exhibit 101.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

INTUITIVE SURGICAL, INC.

By: /s/ MARSHALL L. MOHR

Marshall L. Mohr

Executive Vice President and Chief Financial Officer

(Principal Financial Officer and duly authorized signatory)

Date: October 18, 2019

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Gary S. Guthart, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Intuitive Surgical, 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.

Date: October 18, 2019

By:

/s/ GARY S. GUTHART

Gary S. Guthart, Ph.D.
President and Chief Executive Officer

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Marshall L. Mohr, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Intuitive Surgical, 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.

Date: October 18, 2019

By:

/s/ MARSHALL L. MOHR

Marshall L. Mohr
Executive Vice President and Chief Financial Officer

Certification of Chief Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Intuitive Surgical, Inc. (the “Company”) hereby certifies, to such officer’s knowledge, that:

- (i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2019 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 18, 2019

By:

/s/ GARY S. GUTHART

Gary S. Guthart, Ph.D.
President and Chief Executive Officer

Certification of Chief Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Intuitive Surgical, Inc. (the “Company”) hereby certifies, to such officer’s knowledge, that:

- (i) the accompanying Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2019 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 18, 2019

By:

/s/ MARSHALL L. MOHR

Marshall L. Mohr
Executive Vice President and Chief Financial Officer