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, 2024

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 356,179,445 shares of Common Stock, $0.001 par value per share, outstanding as of October 15, 2024.

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

in millions (except par values)	September 30, 2024	December 31, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,413.3	$ 2,750.1
Short-term investments	1,818.4	2,473.1
Accounts receivable, net	1,153.0	1,130.2
Inventory	1,481.7	1,220.6
Prepaids and other current assets	349.2	314.0
Total current assets	7,215.6	7,888.0
Property, plant, and equipment, net	4,433.0	3,537.6
Long-term investments	4,079.8	2,120.0
Deferred tax assets	997.0	910.5
Intangible and other assets, net	669.7	636.7
Goodwill	348.3	348.7
Total assets	$ 17,743.4	$ 15,441.5
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 218.7	$ 188.7
Accrued compensation and employee benefits	377.5	436.4
Deferred revenue	426.0	446.1
Other accrued liabilities	654.6	587.5
Total current liabilities	1,676.8	1,658.7
Other long-term liabilities	389.1	385.5
Total liabilities	2,065.9	2,044.2
Contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, 2.5 shares authorized, $0.001 par value, issuable in series; zero shares issued and outstanding as of September 30, 2024, and December 31, 2023	—	—
Common stock, 600.0 shares authorized, $0.001 par value, 356.2 shares and 352.3 shares issued and outstanding as of September 30, 2024, and December 31, 2023, respectively	0.4	0.4
Additional paid-in capital	9,440.2	8,576.4
Retained earnings	6,129.8	4,743.0
Accumulated other comprehensive income (loss)	12.9	(12.2)
Total Intuitive Surgical, Inc. stockholders' equity	15,583.3	13,307.6
Noncontrolling interest in joint venture	94.2	89.7
Total stockholders' equity	15,677.5	13,397.3
Total liabilities and stockholders' equity	$ 17,743.4	$ 15,441.5

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

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
in millions (except per share amounts)	**2024**	**2023**	**2024**	**2023**
Revenue:				
Product	$ 1,709.2	$ 1,450.8	$ 4,978.9	$ 4,332.4
Service	328.9	292.9	959.7	863.4
Total revenue	2,038.1	1,743.7	5,938.6	5,195.8
Cost of revenue:				
Product	555.4	489.5	1,649.2	1,480.5
Service	108.8	87.0	297.4	263.2
Total cost of revenue	664.2	576.5	1,946.6	1,743.7
Gross profit	1,373.9	1,167.2	3,992.0	3,452.1
Operating expenses:				
Selling, general and administrative	510.6	452.0	1,527.4	1,396.8
Research and development	286.0	249.4	850.6	738.7
Total operating expenses	796.6	701.4	2,378.0	2,135.5
Income from operations	577.3	465.8	1,614.0	1,316.6
Interest and other income, net	93.7	56.2	250.0	126.4
Income before taxes	671.0	522.0	1,864.0	1,443.0
Income tax expense	100.4	102.2	214.5	236.4
Net income	570.6	419.8	1,649.5	1,206.6
Less: net income attributable to noncontrolling interest in joint venture	5.5	4.1	12.6	14.8
Net income attributable to Intuitive Surgical, Inc.	$ 565.1	$ 415.7	$ 1,636.9	$ 1,191.8
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	$ 1.59	$ 1.18	$ 4.61	$ 3.40
Diluted	$ 1.56	$ 1.16	$ 4.53	$ 3.34
Shares used in computing net income per share attributable to Intuitive Surgical, Inc.:				
Basic	355.8	351.7	354.8	351.0
Diluted	362.7	358.2	361.4	357.1
Other comprehensive income, net of tax:				
Unrealized gains (losses) on hedge instruments	$ (15.5)	$ 4.3	$ (5.1)	$ 12.8
Unrealized gains on available-for-sale securities	59.5	25.6	60.8	76.3
Foreign currency translation gains (losses)	(6.9)	(6.8)	(30.4)	15.9
Prior service cost for employee benefit plans	(0.2)	—	(0.3)	—
Other comprehensive income	36.9	23.1	25.0	105.0
Total comprehensive income	607.5	442.9	1,674.5	1,311.6
Less: comprehensive income attributable to noncontrolling interest	6.0	3.9	12.5	13.8
Total comprehensive income attributable to Intuitive Surgical, Inc.	$ 601.5	$ 439.0	$ 1,662.0	$ 1,297.8

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, 2024	Nine Months Ended September 30, 2023
Operating activities:		
Net income	$ 1,649.5	$ 1,206.6
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and loss on disposal of property, plant, and equipment	323.7	283.5
Amortization of intangible assets	13.6	15.1
Loss (gain) on investments, accretion of discounts, and amortization of premiums on investments, net	(38.2)	14.7
Deferred income taxes	(104.5)	(61.0)
Share-based compensation expense	499.8	442.4
Amortization of contract acquisition assets	27.0	22.6
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable	(21.8)	(19.7)
Inventory	(650.9)	(528.2)
Prepaids and other assets	(79.6)	37.5
Accounts payable	21.2	27.7
Accrued compensation and employee benefits	(58.9)	(26.8)
Deferred revenue	(6.1)	(1.0)
Other liabilities	17.6	172.1
Net cash provided by operating activities	1,592.4	1,585.5
Investing activities:		
Purchase of investments	(3,709.6)	(820.2)
Proceeds from sales of investments	100.2	47.7
Proceeds from maturities of investments	2,400.0	2,092.4
Purchase of property, plant, and equipment	(799.2)	(628.7)
Acquisition of businesses, net of cash, and intellectual property and other investing activities	—	(7.1)
Net cash provided by (used in) investing activities	(2,008.6)	684.1
Financing activities:		
Proceeds from issuance of common stock relating to employee stock plans	367.5	252.2
Taxes paid related to net share settlement of equity awards	(257.5)	(155.4)
Repurchase of common stock	—	(350.0)
Cash dividends paid by joint venture to noncontrolling interest	(8.0)	—
Payment of deferred purchase consideration	(0.5)	(2.9)
Net cash provided by (used in) financing activities	101.5	(256.1)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(9.1)	8.7
Net increase (decrease) in cash, cash equivalents, and restricted cash	(323.8)	2,022.2
Cash, cash equivalents, and restricted cash, beginning of period	2,770.1	1,600.7
Cash, cash equivalents, and restricted cash, end of period	$ 2,446.3	$ 3,622.9

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

In this report, “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 develops, manufactures, and markets da Vinci® surgical systems 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, and a high-performance vision system. The Ion endoluminal system consists of a system cart, a controller, a catheter, and a vision probe. Both systems use software, instruments, and accessories.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The unaudited Condensed Consolidated Financial Statements (“Financial Statements”) and accompanying notes have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) for interim financial reporting. In the opinion of management, the accompanying 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, 2023, and include all adjustments, consisting of only normal, recurring adjustments, necessary to fairly state the information set forth herein.

Certain information and footnote disclosures typically included in the annual consolidated financial statements have been condensed or omitted. Accordingly, 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, 2023, which was filed with the SEC on January 31, 2024. The results of operations for the first nine months of 2024 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 balances of the Company’s majority-owned joint ventures, Intuitive Surgical-Fosun Medical Technology (Shanghai) Co., Ltd. and Intuitive Surgical-Fosun (HongKong) Co., Ltd. (collectively, 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 the consolidated stockholders’ equity. The noncontrolling interest’s share of the earnings in the Joint Venture is presented separately in the Condensed Consolidated Statements of Comprehensive Income.

Risks and Uncertainties

The Company’s future results of operations and liquidity could be materially adversely affected by uncertainty surrounding macroeconomic and geopolitical factors in the U.S. and globally characterized by the supply chain environment, inflationary pressure, elevated interest rates, instability in the global financial markets, disruptions in the commodities’ markets as a result of the conflict between Russia and Ukraine and conflicts in the Middle East, including Israel, and the introduction of or changes in tariffs or trade barriers may result in a recession, which could have a material adverse effect on the Company’s business.

Supply chain constraints have generally improved to pre-COVID-19 pandemic levels, with some isolated residual stresses, particularly for engineered raw materials and at certain subcontract suppliers that are operationally challenged to meet the Company’s production requirements. These isolated instances of supply chain constraints have not had a material impact during the first nine months of 2024. Additionally, prices of materials for some components remain elevated from historical levels due to strong market demand or supply chain cost inflation. With elevated interest rates, access to credit is more difficult, and any insolvency of certain suppliers, including sole- and single-sourced suppliers, may have heightened continuity risks. Incidents of cybersecurity breaches, which have not significantly impacted the Company’s supply chain to date, also remain an active threat to sustained supply continuity. The Company is actively engaged in activities that seek to mitigate the impact of any supply chain risks and disruptions on its operations.

A number of hospitals continue to experience challenges with staffing and cost pressures that could affect their ability to provide patient care. Additionally, hospitals are facing significant financial pressure as supply chain constraints and inflation have driven up operating costs and elevated interest rates have made access to credit more expensive. Hospitals may also be adversely affected by the liquidity concerns as a result of the broader macroeconomic environment. Any or all of these factors could negatively impact the number of da Vinci procedures performed or surgical systems placed and have a material adverse effect on the Company's business, financial condition, or results of operations.

Recently Issued Accounting Pronouncements

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU 2023-07"), which requires all public entities, including public entities with a single reportable segment, to provide in interim and annual periods one or more measures of segment profit or loss used by the chief operating decision maker to allocate resources and assess performance. Additionally, the standard requires disclosures of significant segment expenses and other segment items as well as incremental qualitative disclosures. The guidance in this update is effective for fiscal years beginning after December 15, 2023, and interim periods after December 15, 2024. The Company is currently in the process of evaluating the effects of this pronouncement on its related disclosures.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* ("ASU 2023-09"), which requires enhanced income tax disclosures, including specific categories and disaggregation of information in the effective tax rate reconciliation, disaggregated information related to income taxes paid, income or loss from continuing operations before income tax expense or benefit, and income tax expense or benefit from continuing operations. The requirements of the ASU are effective for annual periods beginning after December 15, 2024, with early adoption permitted. The Company is currently in the process of evaluating the impact of this pronouncement on its related disclosures.

The Company continues to monitor new accounting pronouncements issued by the FASB and does not believe any accounting pronouncements issued through the date of this report will have a material impact on the Company's Financial Statements.

Significant Accounting Policies

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, 2023, that are of significance, or potential significance, to the Company.

NOTE 3. FINANCIAL INSTRUMENTS

Cash, Cash Equivalents, and Investments

The following tables summarize the Company's cash and available-for-sale debt securities' amortized cost, gross unrealized gains, gross unrealized losses, allowance for credit loss, and fair value by significant investment category reported as cash and cash equivalents, short-term investments, or long-term investments as of September 30, 2024, and December 31, 2023 (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, 2024								
Cash	$ 566.8	$ —	$ —	$ —	$ 566.8	$ 566.8	$ —	$ —
Level 1:								
Money market funds	1,709.4	—	—	—	1,709.4	1,709.4	—	—
U.S. treasuries	5,045.9	50.2	(7.0)	—	5,089.1	137.1	1,347.0	3,605.0
Subtotal	6,755.3	50.2	(7.0)	—	6,798.5	1,846.5	1,347.0	3,605.0
Level 2:								
Corporate debt securities	393.7	—	(5.1)	(0.1)	388.5	—	294.5	94.0
U.S. government agencies	540.7	4.7	(2.4)	—	543.0	—	163.6	379.4
Municipal securities	14.8	—	(0.1)	—	14.7	—	13.3	1.4
Subtotal	949.2	4.7	(7.6)	(0.1)	946.2	—	471.4	474.8
Total assets measured at fair value	$ 8,271.3	$ 54.9	$ (14.6)	$ (0.1)	$ 8,311.5	$ 2,413.3	$ 1,818.4	$ 4,079.8

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Loss	Fair Value	Reported as: Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2023								
Cash	$ 526.2	$ —	$ —	$ —	$ 526.2	$ 526.2	$ —	$ —
Level 1:								
Money market funds	2,223.9	—	—	—	2,223.9	2,223.9	—	—
U.S. treasuries	2,850.2	20.1	(25.4)	—	2,844.9	—	1,276.0	1,568.9
Subtotal	5,074.1	20.1	(25.4)	—	5,068.8	2,223.9	1,276.0	1,568.9
Level 2:								
Corporate debt securities	1,300.4	—	(25.8)	(1.1)	1,273.5	—	974.6	298.9
U.S. government agencies	402.6	2.0	(7.3)	—	397.3	—	149.5	247.8
Municipal securities	79.4	—	(2.0)	—	77.4	—	73.0	4.4
Subtotal	1,782.4	2.0	(35.1)	(1.1)	1,748.2	—	1,197.1	551.1
Total assets measured at fair value	$ 7,382.7	$ 22.1	$ (60.5)	$ (1.1)	$ 7,343.2	$ 2,750.1	$ 2,473.1	$ 2,120.0

The following table summarizes the contractual maturities of the Company's cash equivalents and available-for-sale debt securities (excluding money market funds), as of September 30, 2024 (in millions):

	Amortized Cost	Fair Value
Mature in less than one year	$ 1,958.2	$ 1,955.5
Mature in one to five years	4,036.9	4,079.8
Total	$ 5,995.1	$ 6,035.3

Actual maturities may differ from contractual maturities, because certain borrowers have the right to call or prepay certain obligations. Gross realized gains and losses recognized on the sale of investments were immaterial for the periods presented.

The following tables present the breakdown of the available-for-sale debt securities with unrealized losses as of September 30, 2024, and December 31, 2023 (in millions):

	September 30, 2024					
	Unrealized losses less than 12 months		Unrealized losses 12 months or greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. treasuries	$ 1,093.8	$ (1.3)	$ 305.2	$ (5.7)	$ 1,399.0	$ (7.0)
Corporate debt securities	35.3	—	324.6	(5.1)	359.9	(5.1)
U.S. government agencies	31.7	(0.1)	144.1	(2.3)	175.8	(2.4)
Municipal securities	—	—	14.7	(0.1)	14.7	(0.1)
Total	$ 1,160.8	$ (1.4)	$ 788.6	$ (13.2)	$ 1,949.4	$ (14.6)

	December 31, 2023					
	Unrealized losses less than 12 months		Unrealized losses 12 months or greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. treasuries	$ 48.5	$ —	$ 1,112.9	$ (25.4)	$ 1,161.4	$ (25.4)
Corporate debt securities	54.2	(0.1)	1,219.2	(25.8)	1,273.4	(25.9)
U.S. government agencies	29.8	—	185.6	(7.3)	215.4	(7.3)
Municipal securities	—	—	77.4	(1.9)	77.4	(1.9)
Total	$ 132.5	$ (0.1)	$ 2,595.1	$ (60.4)	$ 2,727.6	$ (60.5)

The Company's investments may, at any time, consist of money market funds, U.S. treasury and U.S. government agency securities, high-quality corporate notes and bonds, commercial paper, non-U.S. government agency securities, and taxable and tax-exempt municipal notes. The Company regularly reviews its securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as historical experience, market data, financial condition and near-term prospects of the investee, the extent of the loss related to the credit of the issuer, and the expected cash flows from the security. The Company segments its portfolio based on the underlying risk profiles of the securities and has a zero-loss expectation for U.S. treasury and U.S. government agency securities. The basis for this assumption is that these securities have consistently high credit ratings by rating agencies, have a long history with no credit losses, are explicitly guaranteed by a sovereign entity, which can print its own currency, and are denominated in a currency that is routinely held by central banks, used in international commerce, and commonly viewed as a reserve currency. Additionally, all of the Company's investments in corporate debt securities and municipal securities are in securities with high-quality credit ratings, which have historically experienced low rates of default.

The current unrealized losses on the Company's available-for-sale debt securities were caused by interest rate increases. The contractual terms of those investments do not permit the issuer to settle the securities at a price less than the amortized cost basis of the investments. As of September 30, 2024, the Company does not intend to sell the investments in unrealized loss positions, and it is not more-likely-than-not that the Company will be required to sell any of the investments before recovery of their amortized cost basis, which may be at maturity. Therefore, the Company does not expect to realize any losses on these available-for-sale debt securities. Additional factors considered in determining the treatment of unrealized losses include the financial condition and near-term prospects of the investee, the extent of the loss related to the credit of the issuer, and the expected cash flows from the security.

For the three and nine months ended September 30, 2024, and 2023, credit losses related to available-for-sales debt securities were not material.

Equity Investments

The Company's equity investments may, at any time, consist of equity investments with and 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):

					Reported as:	
	December 31, 2023 Carrying Value	Changes in Fair Value [(1)]	Purchases / Sales / Other [(2)]	September 30, 2024 Carrying Value	Prepaids and other current assets	Intangible and other assets, net
Equity investments without readily determinable fair value (Level 2)	$ 74.5	$ 2.6	$ 18.0	$ 95.1	$ —	$ 95.1

(1) Recorded in interest and other income, net.

(2) Other includes foreign currency translation gains/(losses).

For the nine months ended September 30, 2024, the Company did not hold any equity investments with readily determinable fair values (Level 1).

For the nine months ended September 30, 2024, the Company recognized a net increase in fair value of $2.6 million for equity investments that lack readily determinable fair values (Level 2), primarily due to changes in observable prices for certain equity investments, partially offset by impairments of certain equity investments, which was reflected in interest and other income, net.

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 thirteen 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"), the Korean Won ("KRW"), and the New Taiwan Dollar ("TWD"). 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, TWD, Indian Rupee ("INR"), Mexican Peso ("MXN"), Chinese Yuan ("CNY"), and Canadian Dollar ("CAD").

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,	
	2024	2023	2024	2023
Recognized gains (losses) in interest and other income, net	$ (27.3)	$ 10.4	$ 2.8	$ 21.8
Foreign exchange gains (losses) related to balance sheet re-measurement	$ 31.5	$ (13.1)	$ (1.1)	$ (24.0)

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, 2024	December 31, 2023	September 30, 2024	December 31, 2023
Notional amounts:				
Forward contracts	$ 365.2	$ 292.1	$ 688.9	$ 699.7
Gross fair value recorded in:				
Prepaids and other current assets	$ 1.2	$ 3.1	$ 1.7	$ 5.0
Other accrued liabilities	$ 10.1	$ 5.9	$ 8.4	$ 6.6

NOTE 4. BALANCE SHEET DETAILS AND OTHER FINANCIAL INFORMATION

Balance Sheet Details

The following tables provide details of selected Condensed Consolidated Balance Sheet line items (in millions):

	As of	
Accounts receivable, net	September 30, 2024	December 31, 2023
Trade accounts receivable, net	$ 984.7	$ 1,042.2
Unbilled accounts receivable and other	191.9	105.0
Sales returns and allowances	(23.6)	(17.0)
Total accounts receivable, net	$ 1,153.0	$ 1,130.2

	As of	
Inventory	September 30, 2024	December 31, 2023
Raw materials	$ 522.6	$ 454.7
Work-in-process	214.9	159.9
Finished goods	744.2	606.0
Total inventory	$ 1,481.7	$ 1,220.6

Prepaids and other current assets	As of September 30, 2024		As of December 31, 2023	
Net investment in sales-type leases – short-term	$	137.0	$	137.3
Other prepaids and other current assets		212.2		176.7
Total prepaids and other current assets	$	349.2	$	314.0

Property, plant, and equipment, net	As of September 30, 2024		As of December 31, 2023	
Land	$	464.1	$	457.3
Building and building/leasehold improvements		1,428.5		1,002.1
Machinery and equipment		859.2		724.2
Operating lease assets – Intuitive System Leasing		1,455.1		1,149.7
Computer and office equipment		173.4		153.8
Capitalized software		280.7		257.8
Construction-in-process		1,583.5		1,354.7
Gross property, plant, and equipment		6,244.5		5,099.6
Less: Accumulated depreciation*		(1,811.5)		(1,562.0)
Total property, plant, and equipment, net	$	4,433.0	$	3,537.6
*Accumulated depreciation associated with operating lease assets – Intuitive System Leasing	$	(526.1)	$	(434.3)

Other accrued liabilities – short-term	As of September 30, 2024		As of December 31, 2023	
Income and other taxes payable	$	164.6	$	111.4
Accrued construction-related capital expenditures		178.5		143.3
Other accrued liabilities		311.5		332.8
Total other accrued liabilities – short-term	$	654.6	$	587.5

Other long-term liabilities	As of September 30, 2024		As of December 31, 2023	
Income taxes – long-term	$	202.8	$	233.8
Deferred revenue – long-term		59.6		45.6
Other long-term liabilities		126.7		106.1
Total other long-term liabilities	$	389.1	$	385.5

Supplemental Cash Flow Information

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

	Nine Months Ended September 30, 2024		Nine Months Ended September 30, 2023	
Equipment transfers, including operating lease assets, from inventory to property, plant, and equipment	$	423.8	$	303.8
Acquisition of property, plant, and equipment in accounts payable and accrued liabilities	$	194.9	$	135.2

NOTE 5. REVENUE

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
U.S.	2024	2023	2024	2023
Instruments and accessories	$ 904.8	$ 775.7	$ 2,618.6	$ 2,240.4
Systems	265.4	216.0	702.2	627.6
Service	209.2	188.5	616.3	564.6
Total U.S. revenue	$ 1,379.4	$ 1,180.2	$ 3,937.1	$ 3,432.6
Outside of the U.S. ("OUS")				
Instruments and accessories	$ 359.4	$ 295.7	$ 1,048.9	$ 892.5
Systems	179.6	163.4	609.2	571.9
Service	119.7	104.4	343.4	298.8
Total OUS revenue	$ 658.7	$ 563.5	$ 2,001.5	$ 1,763.2
Total				
Instruments and accessories	$ 1,264.2	$ 1,071.4	$ 3,667.5	$ 3,132.9
Systems	445.0	379.4	1,311.4	1,199.5
Service	328.9	292.9	959.7	863.4
Total revenue	$ 2,038.1	$ 1,743.7	$ 5,938.6	$ 5,195.8

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 these performance obligations relate to service obligations in the Company's system sale and lease arrangements that will be satisfied and recognized as revenue in future periods. The transaction price allocated to the remaining performance obligations was $2.52 billion as of September 30, 2024. The remaining performance obligations are expected to be satisfied over the term of the system sale, lease, and service arrangements. Approximately 45% of the remaining performance obligations are expected to be recognized in the next 12 months with the remainder recognized thereafter over the term of the system sale, lease, and service arrangements, which are generally up to 5 years.

Contract Assets and Liabilities

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

	As of	
	September 30, 2024	December 31, 2023
Contract assets	$ 17.7	$ 20.2
Deferred revenue	$ 485.6	$ 491.7

The Company invoices its customers based on the billing schedules in its sales arrangements. Payments are generally due 30 to 60 days from the 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, 2024, the Company recognized $81 million and $388 million of revenue, respectively, that was included in the deferred revenue balance as of December 31, 2023. During the three and nine months ended September 30, 2023, the Company recognized $75 million and $372 million of revenue, respectively, that was included in the deferred revenue balance as of December 31, 2022.

Intuitive System Leasing

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Sales-type lease revenue	$ 30.2	$ 19.2	$ 88.6	$ 54.5
Operating lease revenue*	$ 167.8	$ 127.1	$ 472.7	$ 361.8
*Variable lease revenue related to usage-based arrangements included within operating lease revenue	$ 87.0	$ 54.2	$ 237.1	$ 153.4

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, 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, 2024, and 2023, bad debt expense was not material.

The Company's exposure to credit losses may increase if its customers are adversely affected by changes in healthcare laws, procedure coverage and reimbursement, economic pressures or uncertainty associated with local or global economic recessions, 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 macroeconomic factors, including inflation, high interest rates, and staffing shortages.

NOTE 6. LEASES

Lessor Information related to Intuitive System Leasing

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, 2024	December 31, 2023
Gross lease receivables	$ 362.8	$ 384.5
Unearned income	(12.7)	(12.9)
Subtotal	350.1	371.6
Allowance for credit loss	(2.6)	(2.7)
Net investment in sales-type leases	$ 347.5	$ 368.9
Reported as:		
Prepaids and other current assets	$ 137.0	$ 137.3
Intangible and other assets, net	210.5	231.6
Net investment in sales-type leases	$ 347.5	$ 368.9

Contractual maturities of gross lease receivables as of September 30, 2024, are as follows (in millions):

Fiscal Year	Amount
Remainder of 2024	$ 39.0
2025	133.5
2026	94.0
2027	57.1
2028	26.0
2029 and thereafter	13.2
Total	$ 362.8

The Company enters into sales-type leases with certain qualified customers to purchase its systems. Sales-type leases have terms that generally range from 36 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 the current expected lifetime loss on lease receivables. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, 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 of the net investment in sales-type leases using a number of factors relating to its customers, 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 indicator for the purposes of determining credit quality. The following table summarizes the amortized cost basis by year of origination and by credit quality for the net investment in sales-type leases as of September 30, 2024 (in millions):

	2024	2023	2022	2021	2020	Prior	Net Investment
Credit Rating:							
High	$ 31.0	$ 31.8	$ 47.6	$ 38.1	$ 11.0	$ 1.8	$ 161.3
Moderate	60.0	26.4	49.2	31.3	14.1	2.0	183.0
Low	2.7	1.1	—	1.7	0.3	—	5.8
Total	$ 93.7	$ 59.3	$ 96.8	$ 71.1	$ 25.4	$ 3.8	$ 350.1

For the three and nine months ended September 30, 2024, and 2023, credit losses related to the net investment in sales-type leases were not material.

NOTE 7. GOODWILL AND INTANGIBLE ASSETS

Acquisitions

There were no material acquisitions in the nine months ended September 30, 2024, and 2023.

Goodwill

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

	Amount
Balance as of December 31, 2023	$ 348.7
Acquisition activity	—
Translation and other	(0.4)
Balance as of September 30, 2024	$ 348.3

Intangible Assets

The following table summarizes the components of gross intangible assets, accumulated amortization, and net intangible assets balances as of September 30, 2024, and December 31, 2023 (in millions):

	September 30, 2024			December 31, 2023		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$ 202.5	$ (183.7)	$ 18.8	$ 206.3	$ (178.4)	$ 27.9
Distribution rights and others	1.3	(1.0)	0.3	10.8	(9.2)	1.6
Customer relationships	28.1	(21.9)	6.2	32.5	(22.9)	9.6
Total intangible assets	$ 231.9	$ (206.6)	$ 25.3	$ 249.6	$ (210.5)	$ 39.1

Amortization expense related to intangible assets was $3.5 million and $5.1 million for the three months ended September 30, 2024, and 2023, respectively. Amortization expense related to intangible assets was $13.6 million and $15.1 million for the nine months ended September 30, 2024, and 2023, respectively.

The estimated future amortization expense related to intangible assets as of September 30, 2024, is as follows (in millions):

Fiscal Year	Amount
Remainder of 2024	$ 3.3
2025	12.0
2026	5.2
2027	2.8
2028	1.3
2029 and thereafter	0.7
Total	$ 25.3

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, commercial, 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 condition, or 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 condition, or 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 October 19, 2022, a jury rendered a verdict against the Company awarding $10 million in damages to Rex Medical, L.P. in a patent infringement lawsuit. On September 20, 2023, the court granted the Company's post-trial motion and reduced the damages to Rex Medical L.P. to nominal damages of $1. On October 18, 2023, Rex Medical filed a notice of appeal to the United States Court of Appeals for the Federal Circuit and, on October 31, 2023, Intuitive filed its notice of cross appeal. The parties have completed briefing before the Court of Appeals for the Federal Circuit. Based on currently available information, the Company does not believe that any losses arising from this matter would be material.

Commercial Litigation

On May 10, 2021, Surgical Instrument Service Company, Inc. ("SIS") filed a complaint in the Northern District of California Court alleging antitrust claims against the Company relating to EndoWrist service, maintenance, and repair processes. The Court granted in part and denied in part the Company's Motion to Dismiss, and discovery has commenced. The Company filed an answer denying the antitrust allegations and filed counterclaims against SIS. The counterclaims allege that SIS violated the Federal Lanham Act, California's Unfair Competition Law, and California's False Advertising Law and that SIS is also liable to the Company for Unfair Competition and Tortious Interference with Contract. The parties have filed summary judgment and Daubert motions, and the court held a hearing on these motions on September 7, 2023.

On March 31, 2024, the Court granted-in-part and denied-in-part both Intuitive's and plaintiff's motions for summary judgment, and issued additional rulings related to expert witnesses. The Court did not rule in favor of either party with respect to whether the U.S. Food and Drug Administration ("FDA") requires 510(k) clearance for plaintiff's services with respect to EndoWrists. In conjunction with this finding, the Court denied Intuitive's motion for summary judgment on plaintiff's antitrust claims and found that these claims could proceed to trial. In addition, the Court ruled with Intuitive in dismissing plaintiff's false statement claims against Intuitive, and the Court ruled with plaintiff in dismissing certain of Intuitive's counterclaims against plaintiff. The Court has set a trial in this matter to commence on January 6, 2025. 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.

Three class action complaints were filed against the Company in the Northern District of California Court alleging antitrust allegations relating to the service and repair of certain instruments manufactured by the Company. A complaint by Larkin Community Hospital was filed on May 20, 2021, a complaint by Franciscan Alliance, Inc. and King County Public Hospital District No. 1 was filed on July 6, 2021, and a complaint by Kaleida Health was filed on July 8, 2021. The Court has consolidated the Franciscan Alliance, Inc. and King County Public Hospital District No. 1 and Kaleida Health cases with the Larkin Community Hospital case, which is now captioned on the Larkin docket as "In Re: da Vinci Surgical Robot Antitrust Litigation." A Consolidated Amended Class Action Complaint has been filed on behalf of each plaintiff named in the earlier-filed cases. On January 14, 2022, Kaleida Health voluntarily dismissed itself as a party to this case. On January 18, 2022, the Company filed an answer against the plaintiffs in this matter, and discovery has commenced.

With regard to this class action case, on September 7, 2023, the Court heard argument on the parties' respective motions for summary judgment and motions related to expert testimony. On March 31, 2024, the Court granted-in-part and denied-in-part plaintiffs' motion for summary judgment on certain market definition issues, and denied Intuitive's motion on the antitrust claims. In denying Intuitive's motion, the Court declined to decide whether third-party companies were required to obtain 510(k) clearance for their services with respect to EndoWrists, and in the absence of a formal ruling from the FDA on that question denied Intuitive's motion for summary judgment challenging plaintiffs' standing on that ground. There were additional rulings on the expert witness issues as well. In the summary judgment order, the Court ruled with plaintiffs that the da Vinci robot and EndoWrist instruments occupy separate product markets for antitrust purposes. The Court also ruled that there is an antitrust aftermarket for the repair and replacement of EndoWrist instruments, and that Intuitive holds monopoly power in that aftermarket. The Court denied summary judgment for plaintiffs on the issue of whether soft-tissue surgical robots constitute a relevant antitrust market or are part of a larger market that includes laparoscopic and open surgery for antitrust purposes. On July 30, 2024, the Court granted Intuitive's motion for reconsideration, vacating those portions of the Court's March 31, 2024 Order granting summary judgment as to the definition of a U.S. market for EndoWrist repair and replacement and Intuitive's market power in such a market. The Court has set a class certification hearing for January 23, 2025. 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, and no trial date has been set for this matter at this time.

On September 18, 2024, Restore Robotics Repairs ("Restore") filed a complaint in the United States District Court for the Northern District of Florida alleging antitrust claims against the Company relating to the service and replacement of X/Xi EndoWrist instruments for use with the da Vinci X and Xi surgical systems. The Company has agreed to accept service of the complaint, and the parties agreed that Intuitive would have until December 9, 2024, to file a response. 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, 2024							
	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	355.3	$ 0.4	$ 9,149.7	$ 5,581.7	$ (23.5)	$ 14,708.3	$ 88.2	$ 14,796.5
Issuance of common stock through employee stock plans	1.0	—	115.6	—	—	115.6	—	115.6
Shares withheld related to net share settlement of equity awards	(0.1)	—	(0.4)	(17.0)	—	(17.4)	—	(17.4)
Share-based compensation expense related to employee stock plans	—	—	175.3	—	—	175.3	—	175.3
Net income attributable to Intuitive Surgical, Inc.	—	—	—	565.1	—	565.1	—	565.1
Other comprehensive income	—	—	—	—	36.4	36.4	0.5	36.9
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	5.5	5.5
Ending balance	356.2	$ 0.4	$ 9,440.2	$ 6,129.8	$ 12.9	$ 15,583.3	$ 94.2	$ 15,677.5

	Three Months Ended September 30, 2023							
	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	351.3	$ 0.4	$ 8,150.8	$ 3,807.7	$ (79.8)	$ 11,879.1	$ 80.6	$ 11,959.7
Issuance of common stock through employee stock plans	0.7	—	77.4	—	—	77.4	—	77.4
Shares withheld related to net share settlement of equity awards	—	—	(0.6)	(14.2)	—	(14.8)	—	(14.8)
Share-based compensation expense related to employee stock plans	—	—	158.3	—	—	158.3	—	158.3
Net income attributable to Intuitive Surgical, Inc.	—	—	—	415.7	—	415.7	—	415.7
Other comprehensive income (loss)	—	—	—	—	23.3	23.3	(0.2)	23.1
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	4.1	4.1
Ending balance	352.0	$ 0.4	$ 8,385.9	$ 4,209.2	$ (56.5)	$ 12,539.0	$ 84.5	$ 12,623.5

	Nine Months Ended September 30, 2024								
	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	352.3	$ 0.4	$ 8,576.4	$ 4,743.0	$ (12.2)	$ 13,307.6	$ 89.7	$ 13,397.3
Issuance of common stock through employee stock plans	4.6	—	367.5	—	—	367.5	—	367.5
Shares withheld related to net share settlement of equity awards	(0.7)	—	(7.4)	(250.1)	—	(257.5)	—	(257.5)
Share-based compensation expense related to employee stock plans	—	—	503.7	—	—	503.7	—	503.7
Net income attributable to Intuitive Surgical, Inc.	—	—	—	1,636.9	—	1,636.9	—	1,636.9
Other comprehensive income (loss)	—	—	—	—	25.1	25.1	(0.1)	25.0
Cash dividends declared and paid by joint venture	—	—	—	—	—	—	(8.0)	(8.0)
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	12.6	12.6
Ending balance	356.2	$ 0.4	$ 9,440.2	$ 6,129.8	$ 12.9	$ 15,583.3	$ 94.2	$ 15,677.5

	Nine Months Ended September 30, 2023							
	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	350.0	$ 0.4	$ 7,703.9	$ 3,500.1	$ (162.5)	$ 11,041.9	$ 70.7	$ 11,112.6
Issuance of common stock through employee stock plans	4.1	—	252.2	—	—	252.2	—	252.2
Shares withheld related to net share settlement of equity awards	(0.6)	—	(6.9)	(148.5)	—	(155.4)	—	(155.4)
Share-based compensation expense related to employee stock plans	—	—	452.5	—	—	452.5	—	452.5
Repurchase and retirement of common stock	(1.5)	—	(15.8)	(334.2)	—	(350.0)	—	(350.0)
Net income attributable to Intuitive Surgical, Inc.	—	—	—	1,191.8	—	1,191.8	—	1,191.8
Other comprehensive income (loss)	—	—	—	—	106.0	106.0	(1.0)	105.0
Net income attributable to noncontrolling interest in joint venture	—	—	—	—	—	—	14.8	14.8
Ending balance	352.0	$ 0.4	$ 8,385.9	$ 4,209.2	$ (56.5)	$ 12,539.0	$ 84.5	$ 12,623.5

Stock Repurchase Program

The Company's Board of Directors (the "Board") has authorized an aggregate of $10.0 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 July 2022, when the Board increased the authorized amount available under the Repurchase Program to $3.5 billion, including amounts remaining under previous authorization. As of September 30, 2024, the remaining amount of share repurchases authorized by the Board under the Repurchase Program was approximately $1.1 billion.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Shares repurchased	—	—	—	1.5
Average price per share	$ —	$ —	$ —	$ 238.1
Value of shares repurchased	$ —	$ —	$ —	$ 350.0

Accumulated Other Comprehensive Income (Loss), Net of Tax, Attributable to Intuitive Surgical, Inc.

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

	Three Months Ended September 30, 2024				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Losses	Employee Benefit Plans	Total
Beginning balance	$ 7.9	$ (28.4)	$ (3.5)	$ 0.5	$ (23.5)
Other comprehensive income (loss) before reclassifications	(15.7)	59.5	(7.4)	—	36.4
Amounts reclassified from accumulated other comprehensive income (loss)	0.2	—	—	(0.2)	—
Net current-period other comprehensive income (loss)	(15.5)	59.5	(7.4)	(0.2)	36.4
Ending balance	$ (7.6)	$ 31.1	$ (10.9)	$ 0.3	$ 12.9

	Three Months Ended September 30, 2023				
	Gains on Hedge Instruments	Unrealized Losses on Available-for-Sale Securities	Foreign Currency Translation Gains	Employee Benefit Plans	Total
Beginning balance	$ 5.6	$ (103.5)	$ 16.9	$ 1.2	$ (79.8)
Other comprehensive income (loss) before reclassifications	2.0	25.6	(6.6)	—	21.0
Amounts reclassified from accumulated other comprehensive income	2.3	—	—	—	2.3
Net current-period other comprehensive income (loss)	4.3	25.6	(6.6)	—	23.3
Ending balance	$ 9.9	$ (77.9)	$ 10.3	$ 1.2	$ (56.5)

	Nine Months Ended September 30, 2024				
	Losses on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ (2.5)	$ (29.7)	$ 19.4	$ 0.6	$ (12.2)
Other comprehensive income (loss) before reclassifications	(10.5)	60.6	(30.3)	—	19.8
Amounts reclassified from accumulated other comprehensive income (loss)	5.4	0.2	—	(0.3)	5.3
Net current-period other comprehensive income (loss)	(5.1)	60.8	(30.3)	(0.3)	25.1
Ending balance	$ (7.6)	$ 31.1	$ (10.9)	$ 0.3	$ 12.9

	Nine Months Ended September 30, 2023				
	Gains (Losses) on Hedge Instruments	Unrealized Losses on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$ (2.9)	$ (154.2)	$ (6.6)	$ 1.2	$ (162.5)
Other comprehensive income before reclassifications	12.6	76.5	16.9	—	106.0
Amounts reclassified from accumulated other comprehensive income (loss)	0.2	(0.2)	—	—	—
Net current-period other comprehensive income	12.8	76.3	16.9	—	106.0
Ending balance	$ 9.9	$ (77.9)	$ 10.3	$ 1.2	$ (56.5)

The tax impacts for amounts recognized in other comprehensive income before reclassifications were as follows (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
Available-for-sale securities	2024	2023	2024	2023
Income tax benefit (expense) for net gains (losses) recorded in other comprehensive income	$ (17.5)	$ (7.4)	$ (17.8)	$ (22.0)

The tax impacts for amounts recognized in other comprehensive income before reclassifications for hedge instruments, foreign currency translation gains (losses), and employee benefit plans for the three and nine months ended September 30, 2024, and 2023, were not material to the Company's Financial Statements. The tax impacts for amounts reclassified from accumulated other comprehensive income (loss) relating to hedge instruments, available-for-sale securities, foreign currency translation gains (losses), and employee benefit plans for the three and nine months ended September 30, 2024, and 2023, were not material to the Company's Financial Statements.

NOTE 10. SHARE-BASED COMPENSATION

In April 2024, 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 110,350,000 to 115,350,000. As of September 30, 2024, approximately 20.6 million shares were reserved for future issuance under the Company's stock plans, and a maximum of approximately 8.9 million of these shares can be awarded as restricted stock units ("RSUs").

Restricted Stock Units

A summary of RSU activity under all stock plans for the nine months ended September 30, 2024, is presented as follows (in millions, except per share amounts):

	Shares	Weighted-Average Grant-Date Fair Value
Unvested balance as of December 31, 2023	5.0	$ 245.75
RSUs granted	2.4	$ 390.22
RSUs vested	(1.8)	$ 236.63
RSUs forfeited	(0.3)	$ 282.86
Unvested balance as of September 30, 2024	5.3	$ 311.73

Stock Options

A summary of stock option activity under all stock plans for the nine months ended September 30, 2024, is presented as follows (in millions, except per share amounts):

	Stock Options Outstanding		
	Number Outstanding		Weighted-Average Exercise Price Per Share
Balance as of December 31, 2023	9.8	$	174.90
Options granted	—	$	—
Options exercised	(2.2)	$	117.26
Options forfeited or expired	(0.1)	$	255.85
Balance as of September 30, 2024	7.5	$	190.36

As of September 30, 2024, options to purchase an aggregate of 6.3 million shares of common stock were exercisable at a weighted-average price of $176.05 per share.

Performance Stock Units

In 2022, the Company began granting performance stock units ("PSUs") to officers and other key employees subject to three-year cliff vesting and pre-established, quantitative goals. Whether any PSUs vest, and the amount that do vest, is tied to completion of service over three years and the achievement of three equally-weighted, quantitative goals that directly align with or help drive the Company's strategy and long-term total shareholder return.

The 2022 PSU grant metrics are focused on relative total shareholder return ("TSR"), year-over-year da Vinci procedure growth for 2023, and two-year compound annual da Vinci procedure growth for 2024. The 2023 PSU grant metrics are focused on relative TSR, da Vinci and Ion procedure growth in 2024 compared to 2022, and da Vinci and Ion procedure growth in 2025 compared to 2022. The 2024 PSU grant metrics are focused on relative TSR, da Vinci and Ion procedure growth in 2025 compared to 2023, and da Vinci and Ion procedure growth in 2026 compared to 2023. The TSR metric is considered a market condition, and the expense is determined at the grant date. The procedure growth metrics are considered performance conditions, and the expense is recorded based on the forecasted performance, which is reassessed each reporting period based on the probability of achieving the performance conditions. The number of shares earned at the end of the three-year period will vary, based on actual performance, from 0% to 125% of the target number of PSUs granted. PSUs are subject to forfeiture if employment terminates prior to the vesting date. PSUs are not considered issued or outstanding shares of the Company.

The Company calculates the fair value for each component of the PSUs individually. The fair value for the component with the TSR metric was determined using a Monte Carlo simulation. The fair value per share for the components with the procedure growth metrics is equal to the closing stock price on the grant date.

A summary of PSU activity for the nine months ended September 30, 2024, is presented as follows (in millions, except per share amounts):

	Shares		Weighted-Average Grant Date Fair Value Per Share
Unvested balance as of December 31, 2023	0.2	$	259.60
Granted	0.1	$	395.92
Vested	—	$	276.20
Performance change	—	$	290.33
Forfeited	—	$	294.75
Unvested balance as of September 30, 2024	0.3	$	306.94

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan ("ESPP"), employees purchased approximately 0.6 million shares for $114.9 million and approximately 0.5 million shares for $104.5 million during the nine months ended September 30, 2024, and 2023, respectively.

Share-Based Compensation Expense

The following table summarizes share-based compensation expense for the three and nine months ended September 30, 2024, and 2023 (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Cost of revenue – product (before capitalization)	$ 27.5	$ 24.7	$ 75.7	$ 70.4
Amounts capitalized into inventory	(25.6)	(23.2)	(70.7)	(63.1)
Amounts recognized in income for amounts previously capitalized in inventory	23.0	21.1	66.2	53.0
Cost of revenue – product	$ 24.9	$ 22.6	$ 71.2	$ 60.3
Cost of revenue – service	7.9	7.3	22.5	21.3
Total cost of revenue	32.8	29.9	93.7	81.6
Selling, general, and administrative	77.6	71.9	225.4	206.6
Research and development	65.4	55.3	188.7	157.7
Share-based compensation expense before income taxes	175.8	157.1	507.8	445.9
Income tax benefit	36.9	28.7	105.4	85.2
Share-based compensation expense after income taxes	$ 138.9	$ 128.4	$ 402.4	$ 360.7

The Black-Scholes-Merton option pricing model is used to estimate the fair value of stock options granted under the Company's share-based compensation plans and the 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, 2024, and 2023, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Stock Options				
Risk-free interest rate	—	4.5%	—	4.6%
Expected term (in years)	—	2.9	—	3.2
Expected volatility	—	32%	—	33%
Fair value at grant date	—	$82.63	—	$77.41
ESPP				
Risk-free interest rate	4.6%	5.2%	4.6%	5.0%
Expected term (in years)	1.2	1.2	1.2	1.2
Expected volatility	29%	31%	29%	33%
Fair value at grant date	$131.01	$98.96	$130.00	$89.42

NOTE 11. INCOME TAXES

Income tax expense for the three months ended September 30, 2024, was $100.4 million, or 15.0% of income before taxes, compared to $102.2 million, or 19.6% of income before taxes, for the three months ended September 30, 2023. Income tax expense for the nine months ended September 30, 2024, was $214.5 million, or 11.5% of income before taxes, compared to $236.4 million, or 16.4% of income before taxes, for the nine months ended September 30, 2023.

The effective tax rates for the three and nine months ended September 30, 2024, and 2023, differed from the U.S. federal statutory rate of 21% primarily due to the excess tax benefits associated with employee equity plans, the federal research and development credit benefit, and the effect of income earned by certain overseas entities being taxed at rates lower than the federal statutory rate, partially offset by U.S. tax on foreign earnings and state income taxes (net of the federal benefit).

The provision for income taxes for the three months ended September 30, 2024, and 2023, included excess tax benefits associated with employee equity plans of $42.2 million and $22.0 million, respectively, which reduced the Company's effective tax rate by 6.3 and 4.2 percentage points, respectively. The provision for income taxes for the nine months ended September 30, 2024, and 2023, included excess tax benefits associated with employee equity plans of $189.0 million and $86.2 million, respectively, which reduced the Company's effective tax rate by 10.1 and 6.0 percentage points, respectively.

The Company files federal, state, and foreign income tax returns in many jurisdictions in the U.S. and OUS. Years before 2017 are considered closed for 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 in which 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 changes in unrecognized tax benefits that may occur in the next 12 months.

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

NOTE 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,	
	2024	2023	2024	2023
Numerator:				
Net income attributable to Intuitive Surgical, Inc.	$ 565.1	$ 415.7	$ 1,636.9	$ 1,191.8
Denominator:				
Weighted-average shares outstanding used in basic calculation	355.8	351.7	354.8	351.0
Add: dilutive effect of potential common shares	6.9	6.5	6.6	6.1
Weighted-average shares outstanding used in diluted calculation	362.7	358.2	361.4	357.1
Net income per share attributable to Intuitive Surgical, Inc.:				
Basic	$ 1.59	$ 1.18	$ 4.61	$ 3.40
Diluted	$ 1.56	$ 1.16	$ 4.53	$ 3.34

Share-based compensation awards of approximately 0.0 million and 1.4 million shares for the three months ended September 30, 2024, and 2023, respectively, and approximately 0.3 million and 1.9 million shares for the nine months ended September 30, 2024, and 2023, 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

Management's discussion and analysis of financial condition as of September 30, 2024, and results of operations for the three and nine months ended September 30, 2024, and 2023, 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, 2023.

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. Statements using 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 future results of operations, future financial condition, the expected impacts of COVID-19 on our business, financial condition, and results of operations, our financing plans and future capital requirements, our potential tax assets or liabilities, and statements based on current expectations, estimates, forecasts, and projections about the economies and geographic markets in which we operate and our beliefs and assumptions regarding these economies and markets. These forward-looking statements are necessarily estimates reflecting the judgment of our management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. These forward-looking statements should be considered in light of various important factors, including, but not limited to, the following: the overall macroeconomic environment, which may impact customer spending and our costs, including the levels of inflation and interest rates; the conflict in Ukraine; conflicts in the Middle East, including Israel and Iran; disruption to our supply chain, including difficulties in obtaining a sufficient supply of materials; curtailed or delayed capital spending by hospitals; the impact of global and regional economic and credit market conditions on healthcare spending; delays in obtaining new product approvals, clearances, or certifications from the United States ("U.S.") Food and Drug Administration ("FDA"), comparable regulatory authorities, or notified bodies; the risk of our inability to comply with complex FDA and other regulations, which may result in significant enforcement actions; regulatory approvals, clearances, certifications, and restrictions or any dispute that may occur with any regulatory body; 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 customer 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; intellectual property positions and litigation; risks associated with our operations and any expansion outside of the U.S.; unanticipated manufacturing disruptions or the inability to meet demand for products; our reliance on sole- and single-sourced suppliers; the results of legal proceedings to which we are or may become a party; adverse publicity regarding us and the safety of our products and adequacy of training; the impact of changes to tax legislation, guidance, and interpretations; changes in tariffs, trade barriers, and regulatory requirements; and other risks and uncertainties, including those listed under the caption "Risk Factors." Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this report and 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 identified under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023, as updated by our other filings with the Securities and Exchange Commission ("SEC"). Our actual results may differ materially and adversely from those expressed in any forward-looking statement, and we undertake no obligation to publicly update or release any revisions to these forward-looking statements, except as required by law.

Intuitive®, Intuitive Surgical®, da Vinci®, da Vinci S®, da Vinci Si®, da Vinci X®, da Vinci Xi®, da Vinci 5™, da Vinci SP®, Advanced Insights Suite™, Case Insights™, EndoWrist®, Firefly®, Insights Engine™, Intuitive Hub™, Intuitive Learning™, Ion®, My Intuitive™, SimNow®, and SureForm® are trademarks or registered trademarks of the Company.

Overview

As part of our mission, we believe that minimally invasive care is life-enhancing care. We are committed to advancing minimally invasive care through a comprehensive ecosystem of products and services. This ecosystem includes systems, instruments and accessories, learning, and services connected by a digital portfolio that enables precision and control, seamless interactions and experiences, and meaningful insights to drive better care.

We bring nearly three decades of experience and technical innovation to our robotic-assisted surgical solutions. While surgery and acute interventions have improved significantly in the past few decades, there remains a significant need for better outcomes and decreased variability of these outcomes across care teams. The current healthcare environment continues to stress critical resources, including the professionals who staff care teams: surgeons, anesthesiologists, nurses, and other staff. At the same time, governments continue to strain to cover the healthcare needs of their populations and demand lower total cost per patient to treat disease. In the face of these challenges, we believe scientific and technological advances in biology, computing, imaging, algorithms, and robotics may offer new methods to solve continued and difficult problems.

We address our customers' needs by sharing their goals reflected in the quintuple aim. First, we aim to improve patient outcomes through an ecosystem of advanced robotic systems, instruments and accessories, progressive technology learning pathways, and comprehensive support and program assistance services. Second, we aim to improve the patient experience by minimizing disruption to lives and creating greater predictability during procedures. Third, we aim 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. Fourth, we aim to expand access to high-quality minimally invasive care and effectively address implementation barriers that are the causes of heath inequities. Finally, we aim to lower the total cost to treat per patient episode using our technology when compared with existing treatment alternatives, providing a return on investment for hospitals and healthcare systems and value for payers.

Open surgery remains a prevalent 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 four 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 and da Vinci endoscopes. We provide a comprehensive suite of systems, learning, and services offerings. Digitally enabled for nearly three decades, these three offerings aim to decrease variability by providing dependable, consistent functionality and an integrated user experience. Our systems category includes robotic platforms, software, vision, energy, and instruments and accessories. Our learning category includes learning and enabling technology, such as simulation and telepresence as well as technical training programs and personalized peer-to-peer learning opportunities. We have a global network of field service engineers and distributors through which we deliver a suite of services, including installation, repair, maintenance, around-the-clock technical support, and system monitoring. We also offer customized analytics and consultation to hospitals for program optimization.

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, the fourth-generation da Vinci Xi surgical system in 2014, and the fifth-generation da Vinci 5 surgical system in 2024. We extended our fourth-generation platform by adding the da Vinci X surgical system, commercialized in 2017, and the da Vinci SP surgical system, commercialized in 2018. The da Vinci SP surgical system accesses the body through a single incision, while the other da Vinci surgical systems access the body through multiple incisions. All da Vinci systems include a surgeon's console (or consoles), imaging electronics, a patient-side cart, and computational hardware and software.

We are in the early stages of launching our da Vinci SP surgical system, and we have an installed base of 243 da Vinci SP surgical systems as of September 30, 2024. We have received FDA clearance for the da Vinci SP surgical system for urologic, general thoracoscopic, and certain transoral procedures. Additionally, the da Vinci SP surgical system has received regulatory clearance in South Korea for a broad set of procedures. The da Vinci SP surgical system has also received regulatory clearance in Japan for the same set of procedures that are currently allowed with the da Vinci Xi surgical system in Japan. In January

2024, the da Vinci SP surgical system received European certification in accordance with Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices (the "EU MDR") for our da Vinci SP surgical system for use in endoscopic abdominopelvic, thoracoscopic, transoral otolaryngology, transanal colorectal, and breast surgical procedures, and we are commercializing the da Vinci SP surgical system in select major European countries throughout 2024 as part of a measured rollout strategy. In August 2024, we obtained regulatory clearance in Taiwan for our da Vinci SP surgical system for use in endoscopic abdominopelvic, thoracoscopic, transoral otolaryngology, transanal colorectal, transanal total mesorectal excision, and breast surgical procedures. We plan to seek FDA clearances for additional indications for the da Vinci SP surgical system and expand the system's regulatory approvals (including for additional indications) in outside of the U.S. ("OUS") markets 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.

In March 2024, we obtained FDA clearance for our da Vinci 5 surgical system, our next-generation multi-port robotic system, for use in all surgical specialties and procedures indicated for da Vinci Xi, except for cardiac and pediatric indications. In October 2024, we obtained regulatory clearance in South Korea for the da Vinci 5 system for use in in urologic, general, gynecologic, thoracoscopic, thoracoscopically-assisted cardiotomy, and transoral otolaryngology surgical procedures. We are in the early stages of launching da Vinci 5, and we have an installed base of 188 da Vinci 5 surgical systems as of September 30, 2024. We are in the midst of a phased launch over several quarters, giving us time to mature our supply and manufacturing processes for the new system. Additionally, we are in the regulatory process in Japan and Europe for da Vinci 5.

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 X, da Vinci Xi, and da Vinci 5 surgical systems, including da Vinci energy and da Vinci stapler products, to provide surgeons with sophisticated, computer-aided tools to precisely and efficiently interact with tissue. The da Vinci X, da Vinci Xi, and da Vinci 5 surgical systems generally share the same instruments, whereas the da Vinci Si surgical system uses instruments that are not compatible with the da Vinci X, da Vinci Xi, or da Vinci 5 systems. Additionally, we have introduced a unique set of force feedback instruments that are only compatible with our da Vinci 5 surgical system. We also currently offer nine core instruments on our da Vinci SP surgical system. We plan to expand the da Vinci SP instrument offering over time.

Our learning and enabling technology offerings facilitate access to education and training on our products. Our enabling technologies include telepresence and Advanced Insights Suite (which includes Case Insights and Insights Engine), and our learning technology solutions include Intuitive Learning, SimNow, customized training models, remote case observations, and remote proctoring.

In 2019, we commercialized our Ion endoluminal system, which is a flexible, robotic-assisted, catheter-based platform that utilizes instruments and accessories for which the first cleared indication is minimally invasive biopsies in the lung. Our Ion system extends our commercial offering beyond surgery into diagnostic, endoluminal procedures. The system features an ultra-thin, ultra-maneuverable catheter that can articulate 180 degrees in all directions and allows navigation far into the peripheral lung and provides the stability necessary for precision in a biopsy. Many suspicious lesions found in the lung may be small and difficult to access, which can make diagnosis challenging, and Ion helps physicians obtain tissue samples from deep within the lung, which could help enable earlier diagnosis. Our Ion endoluminal system has received FDA clearance, and regulatory clearances OUS include European certification in accordance with the EU MDR, regulatory clearance in South Korea, and National Medical Products Administration ("NMPA") regulatory clearance in China. We plan to seek additional clearances, approvals, and certifications for the Ion endoluminal system in OUS markets over time.

The success of new product introductions depends on a number of factors including, but not limited to, pricing, competition, geographic 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.

Macroeconomic Environment

Uncertainty surrounding macroeconomic and geopolitical factors in the U.S. and globally characterized by the supply chain environment, inflationary pressure, elevated interest rates, disruptions in the commodities' markets as a result of the conflict between Russia and Ukraine and conflicts in the Middle East, including Israel and Iran, and the introduction of or changes in tariffs or trade barriers may result in a recession, which could have a material adverse effect on our business.

Supply chain constraints have generally improved to pre-COVID-19 pandemic levels, with some isolated residual stresses, particularly for engineered raw materials and at certain subcontract suppliers that are operationally challenged to meet our production requirements. These isolated instances of supply chain constraints have not had a material impact during the first nine months of 2024. Additionally, prices of materials for some components remain elevated from historical levels due to strong market demand or supply chain cost inflation. With elevated interest rates, access to credit is more difficult, and any insolvency of certain suppliers, including sole- and single-sourced suppliers, may have heightened continuity risks. Incidents of cybersecurity breaches, which have not significantly impacted our supply chain to date, also remain an active threat to sustained supply continuity. We are actively engaged in activities that seek to mitigate the impact of any supply chain risks and disruptions on our operations.

A number of hospitals continue to experience challenges with staffing and cost pressures that could affect their ability to provide patient care. Additionally, hospitals are facing significant financial pressure as supply chain constraints and inflation have driven up operating costs and elevated interest rates have made access to credit more expensive. Hospitals may also be adversely affected by the liquidity concerns as a result of the broader macroeconomic environment. Any or all of these factors could negatively impact the number of da Vinci procedures performed or surgical systems placed and have a material adverse effect on our business, financial condition, or results of operations.

COVID-19 Pandemic

COVID-19 has had a negative impact on our procedure volumes during periods with COVID-19 outbreaks due to patient delays in both the diagnosis and treatment of diseases. While such delays have negatively impacted our procedure volumes in periods with COVID-19 outbreaks, we believe that these delays have also resulted in increased procedure volumes during those periods following such outbreaks, due to the creation of patient treatment backlogs.

In January 2023, COVID-19 resurgences in China negatively impacted our procedure volumes in the region. However, as infections and hospitalization decreased in February 2023 and March 2023, our procedure volumes recovered. We did not experience significant procedure volume disruptions due to COVID-19 outbreaks in any of our geographic markets during the remainder of 2023. Instead, throughout 2023, we saw a positive impact on procedure volumes and believe that such positive impacts were partially attributable to patients who had deferred treatment returning for diagnosis and treatment.

During the first nine months of 2024, we did not experience noticeable procedure volume disruptions due to COVID-19. We also believe that a large portion of the patients in the backlog that required treatment during the COVID-19 pandemic have now been treated. Therefore, we expect that the impact of patient backlogs has been, and will continue to be, less significant on procedure volumes in 2024 than in the prior year.

Business Model

Overview

We generate up-front revenue from the placement of da Vinci systems through sales or sales-type lease arrangements and recurring revenue over time through fixed-payment or usage-based operating lease arrangements. We also earn recurring revenue from the sales of instruments, accessories, and services.

The da Vinci surgical system generally sells for between $0.7 million and $3.1 million, depending on 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 $800 and $3,600 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. We typically enter into service contracts at the time systems are sold or leased at an annual fee between $80,000 and $225,000, depending on the configuration of the underlying system and the composition of the services offered under the contract. Our system sale arrangements generally include a five-year period of service, with the first year of service provided for free. These service contracts have generally been renewed at the end of the initial contractual service periods.

We generate revenue from our Ion endoluminal system in a business model consistent with the da Vinci surgical system model described above. We generate up-front revenue from the placement of Ion systems through sales or sales-type lease arrangements and recurring revenue over time through fixed-payment or usage-based operating lease arrangements. We also earn recurring revenue from the sales of instruments, accessories, and services. The Ion endoluminal system generally sells for between $500,000 and $815,000. Our instruments and accessories have limited lives and will either expire or wear out as they are used in procedures, at which point they need to be replaced. We typically enter into service contracts at the time systems are sold or leased at an annual fee between $55,000 and $80,000.

Additionally, as part of our ecosystem of products and services, we provide a portfolio of learning offerings and digital solutions. We do not currently generate material revenue from these offerings.

Recurring Revenue

Recurring revenue consists of instruments and accessories revenue, service revenue, and operating lease revenue. Recurring revenue increased to $5.94 billion, or 83% of total revenue in 2023, compared to $4.92 billion, or 79% of total revenue in 2022, and $4.3 billion, or 75% of total revenue in 2021.

Instruments and accessories revenue has grown at a faster rate than systems revenue over time. Instruments and accessories revenue increased to $4.28 billion in 2023, compared to $3.52 billion in 2022 and $3.10 billion in 2021. The increase in instruments and accessories revenue largely reflects continued procedure adoption.

Service revenue was $1.17 billion in 2023, compared to $1.02 billion in 2022 and $0.92 billion in 2021. The increase in service revenue was primarily driven by the growth of the base of installed da Vinci surgical systems producing service revenue. The installed base of da Vinci surgical systems grew 14% to approximately 8,606 as of December 31, 2023; 12% to approximately 7,544 as of December 31, 2022; and 12% to approximately 6,730 as of December 31, 2021.

We use the installed base, number of placements, and utilization of 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 placements, and utilization of systems provide meaningful supplemental information regarding our performance, as management believes that the installed base, number of placements, and utilization of systems are indicators of the rate of adoption of our robotic-assisted medical procedures as well as an indicator of future recurring revenue. Management believes that both it and investors benefit from referring to the installed base, number of placements, and utilization of systems in assessing our performance and when planning, forecasting, and analyzing future periods. The installed base, number of placements, and utilization of systems also facilitate management's internal comparisons of our historical performance. We believe that the installed base, number of placements, and utilization of 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 our installed systems 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 placements, and utilization of 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 placements, and utilization of systems and our revenues may fluctuate from period to period, and growth in the installed base, number of placements, and utilization of systems may not correspond to an increase in revenue. The installed base, number of placements, and utilization of 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 U.S. generally accepted accounting principles ("GAAP").

Intuitive System Leasing

Since 2013, we have entered into sales-type and fixed-payment 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 programs while leveraging our balance sheet. These leases generally have commercially competitive terms as compared to other third-party entities that offer equipment leasing. More recently, we have also entered into usage-based operating lease arrangements with qualified customers that have committed da Vinci programs where we charge for the system and service as the systems are utilized. We believe that all of these alternative financing structures have been effective and well-received, and we are willing to expand the proportion of any of these structures based on customer demand. We include systems placed under fixed-payment and usage-based operating lease arrangements, as well as sales-type lease arrangements, in our system placement and installed base disclosures. We exclude operating lease-related revenue, including usage-based revenue, and Ion system revenue from our da Vinci surgical system average selling price ("ASP") computations.

The following table summarizes our system placements under leasing arrangements for the years ended December 31, 2023, 2022, and 2021:

	Year Ended December 31,		
	2023	2022	2021
Da Vinci System Placements Under Leasing Arrangements			
Fixed-payment operating lease arrangements	304	276	333
Usage-based operating lease arrangements	355	216	184
Total da Vinci system placements under operating lease arrangements	659	492	517
% of Total da Vinci system placements	48 %	39 %	38 %
Sales-type lease arrangements	45	99	151
Total da Vinci system placements under leasing arrangements	704	591	668
Ion System Placements Under Leasing Arrangements			
Fixed-payment operating lease arrangements	63	61	43
Usage-based operating lease arrangements	54	40	7
Total Ion system placements under operating lease arrangements	117	101	50
% of Total Ion system placements	55 %	53 %	54 %
Sales-type lease arrangements	5	11	7
Total Ion system placements under leasing arrangements	122	112	57

Revenue from fixed-payment operating lease arrangements is recognized on a straight-line basis over the lease term, and revenue from usage-based operating lease arrangements is recognized as the systems are used. We generally set fixed-payment and usage-based operating lease arrangements' pricing at a modest premium relative to purchased systems reflecting the time value of money and, in the case of usage-based operating lease arrangements, the risk that system utilization may fall short of anticipated levels. Variable lease revenue recognized from usage-based operating lease arrangements has been included in our operating lease metrics herein. Operating lease revenue has grown at a faster rate than overall systems revenue and was $501 million, $377 million, and $277 million for the years ended December 31, 2023, 2022, and 2021, respectively, of which $217 million, $133 million, and $78 million, respectively, was variable lease revenue related to our usage-based operating lease arrangements. As revenue for fixed-payment and usage-based operating lease arrangements is recognized over time, total systems revenue growth is reduced in a period when the number of operating lease placements increases as a proportion of total system placements. Generally, lease transactions generate similar gross margins as our sale transactions.

The following table summarizes our systems installed at customers under operating leasing arrangements for the years ended December 31, 2023, 2022, and 2021:

	Year Ended December 31,		
	2023	2022	2021
Da Vinci System Installed Base under Operating Leasing Arrangements			
Fixed-payment operating lease arrangements	1,204	1,018	841
Usage-based operating lease arrangements	1,023	665	453
Total da Vinci system installed base under operating lease arrangements	2,227	1,683	1,294
Ion System Installed Base under Operating Leasing Arrangements			
Fixed-payment operating lease arrangements	96	72	50
Usage-based operating lease arrangements	118	60	11
Total Ion system installed base under operating lease arrangements	214	132	61

Our exposure to the credit risks relating to our lease financing arrangements may increase if our customers are adversely affected by economic pressures or uncertainty, changes in healthcare laws, coverage and reimbursement, or other customer-specific factors. As a result of these macroeconomic factors impacting our customers, we may be exposed to defaults under our lease financing arrangements. Moreover, usage-based operating lease arrangements generally contain no minimum payments; therefore, customers may exit such arrangements without paying a financial penalty to us.

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 $74 million, $72 million, and $96 million for the years ended December 31, 2023, 2022, and 2021, respectively. We expect that revenue recognized from customer exercises of 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 geographic markets. In some markets, system placements are constrained by regulation. In geographies where da Vinci procedure adoption is in an early stage or system placements are constrained by regulation, system sales will precede procedure growth. System placements also vary due to seasonality, largely aligned with hospital budgeting cycles. On an annual basis, we typically place a higher proportion of systems in the fourth quarter and a lower proportion in the first quarter as many customer budgets are reset. Systems revenue is also affected by the proportion of system placements under operating lease arrangements, recurring fixed-payment and usage-based operating lease revenue, Lease Buyouts, product mix, ASPs, trade-in activities, customer mix, and specified-price trade-in rights. We generally do not provide specified-price trade-in rights or upgrade rights at the time of a system purchase; however, we expect that the number of arrangements that may contain these specified-price trade-in rights will increase as we continue the phased launch of our next-generation multi-port platform, da Vinci 5. Systems revenue remained flat at $1.68 billion in 2023. Systems revenue declined 1% to $1.68 billion in 2022. Systems revenue grew 44% to $1.69 billion in 2021.

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, gynecologic, urologic, cardiothoracic, and head and neck surgical procedures. 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 economical solutions across the spectrum of procedure complexity. Our fully featured da Vinci Xi and da Vinci 5 surgical systems with advanced instruments (including da Vinci energy and da Vinci stapler products) and our Integrated Table Motion product target the more complex procedure segment. Our da Vinci X surgical system is targeted toward price-sensitive geographic markets and procedures. Our da Vinci SP surgical system complements the da Vinci X, da Vinci Xi, and da Vinci 5 surgical systems by enabling surgeons to access narrow workspaces.

Procedure Seasonality

More than half of the 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 of the U.S. varies and is more pronounced around local holidays and vacation periods, which have lower procedure volume.

Distribution Channels

We provide our products through direct sales organizations in the U.S., Europe (excluding Italy, Spain, Portugal, Greece, and Eastern European countries), China (through our majority-owned joint ventures, Intuitive Surgical-Fosun Medical Technology (Shanghai) Co., Ltd. and Intuitive Surgical-Fosun (HongKong) Co., Ltd. (collectively, the “Joint Venture”), with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. (“Fosun Pharma”)), Japan, South Korea, India, Taiwan, and Canada. 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 in the European Union (“EU”). Failure to meet these standards could limit our ability to market our products in those regions that require compliance with 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. After a device is placed on the market, numerous FDA and comparable foreign regulatory requirements continue to apply. These requirements include establishment registration and device listing with the FDA or other foreign regulatory authorities and compliance with medical device reporting regulations, which require that manufacturers report to the FDA or other foreign regulatory authorities if their device caused or contributed, or may have caused or contributed, to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

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. For example, we have seen elongated regulatory approval timelines in the U.S. and Europe.

Clearances, Approvals, and Certifications

We have generally obtained the regulatory clearances, approvals, and certifications required to market our products associated with our da Vinci multi-port surgical systems (da Vinci S, da Vinci Si, da Vinci Xi, da Vinci X, and da Vinci 5 systems) for our targeted surgical specialties within the U.S., South Korea, Japan, and the European markets in which we operate. We have additionally obtained regulatory clearances, approvals, and certifications for the following products over the past several years:

- In October 2024, we obtained regulatory clearance in South Korea for our da Vinci 5 surgical system, our next-generation multi-port robotic system, for use in urologic, general, gynecologic, thoracoscopic, thoracoscopically-assisted cardiotomy, and transoral otolaryngology surgical procedures. In March 2024, we obtained FDA clearance for our da Vinci 5 surgical system for use in all surgical specialties and procedures indicated for da Vinci Xi, except for cardiac and pediatric indications as well as one contraindication related to the use of force feedback in hysterectomy and myomectomy surgical procedures. Da Vinci 5 was made available to customers in the U.S. who had collaborated with us during the development period and those with mature robotic surgery programs. We will continue working with surgeons to generate additional data on the system’s use and on expansion of our manufacturing and supply capacity before a wider commercial introduction.
- In September 2024, we obtained FDA clearance for our redesigned 8 mm SureForm 30 Stapler and 8 mm SureForm 30 Curved-Tip Stapler instruments and reloads for use in general, thoracic, gynecologic, urologic, and pediatric surgical procedures. In April 2024, we obtained European certification in accordance with the EU MDR for our redesigned 8 mm SureForm 30 Stapler and 8 mm SureForm 30 Curved-Tip Stapler instruments and reloads for use in general, thoracic, gynecologic, urologic, and pediatric surgical procedures.
- In August 2024, we obtained regulatory clearance in Taiwan for our da Vinci SP surgical system for use in endoscopic abdominopelvic, thoracoscopic, transoral otolaryngology, transanal colorectal, transanal total mesorectal excision, and breast surgical procedures. In January 2024, we obtained European certification in accordance with the EU MDR for our da Vinci SP surgical system for use in endoscopic abdominopelvic, thoracoscopic, transoral otolaryngology, transanal colorectal, and breast surgical procedures. We are commercializing the da Vinci SP surgical system in select major European countries throughout 2024 as part of a measured rollout strategy. During the third quarter of 2024, we placed 7 da Vinci SP systems in Europe. In September 2022, we obtained regulatory clearance for our da Vinci SP surgical system in Japan for use in general, thoracic (excluding cardiac procedures and intercostal approaches), urologic, gynecologic, and transoral head and neck surgical procedures.
- In July 2024, we obtained FDA clearance for the use of our da Vinci SP surgical system in general thoracoscopic surgical procedures. In April 2023, we obtained FDA clearance for the use of our da Vinci SP surgical system in simple prostatectomy procedures. We also obtained FDA clearance for the use of our da Vinci SP surgical system in transvesical approaches to simple and radical prostatectomy.
- In April 2024, we obtained FDA clearance to extend the number of uses of our catheter instrument used with our Ion endoluminal system from five to eight uses.
- In March 2024, we received NMPA regulatory clearance for our Ion endoluminal system in China. We placed our first Ion systems in China during the third quarter of 2024 and will continue our rollout of the Ion system in China in a measured fashion while we optimize training pathways and collect additional clinical data. In September 2023, we received regulatory clearance in South Korea for our Ion endoluminal system. We expect the introduction of the Ion system in South Korea to follow the refinement of our training pathways in the region and the gathering of local clinical and economic data. In March 2023, we obtained European certification in accordance with the EU MDR for our Ion endoluminal system. In Europe, we are seeing continued progress in our commercialization in the United Kingdom (“UK”) and are beginning to place Ion systems in continental Europe with a similar approach of initially focusing on the collection of clinical data in support of our European reimbursement strategy.

- In August 2023, following approval by China's NMPA for a local version of our da Vinci Xi surgical system in June 2023, our Intuitive-Fosun Pharma Joint Venture received a manufacturing license that permits the Joint Venture to manufacture our da Vinci Xi surgical system for sale to customers in China.
- In July 2023, we received regulatory clearance for our E-200 generator in Japan and South Korea. In November 2022, we obtained FDA clearance for our E-200 generator. The E-200 generator can be used in da Vinci robotic procedures, as well as non-robotic open and laparoscopic procedures, to deliver high-frequency energy for cutting, coagulation, and vessel sealing of tissues. The E-200 generator includes the same advanced energy capability as the E-100 generator and supports the same vessel sealing instruments.
- In March 2022, we received regulatory clearance in China to market our da Vinci Endoscope Plus. We have also received regulatory clearances in Japan and South Korea to market our da Vinci Endoscope Plus in May 2020 and December 2019, respectively. In July 2019, we obtained FDA clearance for our da Vinci Endoscope Plus, and in June 2019, we obtained European certification for our da Vinci Endoscope Plus for the da Vinci Xi and da Vinci X surgical systems.
- In February 2022, we received regulatory clearance in China to market both our 12 mm SureForm 45 Stapler and SureForm 60 Stapler and corresponding reloads.
- In January 2022, we received regulatory clearance in China to market our da Vinci Vessel Sealer Extend with up to 7 mm vascular indications.

Refer to the descriptions of our new products that received regulatory clearances, approvals, or certifications in 2024, 2023, and 2022 in the *Recent Product Introductions* section below.

In June 2023, the China National Health Commission published the 14th five-year plan quota for major medical equipment to be sold in China on its official website (the "2023 Quota"). Under the 2023 Quota, the government will allow for the sale of 559 new surgical robots into China, which could include da Vinci surgical systems as well as surgical systems introduced by others. As of September 30, 2024, including systems that were sold in prior quarters, we have placed 103 da Vinci surgical systems under the 2023 Quota. Future sales of da Vinci surgical systems under this and any previously published open quotas are uncertain, as they are open to other medical device companies that have introduced robotic-assisted surgical systems and are dependent on hospitals completing a tender process and receiving associated approvals. Our ability to track the number of systems that could be sold under these quotas in the future is limited by provincial and national agencies making such information publicly available.

Since 2022, several provinces in China have implemented significant limits on what hospitals can charge patients for surgeries using robotic surgical technology, including soft tissue surgery and orthopedics. These limits have significantly impacted the number of procedures performed and have impacted our instruments and accessories revenue in those provinces. However, as of the date of this report, these limits have not had a material impact on our business, financial condition, or results of operations, as only a small portion of our installed base in China is currently located in the impacted provinces. Companies providing robotic surgical technology, including our Joint Venture in China, have been meeting with Chinese government healthcare agencies to discuss these developments and to provide feedback. We cannot assure you that additional provincial or national healthcare agencies and administrations will not impose similar limits, and we expect to continue to face increased pricing pressure, both of which could further impact the number of procedures performed and our instruments and accessories revenue in China.

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 and economic data. An additional five da Vinci procedures were granted reimbursement in April 2024, including lobectomy for benign conditions. In addition, we received higher reimbursement for certain da Vinci rectal resection procedures, as compared to open procedure reimbursements. The additional reimbursed procedures have varying levels of conventional laparoscopic penetration and will generally be reimbursed at rates equal to the conventional laparoscopic procedures. Given the reimbursement level and laparoscopic penetration for these additional procedures, there can be no assurance that the adoption pace for these procedures will be similar to prostatectomy 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, the 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 procedure 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 robotic-assisted procedure is greater than that of alternative treatment options, patients may benefit from seeking out surgeons or physicians and hospitals that offer robotic-assisted medical procedures, which could potentially result in a local market share shift. Adoption of robotic-assisted procedures occurs by procedure and by market and is driven by the relative patient value and total treatment costs of robotic-assisted procedures as compared to alternative treatment options for the same disease state or condition.

We use the number and type of 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 procedures provide meaningful supplemental information regarding our performance, as management believes procedure volume is an indicator of the rate of adoption of our robotic-assisted medical procedures as well as an indicator of future revenue (including revenue from usage-based operating lease arrangements). Management believes that both it and investors benefit from referring to the number and type of procedures in assessing our performance and when planning, forecasting, and analyzing future periods. The number and type of procedures also facilitate management’s internal comparisons of our historical performance. We believe that the number and type of 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 our installed systems 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 installed systems for determining the number and type of 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 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 the number and type of procedures and our revenues may fluctuate from period to period, and procedure volume growth may not correspond to an increase in revenue. The number and type of 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.

Da Vinci Procedures

The adoption of robotic-assisted surgery using the da Vinci surgical system has the potential to grow for those procedures that offer greater patient value than to non-da Vinci alternatives and competitive total economics for healthcare providers. Our da Vinci surgical systems are used primarily in general, gynecologic, urologic, cardiothoracic, and head and neck surgical procedures. We focus our organization and investments on developing, marketing, and training products and services for procedures in which da Vinci can bring patient value relative to alternative treatment options and/or economic benefit to healthcare providers. Target procedures in general surgery include hernia repair (both ventral and inguinal), colorectal, cholecystectomy, and bariatric procedures. Target procedures in urology include prostatectomy and partial nephrectomy. Target procedures in gynecology include hysterectomy for both cancer and benign conditions and sacrocolpopexy. In cardiothoracic surgery, target procedures include lung resection. In head and neck surgery, target procedures include transoral surgery. Not all 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 2023, approximately 2,286,000 surgical procedures were performed with da Vinci surgical systems, compared to approximately 1,875,000 and 1,594,000 surgical procedures performed with da Vinci surgical systems in 2022 and 2021, respectively. The increase in our overall procedure volume in 2023 was largely attributable to growth in U.S. general surgery, OUS urologic surgery, OUS general surgery (particularly cancer), and U.S. gynecologic surgery procedures. The overall procedure volumes in the comparative 2022 and 2021 years reflect the disruption caused by the COVID-19 pandemic in 2022 and 2021.

U.S. da Vinci Procedures

Overall U.S. procedure volume with da Vinci surgical systems grew to approximately 1,532,000 in 2023, compared to approximately 1,282,000 in 2022 and approximately 1,109,000 in 2021. General surgery was our largest and fastest growing U.S. specialty in 2023 with procedure volume that grew to approximately 896,000 in 2023, compared to approximately 720,000 in 2022 and approximately 588,000 in 2021. Gynecology was our second largest U.S. surgical specialty in 2023 with procedure volume that grew to approximately 390,000 in 2023, compared to approximately 341,000 in 2022 and approximately 316,000 in 2021. Urology was our third largest U.S. surgical specialty in 2023 with procedure volume that grew to approximately 173,000 in 2023, compared to approximately 162,000 in 2022 and approximately 153,000 in 2021.

OUS da Vinci Procedures

Overall OUS procedure volume with da Vinci surgical systems grew to approximately 754,000 in 2023, compared to approximately 593,000 in 2022 and approximately 485,000 in 2021. Urology was our largest OUS specialty in 2023 with procedure volume that grew to approximately 381,000 in 2023, compared to approximately 316,000 in 2022 and approximately 264,000 in 2021. General surgery was our second largest and fastest growing OUS specialty in 2023 with procedure volume that grew to approximately 188,000 in 2023, compared to approximately 133,000 in 2022 and approximately 101,000 in 2021. Gynecology was our third largest OUS specialty in 2023 with procedure volume that grew to approximately 110,000 in 2023, compared to approximately 86,000 in 2022 and approximately 70,000 in 2021.

Ion Procedures

The adoption of robotic-assisted bronchoscopy using the Ion endoluminal system has the potential to grow if it can offer greater patient value than non-Ion alternatives and competitive total economics for healthcare providers.

In 2023, approximately 53,800 biopsy procedures were performed with Ion systems, compared to approximately 23,500 in 2022 and approximately 7,400 in 2021. The increase in our overall procedure volume in 2023 reflects a larger installed base of approximately 534 systems, an increase of 66% compared to the installed base of approximately 321 systems as of 2022. Currently, the vast majority of Ion biopsy procedures are performed in the U.S.

Recent Business Events and Trends

Procedures

Overall. Total da Vinci procedures performed by our customers grew approximately 18% for the three months ended September 30, 2024, compared to approximately 19% for the three months ended September 30, 2023. Total da Vinci procedures performed by our customers grew approximately 17% for the nine months ended September 30, 2024, compared to approximately 22% for the nine months ended September 30, 2023. The third quarter 2024 procedure growth was largely attributable to growth in U.S. general surgery, OUS general surgery (particularly cancer), OUS urologic surgery, U.S. gynecologic surgery, and OUS gynecologic surgery.

U.S. Procedures. U.S. da Vinci procedures grew approximately 16% for the three months ended September 30, 2024, compared to approximately 17% for the three months ended September 30, 2023. U.S. da Vinci procedures grew approximately 15% for the nine months ended September 30, 2024, compared to approximately 20% for the nine months ended September 30, 2023. The third quarter 2024 U.S. procedure growth was largely attributable to strong growth in general surgery procedures, most notably cholecystectomy, hernia repair, and colorectal procedures. The number of U.S. da Vinci bariatric procedures performed declined modestly in the third quarter of 2024 compared to the third quarter of 2023. It is unclear whether the overall decline in the U.S. for surgical bariatric procedures will continue as patients evaluate new drug therapies and, if the decline continues, it is unclear what the rate of decline will be.

OUS Procedures. OUS da Vinci procedures grew approximately 24% for the three months ended September 30, 2024, compared to approximately 24% for the three months ended September 30, 2023. OUS da Vinci procedures grew approximately 22% for the nine months ended September 30, 2024, compared to approximately 27% for the nine months ended September 30, 2023. The third quarter 2024 OUS procedure growth was driven by growth in general surgery procedures, most notably colorectal and hernia repair procedures, urologic procedures, most notably prostatectomy and partial nephrectomy procedures, and gynecologic procedures. We saw strong procedure growth in Japan, Germany, the UK, India, France, and Italy during the third quarter of 2024. While geographic market maturity and levels of adoption differ by region and country, OUS da Vinci procedure growth is generally being driven by procedures beyond urology, reflecting surgeons’ growing adoption of general surgery, gynecologic, and thoracic procedures. In Korea, we believe that the number of procedures performed were significantly negatively impacted by doctor strikes in the country during the first nine months of 2024. The extent of the continued impact of these strikes on procedures in Korea remains uncertain.

System Demand

We placed 379 da Vinci surgical systems in the third quarter of 2024, compared to 312 systems in the third quarter of 2023. The increase in system placements reflects incremental demand for our next-generation da Vinci 5 system and continued demand for additional capacity by our customers as a result of procedure growth, partially offset by a smaller number of third-generation da Vinci systems available for trade-in. During the third quarter of 2024, we placed 110 da Vinci 5 systems.

We continue to see some customers challenged by staffing shortages, decreased government funding in healthcare (particularly in Europe), and other financial pressures. As a result, we expect our customers to continue to be cautious in their overall capital spending. In addition, system demand in China has been impacted by increasing robotic-assisted surgical system competition from domestic companies as well as a broader central government focus on systematic governance. Targeting the healthcare sector, this campaign was initially launched by the Chinese government in July 2023 and has resulted in heightened scrutiny by medical institutions with respect to initiating tenders, with some tenders being canceled or delayed without a timeline. In the third quarter of 2024, the effect of this campaign contributed to fewer systems being placed in China. Currently, the extent of the impact of this campaign on our business remains uncertain.

We expect that future placements of da Vinci surgical systems will be impacted by a number of factors: supply chain risks; economic and geopolitical factors; inflationary pressures; high interest rates; hospital staffing shortages; procedure growth rates; evolving system utilization and point-of-care dynamics; capital replacement trends, including a declining number of older generation systems available for trade-in transactions; additional reimbursements in various global markets, such as in Japan; the timing around governmental tenders and authorizations, as well as governmental actions impacting the tender process, such as the governance campaign in China; hospitals’ response to the evolving healthcare environment; the timing of when we receive regulatory clearance in our other OUS markets for our da Vinci Xi, da Vinci X, da Vinci SP, and da Vinci 5 surgical systems and related instruments; and the market response.

Demand may also be impacted by competition, including from companies that have introduced products in the field of robotic-assisted medical procedures or have made explicit statements about their efforts to enter the field including, but not limited to, the following companies: Beijing Surgerii Robotics Company Limited; CMR Surgical Ltd.; Harbin Sizhe Rui Intelligent Medical Equipment Co., Ltd.; Johnson & Johnson; Karl Storz SE & Co. KG; Medicaroid Corporation; Medtronic plc; meerecompany Inc.; Noah Medical; Shandong Weigao Group Medical Polymer Company Ltd.; Shanghai Microport Medbot (Group) Co., Ltd.; Shenzhen Edge Medical Co., Ltd.; and SS Innovations International, Inc.

Many of the above factors will also impact future demand for our Ion endoluminal 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.

Recent Product Introductions

Da Vinci 5. Da Vinci 5 builds on da Vinci Xi's highly functional design, featuring force feedback technology and instruments that enable surgeons to sense and measure the force exerted on tissue during surgery. It also includes new surgeon controllers, powerful vibration and tremor controls, a next-generation 3D display and image system, and throughput and workflow enhancements, such as an integrated electrosurgical unit and insufflation capabilities technology. Da Vinci 5 has more than 10,000 times the computing power of da Vinci Xi, allowing for innovative new system capabilities and advanced digital experiences, including integration with our My Intuitive app, SimNow (virtual reality simulator), Case Insights (computational observer), and Intuitive Hub (edge computing system). Additionally, the redesigned console provides greater surgeon comfort with customizable positioning, allowing surgeons to find their best fit for surgical viewing and comfort, including the ability to sit completely upright.

E-200 Generator. The E-200 generator is an advanced electrosurgical generator designed to provide high-frequency energy for cutting, coagulation, and vessel sealing of tissues. The E-200 generator is integrated with the da Vinci 5 surgical system, is compatible with the da Vinci Xi and X surgical systems, and can also function as a standalone electrosurgical generator. When connected to a da Vinci system, the E-200 delivers high-frequency energy to da Vinci instruments, with control and status messages communicated through an Ethernet cable. The E-200 generator is also compatible with third-party handheld monopolar and bipolar instruments, as well as fingerswitch-equipped instruments and Intuitive-provided auxiliary footswitches. The E-200 generator includes the same advanced energy capability as the E-100 generator and supports the same vessel sealing instruments.

SureForm 30 Curved-Tip Stapler and Reloads. The 8 mm SureForm 30 Curved-Tip Stapler and reloads (gray, white, and blue) was designed to help surgeons better visualize and reach anatomy through a combination of the 8 mm diameter instrument shaft and jaws, 120-degree cone of wristed articulation, and the curved tip. As it fits through the 8 mm da Vinci surgical system instrument cannula, the stapler allows different angles for surgeons to approach patient anatomy. Consistent with our other SureForm staplers, the 8 mm SureForm 30 Curved-Tip Stapler integrates SmartFire technology, which makes automatic adjustments to the firing process as staples are formed and the transection is made. The technology makes more than 1,000 measurements per second, helping achieve a consistent staple line.

Third Quarter 2024 Operational and Financial Highlights

- Total revenue increased by 17% to $2.04 billion for the three months ended September 30, 2024, compared to $1.74 billion for the three months ended September 30, 2023.
- Approximately 670,000 da Vinci procedures were performed during the three months ended September 30, 2024, an increase of 18% compared to approximately 567,000 da Vinci procedures for the three months ended September 30, 2023.
- Approximately 25,000 Ion procedures were performed during the three months ended September 30, 2024, an increase of 73% compared to approximately 14,500 Ion procedures for the three months ended September 30, 2023.
- Instruments and accessories revenue increased by 18% to $1.26 billion for the three months ended September 30, 2024, compared to $1.07 billion for the three months ended September 30, 2023.
- Systems revenue increased by 17% to $445 million for the three months ended September 30, 2024, compared to $379 million during the three months ended September 30, 2023.
- During the three months ended September 30, 2024, we placed 379 da Vinci surgical systems compared to 312 systems during the three months ended September 30, 2023. The third quarter 2024 da Vinci surgical system placements included 110 da Vinci 5 systems.
- As of September 30, 2024, we had a da Vinci surgical system installed base of approximately 9,539 systems, an increase of 15% compared to an installed base of approximately 8,285 systems as of September 30, 2023.
- Utilization of da Vinci surgical systems, measured in terms of procedures per system per year, increased 3% relative to the third quarter of 2023.
- During the three months ended September 30, 2024, we placed 58 Ion systems compared to 55 systems during the three months ended September 30, 2023.
- As of September 30, 2024, we had an Ion system installed base of approximately 736 systems, an increase of 50% compared to an installed base of approximately 490 systems as of September 30, 2023.
- Gross profit as a percentage of revenue was 67.4% for the three months ended September 30, 2024, compared to 66.9% for the three months ended September 30, 2023.
- Operating income increased by 24% to $577 million for the three months ended September 30, 2024, compared to $466 million during the three months ended September 30, 2023. Operating income included $176 million and $157 million of share-based compensation expense related to employee stock plans and $3.5 million and $12.6 million of intangible asset-related charges for the three months ended September 30, 2024, and 2023, respectively.
- As of September 30, 2024, we had $8.31 billion in cash, cash equivalents, and investments. Cash, cash equivalents, and investments increased by $0.97 billion, compared to $7.34 billion as of December 31, 2023, primarily as a result of cash provided by operating activities and proceeds from stock option exercises and employee stock purchases, partially offset by cash used for capital expenditures and taxes paid related to net share settlements of equity awards.

Results of Operations

The following discussion should be read in conjunction with our unaudited Condensed Consolidated Financial Statements ("Financial Statements") and Notes thereto.

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,			
	2024	% of Total Revenue	2023	% of Total Revenue	2024	% of Total Revenue	2023	% of Total Revenue
Revenue:								
Product	$ 1,709.2	84 %	$ 1,450.8	83 %	$ 4,978.9	84 %	$ 4,332.4	83 %
Service	328.9	16 %	292.9	17 %	959.7	16 %	863.4	17 %
Total revenue	2,038.1	100 %	1,743.7	100 %	5,938.6	100 %	5,195.8	100 %
Cost of revenue:								
Product	555.4	27 %	489.5	28 %	1,649.2	28 %	1,480.5	29 %
Service	108.8	6 %	87.0	5 %	297.4	5 %	263.2	5 %
Total cost of revenue	664.2	33 %	576.5	33 %	1,946.6	33 %	1,743.7	34 %
Product gross profit	1,153.8	57 %	961.3	55 %	3,329.7	56 %	2,851.9	54 %
Service gross profit	220.1	10 %	205.9	12 %	662.3	11 %	600.2	12 %
Gross profit	1,373.9	67 %	1,167.2	67 %	3,992.0	67 %	3,452.1	66 %
Operating expenses:								
Selling, general and administrative	510.6	25 %	452.0	26 %	1,527.4	26 %	1,396.8	27 %
Research and development	286.0	14 %	249.4	14 %	850.6	14 %	738.7	14 %
Total operating expenses	796.6	39 %	701.4	40 %	2,378.0	40 %	2,135.5	41 %
Income from operations	577.3	28 %	465.8	27 %	1,614.0	27 %	1,316.6	25 %
Interest and other income, net	93.7	5 %	56.2	3 %	250.0	4 %	126.4	2 %
Income before taxes	671.0	33 %	522.0	30 %	1,864.0	31 %	1,443.0	27 %
Income tax expense	100.4	5 %	102.2	6 %	214.5	3 %	236.4	4 %
Net income	570.6	28 %	419.8	24 %	1,649.5	28 %	1,206.6	23 %
Less: net income attributable to noncontrolling interest in joint venture	5.5	— %	4.1	— %	12.6	— %	14.8	— %
Net income attributable to Intuitive Surgical, Inc.	$ 565.1	28 %	$ 415.7	24 %	$ 1,636.9	28 %	$ 1,191.8	23 %

Total Revenue

Total revenue increased by 17% to $2.04 billion for the three months ended September 30, 2024, compared to $1.74 billion for the three months ended September 30, 2023, resulting from 18% higher instruments and accessories revenue, 17% higher systems revenue, and 12% higher service revenue.

Total revenue increased by 14% to $5.94 billion for the nine months ended September 30, 2024, compared to $5.20 billion for the nine months ended September 30, 2023, resulting from 17% higher instruments and accessories revenue, 9% higher systems revenue, and 11% higher service revenue.

We generally sell our products and services in local currencies where we have direct distribution channels. Revenue denominated in foreign currencies as a percentage of total revenue was approximately 24% and 25% for the three and nine months ended September 30, 2024, and 24% and 25% for the three and nine months ended September 30, 2023, respectively. Fluctuations in foreign currency exchange rates had an unfavorable impact on OUS total revenue of $2 million and $29 million for the three and nine months ended September 30, 2024, respectively. Fluctuations in foreign currency exchange rates had a favorable impact on OUS total revenue of $8 million and an unfavorable impact on OUS total revenue of $38 million for the three and nine months ended September 30, 2023, respectively. The impact of fluctuations in foreign currency exchange rates was determined by comparing current period revenue converted to USD using exchange rates that were effective in the comparable prior year period, net of the impacts from foreign currency hedging.

Revenue generated in the U.S. accounted for 68% and 66% of total revenue for the three and nine months ended September 30, 2024, respectively, and 68% and 66% of total revenue for the three and nine months ended September 30, 2023, respectively. We believe that U.S. revenue has accounted for the large majority of total revenue due to U.S. patients' ability to choose their provider and method of treatment, reimbursement structures supportive of innovation and MIS, and our initial investments focused on U.S. infrastructure. We have been investing in our business in OUS markets, and our OUS procedures have grown faster in proportion to U.S. procedures. We expect that our OUS procedures and revenue will make up a greater portion of our business in the long term.

The following table summarizes our revenue and system unit placements for the three and nine months ended September 30, 2024, and 2023 (in millions, except percentages and unit placements):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Revenue				
Instruments and accessories	$ 1,264.2	$ 1,071.4	$ 3,667.5	$ 3,132.9
Systems	445.0	379.4	1,311.4	1,199.5
Total product revenue	1,709.2	1,450.8	4,978.9	4,332.4
Service	328.9	292.9	959.7	863.4
Total revenue	$ 2,038.1	$ 1,743.7	$ 5,938.6	$ 5,195.8
U.S.	$ 1,379.4	$ 1,180.2	$ 3,937.1	$ 3,432.6
OUS	658.7	563.5	2,001.5	1,763.2
Total revenue	$ 2,038.1	$ 1,743.7	$ 5,938.6	$ 5,195.8
% of Revenue – U.S.	68%	68%	66%	66%
% of Revenue – OUS	32%	32%	34%	34%
Instruments and accessories	$ 1,264.2	$ 1,071.4	$ 3,667.5	$ 3,132.9
Service	328.9	292.9	959.7	863.4
Operating lease revenue	167.8	127.1	472.7	361.8
Total recurring revenue	$ 1,760.9	$ 1,491.4	$ 5,099.9	$ 4,358.1
% of Total revenue	86%	86%	86%	84%
Da Vinci Surgical System Placements by Region				
U.S. unit placements	219	159	516	457
OUS unit placements	160	153	517	498
Total unit placements*	379	312	1,033	955
*Systems placed under fixed-payment operating lease arrangements (included in total unit placements)	79	70	227	212
*Systems placed under usage-based operating lease arrangements (included in total unit placements)	141	93	327	246
Da Vinci Surgical System Placements involving System Trade-ins				
Unit placements involving trade-ins	38	62	88	189
Unit placements not involving trade-ins	341	250	945	766
Ion System Placements**	58	55	202	169
**Systems placed under fixed-payment operating lease arrangements (included in total unit placements)	19	17	61	49
**Systems placed under usage-based operating lease arrangements (included in total unit placements)	17	10	54	39

Product Revenue

Three Months Ended September 30, 2024

Product revenue increased by 18% to $1.71 billion for the three months ended September 30, 2024, compared to $1.45 billion for the three months ended September 30, 2023.

Instruments and accessories revenue increased by 18% to $1.26 billion for the three months ended September 30, 2024, compared to $1.07 billion for the three months ended September 30, 2023. The increase in instruments and accessories revenue was primarily driven by approximately 18% higher da Vinci procedure volume and approximately 73% higher Ion procedure volume. The third quarter 2024 U.S. da Vinci procedure growth was approximately 16%, driven primarily by strong growth in general surgery procedures, most notably cholecystectomy, hernia repair, and colorectal procedures. The number of U.S. da Vinci bariatric procedures performed declined modestly in the third quarter of 2024 compared to the third quarter of 2023. It is unclear whether the overall decline in the U.S. for surgical bariatric procedures will continue as patients evaluate new drug therapies and, if the decline continues, it is unclear what the rate of decline will be. The third quarter 2024 OUS da Vinci procedure growth was approximately 24%, driven by growth in general surgery procedures, most notably colorectal and hernia repair procedures, urologic procedures, most notably prostatectomy and partial nephrectomy procedures, and gynecologic procedures. Geographically, the third quarter 2024 OUS da Vinci procedure growth was driven by several markets with particular strength in Japan, Germany, the UK, India, France, and Italy.

Systems revenue increased by 17% to $445 million for the three months ended September 30, 2024, compared to $379 million for the three months ended September 30, 2023. The higher third quarter 2024 system revenue was primarily driven by an increase in da Vinci system placements, higher operating lease revenue, and higher third quarter 2024 ASPs, partially offset by a higher proportion of da Vinci system placements under operating leases.

During the third quarter of 2024, 379 da Vinci surgical systems were placed compared to 312 systems during the third quarter of 2023. By geography, 219 systems were placed in the U.S., 65 in Europe, 74 in Asia, and 21 in other markets during the third quarter of 2024, compared to 159 systems placed in the U.S., 60 in Europe, 72 in Asia, and 21 in other markets during the third quarter of 2023. The increase in system placements was primarily driven by 110 da Vinci 5 system placements and continued demand for additional capacity by our customers as a result of procedure growth, partially offset by a smaller number of third-generation da Vinci systems available for trade-in. As of September 30, 2024, we had a da Vinci surgical system installed base of approximately 9,539 systems, compared to an installed base of approximately 8,285 systems as of September 30, 2023. The incremental system installed base reflects continued procedure growth and further customer validation that robotic-assisted surgery addresses their quintuple aim objectives.

The following table summarizes our da Vinci system placements and systems installed at customers under leasing arrangements for three months ended September 30, 2024, and 2023:

	Three Months Ended September 30,	
	2024	**2023**
Da Vinci System Placements Under Leasing Arrangements		
Fixed-payment operating lease arrangements	79	70
Usage-based operating lease arrangements	141	93
Total da Vinci system placements under operating lease arrangements	220	163
% of Total da Vinci system placements	58%	52%
Sales-type lease arrangements	13	11
Total da Vinci system placements under leasing arrangements	233	174
Da Vinci System Installed Base under Operating Leasing Arrangements		
Fixed-payment operating lease arrangements	1,289	1,151
Usage-based operating lease arrangements	1,352	913
Total da Vinci system installed base under operating leasing arrangements	2,641	2,064

Operating lease revenue, including the contribution from Ion systems, was $168 million for the three months ended September 30, 2024, of which $87 million was variable lease revenue related to usage-based arrangements, compared to $127 million for the three months ended September 30, 2023, of which $54 million was variable lease revenue related to usage-based arrangements. Revenue from Lease Buyouts was $24 million for the three months ended September 30, 2024, compared to $17 million for the three months ended September 30, 2023. We expect revenue from Lease Buyouts to fluctuate period to period depending on the timing of when, and if, customers choose to exercise buyout options embedded in their leases.

The da Vinci surgical system ASP, excluding systems placed under fixed-payment or usage-based operating lease arrangements, Ion systems, and the impact of specified-price trade-in rights, was approximately $1.51 million for the three months ended September 30, 2024, compared to approximately $1.40 million for the three months ended September 30, 2023. The higher third quarter 2024 ASP was largely driven by favorable product mix and fewer trade-ins, partially offset by higher pricing discounts. ASP fluctuates from period to period based on geographic and product mix, product pricing, systems placed involving trade-ins, and changes in foreign exchange rates.

During the third quarter of 2024, 58 Ion systems were placed compared to 55 systems during the third quarter of 2023. By geography, 53 systems were placed in the U.S., three in Europe, and two in Asia during third quarter of 2024, compared to 55 systems placed in the U.S. during the third quarter of 2023. The increase in system placements was primarily driven by the demand for additional capacity by our customers due to procedure growth and OUS expansion. As of September 30, 2024, we had an Ion system installed base of approximately 736 systems, compared to an installed base of approximately 490 systems as of September 30, 2023.

The following table summarizes our Ion system placements and systems installed at customers under leasing arrangements for three months ended September 30, 2024, and 2023:

	Three Months Ended September 30,	
	2024	**2023**
Ion System Placements Under Leasing Arrangements		
Fixed-payment operating lease arrangements	19	17
Usage-based operating lease arrangements	17	10
Total Ion system placements under operating lease arrangements	36	27
% of Total Ion system placements	62%	49%
Sales-type lease arrangements	2	—
Total Ion system placements under leasing arrangements	38	27
Ion System Installed Base under Operating Leasing Arrangements		
Fixed-payment operating lease arrangements	117	92
Usage-based operating lease arrangements	179	102
Total Ion system installed base under operating leasing arrangements	296	194

Nine Months Ended September 30, 2024

Product revenue increased by 15% to $4.98 billion for the nine months ended September 30, 2024, compared to $4.33 billion for the nine months ended September 30, 2023.

Instruments and accessories revenue increased by 17% to $3.67 billion for the nine months ended September 30, 2024, compared to $3.13 billion for the nine months ended September 30, 2023. The increase in instruments and accessories revenue was primarily driven by approximately 17% higher da Vinci procedure volume, approximately 81% higher Ion procedure volume, and higher pricing for da Vinci instruments and accessories, partially offset by customer buying patterns. The year-to-date 2024 U.S. da Vinci procedure growth was approximately 15%, driven by strong growth in general surgery procedures, most notably cholecystectomy, hernia repair, and colorectal procedures. The number of U.S. bariatric procedures performed declined modestly in the first nine months of 2024 compared with the first nine months of 2023. It is unclear whether the decline in U.S. bariatric procedures will continue to be a temporary pause as patients evaluate new drug therapies or if growth in U.S. bariatric procedures will return in future periods. The year-to-date 2024 OUS da Vinci procedure growth was approximately 22%, driven by growth in general surgery, most notably colorectal and hernia repair procedures, urologic procedures, most notably prostatectomy and partial nephrectomy procedures, and gynecologic procedures. Geographically, the year-to-date 2024 OUS da Vinci procedure growth was driven by several markets with particular strength in Germany, the UK, India, and Italy.

Systems revenue increased by 9% to $1.31 billion for the nine months ended September 30, 2024, compared to $1.20 billion for the nine months ended September 30, 2023. The higher year-to-date 2024 system revenue was primarily driven by higher operating lease revenue, an increase in da Vinci system placements, and higher lease buyout revenue, partially offset by a higher proportion of da Vinci system placements under operating leases.

During the nine months ended September 30, 2024, a total of 1,033 da Vinci surgical systems were placed compared to 955 systems during the nine months ended September 30, 2023. By geography, 516 systems were placed in the U.S., 220 in Europe, 225 in Asia, and 72 in other markets during the nine months ended September 30, 2024, compared to 457 systems placed in the

U.S., 237 in Europe, 195 in Asia, and 66 in other markets during the nine months ended September 30, 2023. The increase in system placements was primarily driven by 188 da Vinci 5 system placements and continued demand for additional capacity by our customers as a result of procedure growth, partially offset by a smaller number of third-generation da Vinci systems available for trade-in.

The following table summarizes our da Vinci system placements at customers under leasing arrangements for nine months ended September 30, 2024, and 2023:

	Nine Months Ended September 30,	
	2024	2023
Da Vinci System Placements Under Leasing Arrangements		
Fixed-payment operating lease arrangements	227	212
Usage-based operating lease arrangements	327	246
Total da Vinci system placements under operating lease arrangements	554	458
% of Total da Vinci system placements	54%	48%
Sales-type lease arrangements	45	31
Total da Vinci system placements under leasing arrangements	599	489

Operating lease revenue, including the contribution from Ion systems, was $473 million for the nine months ended September 30, 2024, of which $237 million was variable lease revenue related to usage-based arrangements, compared to $362 million for the nine months ended September 30, 2023, of which $153 million was variable lease revenue related to usage-based arrangements. Revenue from Lease Buyouts was $81 million for the nine months ended September 30, 2024, compared to $54 million for the nine months ended September 30, 2023. We expect revenue from Lease Buyouts to fluctuate period to period depending on the timing of when, and if, customers choose to exercise buyout options embedded in their leases.

The da Vinci surgical system ASP, excluding systems placed under fixed-payment or usage-based operating lease arrangements, Ion systems, and the impact of specified-price trade-in rights, was approximately $1.44 million for the nine months ended September 30, 2024, compared to approximately $1.42 million for the nine months ended September 30, 2023. The higher year-to-date 2024 ASP was largely driven by favorable product mix and fewer trade-ins, partially offset by higher pricing discounts and an unfavorable geographic mix. ASP fluctuates from period to period based on geographic and product mix, product pricing, systems placed involving trade-ins, and changes in foreign exchange rates.

During the nine months ended September 30, 2024, 202 Ion systems were placed compared to 169 systems during the nine months ended September 30, 2023. By geography, 191 systems were placed in the U.S., nine in Europe, and two in Asia during nine months ended September 30, 2024, compared to 168 systems placed in the U.S. and one in Europe during the nine months ended September 30, 2023. The increase in system placements was primarily driven by the demand for additional capacity by our customers due to procedure growth and OUS expansion. As of September 30, 2024, we had an Ion system installed base of approximately 736 systems, compared to an installed base of approximately 490 systems as of September 30, 2023.

The following table summarizes our Ion system placements at customers under leasing arrangements for nine months ended September 30, 2024, and 2023:

	Nine Months Ended September 30,	
	2024	2023
Ion System Placements Under Leasing Arrangements		
Fixed-payment operating lease arrangements	61	49
Usage-based operating lease arrangements	54	39
Total Ion system placements under operating lease arrangements	115	88
% of Total Ion system placements	57%	52%
Sales-type lease arrangements	2	5
Total Ion system placements under leasing arrangements	117	93

Service Revenue

Service revenue increased by 12% to $329 million for the three months ended September 30, 2024, compared to $293 million for the three months ended September 30, 2023. The increase in service revenue was primarily driven by a larger installed base of systems producing service revenue, partially offset by a higher proportion of early-stage usage-based operating lease arrangements where procedures are ramping up.

Service revenue increased by 11% to $960 million for the nine months ended September 30, 2024, compared to $863 million for the nine months ended September 30, 2023. The increase in service revenue was primarily driven by a larger installed base of systems producing service revenue, partially offset by a higher proportion of early-stage usage-based operating lease arrangements where procedures are ramping up.

Gross Profit

Product

Product gross profit for the three months ended September 30, 2024, increased by 20% to $1.15 billion, representing 67.5% of product revenue, compared to $0.96 billion, representing 66.3% of product revenue, for the three months ended September 30, 2023. The higher product gross profit margin for the three months ended September 30, 2024, was primarily driven by leverage on fixed overhead costs, partially offset by higher costs associated with our da Vinci 5 surgical system launch.

Product gross profit for the nine months ended September 30, 2024, increased by 17% to $3.33 billion, representing 66.9% of product revenue, compared to $2.85 billion, representing 65.8% of product revenue, for the nine months ended September 30, 2023. The higher product gross profit margin for the nine months ended September 30, 2024, was primarily driven by leverage on fixed overhead costs and lower logistics costs, partially offset by higher costs associated with our da Vinci 5 surgical system launch.

Product gross profit for the three and nine months ended September 30, 2024, included share-based compensation expense of $24.9 million and $71.2 million, respectively, compared with $22.6 million and $60.3 million for the three and nine months ended September 30, 2023, respectively. Product gross profit for the three and nine months ended September 30, 2024, included intangible assets amortization expense of $2.2 million and $9.3 million, respectively, compared with $3.6 million and $10.1 million for the three and nine months ended September 30, 2023, respectively.

Service

Service gross profit for the three months ended September 30, 2024, increased by 7% to $220 million, representing 66.9% of service revenue, compared to $206 million, representing 70.3% of service revenue, for the three months ended September 30, 2023. The higher service gross profit for the three months ended September 30, 2024, was primarily driven by higher service revenue, reflecting a larger installed base of da Vinci surgical systems, partially offset by a lower service gross profit margin. The lower service gross profit margin for the three months ended September 30, 2024, was primarily driven by higher inventory reserves and an unfavorable repair mix.

Service gross profit for the nine months ended September 30, 2024, increased by 10% to $662 million, representing 69.0% of service revenue, compared to $600 million, representing 69.5% of service revenue, for the nine months ended September 30, 2023. The higher service gross profit for the nine months ended September 30, 2024, was primarily driven by higher service revenue, reflecting a larger installed base of da Vinci surgical systems, and a lower service gross profit margin. The lower service gross profit margin for the nine months ended September 30, 2024, was primarily driven by higher inventory reserves and an unfavorable repair mix, partially offset by overhead leverage from higher repair volume.

Service gross profit for the three and nine months ended September 30, 2024, included share-based compensation expense of $7.9 million and $22.5 million, respectively, compared with $7.3 million and $21.3 million for the three and nine months ended September 30, 2023, respectively. Service gross profit for the three and nine months ended September 30, 2024, included intangible assets amortization expense of $0.2 million and $0.6 million, respectively, compared with $0.1 million and $0.5 million for the three and nine months ended September 30, 2023, respectively.

Selling, General and Administrative Expenses

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

Selling, general and administrative expenses for the three months ended September 30, 2024, increased by 13% to $511 million, compared to $452 million for the three months ended September 30, 2023. The increase in selling, general and administrative expenses for the three months ended September 30, 2024, was primarily driven by higher headcount and personnel-related expenses, including share-based compensation expense, higher legal expenses, higher litigation charges, and increased infrastructure costs to support our growth.

Selling, general, and administrative expenses for the nine months ended September 30, 2024, increased by 9% to $1.53 billion, compared to $1.40 billion for the nine months ended September 30, 2023. The increase in selling, general, and administrative expenses for the nine months ended September 30, 2024, was primarily driven by higher headcount and personnel-related expenses, including share-based compensation expense, increased infrastructure costs to support our growth, higher litigation charges, and higher legal expenses.

Selling, general, and administrative expenses for the three and nine months ended September 30, 2024, included share-based compensation expense of $77.6 million and $225.4 million, respectively, compared with $71.9 million and $206.6 million for the three and nine months ended September 30, 2023, respectively. Selling, general, and administrative expenses for the three and nine months ended September 30, 2024, included intangible assets amortization expense of $0.6 million and $2.2 million, respectively, compared with $0.8 million and $2.5 million for the three and nine months ended September 30, 2023, respectively.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses include costs associated with the design, development, testing, and significant enhancement of our products. Our main product development initiatives include multi-port, Ion, and SP platform investments and our digital products and services.

Research and development expenses for the three months ended September 30, 2024, increased by 15% to $286 million, compared to $249 million for the three months ended September 30, 2023. Research and development expenses for the nine months ended September 30, 2024, increased by 15% to $851 million, compared to $739 million for the nine months ended September 30, 2023. The increase in research and development expenses for the three and nine months ended September 30, 2024, was primarily driven by higher headcount and personnel-related expenses, including share-based compensation expense, and other project costs incurred to support a broader set of product development initiatives, partially offset by lower intangible asset charges.

Research and development expenses for the three and nine months ended September 30, 2024, included share-based compensation expense of $65.4 million and $188.7 million, respectively, compared with $55.3 million and $157.7 million for the three and nine months ended September 30, 2023, respectively. Research and development expenses for the three and nine months ended September 30, 2024, included intangible asset charges of $0.5 million and $1.7 million, respectively, compared with $8.1 million and $11.0 million for the three and nine months ended September 30, 2023, 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 our product development initiatives through 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 months ended September 30, 2024, increased by 67% to $93.7 million, compared to $56.2 million for the three months ended September 30, 2023. The increase in interest and other income, net, for the three months ended September 30, 2024, was primarily driven by higher interest income earned due to an increase in average interest rates and higher average cash and investment balances, as well as foreign exchange rate gains (compared to foreign exchange rate losses for the three months ended September 30, 2023).

Interest and other income, net, for the nine months ended September 30, 2024, increased by 98% to $250.0 million, compared to $126.4 million for nine months ended September 30, 2023. The increase in interest and other income, net, for the nine months ended September 30, 2024, was primarily driven by higher interest income earned due to an increase in average interest rates and higher average cash and investment balances, as well as unrealized gains on investments resulting from strategic arrangements (compared to unrealized losses on investments resulting from strategic arrangements for the nine months ended September 30, 2023).

Income Tax Expense

Income tax expense for the three months ended September 30, 2024, was $100.4 million, or 15.0% of income before taxes, compared to $102.2 million, or 19.6% of income before taxes, for the three months ended September 30, 2023. Income tax expense for the nine months ended September 30, 2024, was $214.5 million, or 11.5% of income before taxes, compared to $236.4 million, or 16.4% of income before taxes, for the nine months ended September 30, 2023.

Our lower effective tax rate for the three months ended September 30, 2024, compared to the three months ended September 30, 2023, was primarily due to higher federal research and development credit benefits, the release of unrecognized tax benefits due to expiration of the statute of limitations in various jurisdictions, and higher excess tax benefits, as discussed below, partially offset by higher foreign taxes.

Our lower effective tax rate for the nine months ended September 30, 2024, compared to the nine months ended September 30, 2023, was primarily due to higher excess tax benefits, as discussed below, and lower U.S. taxes on foreign earnings, partially offset by higher foreign taxes.

Our provision for income taxes for the three months ended September 30, 2024, and 2023, included excess tax benefits associated with employee equity plans of $42.2 million and $22.0 million, respectively, which reduced our effective tax rate by 6.3 and 4.2 percentage points, respectively. Our provision for income taxes for the nine months ended September 30, 2024, and 2023, included excess tax benefits associated with employee equity plans of $189.0 million and $86.2 million, respectively, which reduced our effective tax rate by 10.1 and 6.0 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 awards settled or vested, and the value assigned to employee equity awards under GAAP, which results in increased income tax expense volatility.

In 2021, the Organization for Economic Co-operation and Development ("OECD") established an inclusive framework on base erosion and profit shifting and agreed on a two-pillar solution ("Pillar Two") to global taxation, focusing on global profit allocation and a 15% global minimum effective tax rate. On December 15, 2022, the EU member states agreed to implement the OECD's global minimum tax rate of 15%. The OECD issued Pillar Two model rules and continues to release guidance on these rules. The inclusive framework calls for tax law changes by participating countries to take effect in 2024 and 2025. Various countries have enacted or have announced plans to enact new tax laws to implement the global minimum tax. We considered the applicable tax law changes on Pillar Two implementation in the relevant countries, and there is no material impact to our tax provision for the three and nine months ended September 30, 2024. We will continue to evaluate the impact of these tax law changes on future reporting periods.

We file federal, state, and foreign income tax returns in many jurisdictions in the U.S. and OUS. Years before 2017 are considered closed for 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 in which 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 changes 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 Internal Revenue Service and other tax authorities. The outcome of these audits cannot be predicted with certainty. Management regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. If any issues addressed in our tax audits are resolved in a manner not consistent with management's expectations, we could be required to adjust our provision for income taxes in the period such resolution occurs.

Liquidity and Capital Resources

Sources and Uses of Cash and Cash Equivalents

Our principal source of liquidity is cash provided by our 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 $0.97 billion to $8.31 billion as of September 30, 2024, from $7.34 billion as of December 31, 2023, primarily as a result of cash provided by operating activities and proceeds from stock option exercises and employee stock purchases, partially offset by cash used for capital expenditures and taxes paid related to net share settlements of equity awards.

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 on 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 our business, will be sufficient to meet our liquidity requirements for the foreseeable future. However, we may experience reduced cash flow from operations as a result of macroeconomic and geopolitical headwinds.

See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" in our Form 10-K for the fiscal year ended December 31, 2023, 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, 2024, and 2023 (in millions):

	Nine Months Ended September 30, 2024	2023
Net cash provided by (used in):		
Operating activities	$ 1,592.4	$ 1,585.5
Investing activities	(2,008.6)	684.1
Financing activities	101.5	(256.1)
Effect of exchange rates on cash, cash equivalents, and restricted cash	(9.1)	8.7
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ (323.8)	$ 2,022.2

Operating Activities

For the nine months ended September 30, 2024, net cash provided by operating activities of $1.59 billion was less than our net income of $1.65 billion, primarily due to the following factors:

1. Our net income included non-cash charges of $721 million, consisting primarily of share-based compensation of $500 million and depreciation expense and losses on the disposal of property, plant, and equipment of $324 million, partially offset by deferred income tax benefits of $105 million.
2. The non-cash charges outlined above were offset by changes in operating assets and liabilities that resulted in $779 million of cash used in operating activities during the nine months ended September 30, 2024. Inventory, including the transfer of equipment from inventory to property, plant, and equipment, increased by $651 million, primarily to address the growth in our business, including the expansion of our leasing business, and to mitigate risks of disruption that could arise from global supply chain shortages. Refer to Note 4 to the Financial Statements for further details in the supplemental cash flow information. Prepaid and other assets increased by $80 million, primarily driven by an increase in deferred commissions as a result of operating leasing arrangements; accrued compensation and employee benefits decreased by $59 million, primarily due to payments of 2023 incentive compensation and payments for stock purchases related to our ESPP; and accounts receivable increased by $22 million, primarily due to the timing of billings and collections. The unfavorable impact of these items on cash provided by operating activities was partially offset by an increase in accounts payable of $21 million, primarily due to the timing of invoicing and payments.

Investing Activities

Net cash used in investing activities for the nine months ended September 30, 2024, consisted primarily of purchases of investments, net of proceeds from maturities and sales of investments, of $1.21 billion and $799 million paid for the acquisition of property, plant, and equipment. We invest predominantly in high quality, fixed income securities. Our investment portfolio may, at any time, contain investments in money market funds, U.S. treasury and U.S. government agency securities, high-quality corporate notes and bonds, commercial paper, non-U.S. government agency securities, and taxable and tax-exempt municipal notes.

Financing Activities

Net cash provided by financing activities for the nine months ended September 30, 2024, consisted primarily of cash proceeds from stock option exercises and employee stock purchases of $368 million, partially offset by cash used for taxes paid on behalf of employees related to net share settlements of vested employee equity awards of $258 million.

Capital Expenditures

Our capital expenditures are increasing as we continue to build the Company to supply our customers with highly differentiated products manufactured in highly automated factories to facilitate outstanding performance in product quality, availability, and cost. A significant portion of this investment involves the construction of facilities to expand our manufacturing and commercial capabilities. We have also been vertically integrating key technologies to develop a more robust supply chain and bring important products to market at attractive price points. These investments include increased ownership of our imaging pipelines and investments in strategic instruments and accessories technologies that allow us to serve our customers better. We expect these capital investments to range between $1 billion and $1.2 billion in 2024, the majority of which will be facilities-related investments. We intend to fund these capital investments 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 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, 2023, 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, 2024, compared to the disclosures in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2023.

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 were no changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2024, that have materially affected, or are 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, 2023, 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, 2023, are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial position, or future results of operations.

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

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

(c) Issuer Purchases of Equity Securities

The table below summarizes our stock repurchase activity for the quarter ended September 30, 2024:

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, 2024	—	$ —	—	$ 1.1 billion
August 1 to August 31, 2024	—	$ —	—	$ 1.1 billion
September 1 to September 30, 2024	—	$ —	—	$ 1.1 billion
Total during quarter ended September 30, 2024	—	$ —	—	

(1) Since March 2009, we have had an active stock Repurchase Program. As of September 30, 2024, our Board had authorized an aggregate amount of up to $10.0 billion for stock repurchases, of which the most recent authorization occurred in July 2022, when our Board increased the authorized amount available under our stock Repurchase Program to $3.5 billion. The remaining $1.1 billion represents the amount available to repurchase shares under the authorized stock Repurchase Program as of September 30, 2024. 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

Rule 10b5-1 Plans

On August 13, 2024, Myriam J. Curet, M.D., FACS, the Company’s Executive Vice President and Chief Medical Officer, adopted a Rule 10b5-1 trading plan. Dr. Curet’s trading plan provides for the potential sale of up to 33,581 shares of the Company’s common stock, including the potential exercise and sale of up to 21,966 shares of the Company’s common stock subject to stock options, until August 13, 2025. This trading plan was entered into during an open insider trading window and is intended to satisfy the affirmative defense of Rule 10b5-1(c) under the Exchange Act and the Company’s policies regarding transactions in the Company’s securities.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Company, as Amended.
3.2(2)	Amendment to Amended and Restated Certificate of Incorporation of the Company.
3.3(3)	Amended and Restated Bylaws of the Company.
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, 2024, 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, 2024, formatted in Inline XBRL and contained in Exhibit 101.

1. Incorporated by reference to Exhibit 3.1 filed with the Company's Quarterly Report on Form 10-Q filed on July 23, 2020 (File No. 000-30713).
2. Incorporated by reference to Exhibit 3.1 filed with the Company's Quarterly Report on Form 10-Q filed on October 20, 2021 (File No. 000-30713).
3. Incorporated by reference to Exhibit 3.1 filed with the Company's Current Report on Form 8-K filed on February 1, 2021 (File No. 000-30713).

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/ JAMIE E. SAMATH

Jamie E. Samath
Senior Vice President and Chief Financial Officer
(Principal Financial Officer and duly authorized signatory)

Date: October 18, 2024

EXHIBIT 31.1

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

I, Gary S. Guthart, certify that:

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

By: /s/ GARY S. GUTHART

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

Date: October 18, 2024

EXHIBIT 31.2

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

I, Jamie E. Samath, certify that:

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

By: /s/ JAMIE E. SAMATH

Jamie E. Samath
Senior Vice President and Chief Financial Officer

Date: October 18, 2024

EXHIBIT 32.1

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

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

(i) the accompanying quarterly report on Form 10-Q of the Company for the quarterly period ended September 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 18, 2024

By: /s/ GARY S. GUTHART

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

EXHIBIT 32.2

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

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

(i) the accompanying quarterly report on Form 10-Q of the Company for the quarterly period ended September 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 18, 2024

By: /s/ JAMIE E. SAMATH

Jamie E. Samath
Senior Vice President and Chief Financial Officer