Table of Contents

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, 2020

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	**77-0416458**
(State or Other Jurisdiction of Incorporation or Organization)	**(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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	▯
		Emerging growth company	▯

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 117,555,484 shares of Common Stock, $0.001 par value per share, outstanding as of October 14, 2020.

INTUITIVE SURGICAL, INC.
TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

in millions (except par values)	September 30, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,370.6	$ 1,167.6
Short-term investments	3,347.6	2,054.1
Accounts receivable, net	588.6	645.2
Inventory	662.9	595.5
Prepaids and other current assets	330.6	200.2
Total current assets	6,300.3	4,662.6
Property, plant, and equipment, net	1,509.7	1,272.9
Long-term investments	1,643.2	2,623.5
Deferred tax assets	360.3	425.6
Intangible and other assets, net	467.7	441.4
Goodwill	336.3	307.2
Total assets	$ 10,617.5	$ 9,733.2
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 116.0	$ 123.5
Accrued compensation and employee benefits	175.2	251.6
Deferred revenue	327.8	337.8
Other accrued liabilities	275.7	317.3
Total current liabilities	894.7	1,030.2
Other long-term liabilities	436.1	418.3
Total liabilities	1,330.8	1,448.5
Contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, 2.5 shares authorized, $0.001 par value, issuable in series; no shares issued and outstanding as of September 30, 2020, and December 31, 2019	—	—
Common stock, 300.0 shares authorized, $0.001 par value, 117.5 shares and 116.0 shares issued and outstanding as of September 30, 2020, and December 31, 2019, respectively	0.1	0.1
Additional paid-in capital	6,304.3	5,756.8
Retained earnings	2,937.2	2,494.5
Accumulated other comprehensive income	16.2	12.4
Total Intuitive Surgical, Inc. stockholders' equity	9,257.8	8,263.8
Noncontrolling interest in joint venture	28.9	20.9
Total stockholders' equity	9,286.7	8,284.7
Total liabilities and stockholders' equity	$ 10,617.5	$ 9,733.2

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

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

in millions (except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
Revenue:				
Product	$ 898.4	$ 944.8	$ 2,521.0	$ 2,666.9
Service	179.3	183.4	508.3	533.9
Total revenue	1,077.7	1,128.2	3,029.3	3,200.8
Cost of revenue:				
Product	287.7	277.3	868.2	807.1
Service	65.7	65.3	195.7	179.5
Total cost of revenue	353.4	342.6	1,063.9	986.6
Gross profit	724.3	785.6	1,965.4	2,214.2
Operating expenses:				
Selling, general and administrative	298.9	284.0	886.1	836.6
Research and development	155.0	135.9	445.3	400.7
Total operating expenses	453.9	419.9	1,331.4	1,237.3
Income from operations	270.4	365.7	634.0	976.9
Interest and other income, net	84.8	33.3	136.5	93.6
Income before taxes	355.2	399.0	770.5	1,070.5
Income tax expense	38.4	0.3	67.3	51.4
Net income	316.8	398.7	703.2	1,019.1
Less: net income (loss) attributable to noncontrolling interest in joint venture	2.9	1.9	7.8	(2.5)
Net income attributable to Intuitive Surgical, Inc.	$ 313.9	$ 396.8	$ 695.4	$ 1,021.6
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	$ 2.68	$ 3.44	$ 5.95	$ 8.86
Diluted	$ 2.60	$ 3.33	$ 5.80	$ 8.56
Shares used in computing net income per share attributable to Intuitive Surgical, Inc.:				
Basic	117.3	115.4	116.8	115.3
Diluted	120.6	119.3	120.0	119.4
Total comprehensive income attributable to Intuitive Surgical, Inc.	$ 307.8	$ 398.5	$ 699.2	$ 1,052.7

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

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

in millions	Nine Months Ended September 30, 2020	2019
Operating activities:		
Net income	$ 703.2	$ 1,019.1
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and loss on disposal of property, plant, and equipment	159.1	108.0
Amortization of intangible assets	37.3	31.2
Gain on investments, accretion, and amortization, net	(64.2)	(6.6)
Deferred income taxes	71.9	(8.3)
Share-based compensation expense	292.3	246.6
Amortization of contract acquisition assets	12.4	9.2
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable	57.2	50.6
Inventory	(177.0)	(293.4)
Prepaids and other assets	(118.8)	(95.1)
Accounts payable	(3.9)	24.7
Accrued compensation and employee benefits	(76.4)	(6.8)
Deferred revenue	(9.2)	5.8
Other liabilities	(26.6)	(39.5)
Net cash provided by operating activities	857.3	1,045.5
Investing activities:		
Purchase of investments	(3,023.2)	(2,543.4)
Proceeds from sales of investments	800.7	82.1
Proceeds from maturities of investments	1,933.5	2,028.5
Purchase of property, plant, and equipment and intellectual property	(279.6)	(283.6)
Acquisition of businesses, net of cash	(37.7)	(31.8)
Net cash provided by (used in) investing activities	(606.3)	(748.2)
Financing activities:		
Proceeds from issuance of common stock relating to employee stock plans	267.9	205.7
Taxes paid related to net share settlement of equity awards	(165.3)	(152.9)
Repurchase of common stock	(100.0)	(269.5)
Capital contribution from noncontrolling interest	—	10.0
Payment of deferred purchase consideration	(48.5)	(12.5)
Net cash used in financing activities	(45.9)	(219.2)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(2.0)	(2.9)
Net increase (decrease) in cash, cash equivalents, and restricted cash	203.1	75.2
Cash, cash equivalents, and restricted cash, beginning of period	1,182.6	909.4
Cash, cash equivalents, and restricted cash, end of period	$ 1,385.7	$ 984.6

The accompanying notes are an integral part of these 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, 2019, 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, 2019, which was filed with the SEC on February 7, 2020. The results of operations for the first nine months of fiscal year 2020 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 condensed consolidated statements of income.

Risks and Uncertainties

The Company is subject to additional risks and uncertainties due to the COVID-19 pandemic. The extent of the impact on the Company's business is highly uncertain and difficult to predict, as the response to the pandemic is in its early stages with no vaccine or new effective treatments available as of the date of this filing. The Company's customers are diverting resources to treat COVID-19 patients and deferring elective surgical procedures, both of which are likely to impact the Company's customers' ability to meet their obligations, including to the Company. Furthermore, capital markets and economies worldwide have been negatively impacted by the COVID-19 pandemic, and it is possible that the impact could cause an extended local and/or global economic recession. Such economic disruption could have a material adverse effect on our business as hospitals curtail and reduce capital and overall spending. Policymakers around the globe have responded with fiscal policy actions to support the healthcare industry and economy as a whole. However, the magnitude and overall effectiveness of these actions remains uncertain.

The severity of the impact of the COVID-19 pandemic on the Company's business will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic and the extent and severity of the impact on the Company's customers, all of which are uncertain and cannot be predicted. The Company's future results of operations and liquidity could be materially adversely affected by delays in payments of outstanding receivables, supply chain disruptions, uncertain or reduced demand, and the impact of any initiatives or programs that the Company may undertake to address financial and operational challenges faced by its customers. As of the date of issuance of these Financial Statements, the extent to which the COVID-19 pandemic may materially adversely affect the Company's financial condition, liquidity, or results of operations is uncertain.

Customer Relief Program

During the second quarter of 2020, the Company introduced a series of programs to provide financial relief to customers (the "Customer Relief Program"). As part of the Customer Relief Program, the Company is providing its customers service fee credits, extending payment terms, and deferring payments related to Intuitive System Leasing arrangements. The Company does not plan on extending the Customer Relief Program beyond the third quarter of 2020.

Service fee credits. As part of the Customer Relief Program, the Company provided service fee credits to customers based on the reduction in the utilization of their systems during the second and third quarters of 2020 relative to a pre-COVID-19 level baseline. The Company reflected the service fee credits as a reduction of service revenue and accounts receivable in the quarter they were earned by its customers. The service fee credit program resulted in a $59 million and $23 million decrease in service revenue in the second and third quarters of 2020, respectively.

Short-term payment relief. In response to the COVID-19 pandemic, the Company has introduced a payment deferral program to provide financial relief to qualified customers. This relief extended payment terms up to 180 days for qualified and creditworthy customers.

The Company also introduced a lease payment deferral program in which creditworthy customers with active Intuitive System Leasing arrangements may elect to defer lease payments up to five months that are payable at the end of the lease by extending the lease term by five months. This program does not result in substantial increases in the rights of the lessor or the obligations of the lessee, and the Company elected to apply the relief provided by the Financial Accounting Standards Board ("FASB") FAQ on accounting for COVID-19 and market volatility by not applying the lease modification guidance in ASC 842 to the lease arrangements affected by the deferrals and lease extensions.

For operating lease arrangements where the lease term is extended by adding the deferred period to the end of the contract, the Company recalculated the straight-line revenue based on the revised terms, consistent with the treatment accepted by the FASB FAQ on accounting for COVID-19. For its sales-type lease arrangements impacted, the Company accounted for the deferral in the timing of lease payments as if there were no changes in the lease contract, consistent with the treatment accepted by the FASB FAQ on accounting for COVID-19. While the short-term payment relief offered did not have a material impact on the results of operations, the Company has deferred $14 million of lease billings and extended payment terms associated with $181 million of billings since the start of the program, of which $85 million remained outstanding as of September 30, 2020.

Recently Adopted Accounting Pronouncements

Credit Losses

In June 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-13, *Measurement of Credit Losses on Financial Instruments (Topic 326)* ("Topic 326"), which replaces existing incurred loss impairment guidance and establishes a single allowance framework for financial assets carried at amortized cost. The Company adopted Topic 326 on January 1, 2020, using a modified retrospective 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. The cumulative-effect adjustment recorded on January 1, 2020, was not material. Please see the description of the Company's "Credit Losses" accounting policy in the "Significant Accounting Policies" section below.

Significant Accounting Policies

With the exception of the aspects within the Customer Relief Program noted above and the change for the accounting of credit losses as a result of the adoption of Topic 326, 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, 2019, that are of significance, or potential significance, to the Company.

Credit Losses

Trade accounts receivable. The allowance for doubtful accounts is based on the Company's assessment of the collectibility of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. For the three and nine months ended September 30, 2020, and 2019, bad debt expense was not significant.

Net investment in sales-type leases. The Company enters into sales-type leases with certain qualified customers to purchase its systems. 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. The allowance for loan loss is based on the Company's assessment of current expected lifetime loss on lease receivables. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the lease receivable balances, and current economic conditions that may affect a customer's ability to pay. Lease receivables are considered past due 90 days after invoice.

The Company manages the credit risk in net investment in sales-type leases using a number of factors, including, but not limited to the following: size of operations; profitability, liquidity, and debt ratios; payment history; and past due amounts. The Company also uses credit scores obtained from external providers as a key credit quality indicator for the purposes of determining credit quality. The following table presents credit quality by class of net investment in sales-type lease as of September 30, 2020. The following table summarizes the amortized cost basis by year of origination and credit quality indicator as of September 30, 2020 (in millions):

	2020	2019	2018	2017	2016	Prior	Net Investment
Credit Rating:							
High	$ 43.1	$ 37.0	$ 14.6	$ 7.9	$ 2.4	$ 1.4	$ 106.4
Moderate	48.4	34.8	21.6	6.8	2.9	0.4	114.9
Low	6.6	1.0	0.4	—	1.0	—	9.0
Total	$ 98.1	$ 72.8	$ 36.6	$ 14.7	$ 6.3	$ 1.8	$ 230.3

For the three and nine months ended September 30, 2020, and 2019, credit losses related to net investment in sales-type leases were not significant.

Available-for-sale debt securities. The Company's investment portfolio at any point in time contains 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. The Company segments its portfolio based on the underlying risk profiles of the securities and have a zero loss expectation for U.S. treasury and U.S. government agency securities. The Company regularly reviews the securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as historical experience, market data, issuer-specific factors, and current economic conditions. For the three and nine months ended September 30, 2020, the credit losses related to available-for-sales debt securities were not significant. For both the three and nine months ended September 30, 2019, there were no credit losses recognized related to available-for-sales debt securities.

The Company's exposure to credit losses may increase if its customers are adversely affected by changes in healthcare laws, coverage, and reimbursement, economic pressures or uncertainty associated with local or global economic recessions, disruption associated with the current COVID-19 pandemic, or other customer-specific factors. Although the Company has historically not experienced significant credit losses, it is possible that there could be a material adverse impact from potential adjustments of the carrying amount of lease and trade receivables as hospital cash flows are impacted by their response to the COVID-19 pandemic and deferral of elective surgical procedures.

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 investments, or long-term investments as of September 30, 2020, and December 31, 2019 (in millions):

						Reported as:		
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments
September 30, 2020								
Cash	$ 508.7	$ —	$ —	$ —	$ 508.7	$ 508.7	$ —	$ —
Level 1:								
Money market funds	745.5	—	—	—	745.5	745.5	—	—
U.S. treasuries	2,337.5	28.9	—	—	2,366.4	108.5	1,405.2	852.7
Subtotal	3,083.0	28.9	—	—	3,111.9	854.0	1,405.2	852.7
Level 2:								
Commercial paper	554.1	—	—	—	554.1	5.0	549.1	—
Corporate debt securities	1,514.8	15.1	(0.2)	—	1,529.7	2.9	1,135.0	391.8
U.S. government agencies	550.2	3.0	—	—	553.2	—	228.0	325.2
Non-U.S. government securities	9.5	—	—	—	9.5	—	4.5	5.0
Municipal securities	92.1	2.2	—	—	94.3	—	25.8	68.5
Subtotal	2,720.7	20.3	(0.2)	—	2,740.8	7.9	1,942.4	790.5
Total assets measured at fair value	$ 6,312.4	$ 49.2	$ (0.2)	$ —	$ 6,361.4	$ 1,370.6	$ 3,347.6	$ 1,643.2

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Reported as: Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2019							
Cash	$ 413.1	$ —	$ —	$ 413.1	$ 413.1	$ —	$ —
Level 1:							
Money market funds	726.8	—	—	726.8	726.8	—	—
U.S. treasuries	1,935.8	9.7	(0.4)	1,945.1	—	890.8	1,054.3
Subtotal	2,662.6	9.7	(0.4)	2,671.9	726.8	890.8	1,054.3
Level 2:							
Commercial paper	165.1	—	—	165.1	25.5	139.6	—
Corporate debt securities	2,096.1	16.8	(0.2)	2,112.7	—	798.5	1,314.2
U.S. government agencies	418.3	1.1	(0.2)	419.2	—	209.6	209.6
Non-U.S. government securities	4.5	—	—	4.5	—	4.5	—
Municipal securities	58.4	0.3	—	58.7	2.2	11.1	45.4
Subtotal	2,742.4	18.2	(0.4)	2,760.2	27.7	1,163.3	1,569.2
Total assets measured at fair value	$ 5,818.1	$ 27.9	$ (0.8)	$ 5,845.2	$ 1,167.6	$ 2,054.1	$ 2,623.5

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, 2020 (in millions):

	Amortized Cost	Fair Value
Mature in less than one year	$ 3,452.0	$ 3,464.0
Mature in one to five years	1,606.2	1,643.2
Total	$ 5,058.2	$ 5,107.2

Actual maturities may differ from contractual maturities, because certain borrowers have the right to call or prepay certain obligations. Gross realized gains recognized on the sale of investments were not material and $8.3 million for the three and nine months ended September 30, 2020, respectively, and not material for the prior year comparative periods. Gross realized losses recognized on the sale of investments were not material for the periods presented.

Equity Investments

The Company holds equity investments with readily determinable fair values and equity investments without readily determinable fair values. The Company generally recognizes equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

The following table is a summary of the activity related to equity investments (in millions):

	December 31, 2019 Carrying Value	Changes in Fair Value [1]	Sales/Purchases/Others [2]	September 30, 2020 Carrying Value	Reported as:	
					Prepaids and other current assets	Intangible and other assets, net
Equity investments with readily determinable value (Level 1)	$ —	$ 6.1	$ 59.8	$ 65.9	$ 65.9	$ —
Equity investments without readily determinable value (Level 2)	$ 24.6	$ 61.5	$ (58.2)	$ 27.9	$ —	$ 27.9

[1] Recorded in Interest and other income, net.

[2] Other includes conversion of certain equity investments without readily determinable value to equity investments with readily determinable value.

The Company recognized a $61.5 million increase in fair value, which was reflected in Interest and other income, net, due to changes in observable prices for certain equity investments that had been held at cost, because they lacked readily determinable market values. A total of $44.8 million of this increase in fair value was related to an equity investment in preferred shares of InTouch Technologies, Inc. ("InTouch"), an entity that was acquired by Teladoc Health, Inc. ("Teladoc"), a publicly traded company, on July 1, 2020. Upon acquisition, the Company's shares were converted to shares in Teladoc, which have a readily determinable value. The Company is restricted from selling these shares for a period of six months. There were no decreases in fair value reflected in net income due to impairments.

Foreign Currency Derivatives

The objective of the Company's hedging program is to mitigate the impact of changes in currency exchange rates on net 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 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 income/(loss) in stockholders' equity and reclassifies the amount 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 ("INR"), Mexican Peso ("MXN"), Chinese Yuan ("CNY"), and New Taiwan Dollar ("TWD").

These derivative instruments are used to hedge against balance sheet foreign currency exposures. The related gains and losses were as follows (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Recognized gains/(losses) in interest and other income, net	$ (5.0)	$ 4.2	$ (3.2)	$ 5.7
Foreign exchange gains/(losses) related to balance sheet re-measurement	$ 5.9	$ (3.8)	$ (1.1)	$ (3.5)

The notional amounts for derivative instruments provide one measure of the transaction volume. Total gross notional amounts (in USD) for outstanding derivatives and the 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, 2020	December 31, 2019	September 30, 2020	December 31, 2019
Notional amounts:				
Forward contracts	$ 144.0	$ 154.5	$ 260.9	$ 227.2
Gross fair value recorded in:				
Prepaids and other current assets	$ 0.9	$ 1.3	$ 0.9	$ 2.2
Other accrued liabilities	$ 1.8	$ 0.5	$ 1.3	$ 0.7

NOTE 4. BALANCE SHEET DETAILS AND OTHER FINANCIAL INFORMATION

Balance Sheet Details

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

	As of	
Inventory	September 30, 2020	December 31, 2019
Raw materials	$ 197.1	$ 211.0
Work-in-process	66.5	75.9
Finished goods	399.3	308.6
Total inventory	$ 662.9	$ 595.5

	As of	
Prepaids and other current assets	September 30, 2020	December 31, 2019
Prepaid taxes	$ 103.3	$ 28.0
Equity investments	65.9	—
Net investment in sales-type leases – short-term	68.7	63.1
Other prepaids and other current assets	92.7	109.1
Total prepaids and other current assets	$ 330.6	$ 200.2

	As of	
Other accrued liabilities–short-term	September 30, 2020	December 31, 2019
Taxes payable	$ 35.3	$ 37.9
Current portion of deferred purchase consideration payments	39.0	35.7
Current portion of contingent consideration	24.8	44.5
Other accrued liabilities	176.6	199.2
Total other accrued liabilities–short-term	$ 275.7	$ 317.3

	As of	
Other long-term liabilities	September 30, 2020	December 31, 2019
Income taxes–long-term	$ 306.5	$ 258.6
Deferred revenue–long-term	30.3	27.4
Other long-term liabilities	99.3	132.3
Total other long-term liabilities	$ 436.1	$ 418.3

Supplemental Cash Flow Information

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

	Nine Months Ended September 30,	
	2020	2019
Equipment transfers, including operating lease assets, from inventory to property, plant, and equipment	$ 123.6	$ 147.6
Deferred payments and contingent consideration related to business combinations	$ 4.1	$ 130.9

NOTE 5. REVENUE AND CONTRACT ACQUISITION COSTS

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
U.S.	2020	2019	2020	2019
Instruments and accessories	$ 467.3	$ 450.7	$ 1,227.2	$ 1,286.7
Systems	157.7	217.2	495.8	610.5
Services	118.8	128.5	337.8	376.1
Total U.S. revenue	$ 743.8	$ 796.4	$ 2,060.8	$ 2,273.3
Outside of U.S. ("OUS")				
Instruments and accessories	$ 163.2	$ 155.5	$ 481.6	$ 450.3
Systems	110.1	121.4	316.3	319.4
Services	60.6	54.9	170.6	157.8
Total OUS revenue	$ 333.9	$ 331.8	$ 968.5	$ 927.5
Total				
Instruments and accessories	$ 630.5	$ 606.2	$ 1,708.8	$ 1,737.0
Systems	267.8	338.6	812.1	929.9
Services	179.4	183.4	508.4	533.9
Total revenue	$ 1,077.7	$ 1,128.2	$ 3,029.3	$ 3,200.8

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. In addition, non-lease elements associated with the Company's lease arrangements are primarily comprised of service contracts that will be satisfied and recognized as revenue in future periods. The transaction price allocated to the remaining performance obligations and the non-lease elements associated with lease arrangements was $1,508 million as of September 30, 2020. The remaining performance obligations are expected to be satisfied over the term of the individual sales arrangements, which generally are 5 years. Service revenue associated with the lease arrangements will generally be recognized over the service period, which generally coincides with the lease term.

Contract Assets and Liabilities

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

	As of	
	September 30, 2020	December 31, 2019
Contract assets	$ 31.1	$ 20.8
Deferred revenue	$ 358.1	$ 365.2

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, 2020, the Company recognized $58.1 million and $249.7 million, respectively, of revenue, net of the impact of the Customer Relief Program, that was included in the deferred revenue balance as of December 31, 2019. During the three and nine months ended September 30, 2019, the Company recognized $57.7 million and $281.4 million, respectively, of revenue that was included in the deferred revenue balance as of December 31, 2018.

Intuitive System Leasing

The following table presents revenue from Intuitive System Leasing arrangements (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales-type lease revenue	$ 24.7	$ 14.8	$ 96.5	$ 34.7
Operating lease revenue	$ 45.7	$ 27.4	$ 127.0	$ 72.9

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 Condensed Consolidated Balance Sheets were $48.5 million and $51.5 million as of September 30, 2020, and December 31, 2019, 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, 2020	December 31, 2019
Gross lease receivables	$ 241.0	$ 191.9
Unearned income	(10.7)	(10.1)
Subtotal	230.3	181.8
Allowance for credit loss	(5.4)	(1.2)
Net investment in sales-type leases	$ 224.9	$ 180.6
Reported as:		
Prepaids and other current assets	$ 68.7	$ 63.1
Intangible and other assets, net	156.2	117.5
Total, net	$ 224.9	$ 180.6

Contractual maturities of gross lease receivables at September 30, 2020, are as follows (in millions):

Fiscal Year	Amount
Remainder of 2020	$ 15.4
2021	72.2
2022	57.9
2023	42.4
2024	34.5
2025 and thereafter	18.6
Total	$ 241.0

NOTE 7. GOODWILL AND INTANGIBLE ASSETS

Acquisitions in 2020

Orpheus Medical

In February 2020, the Company acquired Orpheus Medical Ltd. and its wholly-owned subsidiaries ("Orpheus Medical") to deepen and expand our integrated informatics platform (the "Orpheus Medical Acquisition"). Orpheus Medical provides hospitals with information technology connectivity, as well as expertise in processing and archiving surgical videos.

Acquisitions in 2019

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 $2 million as of September 30, 2020, due to a change in the timing of the projected future revenues. The contingent consideration liability is 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 revenues in 2019 and 2020 and projected future revenues in 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, 2020, the contingent consideration liability changed due to payments of $42.0 million and net additional expense of $7.6 million. 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.

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 $101.4 million consisted of an initial cash payment of $34.4 million and deferred cash payments totaling approximately $67.0 million, of which $34.6 million continues to be deferred as of September 30, 2020. The timing of future payments is based upon achieving certain integration steps, which occur during 2020 and 2021 and are expected to be completed in 2021.

The Company recorded $11.5 million of net tangible assets, which included $6.7 million of inventory and $1.4 million of cash, $31.0 million of intangible assets, and $58.9 million of residual goodwill. Intangible assets included manufacturing process technology of $28.0 million and non-compete provisions of $3.0 million, which are being amortized over a weighted average period of 6.6 years. The allocation of purchase consideration was completed in the third quarter of 2020. The adjustments to the provisional amounts in the measurement period were not material. 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.

Goodwill

The following table summarizes the changes in the carrying amount of goodwill (in millions):

	Amount
Balance at December 31, 2019	$ 307.2
Acquisition activity	29.3
Translation and other	(0.2)
Balance at September 30, 2020	$ 336.3

Intangible Assets

The following table summarizes the components of gross intangible assets, accumulated amortization, and net intangible asset balances as of September 30, 2020 and December 31, 2019 (in millions):

	September 30, 2020			December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$ 198.4	$ (156.2)	$ 42.2	$ 186.7	$ (149.0)	$ 37.7
Distribution rights and others	91.9	(69.5)	22.4	91.3	(44.9)	46.4
Customer relationships	59.0	(34.7)	24.3	57.7	(29.7)	28.0
Total intangible assets	$ 349.3	$ (260.4)	$ 88.9	$ 335.7	$ (223.6)	$ 112.1

Amortization expense related to intangible assets was $12.6 million and $10.7 million for the three months ended September 30, 2020, and 2019, respectively. Amortization expense related to intangible assets was $37.3 million and $31.2 million for the nine months ended September 30, 2020, and 2019, respectively.

The estimated future amortization expense related to intangible assets as of September 30, 2020, is as follows (in millions):

Fiscal Year	Amount
Remainder of 2020	$ 12.2
2021	21.3
2022	18.1
2023	13.4
2024	11.4
2025 and thereafter	12.5
Total	$ 88.9

The preceding expected amortization expense is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, measurement-period adjustments to intangible assets, changes in foreign currency exchange rates, impairments of intangible assets, accelerated amortization of intangible assets, and other events.

NOTE 8. 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.

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 the filed 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.

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. The accused products include the Company's EndoWrist 30, EndoWrist 45, SureForm 45, and SureForm 60 Staplers, as well as the stapler reload cartridges. In March 2020, Ethicon dismissed its claims concerning U.S. Patent No. 7,490,749. The evidentiary hearing has been set for February 8, 2021. 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.

Commercial Litigation

On February 27, 2019, Restore Robotics LLC and Restore Repair LLC ("Restore") filed a complaint alleging anti-trust claims against the Company. On May 13, 2019, Restore filed an amended complaint alleging anti-trust claims relating to the da Vinci Surgical System and EndoWrist service, maintenance, and repair processes. On September 16, 2019, the Court partially granted and partially denied the Company's Motion to Dismiss the amended complaint.

On September 30, 2019, the Company filed an answer denying the anti-trust allegations and a counterclaim against Restore. The Company filed amended counterclaims after the Court partially granted and partially denied Restore's Motion to Dismiss the counterclaim. The amended counterclaims allege that Restore violated the Federal Lanham Act, the Federal Computer Fraud and Abuse Act, and Florida's Deceptive and Unfair Trade Practices Act and that Restore is also liable to the Company for Unfair Competition and Tortious Interference with Contract. On January 7, 2020, the Court denied Restore's Motion to Dismiss the amended counterclaims.

In its initial scheduling order, the Court stated that it anticipated trial in this case to occur in or before February 2022. 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.

On September 28, 2020, Rebotix Repair Inc. ("Rebotix") filed a complaint alleging anti-trust claims against the Company relating to EndoWrist service, maintenance, and repair processes. The complaint was formally served on the Company on October 6, 2020. Based on currently available information, the Company is unable to make a reasonable estimate of loss or range of losses, if any, arising from this matter.

NOTE 9. STOCKHOLDERS' EQUITY

Stockholders' Equity

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

	Three Months Ended September 30, 2020							
	Common Stock							
	Shares	Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
Beginning balance	117.0	$ 0.1	$ 6,085.1	$ 2,633.0	$ 22.3	$ 8,740.5	$ 25.9	$ 8,766.4
Issuance of common stock through employee stock plans	0.5	—	113.9			113.9		113.9
Shares withheld related to net share settlement of equity awards	—	—	(0.5)	(9.7)		(10.2)		(10.2)
Share-based compensation expense related to employee stock plans			105.8			105.8		105.8
Net income attributable to Intuitive Surgical, Inc.				313.9		313.9		313.9
Other comprehensive income (loss)					(6.1)	(6.1)	0.1	(6.0)
Net income attributable to noncontrolling interest in joint venture						—	2.9	2.9
Ending balance	117.5	$ 0.1	$ 6,304.3	$ 2,937.2	$ 16.2	$ 9,257.8	$ 28.9	$ 9,286.7

	Three Months Ended September 30, 2019							
	Common Stock							
	Shares	Amount	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
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					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

	Nine Months Ended September 30, 2020							
	Common Stock							
	Shares	Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Intuitive Surgical, Inc. Stockholders' Equity	Noncontrolling Interest in Joint Venture	Total Stockholders' Equity
Beginning balance	116.0	$ 0.1	$ 5,756.8	$ 2,494.5	$ 12.4	$ 8,263.8	$ 20.9	$ 8,284.7
Adoption of new accounting standard				(0.1)		(0.1)		(0.1)
Issuance of common stock through employee stock plans	2.0	—	267.9			267.9		267.9
Shares withheld related to net share settlement of equity awards	(0.3)	—	(7.5)	(157.8)		(165.3)		(165.3)
Share-based compensation expense related to employee stock plans			292.3			292.3		292.3
Repurchase and retirement of common stock	(0.2)	—	(5.2)	(94.8)		(100.0)		(100.0)
Net income attributable to Intuitive Surgical, Inc.				695.4		695.4		695.4
Other comprehensive income					3.8	3.8	0.2	4.0
Net income attributable to noncontrolling interest in joint venture						—	7.8	7.8
Ending balance	117.5	$ 0.1	$ 6,304.3	$ 2,937.2	$ 16.2	$ 9,257.8	$ 28.9	$ 9,286.7

	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.				1021.6		1021.6		1021.6
Other comprehensive income					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	115.6	$ 0.1	$ 5,600.9	$ 2,142.6	$ 17.8	$ 7,761.4	$ 15.7	$ 7,777.1

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, 2020, the remaining amount of share repurchases authorized by the Board was $1.6 billion.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Shares repurchased	—	0.2	0.2	0.6
Average price per share	$ —	$ 492.94	$ 521.83	$ 481.35
Value of shares repurchased	$ —	$ 69.5	$ 100.0	$ 269.5

Accumulated Other Comprehensive Income (Loss), Net of Tax, 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, 2020				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ 0.4	$ 44.1	$ (13.8)	$ (8.4)	$ 22.3
Other comprehensive income (loss) before reclassifications	(0.8)	(7.1)	2.2	—	(5.7)
Amounts reclassified from accumulated other comprehensive income (loss)	(0.6)	—	—	0.2	(0.4)
Net current-period other comprehensive income (loss)	(1.4)	(7.1)	2.2	0.2	(6.1)
Ending balance	$ (1.0)	$ 37.0	$ (11.6)	$ (8.2)	$ 16.2

	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

	Nine Months Ended September 30, 2020				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ 0.7	$ 20.4	$ —	$ (8.7)	$ 12.4
Other comprehensive income (loss) before reclassifications	2.0	21.3	(11.6)	—	11.7
Amounts reclassified from accumulated other comprehensive income (loss)	(3.7)	(4.7)	—	0.5	(7.9)
Net current-period other comprehensive income (loss)	(1.7)	16.6	(11.6)	0.5	3.8
Ending balance	$ (1.0)	$ 37.0	$ (11.6)	$ (8.2)	$ 16.2

	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

NOTE 10. SHARE-BASED COMPENSATION

In April 2020, 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 28,450,000 to 32,450,000. As of September 30, 2020, approximately 8.2 million shares were reserved for future issuance under the Company's stock plans. A maximum of approximately 3.6 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, 2020, 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, 2019	5.4	$ 246.64
Options granted	0.5	$ 619.59
Options exercised	(1.1)	$ 174.40
Options forfeited/expired	(0.1)	$ 478.67
Balance at September 30, 2020	4.7	$ 299.92

As of September 30, 2020, options to purchase an aggregate of 3.6 million shares of common stock were exercisable at a weighted average price of $230.78 per share.

Restricted Stock Units Information

A summary of RSUs activity under all stock plans for the nine months ended September 30, 2020, is presented as follows (in millions, except per share amounts):

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at December 31, 2019	1.9	$ 410.09
RSUs granted	0.7	$ 540.05
RSUs vested	(0.7)	$ 341.41
RSUs forfeited	(0.1)	$ 463.48
Unvested balance at September 30, 2020	1.8	$ 486.08

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan ("ESPP"), employees purchased approximately 0.2 million shares for $71.2 million and approximately 0.2 million shares for $56.4 million during the nine months ended September 30, 2020, and 2019, respectively.

Share-based Compensation Expense

The following table summarizes share-based compensation expense for the three and nine months ended September 30, 2020, and 2019 (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Cost of sales – products	$ 16.2	$ 12.4	$ 43.0	$ 34.8
Cost of sales – services	7.1	5.6	17.8	14.9
Total cost of sales	23.3	18.0	60.8	49.7
Selling, general, and administrative	54.2	44.7	149.5	124.0
Research and development	29.5	26.6	84.1	74.5
Share-based compensation expense before income taxes	107.0	89.3	294.4	248.2
Income tax benefit	22.3	18.1	61.2	51.0
Share-based compensation expense after income taxes	$ 84.7	$ 71.2	$ 233.2	$ 197.2

The Black-Scholes option pricing model is used to estimate the fair value of stock options granted under the Company's share-based compensation plans and rights to acquire stock granted under the ESPP. The weighted average estimated fair values of stock options and the rights to acquire stock under the ESPP, as well as the weighted average assumptions used in calculating the fair values of stock options and the rights to acquire stock under the ESPP that were granted during the three and nine months ended September 30, 2020, and 2019, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Stock Options				
Risk-free interest rate	0.2%	1.5%	0.6%	2.0%
Expected term (in years)	3.9	3.9	4.1	4.1
Expected volatility	34%	30%	32%	30%
Fair value at grant date	$187.94	$127.19	$160.72	$142.22
ESPP				
Risk-free interest rate	0.1%	1.9%	0.9%	2.1%
Expected term (in years)	1.3	1.2	1.2	1.2
Expected volatility	34%	29%	30%	29%
Fair value at grant date	$203.56	$146.48	$171.87	$148.99

NOTE 11. INCOME TAXES

Income tax expense for the three months ended September 30, 2020, was $38.4 million, or 10.8% of income before taxes, compared to $0.3 million, or 0.1% of income before taxes, for the three months ended September 30, 2019. Income tax expense for the nine months ended September 30, 2020, was $67.3 million, or 8.7% of income before taxes, compared to $51.4 million, or 4.8% of income before taxes, for the nine months ended September 30, 2019.

The effective tax rates for the three and nine months ended September 30, 2020, and 2019, differed from the U.S. federal statutory rate of 21% mainly due to 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, 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 effective tax rate for the three and nine months ended September 30, 2019, reflected a $51.3 million decrease in income tax expense as a result of the re-measurement of Swiss deferred tax assets due to a Swiss tax rate change. The effective tax rate for the nine months ended September 30, 2020, reflected a $36.8 million increase in income tax expense discussed below.

In July 2015, a U.S. Tax Court opinion (the "2015 Opinion") was issued involving an independent third party related to charging foreign subsidiaries for share-based compensation. Based on the findings of the U.S. Tax Court, direct share-based compensation has been excluded from the Company's intercompany charges starting in 2015. In June 2019, the Ninth Circuit Court of Appeals (the "Ninth Circuit") reversed the 2015 Opinion (the "Ninth Circuit Opinion"). Subsequently, a re-hearing of the case was requested but was denied in November 2019. In February 2020, a petition was filed to appeal the Ninth Circuit Opinion to the U.S. Supreme Court. The petition was denied by the U.S. Supreme Court on June 22, 2020, which makes the Ninth Circuit Opinion binding precedent in the Ninth Circuit. As a result, the Company increased its unrecognized tax benefits by $36.8 million with a corresponding increase to income tax expense for the three months ended June 30, 2020, related to the intercompany charges for share-based compensation for relevant periods prior to 2020. The Company will continue to monitor future Internal Revenue Service ("IRS") actions or other developments regarding this matter and will assess the impact of any such developments to its income tax provision in the quarter that they occur. The Company is treating share-based compensation expense in accordance with the Ninth Circuit Opinion for 2020 and going forward.

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 evolving interpretations of existing tax laws in the jurisdictions the Company operates, 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 IRS 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 12. NET INCOME PER SHARE

The following table presents the computation of basic and diluted net income per share attributable to Intuitive Surgical, Inc. (in millions, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Numerator:				
Net income attributable to Intuitive Surgical, Inc.	$ 313.9	$ 396.8	$ 695.4	$ 1,021.6
Denominator:				
Weighted average shares outstanding used in basic calculation	117.3	115.4	116.8	115.3
Add: dilutive effect of potential common shares	3.3	3.9	3.2	4.1
Weighted average shares outstanding used in diluted calculation	120.6	119.3	120.0	119.4
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	$ 2.68	$ 3.44	$ 5.95	$ 8.86
Diluted	$ 2.60	$ 3.33	$ 5.80	$ 8.56

Share-based compensation awards of approximately 0.2 million and 0.8 million shares for the three months ended September 30, 2020, and 2019, respectively, and approximately 0.9 million and 0.6 million for the nine months ended September 30, 2020, and 2019, 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, 2020, and results of operations for the three and nine months ended September 30, 2020, and 2019, 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, 2019.

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 the expected impacts of the COVID-19 pandemic on our business, financial condition, and results of operations, the strength of our long-term fundamentals, the potential decline of procedure volume, our acquisitions, expected 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: our ability to obtain accurate procedure volume in the midst of the COVID-19 pandemic; the risk that the COVID-19 pandemic could lead to further material delays and cancellations of, or reduced demand for, procedures; curtailed or delayed capital spending by hospitals; disruption to our supply chain; closures of our facilities; delays in surgeon training; delays in gathering clinical evidence; the evaluation of the risks of robotic-assisted surgery in the presence of infectious diseases; diversion of management and other resources to respond to the COVID-19 outbreak; the impact of global and regional economic and credit market conditions on healthcare spending; the risk that the COVID-19 virus disrupts local economies and causes economies in our key markets to enter prolonged recessions; 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; 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 acquisitions, including Schölly Fiberoptic's robotic endoscope business and Orpheus Medical; 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; risks associated with our operations outside of the United States; unanticipated manufacturing disruptions or the inability to meet demand for products; our reliance on sole and single source suppliers; 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; changes in tariffs, trade barriers, and regulatory requirements; 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, 2019, 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.

Overview

Intuitive is committed to advancing patient care in surgery and other acute medical interventions. We are focused on innovating to enable physicians and healthcare providers to improve the quality of and access to minimally invasive care. 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. 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 healthcare 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 technological advances in biology, computing, imaging, algorithms, and robotics offer the promise of new methods to solve old and difficult problems.

We address these needs by focusing on 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.

Open surgery remains the predominant form of surgery and is used in almost every area of the body. However, the large incisions required for open surgery create trauma to patients, typically resulting in longer hospitalization and recovery times, increased hospitalization costs, and additional pain and suffering relative to minimally invasive surgery ("MIS"), where MIS is available. For over three decades, MIS has reduced trauma to patients by allowing selected surgeries to be performed through small ports rather than large incisions. MIS has been widely adopted for certain surgical procedures.

Da Vinci Surgical Systems enable surgeons to extend the benefits of 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 and accessories, da Vinci Stapling, da Vinci Energy, and da Vinci Vision, including Firefly Fluorescence imaging systems ("Firefly") 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 approach, offering 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 we have an installed base of 58 da Vinci SP Surgical Systems as of September 30, 2020. 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 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 approximately 70 different multi-port da Vinci instruments to provide surgeons with 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 Intuitive Simulation products, our Intuitive Telepresence remote case observation and telementoring tools, and our dual console for use in surgeon proctoring and collaborative surgery.

During the first quarter of 2019, the FDA cleared our Ion endoluminal system to enable minimally invasive biopsies in the lung. Our Ion system extends our commercial offering beyond surgery into diagnostic procedures 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 placed 32 Ion systems for commercial use as of September 30, 2020. Ion systems are not included in our da Vinci Surgical System installed base. We currently have 3 Ion systems placed with hospitals for gathering clinical data in addition to the systems placed for commercial use.

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.

COVID-19 Pandemic

First Quarter of 2020

Prior to the spread of COVID-19 in the first quarter of 2020, we experienced procedure growth trends consistent with those experienced in the fourth quarter of 2019, including strength in general surgery, growth in mature procedures in the U.S., and growth in OUS urology. We also saw early strength in capital placements, particularly in the U.S., with over half the systems placed in the first quarter of 2020 related to arrangements where the sales cycle was mostly completed in the fourth quarter of 2019. Beginning in January 2020, we saw a substantial reduction in da Vinci procedures in China and, by early February 2020, procedures per week in China had declined by approximately 90% compared to the weekly procedure rates experienced in early January 2020. As the COVID-19 pandemic subsided in China in March 2020, da Vinci procedure volume began to recover and, by the end of the first quarter of 2020, China procedures per week were approximately 70% of the early January 2020 weekly procedure rate. As the COVID-19 pandemic spread to Western Europe and the U.S., we experienced a significant decline in da Vinci procedures in the last half of March 2020. As the U.S. Surgeon General recommended that elective procedures be postponed and hospitals pivoted to providing care to COVID-19 patients, procedures per week in the U.S., which represented approximately 72% of our procedure volume in 2019, declined to approximately 65% of the weekly procedure rate experienced earlier in the first quarter of 2020.

Second Quarter of 2020

In April, procedures per week in the U.S. continued to decline, reaching approximately 30% of pre-COVID-19 levels. In May and June, U.S. procedures began a recovery phase, as COVID-19 cases dropped and elective procedures were permitted, and, by the middle of June, had grown to nearly the same level as that measured in the first two weeks of the first quarter of 2020. However, in the last two weeks of June and into July, with the resurgence of COVID-19 cases, some regions postponed elective procedures, and we experienced a corresponding decline in da Vinci procedures. The impact of COVID-19 in Europe during the second quarter varied by country with procedures in Italy, France, and the UK declining more steeply, while Germany experienced a year-over-year increase in procedures. During the second quarter of 2020, China procedures per week continued to increase to a level consistent with the early January 2020 weekly procedure rate. Consistent with the first quarter of 2020, we experienced little impact on the procedure volume in South Korea and Japan in the second quarter of 2020.

Third Quarter of 2020

In the U.S., procedures recovered slowly, leveling off near pre-COVID-19 levels towards the end of the quarter. Outside of the U.S., da Vinci procedures varied depending on the spread and/or resurgence of COVID-19. For example, COVID-19 had a less significant impact in Germany where da Vinci procedures grew at mid single digits relative to the third quarter of 2019, while it had a more significant impact in the U.K. where da Vinci procedures declined year over year. Procedures in China grew significantly year over year, while regional COVID-19 outbreaks resulted in year-over-year procedure growth rates in Japan slowing somewhat relative to the second quarter. The COVID-19 pandemic has also affected the volumes of certain procedure types differently. For example, patient concerns over exposure to COVID-19 and the fact that prostate cancer can be slow growing, combined with lower prostate diagnoses and treatments, have caused the number of dVP procedures to decline in the

third quarter of 2020 relative to the third quarter of 2019. Da Vinci bariatric procedures grew significantly year over year due to our optimized instrument set and focus by our sales organization and may also have benefited from certain patients prioritizing weight loss as obesity is a significant COVID-19 risk factor. However, the diagnoses and treatment pathways for bariatric patients are long, and many of the patients in the third quarter may have begun their treatment pathway prior to the spread of COVID-19; therefore, we cannot assure you that we will continue to see significant growth in bariatric procedures.

While total worldwide procedures per week have improved to near pre-COVID-19 procedure levels, procedure volumes vary by country, region, and type. It is possible that a growth or resurgence in COVID-19 infections will negatively impact da Vinci procedures. We continue to see that, when COVID-19 infections rates spike in a particular region, procedure volumes are negatively impacted and the diagnoses of new conditions are deferred. Furthermore, we do not expect all markets to recover at the same pace. Due to the uncertainty of the recovery, including the potential for COVID-19 infection rates to increase, coupled with additional policy responses that may be outlined by governments and other authorities, we cannot reliably estimate the impact that the COVID-19 pandemic may have on procedure volume in the fourth quarter of 2020 and beyond.

System Demand

As the impact of the COVID-19 pandemic progressed through the first and second quarters of 2020, customers in affected regions deferred decisions to purchase or lease systems into future quarters and, in some cases, indefinitely. These deferral decisions continued into the third quarter of 2020. In addition, the year-to-date decline in procedures and, in turn, the reduced utilization of our systems has resulted in unused capacity in the existing installed base. We expect hospitals to first fill their unused capacity before purchasing additional systems. The depth and extent to which the COVID-19 pandemic will impact individual markets will vary based on the availability of testing capabilities, personal protective equipment, intensive care units and operating rooms, and medical staff, as well as government interventions. As COVID-19 continues to disrupt healthcare operations and patient flow, we expect that system placements will lag behind the recovery of da Vinci procedure volume. While we cannot reliably estimate the extent or period of time over which the COVID-19 pandemic and the resultant economic recession will impact hospital spending, we anticipate lower year-over-year system placements for the remainder of 2020.

Customer Relief Program

In April, we announced a program to provide financial relief to our customers. The program is comprised of three main elements. The first element provided credits against service fees otherwise due in the six-month period from April 1 through September 30, 2020, that generally reflects the under-utilization of the system during that period. Those credits were offered to most customers worldwide. The second element of the program deferred certain lease payments, and the third extended certain payment terms. Service fee credits resulted in an approximately $59 million and $23 million decrease in service revenue in the second quarter of 2020 and third quarter of 2020, respectively. While the short-term payment relief offered did not have a material impact to the results of operations, we deferred $14 million of lease billings and extended payment terms associated with $181 million of trade receivables since the start of the program, of which $85 million remain outstanding at the end of the third quarter of 2020. We may be subject to increased credit risks resulting in collection delinquencies and defaults, which could materially impact our bad debt write-offs and provisions for credit losses. Although we have programs in place that are designed to monitor and mitigate the associated risks, there can be no assurance that such programs will be effective in reducing credit risks relating to these lease financing arrangements and extended payment terms.

General Increase in Risks

Capital markets and worldwide economies have been significantly impacted by the COVID-19 pandemic, and it is possible that it could cause a prolonged recession in local and/or global economies. Such economic recession could have a material adverse effect on our long-term business as hospitals curtail and reduce capital and overall spending. The COVID-19 pandemic and local actions, such as “shelter-in-place” orders and restrictions on our ability to travel and access our customers or temporary closures of our facilities, including our manufacturing operations, or the facilities of our suppliers and their contract manufacturers, could further significantly impact our sales and our ability to produce and ship our products and supply our customers. Any of these events could negatively impact the number of da Vinci procedures performed or the number of system placements and have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Our Response

Our priorities and actions during the COVID-19 pandemic are as follows. First, we are focused on the health and safety of all those we serve – patients, customers, our communities, and our employees – implementing continuous updates to our health and safety policies and processes. Second, we are supporting our customers according to their priorities – clinical, operational, and economic – and ensuring continuity of supply by working with our suppliers and our distributors. Fourth, we are securing our workforce economically. We have built a valuable team over the years, and we believe they will be important in the recovery that follows the pandemic. Fifth, we will continue to invest in our priority development programs while eliminating avoidable spend.

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 and usage-based models 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 instruments and accessories revenue per surgical procedure performed, depending on the type and complexity of the specific procedures performed and the number and type of instruments used. Further, we plan to launch our Extended Use Program (refer to further discussion immediately below), which will reduce the overall instruments and accessories revenue per procedure. We typically enter into service contracts at the time systems are sold or leased 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.

We generate revenue from the placements of the Ion endoluminal system in a business model consistent with the da Vinci Surgical System model described above. We generate revenue from the placements of the Ion system, and we earn recurring revenue from the sales of instruments and accessories used in biopsies and ongoing system service. Ion systems are presented separately from our da Vinci Surgical Systems installed base. We are introducing the Ion system in the U.S. in a measured fashion. For the three and nine months ended September 30, 2020, Ion's contribution to revenue and gross margin was not significant.

Extended Use Program

In July 2020, we introduced our "Extended Use Program," which consists of select Xi/X instruments possessing 12 to 18 uses ("Extended Use Instruments") compared to the current 10 use instruments. These Extended Use Instruments represent some of our higher volume instruments but exclude stapling, monopolar, and advanced energy instruments. Instruments included in the program are used across a number of da Vinci surgeries. Their increased uses are the result of continuous, significant investments in the design and production capabilities of our instruments, resulting in improved quality and durability. Extended Use Instruments have been introduced in the U.S. in October 2020. They will be introduced later in the fourth quarter in Europe and at various times throughout 2021 and 2022 in other geographies, depending on regulatory processes. In addition, simultaneous with the regional launches of Extended Use Instruments, we will lower the price of certain instruments that are most commonly used in lower acuity procedures and/or lower reimbursed procedures within the region. These actions will reduce the cost for customers to treat patients, which in turn will reduce our revenue per procedure. Based on 2019 volume and mix of procedures, our Extended Use Program and the reduced pricing on certain other instruments would have reduced 2019 annual instruments and accessories revenue by approximately $150 to $170 million. The impact of these actions on future revenue will be dependent on the future volume and mix of procedures and whether cost elasticity will enable greater penetration into available markets.

Recurring Revenue

Recurring revenue consists of instruments and accessories revenue, service revenue, and operating lease revenue. Recurring revenue increased to $3.2 billion, or 72% of total revenue in 2019, compared to $2.6 billion, or 71% of total revenue in 2018, and $2.2 billion, or 71% of total revenue in 2017.

Instruments and accessories revenue has grown at a faster rate than systems revenue over time. Instruments and accessories revenue increased to $2.4 billion in 2019, compared to $2.0 billion in 2018 and $1.6 billion in 2017. The growth of instruments and accessories revenue largely reflects continued procedure adoption.

Service revenue increased to $724 million in 2019, compared to $635 million in 2018 and $573 million in 2017. Service revenue growth has been driven by the growth of the installed base of da Vinci Surgical Systems. The installed base of da Vinci Surgical Systems grew 12% to approximately 5,582 at December 31, 2019; 13% to approximately 4,986 at December 31, 2018; and 13% to approximately 4,409 at December 31, 2017.

We use the installed base, number of shipments, and utilization of da Vinci Surgical Systems as metrics for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Management believes that the installed base, number of shipments, and utilization of da Vinci Surgical Systems provide meaningful supplemental information regarding our performance, as management believes that the installed base, number of shipments, and utilization of da Vinci Surgical Systems are an indicator of the rate of adoption of robotic-assisted surgery as well as an indicator of future recurring revenue (particularly service revenue). Management believes that both it and investors benefit from referring to the installed base, number of shipments, and utilization of da Vinci Surgical Systems in assessing our performance and when planning,

forecasting, and analyzing future periods. The installed base, number of shipments, and utilization of da Vinci Surgical Systems also facilitate management's internal comparisons of our historical performance. We believe that the installed base, number of shipments, and utilization of da Vinci Surgical Systems are useful to investors as metrics, because (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making, and (2) they are used by institutional investors and the analyst community to help them analyze the performance of our business. The vast majority of da Vinci Surgical Systems installed are connected via the internet. System logs can also be accessed by field engineers for systems that are not connected to the internet. We utilize this information as well as other information from agreements and discussions with our customers that involve estimates and judgments, which are, by their nature, subject to substantial uncertainties and assumptions. Estimates and judgments for determining the installed base, number of shipments, and utilization of da Vinci Surgical Systems may be impacted over time by various factors, including system internet connectivity, hospital and distributor reporting behavior, and inherent complexities in new agreements. Such estimates and judgments are also susceptible to technical errors. In addition, the relationship between the installed base, number of shipments, and utilization of da Vinci Surgical Systems and our revenues may fluctuate from period to period, and growth in the installed base, number of shipments, and utilization of da Vinci Surgical Systems may not correspond to an increase in revenue. The installed base, number of shipments, and utilization of da Vinci Surgical Systems are not intended to be considered in isolation or as a substitute for, or superior to, revenue or other financial information prepared and presented in accordance with GAAP.

The COVID-19 pandemic reduced the number of shipments of da Vinci Surgical Systems in the third quarter of 2020 as compared to the prior year. Based on the factors outlined in the *COVID-19 Pandemic* section above, historical system shipment trends may not be a good indicator of future system shipments.

Intuitive 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 systems and expand their robotic-assisted surgery programs while leveraging our balance sheet. These leases generally have commercially competitive terms as compared to other third-party entities that offer equipment leasing. We have also entered into usage-based arrangements with larger customers that have committed da Vinci programs where we charge for the system and service as the systems are utilized. We include operating and sales-type leases, and systems placed under usage-based arrangements, in our system shipment and installed base disclosures. We exclude operating lease-related revenue, usage-based revenue, and Ion system revenue from our da Vinci Surgical System average selling price ("ASP") computations.

In the years ended December 31, 2019, 2018, and 2017, we shipped 425, 272, and 139 systems, respectively, under lease and usage-based arrangements, of which 384, 229, and 108 systems, respectively, were operating lease and usage-based arrangements. Revenue from operating lease arrangements is generally recognized on a straight-line basis over the lease term. For usage-based arrangements, systems revenue and service revenue are 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 is included in our operating lease metrics herein. Operating lease revenue has grown at a faster rate than overall systems revenue and was $106.9 million, $51.4 million, $25.9 million for the years ended December 31, 2019, 2018, and 2017, respectively. Generally, lease transactions generate similar gross margins as our sale transactions.

Our system leasing and usage-based models provide customers with flexibility regarding how they acquire or obtain access to our systems. We believe that these alternative financing structures 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 and usage-based arrangements is recognized over time, total systems revenue growth is reduced in a period when the number of operating lease and usage-based placements increases as a proportion of total system placements.

Our exposure to the credit risks relating to our lease financing arrangements may increase if our customers are adversely affected by changes in healthcare laws, coverage, and reimbursement, economic pressures or uncertainty, including disruption associated with the current COVID-19 pandemic, or other customer-specific factors. In addition, as customers divert significant resources to the treatment of or the preparation to treat patients with the COVID-19 virus, we may be exposed to defaults under our lease financing arrangements. Moreover, usage-based arrangements generally contain no minimum payments; therefore, customers may exit such arrangements without paying a financial penalty to us. As a result of the COVID-19 pandemic, we anticipate that some customers will exit such arrangements or seek to amend the terms of our operating lease and usage-based arrangements with them.

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 $92.8 million, $48.8 million, and $39.5 million for the years ended December 31, 2019,

2018, and 2017, 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. Systems revenue is also affected by the proportion of system placements under operating lease and usage-based arrangements, recurring operating lease and usage-based revenue, operating lease buyouts, product mix, ASPs, trade-in activities, and customer mix. System revenue grew 19% to $1,346 million in 2019; 21% to $1,127 million in 2018; and 16% to $928 million in 2017. Based on the factors outlined in the *COVID-19 Pandemic* section above, the ability to forecast future system shipments has been significantly disrupted and, therefore, we believe that historical system shipment trends may not be a good indicator of future system shipments.

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 is 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 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 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. As a result of the factors outlined in the *COVID-19 Pandemic* section above, including the recommendations of authorities to defer elective procedures, historical procedure patterns may be disrupted.

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), China, Japan, South Korea, India, and Taiwan. In 2018, we began direct operations in India and Taiwan. In January 2019, our Intuitive-Fosun joint venture began direct sales 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 generally obtained the clearances required to market our products associated with our da Vinci Surgical Multiport 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. Since 2018, we obtained regulatory clearances for the following products:

- In November 2019, we obtained FDA clearance for our SynchroSeal instrument and E-100 generator. Following the FDA clearance, in February 2020, we received CE mark clearance for both products. In March 2020, we received regulatory clearance in Japan to market both our SynchroSeal instrument and E-100 generator.
- In July 2019, we obtained FDA clearance for our SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload, which round out our SureForm 45 portfolio. We have also received CE mark clearance for our SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload.
- 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 FDA clearance for our da Vinci Endoscope Plus. We have also received regulatory clearances in South Korea and Japan to market our da Vinci Endoscope Plus in December 2019 and May 2020, respectively.
- In June 2019, we obtained FDA clearance for our da Vinci Handheld Camera and, in February 2020, we received CE mark clearance.
- In February 2019, we obtained 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. 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 placed 32 Ion systems for commercial use as of September 30, 2020.
- In February 2019, we obtained 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 pre- and intra-operative settings. We are currently conducting a pilot study of our Iris product and service in the field at a small group of U.S. hospitals to gain initial product experience and insights.
- In December 2018, we received product registration approval for our da Vinci Xi Surgical System in China. The Xi registration approval does not include advanced energy or stapling products that attach to the Xi system. Separate product registrations are required for each of these products with the 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. After an adjustment notice published in the third quarter of 2020, the government will now allow for the total sale of 225 new surgical robots into China, which could include da Vinci Surgical Systems as well as surgical systems introduced by others. As of September 30, 2020, we have sold 100 da Vinci Surgical Systems under this quota. Future 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 May 2018 and July 2018, we received CE mark clearance and FDA clearance, respectively, to market SureForm 60, our da Vinci EndoWrist 60mm Stapler. In January 2019 and February 2019, we obtained FDA clearance and CE mark clearance, respectively, to market SureForm 45. We have also received regulatory clearance in Taiwan, South Korea, and Japan to market both SureForm 60 and SureForm 45.
- In May 2018, we obtained 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 obtained 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 an installed base of 58 da Vinci SP Surgical Systems as of September 30, 2020.
- In September 2017 and April 2018, we obtained CE mark clearance and FDA clearance, respectively, for our da Vinci Vessel Sealer Extend.

Refer to the descriptions of our products that received regulatory clearances in 2020, 2019, and 2018 in the New Product Introductions section below.

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 and conventional laparoscopic 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. An additional 7 da Vinci procedures were granted reimbursement effective April 1, 2020. These additional 19 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 19 procedures, there can be no assurance that the adoption pace for these procedures will be similar to dVP or partial nephrectomy, given their higher reimbursement, or any other da Vinci procedure.

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.

We use the number and type of da Vinci procedures as metrics for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Management believes that the number and type of da Vinci procedures provide meaningful supplemental information regarding our performance, as management believes procedure volume is an indicator of the rate of adoption of robotic-assisted surgery as well as an indicator of future revenue (including revenue from usage-based arrangements). Management believes that both it and investors benefit from referring to the number and type of da Vinci procedures in assessing our performance and when planning, forecasting, and analyzing future periods. The number and type of da Vinci procedures also facilitate management's internal comparisons of our historical performance. We believe that the number and type of da Vinci procedures are useful to investors as metrics, because (1) they allow for greater transparency with respect to key metrics used by management in its financial and operational decision-making, and (2) they are used by institutional investors and the analyst community to help them analyze the performance of our business. The vast majority of da Vinci Surgical Systems installed are connected via the internet. System logs can also be accessed by field engineers for systems that are not connected to the internet. We utilize certain methods that rely on information collected from the systems installed for determining the number and type of da Vinci procedures performed that involve estimates and judgments, which are, by their nature, subject to substantial uncertainties and assumptions. Estimates and judgments for determining the number and type of da Vinci procedures may be impacted over time by various factors, including changes in treatment modalities, hospital and distributor reporting behavior, and system internet connectivity. Such estimates and judgments are also susceptible to algorithmic or other technical errors. In addition, the relationship between number and type of da Vinci procedures and our revenues may fluctuate from period to period, and da Vinci procedure volume growth may not correspond to an increase in

revenue. The number and type of da Vinci procedures are not intended to be considered in isolation or as a substitute for, or superior to, revenue or other financial information prepared and presented in accordance with GAAP.

The COVID-19 pandemic reduced the number of da Vinci procedures performed by our customers in the first three quarters of 2020 as compared to our expectations. Based on the factors outlined in the *COVID-19 Pandemic* section above, the ability to forecast future procedures based on historical procedure patterns has been disrupted. Therefore, we believe that historical procedure trends may not be a good indicator of future procedure volumes.

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 the sale or use of any Intuitive 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 as compared to non-da Vinci alternatives and to provide 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. 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 of 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 2019, approximately 1,229,000 surgical procedures were performed with da Vinci Surgical Systems, compared to approximately 1,038,000 and 877,000 surgical procedures performed with da Vinci Surgical Systems in 2018 and 2017, respectively. The growth in our overall procedure volume in 2019 was driven by growth in U.S. general surgery procedures and worldwide urology procedures.

U.S. Procedures

Overall U.S. procedure volume with da Vinci Surgical Systems grew to approximately 883,000 in 2019, compared to approximately 753,000 in 2018 and approximately 644,000 in 2017. General surgery was our largest and fastest growing U.S. specialty in 2019 with procedure volume that grew to approximately 421,000 in 2019, compared to approximately 325,000 in 2018 and approximately 246,000 in 2017. Gynecology was our second largest U.S. surgical specialty in 2019 with procedure volume that grew to approximately 282,000 in 2019, compared to approximately 265,000 in 2018 and approximately 252,000 in 2017. Urology was our third largest U.S. surgical specialty in 2019 with procedure volume that grew to approximately 138,000 in 2019, compared to approximately 128,000 in 2018 and approximately 118,000 in 2017.

Procedures Outside of the U.S.

Overall OUS procedure volume with da Vinci Surgical Systems grew to approximately 346,000 in 2019, compared to approximately 285,000 in 2018 and approximately 233,000 in 2017. Procedure growth in most OUS markets was driven largely by urology procedure volume, which grew to approximately 206,000 in 2019, compared to approximately 175,000 in 2018 and approximately 149,000 in 2017. General surgery and gynecology procedures also contributed to OUS procedure growth.

Recent Business Events and Trends

Procedures

Overall. Total da Vinci procedures performed by our customers grew approximately 7% for the three months ended September 30, 2020, compared to approximately 20% for the three months ended September 30, 2019. Total da Vinci procedures performed declined approximately 1% for the nine months ended September 30, 2020, as compared to the same period in the prior year. Total da Vinci procedures grew approximately 18% for the nine months ended September 30, 2019. The third quarter and year-to-date 2020 procedure results reflect significant disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. We saw continued recovery and growth in most of the major procedure categories during the third quarter of 2020, most notably in general surgery procedures (particularly bariatrics) and, to a lesser extent, gynecology and urology procedures. The rates of recovery in urology procedures appear to have been particularly impacted by the COVID-19 pandemic due to delays in both the diagnosis of and procedures in patient populations that are considered to be at higher risk from COVID-19 infections as well as for conditions that may progress more slowly.

U.S. Procedures. U.S. da Vinci procedures grew approximately 7% for the three months ended September 30, 2020, compared to approximately 18% for the three months ended September 30, 2019. U.S. da Vinci procedures declined approximately 3% for the nine months ended September 30, 2020, as compared to the same period in the prior year. U.S. da Vinci procedures grew approximately 17% for the nine months ended September 30, 2019. The third quarter and year-to-date 2020 U.S. procedure results reflect significant disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. We saw varied performance in each of the procedure categories during the third quarter of 2020, with growth in general surgery and gynecology procedures offset by declines in urology procedures. We are seeing patients delay non-urgent procedures to a greater extent, particularly when patients are at higher risk of COVID-19.

OUS Procedures. OUS da Vinci procedures grew approximately 9% for the three months ended September 30, 2020, compared to approximately 23% for the three months ended September 30, 2019. OUS da Vinci procedures grew approximately 5% for the nine months ended September 30, 2020, compared to approximately 21% for the nine months ended September 30, 2019. The third quarter and year-to-date 2020 OUS procedure growth reflects significant procedure disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. The disruption was more pronounced in the UK and India. Due to the COVID-19 outbreak in China during the first quarter of 2020, as noted in the *COVID-19 Pandemic* section above, China's procedure volume decreased as compared to the first quarter of 2019. However, during the second and third quarters of 2020, the procedure volume in China recovered and increased as compared to the second and third quarters of 2019. During the third quarter of 2020, the impact of the COVID-19 pandemic on procedure volume in Japan was higher than in previous quarters.

System Demand

Future demand for da Vinci Surgical Systems will be impacted by a number of factors: economic and geopolitical factors; the impact of the current COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above; hospital response to the evolving healthcare environment; 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; and market response.

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-assisted surgery competition, including from companies that have introduced products in the field of robotic-assisted surgery or have made explicit statements about their efforts to enter the field including, but not limited to, avateramedical GmbH; CMR Surgical Ltd.; Johnson & Johnson (including their wholly owned subsidiaries Auris Health, Inc. and Verb Surgical Inc.); Medicaroid, Inc.; Medrobotics Corporation; Medtronic plc; meerecompany Inc.; Olympus Corporation; Samsung Group; Smart Robot Technology Group Co. Ltd.; Titan Medical Inc.; TransEnterix, 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, including, 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

SynchroSeal and E-100 Generator. In November 2019, we obtained FDA clearance for our SynchroSeal instrument and E-100 generator. Following the FDA clearance, in February 2020, we received CE mark clearance for both products. In March 2020, we received regulatory clearance in Japan to market both our SynchroSeal instrument and E-100 generator. SynchroSeal is a single-use, bipolar, electrosurgical instrument intended for grasping, dissection, sealing, and transection of tissue. With its wristed articulation, rapid sealing cycle, and refined curved jaw, SynchroSeal offers enhanced versatility to the da Vinci Energy portfolio. The E-100 generator is an electrosurgical generator developed to power two key instruments – Vessel Sealer Extend and SynchroSeal – on the da Vinci X and Xi Surgical Systems. The generator delivers high frequency energy for cutting, coagulation, and vessel sealing of tissues.

SureForm 45 Curved-Tip and Gray Reload. In July 2019, we obtained FDA clearance for the SureForm 45 Curved-Tip stapler and SureForm 45 Gray reload. We have also received CE mark clearance for our 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. 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 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 FDA clearance for our da Vinci Endoscope Plus. We have also received regulatory clearances in South Korea and Japan to market our da Vinci Endoscope Plus in December 2019 and May 2020, respectively. The da Vinci Endoscope Plus leverages new sensor technology to allow for increased sharpness and color accuracy.

Da Vinci Handheld Camera. In June 2019, we obtained 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. In February 2020, we received CE mark clearance for our da Vinci Handheld Camera. We broadly launched the da Vinci Handheld Camera in our European direct markets as well as in the U.S. in May 2020 and June 2020, respectively.

Ion endoluminal system. In February 2019, we obtained 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 articulate 180 degrees in all directions. The outer diameter of the catheter is 3.5mm, which allows physicians to navigate through small and tortuous airways to reach nodules in most airway segments 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 placed 32 Ion systems for commercial use as of September 30, 2020.

Iris. In February 2019, we obtained 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.

SureForm 60 and SureForm 45 Staplers. In May 2018 and July 2018, we received CE mark clearance and FDA clearance, respectively for the SureForm 60 instrument with White, Blue, Green, and Black 60mm reloads. In January 2019 and February 2019, we obtained FDA clearance and CE mark clearance, respectively, 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. The 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 SP Surgical System. In May 2018, we obtained 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 obtained 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 an installed base of 58 da Vinci SP Surgical Systems as of September 30, 2020.

Da Vinci Vessel Sealer Extend. In September 2017 and April 2018, we received CE mark clearance and FDA clearance, respectively, 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 electrosurgical 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 Orpheus Medical

In February 2020, we acquired Orpheus Medical Ltd. and its wholly owned subsidiaries to deepen and expand our integrated informatics platform. Orpheus Medical provides hospitals with information technology connectivity, as well as expertise in processing and archiving surgical videos. Orpheus Medical will be a wholly owned subsidiary of Intuitive.

Intuitive Ventures

We launched Intuitive Ventures, an inaugural $100 million fund focused on investment opportunities in companies that share Intuitive's commitment to advancing positive outcomes in healthcare.

Third Quarter 2020 Operational and Financial Highlights

- Total revenue decreased by 4% to $1,078 million for the three months ended September 30, 2020, compared to $1,128 million for the three months ended September 30, 2019.
- The service fee credits within the Customer Relief Program resulted in a $23 million decrease in service revenue for the three months ended September 30, 2020.
- Approximately 329,000 da Vinci procedures were performed during the three months ended September 30, 2020, an increase of 7% compared to approximately 307,000 for the three months ended September 30, 2019.
- Instruments and accessories revenue increased by 4% to $631 million for the three months ended September 30, 2020, compared to $606 million for the three months ended September 30, 2019.
- Systems revenue decreased by 21% to $268 million for the three months ended September 30, 2020, compared to $339 million during the three months ended September 30, 2019.
- A total of 195 da Vinci Surgical Systems were shipped during the three months ended September 30, 2020, a decrease of 29% compared to 275 systems during the three months ended September 30, 2019.
- As of September 30, 2020, we had a da Vinci Surgical System installed base of approximately 5,865 systems, an increase of approximately 8% compared to the installed base of approximately 5,406 systems as of September 30, 2019.
- Utilization of da Vinci systems, measured in terms of procedures per system per year, declined 2% relative to the third quarter of 2019.
- During the three months ended September 30, 2020, we placed 11 Ion systems for commercial use.
- Gross profit as a percentage of revenue was 67.2% for the three months ended September 30, 2020, compared to 69.6% for the three months ended September 30, 2019.
- Operating income decreased by 26% to $270 million for the three months ended September 30, 2020, compared to $366 million during the three months ended September 30, 2019. Operating income included $107.0 million and $89.3 million of share-based compensation expense related to employee stock plans and $21.7 million and $10.7 million of intangible asset-related charges for the three months ended September 30, 2020, and 2019, respectively.
- As of September 30, 2020, we had $6.4 billion in cash, cash equivalents, and investments. Cash, cash equivalents, and investments increased by $506 million, compared to December 31, 2019, primarily as a result of cash generated from operating activities, partially offset by 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,			
	2020	% of total revenue	2019	% of total revenue	2020	% of total revenue	2019	% of total revenue
Revenue:								
Product	$ 898.4	83 %	$ 944.8	84 %	$ 2,521.0	83 %	$ 2,666.9	83 %
Service	179.3	17 %	183.4	16 %	508.3	17 %	533.9	17 %
Total revenue	1,077.7	100 %	1,128.2	100 %	3,029.3	100 %	3,200.8	100 %
Cost of revenue:								
Product	287.7	27 %	277.3	25 %	868.2	29 %	807.1	25 %
Service	65.7	6 %	65.3	6 %	195.7	6 %	179.5	6 %
Total cost of revenue	353.4	33 %	342.6	31 %	1,063.9	35 %	986.6	31 %
Product gross profit	610.7	56 %	667.5	59 %	1,652.8	54 %	1,859.8	58 %
Service gross profit	113.6	11 %	118.1	10 %	312.6	11 %	354.4	11 %
Gross profit	724.3	67 %	785.6	69 %	1,965.4	65 %	2,214.2	69 %
Operating expenses:								
Selling, general and administrative	298.9	28 %	284.0	25 %	886.1	29 %	836.6	26 %
Research and development	155.0	14 %	135.9	12 %	445.3	15 %	400.7	13 %
Total operating expenses	453.9	42 %	419.9	37 %	1,331.4	44 %	1,237.3	39 %
Income from operations	270.4	25 %	365.7	32 %	634.0	21 %	976.9	30 %
Interest and other income, net	84.8	8 %	33.3	3 %	136.5	5 %	93.6	3 %
Income before taxes	355.2	33 %	399.0	35 %	770.5	26 %	1,070.5	33 %
Income tax expense	38.4	4 %	0.3	— %	67.3	2 %	51.4	1 %
Net income	316.8	29 %	398.7	35 %	703.2	24 %	1,019.1	32 %
Less: net income (loss) attributable to noncontrolling interest in joint venture	2.9	— %	1.9	— %	7.8	— %	(2.5)	— %
Net income attributable to Intuitive Surgical, Inc.	$ 313.9	29 %	$ 396.8	35 %	$ 695.4	24 %	$ 1,021.6	32 %

Total Revenue

Total revenue decreased by 4% to $1,078 million for the three months ended September 30, 2020, compared to $1,128 million for the three months ended September 30, 2019, resulting from 21% lower systems revenue, driven by 29% lower system placements, and 2% lower service revenue, partially offset by 4% higher instruments and accessories revenue, driven by approximately 7% higher procedure volume partially offset by customer buying patterns. Total revenue decreased by 5% to $3.0 billion for the nine months ended September 30, 2020, compared to $3.2 billion for the nine months ended September 30, 2019, resulting from 13% lower systems revenue, driven by 22% lower system placements, 2% lower instruments and accessories revenue, driven by approximately 1% lower procedure volume, and 5% lower service revenue. The service fee credits provided to customers as part of our Customer Relief Program resulted in a $23 million and $82 million decrease in service revenue for the three and nine months ended September 30, 2020, respectively.

Revenue denominated in foreign currencies as a percentage of total revenue was approximately 22% and 23% for the three and nine months ended September 30, 2020, respectively, and 20% and 19% for the three and nine months ended September 30, 2019, 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 both the three and nine months ended September 30, 2020, and the three and nine months ended September 30, 2019.

Revenue generated in the U.S. accounted for 69% and 68% of total revenue for the three and nine months ended September 30, 2020, respectively, and 71% for both the three and nine months ended September 30, 2019. 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 MIS, 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. However, the current increase in OUS revenue as a percentage of total revenue is a result of the COVID-19 pandemic and is reflective that U.S. procedures and revenue were more impacted than OUS procedures and revenue.

As the COVID-19 pandemic is expected to continue to cause a strain on hospital resources, as outlined in the *COVID-19 Pandemic* section above, including recommended deferrals of elective procedures by various authorities and policy makers, we cannot reliably estimate the extent procedures and system placements will be impacted in the fourth quarter of 2020 and beyond.

The following table summarizes our revenue and system unit shipments for the three and nine months ended September 30, 2020, and 2019, respectively (in millions, except percentages and unit shipments):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Revenue				
Instruments and accessories	$ 630.6	$ 606.2	$ 1,708.9	$ 1,737.0
Systems	267.8	338.6	812.1	929.9
Total product revenue	898.4	944.8	2,521.0	2,666.9
Services	179.3	183.4	508.3	533.9
Total revenue	$ 1,077.7	$ 1,128.2	$ 3,029.3	$ 3,200.8
United States	$ 743.8	$ 796.4	$ 2,060.8	$ 2,273.3
OUS	333.9	331.8	968.5	927.5
Total revenue	$ 1,077.7	$ 1,128.2	$ 3,029.3	$ 3,200.8
% of Revenue – U.S.	69 %	71 %	68 %	71 %
% of Revenue – OUS	31 %	29 %	32 %	29 %
Instruments and accessories	$ 630.6	$ 606.2	$ 1,708.9	$ 1,737
Services	179.3	183.4	508.3	533.9
Operating lease revenue	45.7	27.4	127.0	72.9
Total recurring revenue	$ 855.6	$ 817.0	$ 2,344.2	$ 2,343.8
% of Total revenue	79 %	72 %	77 %	73 %
Da Vinci Surgical Systems Shipments by Region:				
U.S. unit shipments	116	185	404	532
OUS unit shipments	79	90	206	251
Total unit shipments*	195	275	610	783
*Systems shipped under operating leases (included in total unit shipments)	68	92	197	258
Ion Systems Shipments	11	3	22	3
Da Vinci Surgical Systems Shipments involving System Trade-ins:				
Unit shipments involving trade-ins	78	116	286	304
Unit shipments not involving trade-ins	117	159	324	479

Product Revenue

Three months ended September 30, 2020

Product revenue decreased by 5% to $898 million for the three months ended September 30, 2020, compared to $945 million for the three months ended September 30, 2019.

Instruments and accessories revenue increased by 4% to $631 million for the three months ended September 30, 2020, compared to $606 million for the three months ended September 30, 2019. The increase in instruments and accessories revenue was driven primarily by procedure growth of approximately 7%, partially offset by customer buying patterns. The third quarter 2020 U.S. procedure growth was approximately 7%. The third quarter 2020 OUS procedure growth was approximately 9%. Both growth rates were significantly impacted by the disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. Geographically, the third quarter 2020 OUS procedure growth was driven by China, Japan, South Korea, and Italy, while procedures declines were noted in the UK as well as various other smaller countries.

Systems revenue decreased by 21% to $268 million for the three months ended September 30, 2020, compared to $339 million for the three months ended September 30, 2019. The lower third quarter 2020 systems revenue was primarily driven by fewer system shipments, lower lease buyouts, and lower third quarter 2020 ASPs, partially offset by higher operating lease revenue.

During the third quarter of 2020, a total of 195 da Vinci Surgical Systems were shipped compared to 275 systems during the third quarter of 2019. By geography, 116 systems were shipped into the U.S., 39 into Europe, 34 into Asia, and 6 into other markets during the third quarter of 2020, compared to 185 systems shipped into the U.S., 36 into Europe, 43 into Asia, and 11 into other markets during the third quarter of 2019. The decrease in systems shipments was primarily driven by a decline in year-to-date procedures, which has led to customers utilizing existing system capacity as well as decisions by customers to defer purchases or leases of systems into future quarters and, in some cases, indefinitely as a result of the COVID-19 pandemic.

We shipped 83 and 102 da Vinci Surgical Systems under lease arrangements, of which 68 and 92 systems were classified as operating leases for the three months ended September 30, 2020, and 2019, respectively. Operating lease revenue was $45.7 million for the three months ended September 30, 2020, compared to $27.4 million for the three months ended September 30, 2019. Systems placed as operating leases represented 35% of total shipments during the third quarter of 2020, compared to 33% during the third quarter of 2019. A total of 806 da Vinci Surgical Systems were installed at customers under operating lease or usage-based arrangements as of September 30, 2020, compared to 560 as of September 30, 2019. Revenue from Lease Buyouts was $16.9 million for the three months ended September 30, 2020, compared to $19.8 million for the three months ended September 30, 2019. We expect revenue from Lease Buyouts to fluctuate period to period depending 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 lease or usage-based arrangements and Ion systems, was approximately $1.55 million for the three months ended September 30, 2020, compared to approximately $1.57 million for the three months ended September 30, 2019. 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, 2020

Product revenue decreased by 5% to $2.5 billion for the nine months ended September 30, 2020, compared to $2.7 billion for the nine months ended September 30, 2019.

Instruments and accessories revenue decreased by 2% to $1.71 billion for the nine months ended September 30, 2020, compared to $1.74 billion for the nine months ended September 30, 2019. The decrease in instruments and accessories revenue was driven primarily by a decline in procedures of approximately 1%. The year-to-date 2020 U.S. procedure volumes declined by approximately 3% primarily as a result of the significant disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. The year-to-date 2020 OUS procedure volumes increased by approximately 5%, also driven by the significant disruption caused by the COVID-19 pandemic, as noted in the *COVID-19 Pandemic* section above. Geographically, the year-to-date 2020 OUS procedure growth was driven by procedure expansion in Japan, China, South Korea, and Germany, partially offset by declines in the UK, France, Italy, and other countries with lower procedure volume.

Systems revenue decreased by 13% to $812 million for the nine months ended September 30, 2020, compared to $930 million for the nine months ended September 30, 2019. The lower year-to-date 2020 systems revenue was primarily driven by fewer system shipments and lower lease buyouts, partially offset by higher 2020 ASPs and higher operating lease revenue.

During the nine months ended September 30, 2020, a total of 610 da Vinci Surgical Systems were shipped compared to 783 systems during the nine months ended September 30, 2019. By geography, 404 systems were shipped into the U.S., 82 into Europe, 109 into Asia, and 15 into other markets during the nine months ended September 30, 2020, compared to 532 systems shipped into the U.S., 115 into Europe, 104 into Asia, and 32 into other markets during the nine months ended September 30, 2019. The decrease in systems shipments was primarily driven by decisions by customers to defer purchases or leases of systems into future quarters and, in some cases, indefinitely as a result of the COVID-19 pandemic as well as the decline in year-to-date procedures, which has led to excess capacity at certain hospitals, partially offset by more customers trading in older da Vinci models for fourth generation da Vinci Xi and da Vinci X systems and the need for certain hospitals to expand or establish capacity.

We shipped 265 and 282 da Vinci Surgical Systems under lease arrangements, of which 197 and 258 systems were classified as operating leases for the nine months ended September 30, 2020, and 2019, respectively. Operating lease revenue was $127.0 million for the nine months ended September 30, 2020, compared to $72.9 million for the nine months ended September 30, 2019. Systems placed as operating leases represented 32% of total shipments during the nine months ended September 30, 2020, compared to 33% during the nine months ended September 30, 2019. Revenue from Lease Buyouts was $38.5 million for the nine months ended September 30, 2020, compared to $59.0 million for the nine months ended September 30, 2019. We expect revenue from Lease Buyouts to fluctuate period to period depending 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 lease or usage-based arrangements and Ion systems, was approximately $1.54 million for the nine months ended September 30, 2020, compared to approximately $1.48 million for the nine months ended September 30, 2019. The higher year-to-date 2020 ASP was largely driven by favorable geographic and product mix, partially offset by higher trade-in volume. 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.

Service Revenue

Service revenue decreased by 2% to $179 million for the three months ended September 30, 2020, compared to $183 million for the three months ended September 30, 2019. The decrease in service revenue was primarily driven by the effects of the Customer Relief Program, which resulted in a $23 million decrease, partially offset by a larger installed base of da Vinci Surgical Systems producing service revenue.

Service revenue decreased by 5% to $508 million for the nine months ended September 30, 2020, compared to $534 million for the nine months ended September 30, 2019. The decrease in service revenue was primarily driven by the effects of the Customer Relief Program, which resulted in an $82 million decrease, partially offset 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, 2020, decreased 9% to $611 million, representing 68.0% of product revenue, compared to $668 million, representing 70.6% of product revenue, for the three months ended September 30, 2019. The lower product gross profit for the three months ended September 30, 2020, was primarily driven by lower product revenue and lower product gross profit margin. The lower product gross profit margin for the three months ended September 30, 2020, was primarily driven by period costs in the third quarter of 2020 associated with abnormally low production as a result of the COVID-19 pandemic.

Product gross profit for the nine months ended September 30, 2020, decreased 11% to $1.7 billion, representing 65.6% of product revenue, compared to $1.9 billion, representing 69.7% of product revenue, for the nine months ended September 30, 2019. The lower product gross profit for the nine months ended September 30, 2020, was primarily driven by lower product revenue and lower product gross profit margin. The lower product gross profit margin for the nine months ended September 30, 2020, was primarily driven by higher excess and obsolete inventory costs related to transitioning to new technologies coupled with the decrease in demand for older technologies, period costs in the second and third quarters of 2020 associated with abnormally low production, and higher freight costs. These higher charges were primarily a result of the COVID-19 pandemic. There were also increased costs associated with da Vinci Si product transitions and higher intangible assets amortization expense and share-based compensation expense.

Product gross profit for the three and nine months ended September 30, 2020, included share-based compensation expense of $16.2 million and $43.2 million, respectively, compared to $12.4 million and $34.8 million, for the three and nine months ended September 30, 2019, respectively. Product gross profit for the three and nine months ended September 30, 2020, included intangible assets amortization expense of $9.0 million and $26.7 million, respectively, compared to $7.9 million and $22.9 million, for the three and nine months ended September 30, 2019, respectively.

Service gross profit for the three months ended September 30, 2020, decreased 4% to $114 million, representing 63.4% of service revenue, compared to $118 million, representing 64.4% of service revenue, for the three months ended September 30, 2019. The lower service gross profit for the three months ended September 30, 2020, was primarily driven by lower service revenue and lower service gross profit margin. The lower service gross profit margin for the three months ended September 30, 2020, was primarily driven by the decrease in service revenue as a result of the Customer Relief Program.

Service gross profit for the nine months ended September 30, 2020, decreased 12% to $313 million, representing 61.5% of service revenue, compared to $354 million, representing 66.4% of service revenue, for the nine months ended September 30, 2019. The lower service gross profit for the nine months ended September 30, 2020, was primarily driven by lower service revenue and lower service gross profit margin. The lower service gross profit margin for the nine months ended September 30, 2020, was primarily driven by the decrease in service revenue as a result of the Customer Relief Program.

Service gross profit for the three and nine months ended September 30, 2020, included share-based compensation expense of $7.1 million and $17.8 million, respectively, compared to $5.6 million and $14.9 million, for the three and nine months ended September 30, 2019, respectively. Service gross profit for the three and nine months ended September 30, 2020, included intangible assets amortization expense of $0.9 million and $2.7 million, respectively, compared to $0.9 million and $2.8 million, for the three and nine and months ended September 30, 2019, respectively.

As a result of the continued impacts from the COVID-19 pandemic, our production facilities may run at less than normal capacity in the fourth quarter of 2020. Accordingly, certain fixed production overhead costs may be expensed as incurred, reducing our gross profit margin. We cannot reliably estimate the extent to which the COVID-19 pandemic will impact our overall demand in the fourth quarter and beyond.

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, 2020, increased by 5% to $299 million, compared to $284 million for the three months ended September 30, 2019. Selling, general and administrative expenses for the nine months ended September 30, 2020, increased by 6% to $886 million, compared to $837 million for the nine months ended September 30, 2019. The changes in selling, general and administrative expenses for the three and nine months ended September 30, 2020, were primarily driven by higher headcount, resulting in increased share-based compensation expense, and increased infrastructure to support our growth, partially offset by lower marketing, travel, and training expenses as well as lower variable compensation, particularly in the second and third quarters of 2020.

Selling, general and administrative expenses for the three and nine months ended September 30, 2020, included share-based compensation expense of $54.2 million and $149.5 million, respectively, compared to $44.7 million and $124.0 million, for the three and nine months ended September 30, 2019, respectively. Selling, general and administrative expenses for the three and nine months ended September 30, 2020, included intangible assets amortization expense of $1.8 million and $5.2 million, respectively, compared to $1.4 million and $4.0 million, for the three and nine months ended September 30, 2019, respectively.

Our spending in the second and third quarters of 2020 reflected a curtailment of certain costs as a result of the COVID-19 pandemic, including travel, marketing events, surgeon training, clinical trials, and other related expenses. We expect that these costs will increase to the extent that the impact of COVID-19 decreases and decline to the extent that the impact of COVID-19 increases. However, we will continue to support our customers, invest in innovation focused on the quadruple aim, and invest in manufacturing and our supply chain to ensure supply for our customers. We will continue to manage the hiring of volume-related roles, such as sales representatives and manufacturing employees, to meet the needs of the business.

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, 2020, increased by 14% to $155 million, compared to $136 million for the three months ended September 30, 2019. Research and development expenses for the nine months ended September 30, 2020, increased by 11% to $445 million, compared to $401 million for the nine months ended September 30, 2019. The increases in research and development expenses for the three and nine months ended September 30, 2020, were primarily driven by higher personnel-related expenses 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, partially offset by lower intangible asset-related charges in the first quarter of 2020.

Research and development expenses for the three and nine months ended September 30, 2020, included share-based compensation expense of $29.5 million and $84.1 million, respectively, compared to $26.6 million and $74.5 million, for the three and nine ended September 30, 2019, respectively. Research and development expenses for the three and nine months ended September 30, 2020, included intangible asset charges of $10.0 million and $15.0 million, respectively, compared to $0.5 million and $21.8 million, for the three and nine months ended September 30, 2019, 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, 2020, was $84.8 million, and $136.5 million, respectively, compared to $33.3 million and $93.6 million for the three and nine months ended September 30, 2019, respectively. The increases in interest and other income, net, for the three and nine months ended September 30, 2020, were primarily driven by unrealized gains on strategic investments and realized gains on the sale of certain securities, partially offset by lower interest income earned, despite higher cash and investment balances, due to the decline in average interest rates, and realized foreign exchange losses.

The Company held an equity investment in preferred shares of InTouch, which was reflected in the Company's financial statements on a cost basis. On July 1, 2020, Teladoc completed its acquisition of InTouch. Based on the terms of the agreement, the Company has received Teladoc shares on the date of closing and recognized a gain on its investment of approximately $45 million. The Company is restricted from selling these shares for a period of six months. Additionally, during the third quarter, the Company recorded unrealized gains on other strategic investments of approximately $17 million.

Income Tax Expense

Income tax expense for the three months ended September 30, 2020, was $38.4 million, or 10.8% of income before taxes, compared to $0.3 million, or 0.1% of income before taxes, for the three months ended September 30, 2019. Income tax expense for the nine months ended September 30, 2020, was $67.3 million, or 8.7% of income before taxes, compared to $51.4 million, or 4.8% of income before taxes, for the nine months ended September 30, 2019.

Our effective tax rate for the three and nine ended September 30, 2020, and 2019, differs from the U.S. federal statutory rate of 21% primarily due to 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, and federal R&D credit benefit, partially offset by state income taxes (net of federal benefit) and U.S. tax on foreign earnings. Our effective tax rate for the three and nine months ended September 30, 2020 is higher, mainly because the three and nine months ended September 30, 2019 reflected a $51.3 million decrease in income tax expense as a result of the re-measurement of our Swiss deferred tax assets. In addition, the effective tax rate for the nine months ended September 30, 2020, reflected a $36.8 million increase in income tax expense discussed below.

In July 2015, a U.S. Tax Court opinion (the "2015 Opinion") was issued involving an independent third party related to charging foreign subsidiaries for share-based compensation. Based on the findings of the U.S. Tax Court, direct share-based compensation has been excluded from our intercompany charges starting in 2015. In June 2019, the Ninth Circuit Court of Appeals (the "Ninth Circuit") reversed the 2015 Opinion (the "Ninth Circuit Opinion"). Subsequently, a re-hearing of the case was requested but was denied in November 2019. In February 2020, a petition was filed to appeal the Ninth Circuit Opinion to the U.S. Supreme Court. The petition was denied by the U.S. Supreme Court on June 22, 2020, which makes the Ninth Circuit Opinion binding precedent in the Ninth Circuit. As a result, we increased our unrecognized tax benefits by $36.8 million with a corresponding increase in income tax expense for the three months ended June 30, 2020, related to the intercompany charges for share-based compensation for relevant periods before 2020. We will continue to monitor future IRS actions or other developments regarding this matter and will assess the impact of any such developments to our income tax provision in the quarter that they occur. We are treating share-based compensation expense in accordance with the Ninth Circuit Opinion for 2020 and going forward.

Our provision for income taxes for the three and nine months ended September 30, 2020, included excess tax benefits associated with employee equity plans of $47.9 million and $144.8 million, which reduced our effective tax rate by 13.5 and 18.8 percentage points, respectively. Our provision for income taxes for the three and nine months ended September 30, 2019, 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, respectively. The amount of excess tax benefits or deficiencies will fluctuate 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, which results in increased income tax expense volatility.

We file 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 our unrecognized tax benefits could change due to activities of various tax authorities, including evolving interpretations of existing tax laws in the jurisdictions we operate, potential assessment of additional tax, possible settlement of audits, or through normal expiration of various statutes of limitations, which could affect our effective tax rate in the period in which they change. Due to the uncertainty related to the timing and potential outcome of audits, we cannot estimate the range of reasonably possible change in unrecognized tax benefits that may occur in the next 12 months.

We are subject to the examination of our income tax returns by the IRS 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.

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

Net income (loss) attributable to noncontrolling interest in Joint Venture for the three months ended September 30, 2020, was $2.9 million, compared to $1.9 million for the three months ended September 30, 2019. Net income (loss) attributable to noncontrolling interest in Joint Venture for the nine months ended September 30, 2020, was $7.8 million, compared to $(2.5) million for the nine months ended September 30, 2019. The increases in net income attributable to noncontrolling interest in Joint Venture were primarily due to increased revenue, partially offset by re-measurement losses related to the contingent consideration during the three and nine months ended September 30, 2020.

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 by $0.51 billion to $6.36 billion as of September 30, 2020, from $5.85 billion as of December 31, 2019, primarily from cash provided by our operations and proceeds from stock option exercises and employee stock purchases, partially offset by capital expenditures, taxes paid related to net share settlements of equity awards, and common stock repurchases.

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 by our 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. However, as a result of the COVID-19 pandemic, we expect to experience reduced cash flow from operations as a result of decreased revenues and extending payment terms on sales and operating lease and usage-based arrangements.

See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" in our Form 10-K for the fiscal year ended December 31, 2019, for discussion on the impact of interest rate risk and market risk on our investment portfolio.

Condensed Consolidated Cash Flow Data

The following table summarizes our cash flows for the nine months ended September 30, 2020, and 2019 (in millions):

	Nine Months Ended September 30,	
	2020	2019
Net cash provided by (used in)		
Operating activities	$ 857.3	$ 1,045.5
Investing activities	(606.3)	(748.2)
Financing activities	(45.9)	(219.2)
Effect of exchange rates on cash, cash equivalents, and restricted cash	(2.0)	(2.9)
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ 203.1	$ 75.2

Operating Activities

For the nine months ended September 30, 2020, net cash provided by operating activities of $857 million exceeded our net income of $703 million, primarily due to the following reasons:

1. Our net income included non-cash charges of $509 million, consisting primarily of the following significant items: share-based compensation of $292 million; depreciation expense and losses on the disposal of property, plant, and equipment of $159 million; deferred income taxes of $72 million; gain on investments, accretion, and amortization, net, of $64 million; and amortization of intangible assets of $37 million.
2. The non-cash charges outlined above were partially offset by changes in operating assets and liabilities that resulted in $355 million of cash used by operating activities during the nine months ended September 30, 2020. Inventory, including the transfer of equipment from inventory to property, plant, and equipment, increased by $177 million, primarily due to the increased number of systems under operating lease and usage-based 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, such as the COVID-19 pandemic. Prepaid expenses and other assets increased by $119 million, primarily due to an increase in prepaid taxes, driven by the timing of tax payments, and an increase in leasing. Accrued compensation and employee benefits decreased by $76 million, primarily due to the payments of 2019 and certain 2020 incentive compensation. The unfavorable impact of these items on cash provided by operating activities was partially offset by a $57 million decrease in accounts receivable, primarily due to the timing of collections.

Investing Activities

Net cash provided by investing activities for the nine months ended September 30, 2020, consisted primarily of proceeds from sales and maturities of investments (net of purchases of investments) of $289 million, the acquisition of property and equipment of $280 million, and the Orpheus Medical Acquisition, net of cash acquired, of $38 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, 2020, consisted primarily of taxes paid on behalf of employees related to net share settlements of vested employee stock purchases of $165 million, cash used in the repurchase of approximately 0.2 million shares of our common stock in the open market for $100 million, and the payment of deferred purchase consideration from prior acquisitions of $49 million, partially offset by proceeds from stock option exercises and employee stock purchases of $268 million.

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 2020 and 2021. We intend to fund these needs with cash generated from operations.

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, 2019, 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, 2020, compared to the disclosures in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2019.

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 8 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, 2019, 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, 2019, 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. The risk factors set forth below update, and should be read together with, the risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019. In addition, the global economic climate and additional or unforeseen effects from the COVID-19 pandemic amplify many of these risks.

RISKS RELATING TO OUR BUSINESS

PUBLIC HEALTH CRISES, OR THE PERCEPTION OF THEIR EFFECTS, HAVE HAD AND COULD CONTINUE TO HAVE A MATERIAL ADVERSE EFFECT ON OUR BUSINESS AND RESULTS OF OPERATIONS.

Our global operations expose us to risks associated with public health crises and outbreaks of epidemic, pandemic, or contagious diseases, such as the current outbreak of a novel strain of coronavirus (COVID-19). To date, COVID-19 has had, and may continue to have, an adverse impact on our operations, our supply chains and distribution systems, and our expenses, including as a result of preventive and precautionary measures that we, other businesses, and governments are taking. Due to these impacts and measures, we have experienced and may continue to experience significant and unpredictable reductions in the demand for our products as healthcare customers divert medical resources and priorities towards the treatment of that disease. In addition, our customers have delayed, cancelled, and redirected and, in the future, may delay, cancel, or redirect planned capital expenditures in order to focus resources on COVID-19 or in response to economic disruption related to COVID-19. For example, as a result of the global COVID-19 pandemic, we have experienced a significant decline in procedure volume in the U.S. and Western Europe, as healthcare systems diverted resources to meet the increasing demands of managing COVID-19. In addition, U.S. and global public health bodies have recommended delaying elective surgeries during the COVID-19 pandemic, and surgeons and medical societies are evaluating the risks of minimally invasive surgeries in the presence of infectious diseases, which we expect will continue to negatively impact the usage of our products and the number of da Vinci procedures performed.

As a result of the COVID-19 outbreak, we have experienced significant business disruptions, including restrictions on our ability to travel, distribute and service our products, temporary closures of our facilities and the facilities of our suppliers and their contract manufacturers, as well as reduction in access to our customers due to diverted resources and priorities and the business hours of hospitals as governments institute prolonged shelter-in-place and/or self-quarantine mandates. For example, our corporate headquarters and many of our operations, including certain of our manufacturing facilities, are located in California, which has instituted risk reduction orders applicable to our employees in that region, significantly impacting the ability of our employees to get to their places of work to produce products and hampering our products from moving through the supply chain. These unprecedented measures to slow the spread of the virus taken by local governments and healthcare authorities globally, including the deferral of elective medical procedures and social distancing measures, have had, and will continue to have, a significant negative impact on our operations and financial results.

In addition, the COVID-19 pandemic has adversely affected, and may continue to adversely affect, the economies and financial markets of many countries, which may result in a period of regional, national, and global economic slowdown or regional, national, or global recessions that could curtail or delay spending by hospitals and affect demand for our products as well as increased risk of customer defaults or delays in payments. Our customers may terminate or amend their agreements for the purchase, lease, or service of our products due to bankruptcy, lack of liquidity, lack of funding, operational failures, or other reasons. COVID-19 and the current financial, economic, and capital markets environment, and future developments in these and other areas present material uncertainty and risk with respect to our performance, financial condition, volume of business, results of operations, and cash flows. Due to the uncertain scope and duration of the pandemic and uncertain timing of global recovery and economic normalization, we are unable to estimate the impacts on our operations and financial results.

OUR BUSINESS IS SUBJECT TO COMPLEX AND EVOLVING LAWS AND REGULATIONS REGARDING PRIVACY, DATA PROTECTION, AND OTHER MATTERS RELATING TO INFORMATION COLLECTION.

There are numerous state, federal, and foreign laws, regulations, decisions, and directives regarding privacy and the collection, storage, transmission, use, processing, disclosure, and protection of different types of personal data and personal information ("Personal Information") and other customer or other data, the scope of which is continually evolving and subject to differing interpretations. We may be subject to significant consequences, including penalties and fines, for any failure to comply with such laws, regulations, and directives.

For example, the General Data Protection Regulation (the "GDPR"), which is in effect across the European Economic Area (the "EEA"), imposes several stringent requirements for controllers and processors of personal data and increased our obligations, for example, by imposing higher standards when obtaining consent from individuals to process their personal data, requiring more robust disclosures to individuals, strengthening individual data rights, shortening timelines for data breach notifications, limiting retention periods and secondary use of information, increasing requirements pertaining to health data as well as pseudonymised (i.e., key-coded) data, and imposing additional obligations when we contract third-party processors in connection with the processing of personal data. The GDPR provides that EU member states may make their own further laws and regulations limiting the processing of genetic, biometric, or health data, which could limit our ability to use and share personal data or could cause our costs to increase and harm our business and financial condition. Failure to comply with the requirements of the GDPR and the applicable national data protection laws of the EU member states may result in fines of up to 4% of the total worldwide annual turnover of the preceding financial year and other administrative penalties. Compliance with the new data protection rules imposed by GDPR may be onerous and adversely affect our business, financial condition, and results of operations.

California recently passed the California Consumer Privacy Act (the "CCPA"), which is considered by many to be the most far-reaching data privacy law introduced in the US to date and which introduces new compliance burdens on many organizations doing business in California who collect Personal Information about California residents. The CCPA's definition of Personal Information is very broad and specifically includes biometric information. The CCPA took effect in 2020 and will allow for significant fines by the state attorney general, as well as a private right of action from individuals in relation to certain security breaches. The enactment of the CCPA is prompting a wave of similar legislative developments in other US states and creating the potential for a patchwork of overlapping but different state laws. These developments are increasing our compliance burden and our risk, including risks of regulatory fines, litigation and associated reputational harm.

In addition, recent legal developments in Europe have created complexity and compliance uncertainty regarding certain transfers of Personal Information from the EEA to the United States. For example, on July 16, 2020, the Court of Justice of the European Union ("CJEU") invalidated the EU-US Privacy Shield Framework ("Privacy Shield") under which Personal Information could be transferred from the EU to US entities who had self-certified under the Privacy Shield scheme. While the CJEU upheld the adequacy of EU-specified standard contractual clauses (a form of contract approved by the EU commission as an adequate Personal Information transfer mechanism), it made clear that reliance on them alone may not necessarily be sufficient in all circumstances and that their use must be assessed on a case-by-case basis taking into account the surveillance laws and right of individuals in the destination country. The CJEU went on to state that, if the competent supervisory authority believes that the standard contractual clauses cannot be complied with in the recipient country and the required level of protection cannot be secured by other means, such supervisory authority is under an obligation to suspend or prohibit that transfer unless the data exporter has already done so itself.

We rely on a mixture of mechanisms to transfer personal data from our EU business to the U.S. (including having previously relied on Privacy Shield) and are evaluating what additional mechanisms may be required to establish adequate safeguards for Personal Information. As supervisory authorities issue further guidance on Personal Information export mechanisms, including circumstances where the standard contractual clauses cannot be used and/or start taking enforcement action, we could suffer additional costs, complaints, and/or regulatory investigations or fines. Moreover, if we are otherwise unable to transfer Personal Information between and among countries and regions in which we operate, it could affect the manner in which we provide our services and could adversely affect our financial results.

In Israel, The Protection of Privacy Law, 5741-1981 (the "Israeli Privacy Law") regulates the protection of privacy and personal data, along with several other specific regulations enacted thereunder and, in particular, the Privacy Protection Regulations (Data Security), 5777-2017 (together, the "Israeli Privacy Law and Regulations"). Under the Israeli Privacy Law and Regulations, organizations are subject to various privacy and data protection requirements, including mandatory registration of databases with the Israeli Registrar of Databases (if certain conditions are met), executing data processing agreements with data recipients, safeguarding the collection and processing of personal data, safeguarding the transfer of personal data (which is specifically subject to the requirements of the Privacy Protection Regulations), personal data breach notification obligations, and other requirements. The Privacy Protection Authority (the "PPA") is responsible for enforcement of the Israeli Privacy Law and Regulations and periodically publishes opinions and guidelines on privacy matters. In terms of enforcement, failure to comply with the Israeli Privacy Law and Regulations can result in PPA investigations, administrative fines or sanctions, and civil or criminal actions (civil proceedings may include statutory damages without the need to prove actual damages).

Furthermore, any failure, or perceived failure, by us to comply with or make effective modifications to our policies or to comply with any federal, state, or international privacy, data-retention, or data-protection-related laws, regulations, orders, or industry self-regulatory principles could result in proceedings or actions against us by governmental entities or others, a loss of customer confidence, damage to our brand and reputation, and a loss of customers, any of which could have an adverse effect on our business. In addition, various federal, state, and foreign legislative or regulatory bodies may enact new or additional laws and regulations concerning privacy, data-retention, and data-protection issues, including laws or regulations mandating disclosure to domestic or international law enforcement bodies, which could adversely impact our business or our reputation with customers. For example, some countries have adopted laws mandating that some Personal Information regarding customers in their country be maintained solely in their country. Having to maintain local data centers and redesign product, service, and business operations to limit Personal Information processing to within individual countries could increase our operating costs significantly.

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, 2020.

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, 2020	—	$ —	—	$ 1.6 billion
August 1 to August 31, 2020	—	$ —	—	$ 1.6 billion
September 1 to September 30, 2020	—	$ —	—	$ 1.6 billion
Total during quarter ended September 30, 2020	—	$ —	—	

(1) Since March 2009, we have had an active stock repurchase program. As of September 30, 2020, 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 $1.6 billion represents the amount available to repurchase shares under the authorized repurchase program as of September 30, 2020. 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

None.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description
3.1	Amended and Restated Certificate of Incorporation of Intuitive Surgical, Inc., as amended (incorporated by reference to Exhibit 3.1 of the Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on July 23, 2020).
3.2	Amended and Restated Bylaws of Intuitive Surgical, Inc. (incorporated by reference to Exhibit 3.2 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on April 28, 2020).
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Intuitive Surgical, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, formatted in Inline 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, 2020, 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 19, 2020