AUTO GRAPHICS INC
Form 10KSB
March 30, 2004

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-KSB

(Mark One)
[X] ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 - For the fiscal year ended December 31, 2003.
or
[ ] TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 - For the transition period from _________________ to _________________.

Commission file number 0-4431

AUTO-GRAPHICS, INC.
(Exact name of small business issuer as specified in its charter)

California
(State or other jurisdiction of incorporation or organization)

95-2105641
(IRS Employer Identification No.)

3201 Temple Avenue, Pomona, CA
(Address of principal executive offices)

91768
(Zip Code)

(909) 595 - 7004
(Issuer's telephone number)

Securities registered under Section 12(b) of the Act:

Title of each class None.
Name of each exchange on which registered None.

Securities registered under section 12(g) of the Act:

Common Stock
(Title of class)

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 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 X No
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Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B is not contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. ________

State issuer's revenues for its most recent fiscal year. $5,771,756

The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant at March 25, 2004 was $739,000.

The number of shares of the registrant's Common Stock outstanding at March 30, 2004 was 5,525,586.

DOCUMENTS INCORPORATED BY REFERENCE
Except for exhibits, none.

Transitional Small Business Disclosure Format (Check one): Yes ___ No X

Documents available from Auto-Graphics, Inc.

The Company's Annual Report on Form 10-KSB and Code of Ethical Conduct may be viewed and printed on the Company's website at http://www.auto-graphics.com and click on the "company" hyperlink and then on the "Investor Relations" hyperlink. If you would like to receive a printed copy of the Company's Annual Report on Form 10-KSB and/or a copy of the Company's Code of Ethical Conduct at no charge, please mail your request to Attention: Secretary, Auto-Graphics, Inc., 3201 Temple Avenue, Pomona, California 91768, or send an e-mail to del@auto-graphics.com with your return address or call Daniel E. Luebben, the Secretary of the Company, at 1-800-776-6939 extension 1504.

PART I

ITEM 1. BUSINESS

Auto-Graphics, Inc. and its subsidiary, A-G Canada Ltd., (the "Company") provides software products and services used to create, manage, publish and access information content via the Internet/Web.

Auto-Graphics Inc. (parent) provides products and services to clients in the U.S.

A-G Canada Ltd. provides products and services to clients in Canada.

Revenue is primarily derived from a subscription or ASP (Application Service Provider) model, which includes "turn-key" software and support as well as outsourced Web "hosting" providing communications bandwidth, hardware, data management and facilities management and personnel for customer Web sites and content. Revenue is also generated from direct sales, licensing and support of software products and services.

The Company's products and services are presently sold primarily to libraries, especially multi-type library consortia requiring systems to create, manage, publish and access large bibliographic and holdings databases used to implement resource-sharing initiatives (interlibrary locating and borrowing of materials). Recent product releases enhance or build on existing technologies to provide a Web portal used by all types of libraries to manage not only traditional bibliographic databases but adds the functionality to manage local and third-party vendor databases and other Web

resources within a single concurrent or metasearch search interface. (This is also known within the industry as a "federated" search interface.) Additionally, the Company offers a number of options for its products that are library standards based.

Products and Services

The products and services offered by the Company in 2003 include the following:

AGent(TM) is an Internet/Web-based software suite encompassing six distinct modules offering libraries a broad and complete set of library management solutions that can be customized/personalized down to the patron level. AGent's modules include: portal, authentication, cataloging, resource-sharing, library automation (formally VERSO(TM)) and statistics. The AGent Portal module is a metasearch single search module that allows libraries to manage and search diverse bibliographic and full-text content through one convenient user interface. The AGent Authentication module enables users (patrons and staff) to be identified and provided with a specific level of service authorization according to customer specific definitions. The AGent Cataloging module allows libraries to select from a wide variety of bibliographic content sources in a subscription service format. Additionally, the AGent Cataloging module can offer authorized staff access to Auto-Graphics' MARC editor, AGCat(TM). Within the AGent Library Automation module there are three specific sub-modules: circulation, serials, and acquisitions. These can be purchased and configured/implemented in whole or in part creating an integrated local library automation system. Inter-library loan initiatives are supported in our AGent Resource-Sharing module through the use of ISO 10160/61 compliant software, allowing libraries to construct regional, statewide/province-wide systems. The AGent Statistics module provides the consortium or each library with a full range of metrics that can be applied to a broad spectrum of reports that reflect system usage, library usage, patron access, etc.

AGent Digital Content Management ("DCM") is a modular editorial, publishing and management software system used to create, organize, maintain and manage information databases in XML (eXtensible Markup Language). The system can be configured for a single user or a multi-user enterprise system. Integrated components include authenticated user access and control, data content validation through the use of one or more Document Type Definition (DTD) overlays, data authentication based on control and authority files, editorial revision control and version control, complete record routing and approval management, and DTD validation. AGent DCM can include a Web page preview feature used to validate electronic publishing compatibility. When used in conjunction with AGent this system provides a fully functioning Web publishing system and, when integrated with AGent, provides a complete and seamless enterprise-wide content development, control and Web publishing system. DCM is designed to work within the AGent umbrella of products to provide a full spectrum of capabilities in the MARC and XML environments.

The Company has acquired, developed and owns a substantial bibliographic database (including exclusive North American rights to the REMARC(TM) database of over four million pre-1968 records) and also makes available public agency databases including those offered by the United States Library of Congress, National Library of Canada, British Library and many U.S. and Canadian public and university libraries as a compendium of databases containing over 30 million unique records. The Company provides online bibliographic records for use by its U.S. and Canadian library customers via the Internet/Web through a product known as AGent MARCit(TM).

Applications

AGent has been installed in all of the individual libraries comprising our consortium customers. The Company has statewide contracts in six states and one province in Canada. Customers also include many regional library organizations in several other states. Some Company contracts employ only physical union catalogs, some only virtual union catalogs and some employ both types of catalogs.

The AGent library automation system has been installed in over 70 libraries consisting of public, school, academic and special libraries to manage their local collections and circulation. All of the libraries utilize the ASP services provided by the Company. Many of the libraries migrated from older legacy systems offered by the Company's competitors. Other libraries did not have any library automation until they installed AGent. The unique approach of ASP has provided a cost effective way for libraries to acquire a library automation system without high front-end investments in server hardware.

The Company installed AGent at the Toronto Public Library ("TPL"), which has the largest circulation of any library system in North America. They use AGent to search (approximately 66) third-party public access catalogs and authenticate users allowing for the simultaneous searching of 66 or more other reference databases licensed by or developed by TPL. The Company was also awarded contracts for AGent from the National Geographic Society, the Food and Drug Administration, and Chaffey College. Auto-Graphics negotiated and finalized the first of our multi-tiered selling programs in the state of New Jersey known as "JerseyClicks". This program will offer the 1,000 school, public, academic and special libraries of New Jersey an opportunity to significantly upgrade their software capability by implementing AGent (Portal) at the local level. Similar initiatives are also under review in the other five statewide systems. Additionally, the British Columbia provincial-wide system known as "Outlook" has also endorsed and initiated a similar program in Canada. Smart Choices of British Columbia that consists of two libraries have implemented AGent as a front-end replacement for their local library catalogs. In addition to utilizing AGent as a replacement for their local catalogs, the libraries are also managing their complete offering of reference databases via AGent. This unique approach will allow the library to move their electronic services beyond the walls of the library that will make these services available to all patrons of the libraries from their homes or businesses.

Product Development

Core software embraces industry standard data structures, such as XML, and standards specific to the markets served, such as MARC, Z39.50, SIP2, NCIP and ISO 10160/61 in the library community. These protocols are industry standards that provide for the efficient distribution of information to and from disparate library systems and vendors. The use of standards provides the Company with the ability to allow the AGent to sit on top of other vendor systems so that the product can be mixed and matched with existing library systems that the individual library has determined can be replaced by AGent.

All new system development is being programmed to operate on Microsoft platforms. The Company is using N-tiered architecture to allow for customer implementation flexibility. Development is based on an architecture that works on multiple computer servers and which provides system scalability, as the customer's needs change. Microsoft SQL Server provides the database engine for the Company's software product families.

Marketing

The technology utilized and developed in the Company's products and services is applicable to a diverse group of markets and customers. Marketing activities include public relations, advertising, display and presentation at industry trade shows, targeted mailings, telemarketing and e-messaging campaigns.

Products sold to the library market are generally sold by response to RFP's (Requests for Proposals) and, more frequently than not, competitive bidding managed by governmental purchasing departments. The Company maintains a bids and proposals department, which focuses on the identification of bidding opportunities and subsequent generation of all documentation in response to all proposal requests. Price points for the Company's various products/services are instrumental in determining the type of sales effort deployed by the Company, and the Company strives to take into account the available budgets of the procuring agencies and the competitive practices found within the marketplace.

The Company's strategy for entering emerging new markets in the future is focused on the Internet/Web "Portal" market and will utilize the new AGent product to capitalize on this emerging market opportunity. The Company's strategy for its Internet-centric products and services includes the development of new products and services in order to continually respond to the evolving needs of its existing and potential customer base. The Company will also expand strategic relationships with other companies or independent representatives who are already present or are otherwise knowledgeable about these prospective customers/markets.

To be successful in these new products/services, customers and markets, the Company will need to be able to create, finance, develop and implement new marketing initiatives and capabilities designed to introduce and market its Internet/Web line of products and services to prospective users who are not already familiar with the Company. The Company must compete successfully with other companies, many of whom will be larger, more established, better financed, more recognized and more experienced in the development, introduction, marketing, sales and service of the same or similar products and services to these targeted new customers/markets in a rapidly changing technological and distribution environment.

Accordingly, there can be no assurances that the Company will be able to launch, sustain and profit in the near or long-term from these new products/services, customers and markets initiatives. However, as the market for managing and distributing information and knowledge continues to change, the Company intends, as it has in the past, to be responsive to the changing needs and requirements of customers as they evolve by offering new and enhanced products and services representing advances in the information and knowledge management industry.

Competition

The Company was an early entrant into the software and database publishing business and industry. Although the Company has been successful to date in securing many of the awarded contracts involving the development and implementation of Internet/Web based "online" bibliographic catalog and interlibrary loan services systems for statewide, regional or other consortia of libraries, increased emphasis on this products/services niche of the library market can be expected to generate additional attention, capability and effort by one or more of the Company's competitors in this now relatively small niche of the library market.

Software sales of the Company's products, as well as complementary design,

development and processing services are highly competitive. There are no definitive market share statistics available, however, the market is sizable and there are many companies attempting to establish a position in this market. Many competitors are smaller and local in character; however, many are larger and national with greater financial and other resources than the Company. Purchase contracts are generally awarded according to the results of pricing, technical capability, customer references and service performance.

In seeking to expand its customers/markets, the Company can be expected to face competition from existing and future competitors with substantially greater financial, technical, marketing, distribution and other resources than the Company and, therefore, may be able to respond more quickly than the Company can to new challenging opportunities, technologies, standards or customer requirements. The Company will compete with other large, well-known software development and Internet/Web database platform companies that offer a variety of software products. Several large, well-known computer hardware manufacturers have entered the Internet/Web solutions and outsourced "hosting" business. Increasing competition could result in pricing pressures negatively impacting margins available to companies competing in this market and could make it difficult or even impossible for the Company to gain recognition and acceptance of its particular line of these products and services.

Company Background

The Company was founded in 1950 and incorporated in 1960 in the State of California. Beginning in 1964, the Company was one of the pioneers in computerized typesetting and database composition services for the library and publishing industries. Over the years, the Company has migrated its products and services to the most current technology required to address changing customer needs and requirements. The Company started in print, moved to microfilm/fiche, then to CD-ROM and now browser based Internet/Web as the media of choice for its products/services.

Offices/Employees

The Company's main office is in Pomona, California, in the greater Los Angeles area. The Company's wholly-owned Canadian subsidiary, A-G Canada, Ltd., is located in Toronto, Canada. Sales representatives are located in California, Texas, Missouri, Oklahoma and Toronto. The Company including its subsidiary employs approximately 40 persons in all locations. The Company believes that relationships with its employees are good.

ITEM 2. DESCRIPTION OF PROPERTIES

The Company leases its corporate office facility from a limited partnership owned by a current and a former director/stockholder of the Company. In December 2002, a new five year lease (with one five year renewal option) was negotiated and approved by the two independent members of the Company's Board of Directors. The Company further reduced its square footage occupied to 12,745 under the new lease. The rental rate for the lease renewal is equal to or less than the rental rates paid by three unaffiliated tenants in the same building. The Company also surveyed available office properties of similar size and amenities in the Pomona and surrounding areas and the lease rental rate is in the bottom quartile of the range of comparable properties. Management believes that the reconfigured space will be sufficient for the Company's current and foreseeable future needs. The Company also has an annual lease on a small sales and support office in Toronto, Canada for its wholly-

owned subsidiary, A-G Canada, Ltd. (See Note 5 of Notes to Consolidated Financial Statements).

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

PART II

ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Stock quotations.

	2003			
	Bid		Ask	
Price Range	High	Low	High	Low
First Quarter	$ .370	$ .350	$ .750	$ .480
Second Quarter	.400	.370	.850	.600
Third Quarter	.400	.400	.850	.830
Fourth Quarter	.400	.310	.850	.600

	2002			
	Bid		Ask	
Price Range	High	Low	High	Low
First Quarter	$ .440	$ .300	$ .520	$ .400
Second Quarter	.400	.200	.500	.240
Third Quarter	.440	.230	.560	.300
Fourth Quarter	.450	.350	1.500	.480

Trading in the Company's Common Stock is reported on the electronic OTC (Over- the-Counter) Bulletin Board under the symbol "AUGR" (Cusip Number 052725 108). The stock quotations set forth above have been provided by Pink Sheets LLC and represent the highest and lowest closing bid and asked prices quoted by broker/dealers making a market in the Company's Common Stock in the OTC market for the periods presented. Prices quoted do not include retail markup, markdown or commissions and may or may not reflect actual transactions in shares of the Company's stock.

As of December 31, 2003, the number of holder accounts of record (including depository and nominee or "street name") of the Company's Common Stock was approximately 200. The Company believes that the number of record and beneficial owners of the Company's Common Stock is in excess of 450 stockholders.

The Company has never paid a cash dividend and there are no plans to do so in

the near future.

EQUITY COMPENSATION PLAN INFORMATION

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants & rights	Weight-average exercise price of outstanding options, warrants & rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	354,900	$0.34	135,000
Equity compensation plans not approved by security holders	--	--	--
Total	354,900	$0.34	135,000

ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

CRITICAL ACCOUNTING POLICIES

The Company maintains its accounting books and records in accordance with accounting principles generally accepted in the United States of America. The preparation of the financial statements of the Company in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts of assets and liabilities and sales and expenses during the reporting period. These estimates are based on information available as of the date of the financial statements. Actual results may materially differ from those estimated. The Company's critical accounting policies include the following:

+ Capitalized software development costs

+ Amortization of software development costs

+ Revenue Recognition

The Company accounts for internally developed software in accordance with Statement of Financial Accounting Standard (SFAS) No. 86, "Accounting for the Costs of Computer Software to Be Sold, Leased or Otherwise Marketed." After technical feasibility has been established, the Company capitalizes the average cost per billable hour of its software development process including payroll and payroll benefits, training and recruiting costs. The Company collects and records the programming labor hours invested in software development projects. Annually, the Company evaluates these accumulated costs for recoverability against estimated future revenues and determines the amount, which will be capitalized. Of the annual software development project costs eligible for capitalization, the Company generally capitalizes

about 60% and expenses the remainder. To the extent that more development costs are capitalized, the Company's net income will improve, and, to the extent that more software development costs are expensed instead of capitalized, the Company's net income will decline. Because of the direct effect on earnings, the Company endeavors to capitalize a relatively consistent amount year-to-year to minimize the fluctuation in earnings.

The Company amortizes its software development costs in accordance with the estimated economic life of the software, which generally is seven years. The Company's typical product lifecycle has been about 15 years, which was true for its prior film/fiche product line, CD-ROM product line and current Internet/Web product line, which has now been deployed for ten years and is still growing. To the extent the average actual useful life varies significantly from the estimated useful life, amortization expense may be understated or overstated. Generally, amortization expense averages approximately 16% of the revenue stream.

Revenue recognition policies vary according to the nature of the revenue. The Company's primary revenue stream is outsourced web hosting services which are sold on a subscription basis. Generally, these large contract services are billed in advance on an annual, semi-annual or quarterly basis. Revenue is then recognized monthly as services are rendered. Revenues which have been billed and payment collected in advance are booked as deferred revenue until the services are provided and revenues earned. For certain small annual subscriptions, one-fourth of the annual revenue is recognized in the quarter the annual subscription is billed and the balance is deferred and recognized evenly over the next three quarters in accordance with SOP 97-2, "Software Revenue Recognition," as amended by SOP 98-4 and 98-9. Certain contract job processing services are progress billed and revenues recognized as the processing services are performed on a monthly basis. Certain software and hardware sales are billed when the product is shipped or access rights are provided to the customer.

Liquidity and Capital Resources

Working capital improved by $1,295,000 to a negative $755,000 in 2003 up from a negative $2,050,000 in 2002 due primarily to a substantial reduction in current liabilities (excluding current portion of long-term debt) of approximately $957,000 offset by an $89,000 increase in borrowings and the replacement of the Company's short-term credit facility with long-term debt. Profitability in terms of operating income tripled to $370,000 and EBITDA cash flow (Earnings Before Interest, Taxes, Depreciation and Amortization) improved accordingly to approximately $1,578,000 in 2003 from $1,168,000 in 2002. The Company replaced its credit facility in February 2004 with a new facility that matures in May 2005 and is extendable to May 2006 subject to meeting certain conditions (see below). The Company's primary AGent(TM) product is sold on an annual subscription basis with fees for services billed to the customer and paid annually or quarterly in advance. These cash payments are received and booked to deferred revenue on the balance sheet to be applied as the monthly sales revenues are earned and recognized on a pro-rata basis. As the actual cash is received, it is used to pay down the line of credit or for working capital needs. A growing percentage of sales (currently over 65%) of the Company's sales revenues are now being paid through customer advances without ever flowing through accounts receivable. Therefore, the average accounts receivable balance is approximately one-third of what it would otherwise historically be and there is a substantial deferred revenue balance in current liabilities representing revenues to be earned from future services to customers who have paid in advance.

At December 31, 2003, the Company's principal financial commitments, other than its bank line of credit and equipment financing, involved the lease of

corporate facilities in Pomona, California and in Toronto, Canada. Total commitments over next four years total approximately $734,000. (See Note 4 of Notes to Consolidated Financial Statements and Item 2. Properties herein).

The Company's principal use of cash for investing activities during 2003 and 2002 were directed primarily towards continuing development of the Company's AGent(TM) and VERSO(TM) software and ASP (Application Service Provider) services. The amounts invested in capitalized software was $500,000 in 2003 and 2002, respectively. The remainder of investing activities were to acquire hardware and software used to expand and enhance online services to the Company's current and prospective ASP customers. Total capital expenditures and investments were down $193,000 to $561,000 in 2003 from $754,000 in 2002. Major expenditures for 2002 include internal software development of AGent(TM) and VERSO(TM) software, acquisition of Pigasus Wings ISO interlibrary loan software and computer equipment.

2002 expenditures also included investments of approximately $35,000 in the remaining common stock of the Company's majority-owned subsidiaries: Dataquad and LibraryCard. In December 2002, owning in excess of 90%, the Company initiated a short-form statutory merger and bought out the remaining minority shareholders. On December 31, 2002, the Company merged Dataquad and LibraryCard into the Company and assumed both subsidiary's assets, immaterial liabilities and intercompany notes were cancelled by operation of law. In the course of the merger, the Company acquired both subsidiary's net operating loss (NOL) tax carryforwards in the total amount of $2,411,000 and $1,300,000 for federal and state taxes, respectively. These NOL carryforwards may be used to shelter the Company's U.S. taxable income without limitation through 2022 for federal purposes and through 2010 for state purposes. At December 31, 2003, the Company had total available net operating loss carryforwards for federal income tax purposes of $3,398,000, $2,089,000 for state income tax purposes and $160,000 for foreign income tax purposes. These net operating loss carryforwards expire in 2022 for federal taxes, 2010 for state and 2008 for foreign taxes. The NOL carryforward for California state tax purposes has been suspended for 2002 and 2003, meaning that the Company will be unable to use its NOL carryforward for this period and will therefore be liable for California state taxes.

The Company was in compliance with all of its financial loan covenants as of December 31, 2003 under its previous bank credit agreement. In October 2003, the Company began negotiations with a new bank, Pacific Mercantile Bank, to replace the Company's existing credit facility with Wells Fargo Bank. The new credit facility was concluded in February 2004 and is a revolving line of credit with an initial commitment of $750,000 declining to $600,000 on April 1, 2004 and $500,000 on July 1, 2004 consistent with the Company's forecasted declining requirements for financing. The credit facility matures on May 1, 2005 and may be extended to May 1, 2006 under certain conditions. Under FAS No. 6, "Classification of Short-term Obligations Expected To Be Refinanced", the line of credit is therefore reported as a long-term liability in the Company's balance sheet for the year ended December 31, 2003. The interest rate on the new credit facility is the Wall Street Journal bank prime rate plus a 2.5% margin declining to a 1.5% margin under certain conditions. The credit facility is secured by all of the assets of the Company and its subsidiary, A-G Canada Ltd. and requires that the Company maintain certain minimum financial covenant ratios. At December 31, 2003, the total borrowing was $398,000 with $352,000 in additional credit availability under the new credit facility. (See Note 2 of Notes to Consolidated Financial Statements). Management believes that liquidity and capital resources should be adequate to fund operations and expected reductions in bank debt in 2004. Based on the Company's 2004 Plan, management expects that the Company will have no bank debt by December 31, 2004 and will only require occasional working capital financing in the future. The Company has no current plans to enter the equity market to raise additional capital.

Off-Balance Sheet Financing

The Company has no so-called special purpose entities or off-balance sheet or derivative financing of any kind. All entities have been consolidated and all material intercompany accounts and transactions have been eliminated.

The Company's largest customer, the Texas Education Agency ("TEA") provided 13% and 23% of the Company's sales in 2003 and 2002, respectively. In late 2003, TEA began a process of changing the way that the Company's services were procured from a central purchase contract through TEA to direct purchase by the schools using the Company's system. The Company is in the process of registering school districts and individual schools for the service.

The Company has refocused its resources on its core business of library services. The Company's strategy is to offer ASP (Application Service Provider) services through outsourced web hosting to its library customers sold on an annual subscription basis. This is very attractive to our customers because it eliminates the large upfront capital investment, and ongoing technical management and technical staff requirements that the library would otherwise require and also provides an affordable and predictable monthly budget for the library. With a core of highly competent technical personnel, computer equipment and the Internet/Web, the Company can offer an efficient and very cost effective solution for the library. The majority (now approximately 85%) of this subscription business also forms an ongoing stream of recurring business each year under multiple year contracts.

RESULTS OF OPERATIONS

2003 as Compared to 2002

Net sales decreased $892,000 or 13% from $6,664,000 in 2002 to $5,772,000 in 2003 due to lower sales from its TEA contract (see above) and planned declining sales to publishing customers. The Company is focusing on its core library services and software businesses and not soliciting new publishing customers.

Cost of sales decreased $500,000 in 2003 or 13% as a result of major cost reductions in payroll and production costs in late 2002. Gross margins were unchanged at 42% in both 2003 and 2002 as the Company has continued to focus on its core library ASP services business. As the Company has transitioned from labor intensive businesses to outsourced web hosting (ASP) businesses much of the direct costs in cost of sales have been replaced largely by fixed indirect period costs. Therefore as revenues increase in the future from these business lines, margins can be expected to increase rapidly also.

Selling, general and administrative expenses decreased $635,000 or 24% in 2003 from 2002. In 2003, the Company began investing heavily in sales and marketing staff in an effort to reverse the declining sales trends. 2002 selling, general & administrative expenses include nearly $1,000,000 in litigation expenses successfully defending eight lawsuits filed by the Company's former general counsel, Robert H. Bretz, following his dismissal. On January 16, 2003, the Company reached a settlement with Mr. Bretz dismissing all of the lawsuits involving the parties for a cash payment of $15,000. The dispute cost the Company the equivalent of $0.22 per share, severely impacted profitability and liquidity for the year ended December 31, 2002. (See Note 6 of Notes to Consolidated Financial Statements).

Income from operations nearly tripled from $127,000 in 2002 to an operating income of $370,000 in 2003 due again to substantial cost reduction measures taken in late 2001 and 2002 and relief from the above referenced litigation.

Interest expense was $72,000 in 2003 down $25,000 from $97,000 in 2002 due to lower average borrowings.

Other income primarily reflects bad debt recovery.

Warrant expense in 2002 reflects a non-cash charge to earnings for the issuance of 621,252 warrants for a corresponding number of shares of "restricted" Common Stock as reimbursement for the premium paid by two directors to Robert H. Bretz, the Company's former counsel, in settlement of all lawsuits between the parties. (See Note 6 of Notes to Consolidated Financial Statements).

Provision for taxes based on income in 2003 and 2002 reflect minimum state tax payments and the effect of federal and state net operating loss carryforwards (See Note 3 of Notes to Consolidated Financial Statements).

Minority interests in the losses of subsidiaries of $77,000 in 2002 reflects a non-cash charge of $120,000 recognized by two majority-owned subsidiaries in connection with the repurchase of stock in return for cancellation of a trust note offset by minority interests in the losses incurred by those subsidiaries of $43,000. The subsidiaries were merged with the Company on December 31, 2002.

Net income was $305,000 compared to a net loss of $228,000 in 2002, an improvement (turnaround) of $533,000. Both basic and diluted "earnings" per share were $0.06 and $0.05, respectively in 2003, compared to a basic and diluted "loss" per share of $0.05 in 2002, an improvement of $0.11 and $0.10 in earnings per share, respectively.

2004 Operating Plan

The Company expects to be profitable in 2004 and EBITDA cash flow coupled with lower capital expenditures should continue to reduce bank debt and improve liquidity. The Company primarily serves state and local fiscal government entities and is seeing some improvement in sales prospects in 2004 with the economic recovery apparently underway. The Company is investing heavily in sales and marketing to drive sales growth through better customer coverage and more focused marketing programs. The 2004 capital budget is expected to decline about 10% from 2003 on reduced spending for internally developed software and on computer equipment due to performance improvements and declining prices. The Company plans no further business or product acquisitions for the foreseeable future and will instead focus on building its core library business.

Information Relating To Forward-Looking Statements

This Report includes forward-looking statements which reflect the Company's current views with respect to future events and financial performance. The Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Impact of Inflation

General price inflation is not anticipated to have a material effect on the Company's business in the near future. Historical dollar accounting does not reflect changing costs of operations, the future cost of expansion and the changing purchasing power of the dollar. Should more than moderate inflation

occur in the future, it can be expected to impact the Company in an adverse manner, as prices cannot be adjusted quickly due to the contractual nature of a substantial amount of the Company's business, while costs of personnel, materials and other purchases tend to escalate more rapidly.

Foreign Exchange

The functional and reporting currency of the Company is the U.S. dollar, while the functional and reporting currency for A-G Canada Ltd., the Company's wholly-owned Canadian subsidiary, is the Canadian dollar. Accordingly, the Company is exposed to foreign currency translation gains or losses as the relationship between the Canadian dollar and United States dollar fluctuates. Increases in the value of the Canadian dollar against the U.S. dollar will result in foreign exchange transaction gains and decreases in the value of the Canadian dollar will result in foreign exchange transaction losses. Other than for sales by A-G Canada in Canada, all other transactions involving the Company are generally denominated in U.S. dollars. (See Note 1 of Notes to Consolidated Financial Statements).

Recently Issued Accounting Pronouncements

See Note 1 "Recently Issued Accounting Pronouncements" of Notes to Consolidated Financial Statements.

ITEM 7. FINANCIAL STATEMENTS

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INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders

Auto-Graphics, Inc.
Pomona, California

We have audited the accompanying consolidated balance sheets of Auto-Graphics, Inc. and subsidiaries as of December 31, 2003 and 2002, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Auto-Graphics, Inc. and subsidiaries as of December 31, 2003 and 2002, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Singer Lewak Greenbaum & Goldstein LLP

Los Angeles, California
February 27, 2004

AUTO-GRAPHICS, INC.
CONSOLIDATED BALANCE SHEETS
December 31, 2003 and 2002

ASSETS	2003	2002
Current assets:		
Cash	$ 10,534	$ 31,877
Accounts receivable, less allowance for doubtful accounts ($25,000 in 2003 and 2002)	389,201	332,167
Unbilled production costs	4,674	3,398
Other current assets	180,476	175,145
Total current assets	584,885	542,587
Software, net (Note 1)	2,946,315	3,186,465
Equipment, furniture and leasehold improvements, net (Note 1)	513,267	910,947
Other assets (Note 1)	119,869	79,446
	$ 4,164,336	$ 4,719,445

LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 83,652	$ 254,569
Deferred revenue	842,183	1,381,746
Accrued payroll and related liabilities	245,673	236,798
Other accrued liabilities	139,711	385,227
Current portion of long-term debt (Note 2)	28,977	334,694
Total current liabilities	1,340,196	2,593,034
Long-term debt, less current portion (Note 2)	418,425	33,614
Deferred taxes (Note 3)	68,000	73,000
Total liabilities	1,826,621	2,699,648
Commitments and contingencies (Note 4)		
Stockholders' equity:		
Common Stock, 12,000,000 shares authorized, 5,525,586 shares issued and outstanding in 2003 and 4,904,234 shares in 2002 (Note 6)	4,274,625	4,262,169
Accumulated deficit	(1,937,187)	(2,242,649)
Accumulated other comprehensive income(loss)	277	277
Total stockholders' equity	2,337,715	2,019,797
	$ 4,164,336	$ 4,719,445

See Notes to Consolidated Financial Statements

AUTO-GRAPHICS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
AND COMPREHENSIVE INCOME (LOSS)
Years ended December 31, 2003 and 2002

	2003	2002
Net sales (See Note 1)	$5,771,756	$6,663,626
Costs and expenses		
Cost of sales	3,350,356	3,850,200
Selling, general and administrative	2,051,770	2,686,673
	5,402,126	6,536,873
Income from operations	369,630	126,753
Interest expense, net	71,785	97,196
Warrant expense	--	215,000
Other income	(9,617)	(38,486)
Income (loss) before taxes and minority interests	307,462	(146,957)
Income tax expense (Note 3)	2,000	4,000
Minority interest in loss of subsidiaries (Note 6)	--	77,278

Net income (loss)	305,462	(228,235)
Foreign currency translation adjustments (Note 1)	--	--
Total comprehensive income (loss)	$ 305,462	$ (228,235)
Earnings per share (Note 1):		
Basic income (loss) per share	$ .06	$ (.05)
Weighted average shares outstanding	5,525,586	4,996,979
Diluted income (loss) per share	$ .05	$ (.05)
Weighted average shares outstanding	5,880,486	4,996,979

See Notes to Consolidated Financial Statements.

AUTO-GRAPHICS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years ended December 31, 2003 and 2002

	Common Stock			Retained Earnings/	Other	Total
	Shares	Amount	Notes Receivable	(Accumulated Deficit)	Comprehensive Income/(Loss)	Stockholders' Equity
Balances at December 31, 2001	4,997,234	$4,201,755	$ (75,364)	$(2,014,414)	$ (10,981)	$ 2,100,996
Net Income		--	--	(228,235)	--	(228,235)
Note Receivable		--	(2,136)	--	--	(2,136)
Adjustment to Minority Interests, net	--	(160,500)	--	--	--	(160,500)
Subsidiary Stock Purchase	--	83,414	--	--	--	83,414
Issuance of Warrants	--	215,000	--	--	--	215,000
Retire Notes Receivable-Stk	(93,000)	(77,500)	77,500	--	--	--
Foreign Currency Translation Adjustments		--	--	--	11,258	11,258
Balances at December 31, 2002	4,904,234	$4,262,169	$ --	$(2,242,649)	$ 277	$ 2,019,797
Net Income		--	--	305,462	--	305,462
Issuance of Stock	621,352	12,456	--	--	--	12,456

Balances at December 31, 2003	5,525,586	$4,274,625	$ --	$(1,937,187)	$ 277	$ 2,337,715

See Note 6 "Stockholder's Equity in Notes to Consolidated Financial Statements.

AUTO-GRAPHICS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended December 31, 2003 and 2002

	2003	2002
Cash flows from operating activities:		
Net income/(loss)	$ 305,462	$ (228,235)
Adjustments to reconcile net income/(loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	1,198,719	1,294,847
Deferred taxes	(5,000)	(78,600)
Allowance for doubtful accounts	--	(120,000)
Warrant Expense	--	215,000
Minority Interest	--	77,278
Changes in operating assets and liabilities		
Accounts receivable	(57,034)	473,333
Unbilled production costs	(1,276)	7,615
Other current assets	(5,329)	31,389
Other assets	(40,423)	12,206
Accounts payable	(170,918)	(105,104)
Deferred revenue	(539,562)	133,758
Accrued payroll and related liabilities	8,876	(227,015)
Other accrued liabilities	(245,517)	182,296
Net cash provided by operating activities	$ 447,998	$1,668,768
Cash flows from investing activities (Note 1):		
Capital expenditures	(60,891)	(119,502)
Capitalized software development	(500,000)	(500,000)
Purchase of Pigasus Software	--	(100,000)
Investment in Dataquad, Inc.	--	(33,046)
Investment in The LibraryCard, Inc.	--	(1,605)
Net cash used in investing activities	$ (560,891)	$ (754,153)

AUTO-GRAPHICS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended December 31, 2003 and 2002

	2003	2002
Cash flows from financing activities (Note 1):		
Borrowings under long-term debt	$ 88,694	$ 58,850

Payments under long-term debt	--	(993,923)
Borrowings(payments) under cash surrender value of life insurance, net	--	(4,457)
Payments under capital lease	--	(77,047)
Payments under equipment financing	(9,600)	--
Proceeds from stock/warrant sales, net	12,456	(2,136)
Net cash provided by (used in) financing activities	91,550	(1,018,713)
Net decrease in cash	(21,343)	(104,098)
Foreign currency effect on cash	--	13,946
Cash at beginning of year	31,877	122,029
Cash at end of year	$ 10,534	$ 31,877

See Notes to Consolidated Financial Statements.

AUTO-GRAPHICS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2003 and 2002

1. Summary of significant accounting policies.

Auto-Graphics, Inc. (the "Company"), a California corporation incorporated in 1960, including its wholly-owned A-G Canada, Ltd. subsidiary provide software products and services used to create, manage, publish and access information content via the Internet/Web.

A-G Canada, a Canadian corporation formed in 1997, provides software products and services to customers in the library community in Canada.

Dataquad, a Nevada corporation, was formed in 1999 to market XML based content management software products and services, which enable enterprises to create, organize, maintain, manage and deliver database and other information dynamically within and outside the enterprise including over the Internet/Web. Dataquad was merged into Auto-Graphics, Inc. on December 31, 2002.

LibraryCard, a Nevada corporation, was formed in 1999 to develop and operate an Internet/Web site offering access to library type information services to consumers in their homes, schools, libraries and offices. LibraryCard was merged into Auto-Graphics, Inc. on December 31, 2002.

Basis of Presentation

The consolidated financial statements include the accounts of Auto-Graphics, Inc. and its wholly and majority-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

Revenue Recognition

Sales are recognized as services are rendered monthly or quarterly on a subscription basis and when goods (software, equipment, databases, etc.) are

shipped to customers in accordance with the American Institute of Certified Public Accountant's Statement of Position ("SOP") 97-2, "Software Revenue Recognition", as amended by SOP 98-4 and SOP 98-9. Revenues for which payment has been received are treated as deferred revenue until services are provided and revenues have been earned.

Use of Estimates

The preparation of the financial statements of the Company in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts of assets and liabilities and sales and expenses during the reporting period. These estimates are based on information available as of the date of the financial statements. Actual results may materially differ from those estimated.

Foreign Currency Translation

The functional and reporting currency for operations located in Canada is the Canadian dollar. Consequently, assets and liabilities must be translated into U.S. dollars using standard exchange rates and the effects of the foreign currency translation adjustments are accumulated as other comprehensive income (loss) and included as a component of stockholders' equity. All other Company transactions are denominated in U.S. dollars.

Credit Risk

The Company performs ongoing credit evaluations of its customers and generally requires cash deposits in advance of providing services. The Company maintains reserves for potential losses from uncollectible accounts, and actual losses in 2003 and 2002 were in line with management's expectations. The Company may be exposed to credit risk for trade receivables beyond the reserves established by the Company for this purpose. The Company places its cash with high credit quality financial institutions and, at times, the balance may be in excess of the FDIC limit. (See Segment Reporting below).

Fair Value of Financial Instruments

The following methods and assumptions were used to estimate the fair value of each class of financial instruments for which it is practical to estimate that value:

> Cash and Receivables. The carrying amounts approximate fair value because of the short-term maturity of these instruments.
>
> Long-term Debt. The carrying amounts approximates fair value, since the interest rate on the debt is at least equal to the bank's prime rate which the Company believes is reflective of rates it could currently obtain.

Unbilled Production Costs

Costs associated with work in process (WIP) include: labor, materials, and operations overhead (excluding selling, general and administrative expenses) are stated at the lower of cost or net realizable value, and are removed from WIP inventory on a standard cost basis.

Software

Software is recorded at historical cost. Software at December 31, 2003 and 2002, consist of the following:

	2003	2002
Computer software and database	$ 7,192,374	$ 6,715,602
Less accumulated amortization	4,246,059	3,529,137
	$ 2,946,315	$ 3,186,465

Asset Purchase of Pigasus Wings Software: In July 2002, the Company acquired Wings ISO (International Standards Organization) compliant interlibrary loan software product for $100,000. The Wings software has provided ISO compliant functionality for the Company's AGent(TM) interlibrary loan software module.

Asset Retirements: Fully amortized software having an original cost of $804,000 was retired in 2002 and none in 2003.

Amortization: Certain costs incurred related to the development and purchase of computer software are capitalized and amortized in accordance with Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed". In accordance with EITF (Emerging Issues Task Force) Issue 00-02, "Accounting for Web Site Development Costs", certain marketing costs incurred to develop Web sites are expensed as incurred. Amortization is based on the straight-line method and commences in the first full year of product availability and continues over the product's estimated useful life. The estimated useful life for computer software and databases is seven years based on its estimated economic life. Unamortized computer software was approximately $2,946,000 in 2003 and $3,186,000 in 2002. Amortization of computer software was approximately $937,000 in 2003 and $807,000 in 2002.

Equipment, Furniture and Leasehold Improvements

Equipment, furniture and leasehold improvements are recorded at historical cost. Equipment, furniture and leasehold improvements at December 31, 2003 and 2002, consist of the following:

	2003	2002
Equipment	$ 1,409,118	$ 1,415,346
Furniture and fixtures	320,695	323,665
Leasehold improvements	25,508	25,508
	1,755,321	1,764,519
Less accumulated depreciation	1,242,054	853,572
	$ 513,267	$ 910,947

Asset Retirements: Fully depreciated fixed assets having an original cost of $93,316 and $1,344,000 were retired in 2003 and 2002, respectively.

Useful Lives: The following estimated useful lives are generally observed for the respective asset categories:

Equipment - 5 years
Furniture and fixtures - 5 to 10 years
Leasehold improvements - The lease term

Depreciation: Depreciation is based on the straight-line method over the estimated useful life of the asset and commences in the year the asset is placed in and/or is available for service or sale using the half-year convention method. Depreciation expense was $262,000 in 2003 and $362,002 in 2002.

Impairment Of Long-lived Assets

The Company periodically assesses the recoverability of the carrying amounts of long-lived assets. An impairment loss is recognized when expected undiscounted future cash flows are less than the carrying amount of the asset. The impairment loss is the difference by which the carrying amount of the asset exceeds its fair value.

Other Assets

In February 2003, A-G Canada, Ltd. a wholly-owned Canadian subsidiary of the Company, pledged a Guaranteed Income Certificate in the amount of $45,000 to Toronto Dominion Bank as collateral for a four-year Letter of Credit.

Earnings Per Share

Statement of Financial Accounting Standards No. 128, "Earnings per Share" requires the presentation of basic earnings per share and diluted earnings per share. Basic and diluted earnings per share computations presented by the Company conform to the standard and are based on the weighted average number of shares of Common Stock outstanding during the year. In 2003 and 2002, the Company's Board of Directors granted stock options for 255,000 and 125,000 shares of the Company's restricted Common Stock to two directors and certain employees. For the year ended December 31, 2003 and 2002, there were common stock equivalents (warrants, options or convertible securities) outstanding representing 354,900 and 876,252 shares, respectively.

The following is a reconciliation of the numerators and denominators of the basic and diluted earnings per share computations:

Year ended December 31, 2003	Net Income	Shares	Per Share
Basic earnings per share			
Net income available to common stockholders	$ 305,462	5,525,586	$ 0.06
Effect of dilutive securities			
Stock options	--	354,900	
Diluted earnings per share			
Net income available to common stockholders	$ 305,462	5,880,486	$ 0.05

Year ended December 31, 2002	Net Income	Shares	Per Share
Basic earnings per share			
Net income available to common stockholders	$ (228,235)	4,996,979	$ (0.05)
Effect of dilutive securities			

Warrants	--	--	
Stock options	--	--	
Diluted earnings per share			
Net income available to common stockholders	$ (228,235)	4,996,979	$ (0.05)

Warrants and stock options have been excluded in 2002, since they are anti-dilutive.

Comprehensive Income

The Company accounts for comprehensive income in accordance with Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income", which establishes standards for reporting and display of comprehensive income and its components in interim and annual financial statements. Comprehensive income is defined as the change in the equity (net assets) of an entity during a period from transactions, events and circumstances excluding all transactions involving investments by or distributions to the owners.

Supplemental Disclosure of Cash Flow Information

The Company paid net interest in the amount of $71,785 in 2003 and $97,196 in 2002. The Company paid income taxes in the amount of $26,480 in 2003 and $8,347 in 2002.

Segment Reporting

As of the year ended December 31, 1998, the Company adopted Statement of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information". The Statement establishes standards for reporting information about operating segments in interim and annual financial statements.

The following table summarizes sales based on the location of the customers and assets based on the location of the asset presented on the basis of generally accepted accounting principles for the years ended December 31, 2003 and 2002:

	2003	2002
Geographic areas		
Net sales		
United States	$ 4,805,377	$ 5,741,889
Foreign - Canada/Other	966,379	921,737
Long-lived assets, net		
United States	3,456,221	4,084,694
Foreign - Canada	3,361	12,718

The Company's largest customer, the Texas Education Agency ("TEA") provided 13% and 23% of the Company's sales in 2003 and 2002, respectively. In late 2003, TEA began a process of changing the way that the Company's services were procured from a central purchase contract through TEA to direct purchase by the schools using the Company's system. The Company is in the process of registering school districts and individual schools for the service. There was three accounts which represent more than 10% of the Company's accounts receivable as of December 31, 2003. All accounts representing over 10% of

total accounts receivable were subsequently collected.

Recently Issued Accounting Pronouncements

In May, 2003, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard (SFAS) No. 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity. The Statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. The Company believes the adoption of this Statement will have no material impact on its financial statements.

2. Long-term Debt.

Long-term debt at December 31, 2003 and 2002 consists of the following:

	2003	2002
Revolving line of credit with interest at the bank prime rate plus five percentage points (9.0% at December 31, 2003) secured by all of the assets of the Company and its subsidiaries	$ 398,150	$ 309,458
Note payable for computer equipment with monthly payments of $2,612 in 2003 and $2,452 in 2002 (See Note 5 "Related Party Transactions")	49,252	58,850
Total debt	447,402	368,308
Less current portion	28,977	334,694
Long-term portion	$ 418,425	$ 33,614

The Company was in compliance with all of its financial loan covenants as of December 31, 2003 under its "previous" bank credit agreement. The interest rate on the "previous" line of credit is the bank prime rate plus 5% margin (9.0%) at December 31, 2003. In October 2003, the Company began negotiations with a new bank, Pacific Mercantile Bank, to replace the Company's existing credit facility with Wells Fargo Bank. The new credit facility was concluded in February 2004 and is a revolving line of credit with an initial commitment of $750,000 declining to $600,000 on April 1, 2004 and $500,000 on July 1, 2004 consistent with the Company's forecasted declining requirements for financing. The credit facility matures on May 1, 2005 and may be extended to May 1, 2006 under certain conditions. Under FAS No. 6, "Classification of Short-term Obligations Expected To Be Refinanced", the line of credit is therefore reported as a long-term liability in the Company's balance sheet for the year ended December 31, 2003. The interest rate on the new credit facility is the Wall Street Journal bank prime rate plus a 2.5% margin declining to a 1.5% margin under certain conditions. The credit facility is secured by all of the assets of the Company and its subsidiary, A-G Canada Ltd. and requires that the Company maintain certain minimum financial covenant ratios. At December 31, 2003, the total borrowing was $398,000 with $352,000 in additional credit availability under the new credit facility.

3. Taxes Based on Income.

The Company uses the liability method of accounting for income taxes. Deferred income taxes are recognized based on the differences between financial statement and income tax valuations of assets and liabilities using applicable tax rates for the year in which the differences are expected to reverse. Valuation allowances are established, when necessary, to reduce deferred tax asset amounts to the amount expected to be realized. The provision for income taxes represents the tax payable (or benefit) for the period plus the change in deferred tax assets and liabilities during the year.

The provision/(benefit) for taxes based on income is composed of the following for the years ended December 31, 2003 and 2002:

	2003	2002
Current taxes based on income		
Federal	$ --	$ (1,000)
State	2,000	34,000
Foreign	--	--
	2,000	33,000
Deferred taxes based on income		
Federal	--	(49,000)
State	--	(15,000)
Foreign	--	35,000
	--	(29,000)
	$ 2,000	$ 4,000

A reconciliation of the provision/(benefit) for taxes based on income follows for the years ended December 31, 2003 and 2002:

	2003	2002
Statutory U.S. Federal income tax	$ 71,000	$ 28,000
Adjustments for foreign tax rates	3,000	(5,000)
Change in valuation allowance	(209,000)	148,000
State tax, net of Federal benefit	12,000	5,000
Benefit of prior NOL carryforward	--	--
Other	125,000	(172,000)
	$ 2,000	$ 4,000

The statutory U.S. Federal income tax rate was 34% in 2003 and 2002. The deferred tax assets and liabilities are composed of the following at December 31, 2003 and 2002:

	2003	2002
Deferred tax liabilities:		
Tax over book amortization and depreciation	$ 471,000	$ 232,000
Deferred tax assets:		
Net operating loss	1,348.000	1,308,000
Bad debts/accrued vacation/other	60,000	65,000
Total deferred tax assets	1,408,000	1,373,000

Valuation allowance	(945,000)	(1,154,000)
Net deferred tax assets	463,000	219,000
Net deferred tax liability	$ 8,000	$ 13,000

Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been reported in the Company's financial statements or tax returns. The valuation allowance at December 31, 2003 and 2002 reflects an unrecognized U.S. and foreign tax loss carryforward. At December 31, 2003, the Company had available net operating loss carryforwards for federal income tax purposes of $3,398,000, $2,089,000 for state income tax purposes and $160,000 for foreign income tax purposes. These net operating loss carryforwards expire in 2022 for federal taxes, 2010 for state and 2008 for foreign taxes.

4. Commitments and Contingencies.

The Company incurred total facilities and equipment lease and rental expense of approximately $219,000 in 2003 and $265,000 in 2002. The Company is obligated under certain non-cancelable operating leases for office facilities and equipment expiring in 2004, 2005, 2006 and 2007.

Approximate future minimum lease commitments as of December 31, 2003 are as follows:

Years ended December 31,	Operating Leases
2004	$ 215,000
2005	173,000
2006	173,000
2007	173,000
Total minimum lease payments	$ 734,000

From time to time, the Company is involved in legal proceedings incidental to its normal business activities. Management does not believe that the outcome of these proceedings will have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows.

5. Related Party Transactions.

The Company leases its corporate office facility from a limited partnership owned by a current and a former director/stockholder of the Company. In December 2002, a new five year lease (with one five year renewal option) was negotiated and approved by the two independent members of the Company's Board of Directors. The Company further reduced its square footage occupied to 12,745 under the new lease. The rental rate for the lease renewal is equal to or less than the rental rates paid by three unaffiliated tenants in the same building. The Company also surveyed available office properties of similar size and amenities in the Pomona and surrounding areas and the lease rental rate is in the bottom quartile of the range of comparable properties. Management believes that the reconfigured space will be sufficient for the Company's current and foreseeable future needs. The Company also has an annual lease on a small sales and support office in Toronto, Canada for its wholly-owned subsidiary, A-G Canada, Ltd.

James R. Yarter, a shareholder, has been a director of the Company since June 2001 and was paid $15,000 and $23,500 in director fees for the Company and its subsidiaries in 2003 and 2002, respectively. Mr. Yarter also serves as a sales and marketing consultant to the Company and was paid $30,000 annually for consulting services rendered to the Company in 2003 and 2002, respectively.

Thomas J. Dudley, a shareholder, has been a director of the Company since July 2002 and was paid $17,510 and $8,755 in director fees in 2003 and 2002, respectively.

In July 2002, the Company exercised its right of first refusal and acquired 1,919,400 shares of common stock in each of its majority-owned subsidiaries, Dataquad, Inc. and LibraryCard, Inc. from a major investor for a payment of approximately $31,000 bringing the Company's ownership to 6,609,400 (85.8%) in each subsidiary.

In December 2002, the Company paid approximately $4,000 to acquire shares in Dataquad, Inc. and LibraryCard, Inc. owned by Corey M. Patick and Paul Shepherd, shareholders in the Company, and Paul R. Cope, an officer and shareholder in the Company.

In December 2003, Donald A. Scurti, a shareholder, provided financing to the Company of approximately $51,000 on a 21 month note to purchase computer equipment.

6. Stockholders' Equity.

Warrants

On May 9, 2001 the Company terminated the services of its long-time outside counsel, Robert H. Bretz. Mr. Bretz was also a director and shareholder of the Company. Following his termination, Mr. Bretz began to file multiple lawsuits (a total of eight) against the Company, its current and former officers, directors and counsel. Through December 31, 2002, the Company had spent over $1,100,000 successfully defending these lawsuits, but anticipated spending another $500,000 in defending these existing cases through trial and believed that Mr. Bretz would continue to file similar lawsuits. On January 16, 2003 the Company settled the existing lawsuits with Mr. Bretz dismissing all of the lawsuits, including his lawsuit to recover approximately $65,000 for previously billed services to the Company, in return for a payment of $15,000. The settlement entailed the purchase of stock owned by Mr. Bretz at a price in excess of the then current fair market value of the underlying common stock. Two directors paid Mr. Bretz $0.85 per share for 414,168 shares or a total of approximately $352,000 even though the market price was approximately $0.30. Therefore, the two directors paid a premium of $0.55 per share over the fair market value of $0.30 per share or approximately $228,000. Since the Company could not legally repurchase the stock under the California Corporations Code and the settlement was clearly in the best interests of the Company and would avoid substantial future legal fees and costs, the Company reimbursed the two directors for the premium they paid to Mr. Bretz in the form of warrants to purchase additional shares of the Company's "restricted" Common Stock. The Company engaged an independent appraiser to establish a fair market value for the large block of shares, which fair market value was determined to be $0.30 per share. Based on the premium paid by the directors of approximately $228,000 and an exercise price of $0.01 each per warrant and share, the directors were entitled to a total of 814,000 warrants/shares. However, the directors accepted a total of 621,252 warrants to purchase an equal number of additional shares of the Company's "restricted" Common Stock representing a discount of approximately

24%. All of the 621,252 warrants were exercised and 621,252 shares were issued in 2003. As permitted by Statement of Financial Accounting Standards No. 123 (and No. 148), "Accounting for Stock Based Compensation", the Company will continue to account for employee stock options (and warrants) using the "intrinsic method" under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees", and related interpretations. The result was a non-cash charge to earnings of $215,000 in 2002. The transaction has been reviewed by the Company's general counsel and approved by the sole independent director, Thomas J. Dudley.

2002 Qualified and Non-qualified Stock Option Plan

The Company adopted a qualified and non-qualified stock option plan following approval by its shareholders at its 2001 annual shareholder's meeting held on February 27, 2002. The plan consists of 490,000 shares with approximately 350,000 qualified shares reserved for employees and 140,000 non-qualified shares reserved for directors. On May 3, 2002, the Company's Board of Directors granted stock options for 220,000 shares of the Company's restricted Common Stock at an exercise price of $0.30, reflecting the market price on the date of the grant, to an outside director (60,000 shares) and employees (160,000 shares). On July 17, 2002, the Company's Board of Directors granted non-qualified stock options for 35,000 shares of the Company's restricted Common Stock at an exercise price of $0.325, reflecting the market price on the date of the grant, to its outside directors. On June 18, 2003, the Board of Directors granted stock options for 125,000 shares of the Company's restricted Common Stock at an exercise price of $0.40, reflecting the market price on the date of the grant, to its outside directors (30,000 shares) and employees (95,000 shares). As of December 31, 2003, there were 125,000 non-qualified options and 230,000 qualified options outstanding for a total of 355,000 options and 15,000 non-qualified options and 120,000 qualified options for a total of 135,000 options available for future grant. Under the plan, the stock option price per share for options granted is determined by the Board of Directors and is based on the market price of the Company's common stock on the date of grant. The stock options vest over four years and no option can be exercised later than ten years from the date it was granted.

As permitted by Statement of Financial Accounting Standards No. 123, "Accounting for Stock Based Compensation", the Company has continued to account for employee stock options under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees", and related interpretations. As a result of this election, the Company does not recognize compensation expense for its stock option plans since the exercise price of the options granted equals the fair value of the stock on the date of grant. Had the Company determined compensation cost based on the fair value for its fully vested stock options at grant date, under SFAS 123, the Company's net income and earning per share would have been reduced to the pro forma amounts indicated below:

	2003	2002
Net income (loss):		
As reported	$ 305,462	$ (228,765)
Pro forma	299,035	(228,765)
Earnings (loss) per share:		
As reported:		
Basic	0.06	(0.05)
Diluted	0.05	(0.05)
Pro forma:		
Basic	0.05	(0.05)
Diluted	0.05	(0.05)

The fair value for these options was estimated at the grant date using the Black-Scholes option-pricing model with the following weighted-average assumptions used for grants in 2003 and 2002:

	2003	2002
Expected life	Five Years	Five Years
Risk-free interest rate	1.6%	3.6%
Expected volatility	30%	30%
Dividend yield	0%	0%
Fair value of options granted at fair market price	$0.12	$0.10

All options granted in 2003 and 2002 were at the fair market price.

Transactions involving stock options are summarized as follows:

	Number of Shares	Weighted Average Exercise Price
Balance at December 31, 2001	--	$ 0.00
Granted during 2002	255,000	0.30
Balance at December 31, 2002	255,000	$ 0.30
Granted during 2003	125,000	0.40
Exercised during 2003	(100)	0.30
Forfeited during 2003	(25,000)	0.37
Balance at December 31, 2003	354,900	$ 0.34

Additional information with respect to the outstanding options as of December 31, 2003 is as follows:

	Options Outstanding			Options Exercisable	
Option Exercise Price Range	Number of Shares	Average Remaining Contractual Life(Yrs.)	Weighted Average Exercise Price	Number of Shares	Average Exercise Price
$0.30 to 0.399	244,900	8.49	$ 0.30	76,250	$ 0.30
$0.40 to 0.499	110,000	9.51	0.40	--	--
	354,900	8.81	0.34	76,250	0.30

1997 Non-qualified Stock Option Plan

The Company adopted a 1997 Non-qualified Stock Option Plan effective December 31, 1997. The Plan consists of 300,000 shares of the Company's authorized but unissued Common Stock for shares have been reserved for possible future grants under the Plan. The plan is a non-qualified plan covering only senior executives and related persons. As of December 31, 2003 and 2002, there were

no outstanding grants of options under the Plan and no grants are currently planned.

Dataquad and LibraryCard Merger with Auto-Graphics

In July 2002, the Company exercised its right of first refusal and acquired 1,919,400 shares of common stock in each of its majority-owned subsidiaries, Dataquad, Inc. and LibraryCard, Inc. from a major investor bringing the Company's ownership to 6,609,400 (85.8%) in each subsidiary.

When the subsidiaries were originally formed, 700,000 shares each of Dataquad and LibraryCard common stock was reserved for use in a future stock option and purchase plan for the subsidiaries. In June 2000, the subsidiaries issued the shares to a trustee (Corey M. Patick) secured by a note. As a result of the issuance, the Company's interest in the subsidiaries was diluted which resulted in a reduction in Stockholders' Equity in the amount of $104,769. In January 2001, Robert S. Cope replaced Mr. Patick as trustee for the trust shares. Under the trust agreement, the subsidiaries had the right and, in November 2002, exercised that right to repurchase the stock (at the original sales price) in return for cancellation of the trust note. The effect of the repurchase was a non-cash charge to earnings of $120,000 reflected as Minority Interest in income (loss) of subsidiaries and a net decrease in Stockholder's Equity of $160,500.

In December 2002, the Company paid approximately $4,000 to acquire shares in Dataquad, Inc. and LibraryCard, Inc. owned by Corey M. Patick and Paul Shepherd, shareholders in the Company, and Paul R. Cope, an officer and shareholder in the Company, bringing the Company's ownership to 100% in both subsidiaries. On December 31, 2002, the Company executed a short form merger and merged the assets and immaterial liabilities into the Company and cancelled the intercompany notes between the Company and two subsidiaries.

7. 401(k) Plan.

The Company sponsors a defined contribution plan qualified under Section 401(k) of the Internal Revenue Code for the benefit of its U.S. based employees. All full time employees are eligible to participate. The Company pays the immaterial administrative expenses of the plan. Annually, the Company may, at its sole discretion, award an amount as a match against employee contributions to the 401(k) plan. The Company contribution was approximately $13,000 in 2003 and $9,000 in 2002.

ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 8A. CONTROLS AND PROCEDURES

As of December 31, 2003, an evaluation was performed, under the supervision and with the participation of the President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, the President and Chief Financial Officer, concluded that our disclosure controls and procedures were effective as of December 31, 2003. No significant changes in internal controls or in other factors have occurred that could significantly affect controls subsequent to December 31, 2003.

PART III

ITEM 9. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT; COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT

The following table sets forth the names and ages of, and the positions and offices within the Company held by, certain directors and officers of the Company at December 31, 2003:

Name	Age	Position
Robert S. Cope	68	Chairman of the Board, Director and President. Has served in these capacities for more than ten years.
Thomas J. Dudley	72	Director, Chairman of the Audit Committee. Dr. Thomas J, Dudley, Ph.D. was elected to the Board in July, 2002. Dr. Dudley is the Distinguished Professor of Decision and Information Systems at Pepperdine University in Los Angeles, CA. and the founder of the Pepperdine Executive Management Program. Also a former director for Space Labs Medical, Inc. for 10 years. Dr. Dudley is also the founder and a principal of Thomas J. Dudley & Associates, a firm providing management consulting services since 1968.
James R. Yarter	66	Director. Has served as a director for more than two years. During the past five years, Mr. Yarter has served as President and CEO of Block Medical, US Medical, and Gish Biomedical, Inc. and as a member of the board of directors of Avant Medical and Group 3 Inc.
Paul R. Cope	48	Chief Technology Officer. Has served in this and other capacities for more than ten years.
Albert A. Flores	38	Vice President, Library Sales and Marketing. Has served in this and other capacities for more than ten years.
Juergen A. Jung	53	Vice President, Operations. Has served in this capacity for more than ten years.
Daniel E. Luebben	55	Chief Financial Officer and Secretary. Has served in these and similar capacities for more than ten years.

Directors serve until their successors are elected at the annual meeting of stockholders. All executive officers serve at the discretion of the Company's Board of Directors.

ITEM 10. EXECUTIVE COMPENSATION

A definitive Proxy Statement will be filed with the Securities and Exchange Commission ("Commission") pursuant to Regulation 14A within 120 days after the close of the Company's most recent calendar year, and, accordingly, information for Item 11 is incorporated by reference from said definitive Proxy Statement. The information from the Proxy Statement is included under the caption "Executive Compensation".

ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

A definitive Proxy Statement will be filed with the Securities and Exchange Commission ("Commission") pursuant to Regulation 14A within 120 days after the close of the Company's most recent calendar year, and, accordingly, information for Item 12 and information for Compliance with Section 16(a) of the Exchange Act is incorporated by reference from said definitive Proxy Statement. The information from the Proxy Statement is included under the captions "Security Ownership of Certain Beneficial Owners and Management," "Nominees Proposed by the Board of Directors" and "Compliance With Section 16(a) of the Exchange Act".

ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

A definitive Proxy Statement will be filed with the Securities and Exchange Commission ("Commission") pursuant to Regulation 14A within 120 days after the close of the Company's most recent calendar year, and, accordingly, information for Item 13 is incorporated by reference from said definitive Proxy Statement. The information from the Proxy Statement is included under the caption "Certain Relationships and Related Transactions".

PART IV

ITEM 13. EXHIBITS AND REPORTS ON FORM 8-K

(a) Financial statements and financial statement schedules and exhibits:

(1) Financial Statements: See Item 8. "Financial Statements".

(2) All schedules are omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule, or because the information required is included in the financial statements, including the notes thereto.

(3) Exhibits:

3.1 Articles of Incorporation of Auto-Graphics, Inc., as amended (incorporated by reference as filed with the SEC as Exhibit 3.1 to Item 14(a) in the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1989), as amended by within additional Exhibit 3.1 filing of the amendment to the Articles covering 3-for-1 stock split implemented February 28, 2000.

3.2 Bylaws, as amended (incorporated by reference as filed with the SEC as Exhibit 3.2 to Item 14(a) in the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1989).

10.9 Agreement by, between and among Auto-Graphics, Inc. and Douglas K. and Ruth T. Bisch executed February 15, 1995 (incorporated by reference as filed with the SEC as Exhibit 10.9 to Item 14(a) in the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1994).

10.10 Asset Purchase Agreement between A-G Canada, Ltd., a wholly owned subsidiary of Auto-Graphics, Inc. and ISM Information Systems Management Manitoba Corporation, a subsidiary of IBM Canada, Ltd. dated June 30, 1997 incorporated by reference as filed with the SEC in the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 1997).

10.25 1997 Non-Qualified Stock Option Plan dated December 31, 1997 (incorporated by reference as filed with the SEC as Exhibit 10.25 to Item 14(a) in the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1998).

10.49 Eric Jung agreement (salary protection following change of control) dated October 22, 1999.

10.50 Maxcess Library Systems, Inc. Asset Purchase Agreement dated January 2, 2001.

10.56 Settlement Agreement between Auto-Graphics, Inc. and Pigasus, Inc. dated August 21, 2002.

10.57 2002 Stock Option Plan.

10.62 Business Loan Agreement between Auto-Graphics, Inc. and A-G Canada Ltd. and Pacific Mercantile Bank dated February 13, 2004.

10.63 Promissory Note between Auto-Graphics, Inc. and A-G Canada Ltd. and Pacific Mercantile Bank dated February 13, 2004.

10.64 Commercial Security Agreement between Auto-Graphics, Inc. and Pacific Mercantile Bank dated February 13, 2004.

10.65 Commercial Security Agreement between A-G Canada Ltd. and Pacific Mercantile Bank dated February 13, 2004.

99.10 Certification by the Chief Executive Officer

99.20 Certification by the Chief Financial Officer

99.30 Code of Ethics

(b) None.

(c) The following document is filed herewith for information purposes, but is not part of this Annual Report, except as otherwise indicated: None.

(d) None.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table shows the fees paid or accrued by the Company for the audit and other services provided by Singer Lewak Greenbaum and Goldstein, LLP for 2003 and 2002:

	2003	2002
Audit and Review Fees	$ 58,275	$ 37,500
Audit-Related Fees - Consulting Services	2,387	--
Tax Fees	--	--
All Other Fees	--	--
Total	$ 60,662	$ 37,500

The Company's Audit Committee has considered the amount of Audit-Related Fees for consulting on accounting matters to be immaterial.

AUTO-GRAPHICS, INC.
Form 10-K

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AUTO-GRAPHICS, INC.
(Registrant)

Date: March 30, 2004 By: /s/ Robert S. Cope

Robert S. Cope, Director and President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacity and on the dates indicated.

Date: March 30, 2004 By: /s/ Robert S. Cope

Robert S. Cope, Director and President

Date: March 30, 2004 By: /s/ Daniel E. Luebben

Daniel E. Luebben,
Chief Financial Officer and Secretary

Date: March 30, 2004 By: /s/ Thomas J. Dudley

Thomas J. Dudley, Director

Date: March 30, 2004 By: /s/ James R. Yarter

James R. Yarter, Director

AUTO-GRAPHICS, INC.
Form 10-K

CERTIFICATIONS

I, Robert S, Cope, certify that:

1. I have reviewed this annual report on Form 10-K of Auto-Graphics, Inc.;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of this registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures 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 annual report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure control and procedures based on our evaluation as of the Evaluation Date;

AUTO-GRAPHICS, INC.
Form 10-K

CERTIFICATIONS

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. In this annual report whether or not there were significant changes in internal controls the registrant's other certifying officers and I have indicated or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 30, 2004

/s/ Robert S. Cope

Robert S. Cope
Chairman of the Board and President

AUTO-GRAPHICS, INC.
Form 10-K

CERTIFICATIONS

I, Daniel E. Luebben, certify that:

1. I have reviewed this annual report on Form 10-K of Auto-Graphics, Inc.;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of this registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures 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 annual report is being

prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure control and procedures based on our evaluation as of the Evaluation Date;

AUTO-GRAPHICS, INC.
Form 10-K

CERTIFICATIONS

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. In this annual report whether or not there were significant changes in internal controls the registrant's other certifying officers and I have indicated or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 30, 2004 /s/ Daniel E. Luebben

Daniel E. Luebben
Chief Financial Officer and Secretary

Invasiveness. We define procedure efficacy as a measure of the success of the surgery in resolving the underlying disease and invasiveness as how disruptive and painful the treatment is itself. When the patient value of a da Vinci procedure is deemed higher than alternate treatment options, patients may seek out surgeons and hospitals that offer that specific da Vinci procedure, potentially resulting in a local market share shift for the specific treatment. da Vinci procedure adoption occurs procedure by procedure, and is driven by the relative patient value and total treatment costs of da Vinci procedures compared to alternative treatment options for the same disease state. We believe most patients will place higher value on procedures that are not only more efficacious, but also less invasive than alternative treatments. Our goal is to provide products to surgeons who in turn provide patients with procedure options that are both highly effective and less invasive than other surgical options.

2. Surgeon Value. We train surgeons on the use of our da Vinci Surgical System and assist them in building their practices by their delivery of high patient value. We provide an ergonomic platform for surgeons to perform their procedures. We seek to provide surgeons with reliable and easy to use products.
3. Hospital Value. We assist hospitals in building value by offering patient value using da Vinci products, thereby increasing surgical revenue and reducing costs through lower complication rates and reduced length of patient stay. We believe da Vinci Surgery is a cost effective approach to many surgeries as compared to alternative treatment options, as recognized in many published studies.

Clinical Applications

We are the beneficiaries of productive collaborations with leading surgeons in exploring and developing new techniques and applications for da Vinci Surgery—an important part of our creative process. We primarily focus our development efforts on those procedures in which we believe our products bring the highest patient value, surgeon value, and hospital value. We currently focus on five surgical specialties: gynecologic surgery, urologic surgery, general surgery, cardiothoracic surgery, and head and neck surgery. Key procedures which we are focused on include da Vinci Prostatectomy ("dVP"), da Vinci Hysterectomy ("dVH"), hernia repair, da Vinci Cholecystectomy, da Vinci Colon and Rectal procedures, da Vinci Partial Nephrectomy, da Vinci Sacrocolpopexy, da Vinci Mitral Valve Repair, da Vinci Lobectomy, and da Vinci Transoral Robotic Surgery. In 2016, total U.S. procedure volume was approximately 563,000, of which 44% was in gynecology, 33% was in general surgery, and 19% was in urology. Procedure volume from our market outside of the U.S. was approximately 190,000 in 2016, of which most procedures were in urology. Representative surgical applications are described below.

Gynecologic Surgery

Hysterectomy. Removal of the uterus is one of the most commonly performed surgeries in gynecology and is performed for a variety of underlying benign and cancerous conditions. Hysterectomies can be performed using open surgery (laparotomy), or MIS techniques, which include vaginal, laparoscopic, and robotic approaches. Prior to the clearance of da Vinci surgery for use in gynecological procedures in 2005, the majority of hysterectomies performed were open surgeries. We believe that da Vinci Surgery provides a large number of women the opportunity to receive a minimally invasive treatment as an alternative to an open hysterectomy, as we estimate that nearly 80% of hysterectomies are performed with a MIS technique. Hysterectomies for benign conditions can be performed using either multi-port or Single-Site technology and we believe a majority of da Vinci surgery is performed using multi-port techniques. Single-Site instruments enable surgeons to perform surgery through a single port via the patient's belly button, allowing for virtually scarless results.

Sacrocolpopexy. The abdominal (open) sacrocolpopexy is one of the most successful operations for vaginal vault prolapse. Sacrocolpopexy involves suturing a synthetic mesh that connects and supports the vagina to the sacrum (tailbone). A sacrocolpopexy can be performed using a conventional laparoscopic technique; however, it is generally described as difficult

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and cumbersome to perform. Surgeons have reported that the da Vinci Surgical System's capabilities may enable a large number of these procedures to be performed through a minimally invasive technique, conferring the benefits of MIS to a broader range of sacrocolpopexy patients.

Urologic Surgery

Prostatectomy. Radical prostatectomy is the removal of the prostate gland in patients diagnosed with clinically localized prostate cancer. The standard approach to removal of the prostate has been via an open surgical procedure. The conventional laparoscopic approach is an option, but is difficult and poses challenges to even the most skilled urologist. The da Vinci Surgical System has enabled a large number of surgeons to convert from using an open surgical technique to a minimally invasive technique.

Partial Nephrectomy. Partial nephrectomy is the removal of a small portion of a kidney (typically, an area of the kidney containing a tumor). Partial nephrectomies are most commonly performed in patients diagnosed with clinically localized renal cancer. Excluding da Vinci surgery, there are three common surgical approaches to performing partial nephrectomies: open surgical technique, laparoscopy, and hand assisted laparoscopy, which is a hybrid of the open and laparoscopic techniques. Surgeons have reported that the da Vinci Surgical System's capabilities may enable a large number of these procedures to be performed through a minimally invasive technique, conferring the benefits of MIS to a broader range of partial nephrectomy patients. Treatment guidelines for patients with localized renal cancer recommend partial nephrectomy due to the benefits nephron-sparing surgery has in long-term patient outcomes. Published clinical literature has shown that the presence of a da Vinci Surgical System is associated with a higher-proportion of patients receiving a guideline-recommended partial nephrectomy.

General Surgery

Colorectal Surgery. These procedures typically involve benign or cancerous conditions of the lower digestive system, in particular the rectum or colon. Common procedures in this area include hemicolectomy, sigmoidectomy, low anterior resection, and abdominoperineal resection. Conventional laparoscopy is not widely employed to treat these types of diseases, due to their high degree of complexity. Surgeons have reported that the use of the da Vinci Surgery System and our latest technologies, such as the da Vinci Xi Surgical System, EndoWrist Stapler, and EndoWrist Vessel Sealer, have enabled them to offer MIS approaches to a broader range of colorectal surgery patients.

Hernia Repair. A hernia occurs when an organ or fatty tissue squeezes through a weak spot in a surrounding muscle or connective fascia tissue. During a hernia repair surgery, the weakened abdominal wall tissue is secured and defects are repaired. Common types of hernia are ventral and inguinal. Ventral, or abdominal hernia, may occur through a scar after surgery in the abdomen. Inguinal hernia is a bulge in the groin and is more common in men. Hernia repair can be performed using traditional open surgery or MIS. There is a wide-range of complexity in hernia repair surgeries and varying surgeon opinion regarding optimal surgical approach. The benefits of minimally invasive and robotic hernia repair surgery vary by patient.

Cholecystectomy. Cholecystectomy, or the surgical removal of the gall bladder, is a commonly performed general surgery procedure. Cholecystectomy is the primary method for the treatment of gallstones and other gall bladder diseases. Most cholecystectomies are performed using multi-port MIS techniques, although some surgeons choose to perform cholecystectomy using manual single-port instrumentation. Using da Vinci Single-Site instruments, many of the technical challenges of manual single-port MIS are reduced as surgeons benefit from additional precision, control, and improved ergonomics. Multi-port da Vinci techniques are also being used for certain cases, and Firefly technology can be used to visualize biliary anatomy in three dimensions beneath tissue surfaces during Single-Site and multi-port da Vinci cholecystectomies.

Bariatric Surgery. A body of literature points to the benefit of surgery to treat patients for morbid obesity and its secondary effects, such as diabetes. Sleeve gastrectomy and roux-en-Y gastric bypass ("RYGB") are the most commonly performed surgical procedures for morbid obesity in the U.S. The body habitus of morbidly obese patients can make laparoscopic surgery physically challenging for the surgeon, and certain surgeons have found value in using the da Vinci Surgical System to improve upon the ergonomics when performing minimally-invasive surgery in morbidly obese patients. In addition, RYGB can be a technically challenging procedure because of the suturing, stapling, and tissue (bowel) manipulation that is required. Surgeons using the da Vinci Surgical System have reported a reduction in a critical complication (anastomotic leaks) relative to laparoscopic RYGB.

Cardiothoracic Surgery

Thoracic Surgery. Conventional approaches to surgical procedures in the thorax include both open and video-assisted thoracoscopic approaches. Procedures performed via these methods include pulmonary wedge resection, pulmonary lobectomy, thymectomy, mediastinal mass excision, and esophagectomy. Many thoracic procedures remain open procedures. Surgeons have reported that the use of the da Vinci Surgery System in thoracic surgery has enabled them to offer MIS

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approaches to a broader range of thoracic surgery patients and improved clinical outcomes compared to open and video-assisted thoracic surgery in published single-center, multi-center and national database clinical studies. We believe the EndoWrist Stapler 30 may have particular utility in thoracic procedures.

Mitral Valve Repair. When patients are diagnosed with mitral valve disease, there are typically two surgical treatment options from which they can choose: mitral valve replacement or mitral valve repair. Mitral valve repairs are generally preferred over mitral valve replacement for a number of reasons, which include longevity and durability of the repaired valve over a replacement valve and the elimination or reduction of the patient's post-surgical pharmaceutical regimen. Because mitral valve repairs are considered to be more technically challenging than mitral valve replacements, they are only performed approximately 50% of the time. Several of our surgeon customers have reported an improvement in their mitral valve repair rates over mitral valve replacements when using the da Vinci Surgical System.

Head and Neck Surgery

Transoral Surgery. Head and neck cancers are typically treated by either surgical resection or chemo-radiation, or a combination of both. Surgical resection performed by an open approach may require a "jaw-splitting" mandibulotomy. This procedure, while effective in treating cancer, is potentially traumatic and disfiguring to the patient. MIS approaches via the mouth (transoral surgery) are challenged by line-of-sight limitations dictated by conventional endoscopic tools. Chemo-radiation as a primary therapy does allow patients to avoid traumatic surgical incisions; however, literature suggests that this modality diminishes patients' ability to speak and swallow normally. Surgeons have reported that da Vinci Transoral Surgery allows them to treat cancers occurring in the oropharynx (e.g., tonsil and base of tongue) and larynx via the mouth and to overcome some of the line-of-sight limitations of conventional transoral surgery.

Procedure Mix

Our procedure business is broadly split into two categories: (1) cancer and other highly complex procedures and (2) less complex procedures for benign conditions. Cancer and other highly complex procedures tend to be reimbursed at higher rates than less complex procedures for benign conditions. Thus, hospitals are more sensitive to the costs associated with treating less complex benign conditions. Our strategy is to provide hospitals with attractive clinical and economic solutions in each of these categories. Our fully featured da Vinci Xi system with advanced instruments including the EndoWrist One Vessel Sealer, EndoWrist Stapler products, and our Table Motion product target the more complex procedure segment. Lower priced products, including the three-arm da Vinci Si-e System, refurbished da Vinci Si, and lower priced Single-Site instruments are targeted towards less complex procedures.

Clinical Summary

We believe there are numerous additional applications that can be addressed with the da Vinci Surgical System and we work closely with our surgeon customers to refine and explore new techniques in which da Vinci may bring value. As of December 31, 2016, we had an installed base of 3,919 da Vinci Surgical Systems, including 2,563 in the U.S., 665 in Europe, 502 in Asia, and 189 in the rest of the world. We estimate that surgeons using our technology completed approximately 753,000 surgical procedures of various types in hospitals throughout the world during the year ended December 31, 2016. Of those da Vinci procedures performed in 2016, we estimate that approximately 222,000 were dVH procedures and approximately 162,000 were dVP procedures.

Sales and Customer Support

Sales Model

We provide our products through direct sales organizations in the U.S., Japan, South Korea, and Europe, excluding Spain, Portugal, Italy, Greece, and Eastern European countries. In the remainder of our markets outside of the U.S. ("OUS"), we provide our products through distributors. No single customer accounted for more than 10% of revenue during the years ended December 31, 2016, 2015, and 2014. During the years ended December 31, 2016, 2015, and 2014, domestic revenue accounted for 72%, 71%, and 70%, respectively, of total revenue, while revenue from our OUS markets accounted for 28%, 29%, and 30%, respectively. As of December 31, 2016, and 2015, 86% and 88% of all long-lived assets were in the United States.

Our direct sales organization is composed of a capital sales team, responsible for selling da Vinci Surgical Systems, and a clinical sales team, responsible for supporting da Vinci Surgical System use in surgical procedures performed at

our hospital accounts. Our hospital accounts include both individual hospitals and health care facilities and hospitals and health care facilities that are part of an integrated delivery network (“IDN groups”). The initial da Vinci Surgical System sale into an account as a major capital equipment purchase by our customers typically has a lengthy sales cycle that can be affected by macroeconomic factors, capital spending prioritization, timing of budgeting cycles, and competitive bidding processes. Capital sales activities include educating surgeons and hospital staff across multiple surgical specialties on the benefits of da Vinci Surgery, total treatment costs, and the clinical applications that our technology enables. We also train our sales organization to educate hospital management on the potential benefits of adopting our technology, including clinical benefits of da Vinci Surgery, potential reductions in

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complications and length of stay, and the resulting potential for increased patient satisfaction, surgeon recruitment, and procedure volume.

Our clinical sales team works on site at the hospitals, interacting with surgeons, operating room staff, and hospital administrators to develop and sustain successful robotics surgery programs. They assist the hospital in identifying surgeons who have an interest in robotic surgery and the potential benefits provided by the da Vinci Surgical System. Our clinical sales team provides the current clinical information on robotic surgery practices and new product applications to the hospital teams and has grown with the expanded installed base of da Vinci Surgical Systems and the total number of procedures performed. We expect this organization to continue to grow as our business expands.

Our customers place orders to replenish their supplies of instruments and accessories on a regular basis. Orders received are typically shipped within one business day. Direct customers who purchase a new da Vinci Surgical System typically place an initial stocking order of instruments and accessories within one month of receiving their system.

Our business is subject to seasonal fluctuations. Historically, our sales of da Vinci Surgical Systems have tended to be heaviest during the third month of each fiscal quarter, lighter in the first and third fiscal quarters and heavier in the fourth fiscal quarter. In addition, we have historically experienced lower procedure volume in the first and third fiscal quarters and higher procedure volume in the second and fourth fiscal quarter. Procedures treating benign conditions are typically higher in the fourth quarter and lower in the first quarter. Timing of procedures and changes in procedure volume impact the timing of instrument and accessory and capital purchases.

Customer Support and Training Programs

We have a network of field service engineers across the U.S., Europe, and Asia and maintain relationships with various distributors around the globe. This infrastructure of service and support specialists offers a full complement of services, including 24/7 support, installation, repair, and maintenance for our customers. We generate service revenue by providing these services to our customers through comprehensive service contracts and time and material programs.

We provide basic system training that teaches the fundamental operating principles of the da Vinci Surgical System to surgeons, surgical assistants, and operating room nurses. We have established training centers where initial system training and ongoing surgical procedural training are provided, the latter led by expert surgeons. Surgeons may also practice their robotic surgery technique using our da Vinci Skills Simulator. In addition, we help facilitate the proctoring of surgeons who are new to da Vinci Surgery by experienced da Vinci Surgical System users. Proctors provide training to other surgeons on how to perform certain surgical procedures with da Vinci Surgical Systems.

Research and Development

We focus our research and development efforts on providing our customers with new products and product improvements that enable them to perform MIS procedures with less difficulty. We employ research and development and engineering staff responsible for product design and engineering. We invested $239.6 million, $197.4 million, and $178.0 million of research and development expenses for the years ended December 31, 2016, 2015, and 2014, respectively.

We establish strategic alliances with other medical device and technology based companies to complement our research and development effort. To date, these alliances have taken several forms, including cooperation in the areas of product development, training, procedure development, and marketing activities. We have formed alliances with several companies, including, but not limited to, Erbe Elektromedizin GmbH, Johnson & Johnson, Olympus Corporation, Novadaq Technologies, Inc., Mimic Technologies, Inc., Schoelly Fiberoptic GmbH, Trumpf Medical (a division of Hill-Rom Holdings, Inc.), InTouch Technology Inc., Dextera Surgical Inc. and 3D Systems, Inc.

In September 2016, we agreed to establish a joint venture with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. “Fosun Pharma”, a subsidiary of Fosun International Limited, to research, develop, manufacture, and sell robotic-assisted catheter-based medical devices. See “Item 7. Management’s Discussion and Analysis” for further details on the joint venture with Fosun Pharma.

Manufacturing

We manufacture our da Vinci Surgical Systems at our facility in Sunnyvale, California. We manufacture our instruments at our Sunnyvale facility and our Mexicali, Mexico facility.

We purchase both custom and off-the-shelf components from a large number of suppliers and subject them to stringent quality specifications and processes. Some of the components necessary for the assembly of our products are currently provided to us by sole-sourced suppliers (the only recognized supply source available to us) or single-sourced suppliers (the only approved supply source for us among other sources). We purchase the majority of our components and major assemblies through purchase orders rather than long-term supply agreements and generally do not maintain large volumes of finished goods.

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Competition

We face competition in the forms of existing open surgery, conventional MIS, drug therapies, radiation treatment, and emerging interventional surgical approaches. Our success depends on continued clinical and technical innovation, quality and reliability as well as educating hospitals, surgeons and patients on the demonstrated results associated with da Vinci Surgery and its value relative to other techniques. We also face competition from several companies that are developing new approaches and products for the MIS market. We believe that many companies are focused on adding capability to manual MIS systems. Because many of these developments are aimed at MIS, we believe that our da Vinci Surgical System may prove complementary to some of these new technologies.

Moreover, as we add new robotically controlled products (e.g. Single-Site, EndoWrist stapler, and Vessel Sealer) that compete with product offerings traditionally within the domains of open surgery and/or conventional MIS, we face greater competition from larger and well established companies such as Ethicon Endo-Surgery, Inc.

Furthermore, as da Vinci use increases, a number of companies have introduced products in the field of robotic surgery or have made explicit statements to enter the field of robotic surgery, including: Auris Surgical Robotics, Inc.; Avatera Medical GmbH; Cambridge Medical Robotics Ltd; Johnson & Johnson and Google Inc. and their joint venture, Verb Surgical Inc.; Medicaroid Inc.; MedRobotics Corp.; meerecompany Inc.; Medtronic PLC; Olympus Corp.; Samsung Corporation; Smart Robot Technology Group Co. Ltd.; TransEnterix Inc.; and Titan Medical Inc. Companies with substantial experience in industrial robotics could potentially expand into the field of surgical robotics and become a competitor. In addition, research efforts utilizing computers and robotics in surgery are underway at various companies and research institutions. Our revenues may be adversely impacted as our competitors announce their intent to enter our markets and as our customers anticipate the availability of competing products.

Intellectual Property

We place considerable importance on obtaining and maintaining patent, copyright and trade secret protection for significant new technologies, products, and processes.

We generally rely upon a combination of intellectual property laws, as well as confidentiality procedures and contractual provisions, to protect our proprietary technology. For example, we have trademarks, both registered and unregistered, that provide distinctive identification of our products in the marketplace. We also have exclusive and non-exclusive patent licenses with various third parties to supplement our own large and robust patent portfolio.

As of December 31, 2016, we held ownership or exclusive field-of-use licenses for more than 2,400 U.S. and foreign patents and more than 1,800 U.S. and foreign patent applications. We intend to continue filing new patent applications in the U.S. and foreign jurisdictions to seek protection for our technology.

Patents are granted for finite terms. Upon expiration, the inventions claimed in a patent enter the public domain.

Government Regulation

Our products and operations are subject to regulation by the FDA, the State of California and countries or regions in which we market our products. In addition, our products must meet the requirements of a large and growing body of international standards which govern the design, manufacture, materials content and sourcing, testing, certification, packaging, installation, use and disposal of our products. We must continually keep abreast of these standards and requirements and integrate our compliance into the development and regulatory documentation for our products. Failure to meet these standards could limit our ability to market our products in those regions which require compliance to such standards. Examples of standards to which we are subject include electrical safety standards such as those of the International Electrotechnical Commission (e.g. IEC 60601-ss series of standards), and composition standards such as the Reduction of Hazardous Substances (“RoHS”) and the Waste Electrical and Electronic Equipment (“WEEE”) Directives.

United States

The FDA regulates the development, testing, manufacturing, labeling, storage, recordkeeping, promotion, marketing, distribution, and service of medical devices in the U.S. to ensure that medical products distributed domestically are safe and effective for their intended uses. In addition, the FDA regulates the export of medical devices manufactured in the U.S. to markets outside of the U.S. and the importation of medical devices manufactured abroad.

Under the Federal Food, Drug, and Cosmetic Act (“FFDCA”), medical devices are classified into one of three classes—Class I, Class II or Class III—depending on the degree of risk associated with each medical device and the extent

of control needed to ensure safety and effectiveness. Our current products are Class I and Class II medical devices. Class II devices are those which are subject to general controls and most require premarket demonstration of adherence to certain performance standards or other special controls, as specified by the FDA, and clearance by the FDA. Premarket review and clearance by the FDA for these devices is accomplished through the 510(k) premarket notification process. Unless a Class II

device is exempt from premarket review, the manufacturer must submit to the FDA a premarket notification submission demonstrating that the device is "substantially equivalent" in intended use and technology to a "predicate device" that is either:

1. a device that has grandfather marketing status because it was legally marketed prior to May 28, 1976, the date upon which the Medical Device Amendments of 1976 were enacted, or
2. a device that has previously been cleared through the 510(k) process.

If the FDA agrees that the device is substantially equivalent to a predicate device, it will grant clearance to commercially market the device in the U.S. The FDA has a statutory 90-day period to respond to a 510(k) submission, or a guidance-based 30-day period for "special" 510(k) submissions which have a more restrictive scope and generally involve more specific or very limited changes to a legally marketed device. As a practical matter, clearance often takes longer. The FDA may require further information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not "substantially equivalent," the FDA may deny the request for clearance. Although unlikely for the types of products marketed by us, the FDA may classify the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill more rigorous pre-market approval ("PMA") requirements. A PMA application, which is intended to demonstrate that a device is safe and effective, must be supported by extensive data, including data from preclinical studies and human clinical trials. The FDA, by statute and regulation, has 180 days to review a PMA application, though the review more often occurs over a significantly longer period of time, and can take up to several years. In approving a PMA application or clearing a 510(k) submission, the FDA may also require some form of post-market surveillance when necessary to protect the public health or to provide additional safety and effectiveness data for the device. In such cases, the manufacturer might be required to follow certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients.

After a device receives FDA 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require a PMA application approval. The FDA requires each manufacturer to make the determination of whether a modification requires a new 510(k) notification or PMA application in the first instance, but the FDA can review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance or PMA approval for a particular change, the FDA may retroactively require the manufacturer to seek 510(k) clearance or PMA approval. The FDA also can require the manufacturer to cease U.S. marketing and/or recall the modified device until 510(k) clearance or PMA approval is obtained.

In addition, after a device is placed on the market, numerous FDA and other regulatory requirements continue to apply. These include establishment registration and device listing with the FDA; compliance with medical device reporting regulations, which require that manufacturers report to the FDA if their device 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; and compliance with corrections and removal reporting regulations, which require that manufacturers report to the FDA field corrections and product recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FFDCA that may present a risk to health. The FDA and the Federal Trade Commission ("FTC") also regulate the advertising and promotion of our products to ensure that the claims we make are consistent with our regulatory clearances, that there is scientific data to substantiate the claims and that our advertising is neither false nor misleading. In general, we may not promote or advertise our products for uses not within the scope of our intended use statement in our clearances or make unsupported safety and effectiveness claims. Many regulatory jurisdictions outside of the U.S. have similar regulations to which we are subject.

Our manufacturing processes are required to comply with the FDA's Good Manufacturing Practice ("GMP") requirements contained in its Quality System Regulation ("QSR") and associated regulations and guidance. The QSR covers, among other things, the methods used in, and the facilities and controls used for, the design, manufacture, packaging, labeling, storage, installation, and servicing of all medical devices intended for human use. The QSR also requires maintenance of extensive records which demonstrate compliance with FDA regulation, the manufacturer's own procedures, specifications and testing as well as distribution and post-market experience. Compliance with the

QSR is necessary to receive FDA clearance or approval to market new products and is necessary for a manufacturer to be able to continue to market cleared or approved product offerings in the U.S. A company's facilities, records, and manufacturing processes are subject to periodic scheduled or unscheduled inspections by the FDA, which may issue reports known as Forms FDA 483 or Notices of Inspectional Observations which list instances where the FDA inspector believes the manufacturer has failed to comply with applicable regulations and/or procedures. If the observations are sufficiently serious or the manufacturer fails to respond appropriately, the FDA may issue Warning Letters, or Untitled Letters, which are notices of potential enforcement actions against the manufacturer. If a Warning Letter or Untitled Letter is not addressed to the satisfaction of the FDA, or if the FDA becomes aware of any other serious issue with a manufacturer's products or facilities, it could result in fines, injunctions, civil penalties, delays, suspension or withdrawal of clearances, seizures or recalls of products, operating restrictions, total shutdown of production facilities, prohibition on export or import and criminal prosecution. Such actions may have further indirect consequences for the manufacturer outside of the U.S., and may adversely affect the reputation of the manufacturer and the product. In the U.S., routine FDA inspections usually occur every two years, and may occur more often for cause.

To a greater or lesser extent, most other countries require some form of quality system and regulatory compliance, which may include periodic inspections, inspections by third party auditors, and specialized documentation. Failure to meet all the requirements of these countries could jeopardize our ability to import, market, support and receive reimbursement for the use of our products in these countries.

In addition to the above, we may seek to conduct clinical studies or trials in the U.S. or other countries on products that have not yet been cleared or approved for a particular indication. Additional regulations govern the approval, initiation, conduct, documentation and reporting of clinical studies to regulatory agencies in the countries or regions in which they are conducted. Such investigational use is generally also regulated by local and institutional requirements and policies which usually include review by an ethics committee or institutional review board (“IRB”). Failure to comply with all regulations governing such studies could subject the company to significant enforcement actions and sanctions, including halting of the study, seizure of investigational devices or data, sanctions against investigators, civil or criminal penalties, and other actions. Without the data from one or more clinical studies, it may not be possible for us to secure the data necessary to support certain regulatory submissions, to secure reimbursement or demonstrate other requirements. We cannot assure that access to clinical investigators, sites and subjects, documentation and data will be available on the terms and timeframes necessary.

Products manufactured outside the U.S. by or for us are subject to U.S. Customs and FDA inspection upon entry into the U.S. We must demonstrate compliance of such products to U.S. regulations and carefully document the eventual distribution or re-exportation of such products. Failure to comply with all applicable regulations could prevent us from having access to products or components critical to the manufacture of finished products and lead to shortages and delays.

California Regulation

The State of California requires that we obtain a license to manufacture medical devices and until 2012 conducted periodic inspections of medical device manufacturers. Our facilities and manufacturing processes were last inspected in July 2011 and were found to be in compliance. In accordance with the State of California regulations, our license to manufacture is renewed annually with any updated manufacturing information. Although the State of California has announced suspension of routine periodic inspections, there can be no assurance the State of California will not resume such inspections or conduct such inspections under specific circumstances which are not yet known.

Foreign Regulation

In order for us to market our products in countries outside the United States, we must obtain regulatory approvals and comply with extensive product and quality system regulations in other countries. These regulations, including the requirements for approvals or clearance and the time required for regulatory review, vary from country to country. Some countries have regulatory review processes which are substantially longer than U.S. processes. Failure to obtain regulatory approval in a timely manner and to meet all local requirements including language and specific safety standards in any foreign country in which we plan to market our products could prevent us from marketing products in such countries or subject us to sanctions and fines.

To be sold in Japan, most medical devices must undergo thorough safety examinations and demonstrate medical efficacy before they receive regulatory approval. We obtained from the Japanese Ministry of Health, Labor, and Welfare (“MHLW”) approval for our da Vinci Si Surgical Systems in October 2012 and approval for our da Vinci Xi Surgical Systems in March 2015. National reimbursement status was received in Japan for dVP procedures, effective April 2012 and for da Vinci partial nephrectomy procedures in April 2016. We are currently seeking reimbursement for additional procedures through the MHLW’s Senshin Iryo processes as well as alternative reimbursement processes. Our Senshin Iryo approvals require in-country clinical data and are considered for reimbursed status in April of even numbered years.

Commercialization of medical devices in Europe is regulated by the European Union (“EU”). The EU presently requires that all medical products bear the Conformité Européenne (“CE”) mark, for compliance with the Medical Device Directive (93/42/EEC) as amended. The CE mark is an international symbol of adherence to certain essential principles of safety and performance mandated in applicable European medical device directives, which once affixed, enables a product to be sold in member countries of the EU and those affiliated countries which accept the CE mark. The CE mark is also recognized in many countries outside of the EU, such as Australia, and can assist in the clearance

process. In order to affix the CE mark on products, a recognized European Notified Body must certify a manufacturer's quality system and design dossier for compliance with international and European requirements. We have received authorization from Presafe Denmark A/S (formerly DGM Denmark A/S), a recognized European Notified Body and part of Nemko Presafe A/S, to affix the CE mark to our da Vinci Surgical System and EndoWrist instruments and accessories. To maintain authorization to apply the CE mark, we are subject to annual surveillance audits and periodic re-certification audits. In September 2013, the European Commission adopted a recommendation indicating that all Notified Bodies, including Presafe, should carry out unannounced audits, at least once every third year, of the manufacturers whose medical devices they have certified. These unannounced audits can also extend to the manufacturer's critical suppliers or sub-contractors (those that supply a critical input or perform a critical function for the manufacturer).

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If we modify our existing products or develop new products in the future, we may need to apply for authorization to affix the CE mark to such products. We do not know whether we will be able to obtain authorization to affix the CE mark for new or modified products or whether we will continue to meet the safety and performance standards required to maintain the authorizations we have already received. If we are unable to maintain authorizations to affix the CE mark to our products, we will no longer be able to sell our products in member countries of the EU or those whose marketing authorizations are based on the CE mark.

Regulations in other countries, including the requirements for approvals or clearance and the time required for regulatory review, vary from country to country. Certain countries, such as China and South Korea, have their own regulatory agencies. These countries typically require regulatory approvals and compliance with extensive safety and quality system regulations. Failure to obtain regulatory approval in any foreign country in which we plan to market our products, or failure to comply with any regulation in any foreign country in which we market our products, may negatively impact our ability to generate revenue and harm our business. Our system sales into China are also dependent on obtaining importation authorizations and hospitals completing a central purchasing tender process under the authorization, the most recent of which expired at the end of 2015. In addition, local regulations may apply which govern the use of our products and which could have an adverse effect on our product utilization if they are unfavorable. All such regulations are revised from time to time and in general are increasing in complexity, and in the scope and degree of documentation and testing required. There can be no assurance the outcomes from such documentation and testing will be acceptable to any particular regulatory agency or will continue to be acceptable over time. There are further regulations governing the importation, marketing, sale, distribution, use and service as well as the removal and disposal of medical devices in the regions in which we operate and market our products. Failure to comply with any of these regulations could result in sanctions or fines, and could prevent us from marketing our products in these regions.

Other Healthcare Laws

We are also subject to federal and state healthcare laws and regulations pertaining to fraud and abuse, physician payment transparency, privacy, and security laws and regulations. These laws include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;
- federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid or other federal third-party payors that are false or fraudulent;
- the federal Civil Monetary Penalties Law, which prohibits, among other things, offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary's decision to order or receive items or services reimbursable by the government from a particular provider or supplier;
- federal criminal laws that prohibit executing a scheme to defraud any federal healthcare benefit program or making false statements relating to healthcare matters;
- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information;
- the federal Physician Payment Sunshine Act, which requires (i) manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the Centers for Medicare & Medicaid Services ("CMS") information related to payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and (ii) applicable manufacturers and group purchasing organizations to report annually to CMS ownership and investment interests held by the physicians

described above and their immediate family members, and payments or other “transfers of value” to such physician owners. Manufacturers are required to submit reports to CMS by the 90th day of each calendar year; and analogous state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require device companies to comply with the industry’s voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require device manufacturers to report

information related to payments and other "transfers of value" to physicians and other healthcare providers or marketing expenditures; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

If our operations are found to violate any of the laws described above or any other laws and regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, the exclusion from our participation in federal and state healthcare programs and imprisonment, any of which could adversely affect our ability to market our products and materially adversely affect our business, results of operations and financial condition. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

Third-Party Coverage and Reimbursement

In the U.S. and most markets OUS where we sell our products, the government and health insurance companies together are responsible for hospital and surgeon reimbursement for virtually all covered surgical procedures. Governments and insurance companies generally reimburse hospitals and physicians for surgery when the procedure is considered medically necessary. In the U.S., CMS administers the Medicare and Medicaid programs (the latter, along with applicable state governments). Many other third-party payors model their reimbursement methodologies after the Medicare program. As the single largest payor, this program has a significant impact on other payors' payment systems.

Generally, reimbursement for professional services performed at a facility by physicians is reported under billing codes issued by the American Medical Association ("AMA"), known as Current Procedural Terminology ("CPT") codes. Physician reimbursement under Medicare generally is based on a fee schedule and determined by the relative values of the professional service rendered. In addition, CMS and the National Center for Health Statistics ("NCHS") are jointly responsible for overseeing changes and modifications to billing codes used by hospitals to report inpatient procedures, known as ICD-9-CM procedural codes prior to October 1, 2015, and ICD-10-PCS codes on and after October 1, 2015. For Medicare, CMS generally reimburses hospitals for services provided during an inpatient stay based on a prospective payment system that is determined by a classification system known as Medicare-Severity Diagnostic Related Groupings ("MS-DRGs"). MS-DRGs are assigned using a number of factors including the principal diagnosis, major procedures, discharged status, patient age and complicating secondary diagnoses among other things. Hospital outpatient services, reported by CPT codes, are assigned to clinically relevant Ambulatory Payment Classifications ("APCs") used to determine the payment amount for services provided.

On October 1, 2008, CMS and NCHS issued a new family of ICD-9-CM procedure codes for "Robotically Assisted Procedures". The purpose of the ICD-9-CM family of procedure codes, 17.4X, was to gather data on robotic assisted surgical procedures. On and after October 1, 2015, a new family of ICD-10-PCS codes may be used-in conjunction with other applicable procedure codes-to describe various robotic assisted procedures. An inpatient surgical procedure, completed with or without robotic assistance, continues to be assigned to the clinically relevant MS-DRG.

Governments and insurance companies carefully review and increasingly challenge the prices charged for medical products and surgical services. Reimbursement rates from private companies vary depending on the procedure performed, the third-party payor, contract terms, and other factors. Because both hospitals and physicians may receive the same reimbursement for their respective services, with or without robotics, regardless of actual costs incurred by the hospital or physician in furnishing the care, including for the specific products used in that procedure, hospitals and physicians may decide not to use our products if reimbursement amounts are insufficient to cover any additional costs incurred when purchasing our products.

Domestic institutions typically bill various third-party payors, such as Medicare, Medicaid and other government programs and private insurance plans for the primary surgical procedure that includes our products. Because our da Vinci Surgical System has been cleared for commercial distribution in the U.S. by the FDA, coverage and reimbursement by payors are generally determined by the medical necessity of the primary surgical procedure. We believe that the additional procedures we intend to pursue are established surgical procedures that are generally already reimbursable by government agencies and insurance companies for appropriately selected patients. If hospitals

do not obtain sufficient reimbursement from third-party payors for procedures performed with our products, or if governmental and private payors' policies do not cover surgical procedures performed using our products, we may not be able to generate the revenues necessary to support our business.

In countries outside the U.S., reimbursement is obtained from various sources, including governmental authorities, private health insurance plans, and labor unions. In most foreign countries, private insurance systems may also offer payments for some therapies. In addition, health maintenance organizations are emerging in certain European countries. To effectively conduct our business, we may need to seek OUS reimbursement approvals, and we do not know if these required approvals will be obtained in a timely manner or at all. In some countries, patients may be permitted to pay directly for surgical services; however, such "co-pay" practices are not common in most countries.

In March 2010, the U.S. President signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the "PPACA"), which makes changes that significantly impact healthcare providers, insurers, pharmaceutical and medical device manufacturers. The PPACA contains a number of provisions designed to generate the revenues necessary to fund health insurance coverage expansion, including, but not limited to fees or taxes on certain health-related industries, including medical device manufacturers. For sales between January 1, 2013 and December 31, 2015, medical device manufacturers were required to pay an excise tax (or sales tax) of 2.3% on certain U.S. medical device revenues. Under this provision, we incurred an excise tax of approximately $17.0 million in 2015 which was included as a cost of revenue and a reduction of product gross profit margin. In December, 2015, President Obama signed into law the Consolidated Appropriations Act, 2016 (the "Appropriations Act"). The Appropriations Act includes a two-year moratorium on the medical device excise tax such that medical device sales in 2016 and 2017 are exempt from the medical device excise tax. Unless there is further legislative action, the tax will be automatically reinstated for sales of medical devices on or after January 1, 2018.
The PPACA also appropriates funding to research the comparative effectiveness of health care treatments and strategies. It remains unclear how this research will influence future Medicare coverage and reimbursement decisions, as well as influence other third-party payor coverage and reimbursement policies. As the U.S. congress and state governments determine how to implement the PPACA, the full impact of the PPACA on the medical device industry and the sale of our products is currently unknown. The PPACA, as well as other federal or state health care reform measures that may be adopted in the future, could have a material adverse effect on our business. The taxes imposed by PPACA and the expansion in the government's role in the U.S. healthcare industry may result in decreased profits, lower reimbursement from payors for procedures that use our products and/or reduced procedural volumes, all of which may adversely affect our business, financial condition and results of operations.
In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included an aggregate reduction in Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013 and will remain in effect through 2025 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers. The Medicare Access and CHIP Reauthorization Act of 2015, enacted on April 16, 2015 ("MACRA"), repealed the formula by which Medicare made annual payment adjustments to physicians and replaced the former formula with fixed annual updates and a new system of incentive payments scheduled to begin in 2019 that are based on various performance measures and physicians' participation in alternative payment models such as accountable care organizations.
There have also been judicial and congressional challenges to certain aspects of the PPACA, and we expect that the U.S. federal government will seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the PPACA. For instance, on January 20, 2017, an executive order was issued, which stated that it is the U.S. federal government's policy to seek the prompt repeal of the PPACA, and directed the heads of all executive departments and agencies to minimize the economic and regulatory burdens of the PPACA to the maximum extent permitted by law. Any regulatory or legislative developments in domestic or foreign markets that eliminate or reduce reimbursement rates for procedures performed with our products could harm our ability to sell our products or cause downward pressure on the prices of our products, either of which would affect our ability to generate the revenues necessary to support our business.

Employees

As of December 31, 2016, we had 3,755 employees, 466 of whom were engaged directly in research and development, 1,529 in manufacturing and service and 1,760 in marketing, sales, and administrative activities. None of our employees are covered by a collective bargaining agreement, and we consider our relationship with our employees to be good.

General

We make our periodic and current reports, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, our Code of Business Conduct and Ethics Policy and any amendments to those reports, available free of charge, on our website as soon as practicable after such material is electronically filed or

furnished with the Securities and Exchange Commission (the "SEC"). Our website address is www.intuitivesurgical.com and the reports are filed under "SEC Filings," on the Company—Investor Relations portion of our website. Periodically, we webcast Company announcements, product launch events and executive presentations which can be viewed via our Investor Relations page on our website. In addition, we provide notifications of our material news including SEC filings, investor events, and press releases as part of our Investor Relations page on our website. The contents of our website are not intended to be incorporated by reference into this report or in any other report or document we file and any references to our website are intended to be inactive textual references only. The public may read and copy any materials filed by the Company with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov. The contents of these websites are not incorporated into this filing. Further, references to the URLs for these websites are intended to be inactive textual references only.

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We operate our business as one segment as defined by U.S. generally accepted accounting principles. Our financial results for the years ended December 31, 2016, 2015, and 2014 are discussed in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" of this Annual Report.
Intuitive Surgical, Inc. was founded in 1995. We are a Delaware corporation with our corporate headquarters located at 1020 Kifer Road, Sunnyvale, California 94086. Our telephone number is (408) 523-2100, and our website address is www.intuitivesurgical.com.

ITEM 1A. RISK FACTORS
RISKS RELATING TO OUR BUSINESS
IF OUR PRODUCTS DO NOT ACHIEVE MARKET ACCEPTANCE, WE WILL NOT BE ABLE TO GENERATE THE REVENUE NECESSARY TO SUPPORT OUR BUSINESS.
The da Vinci Surgical System and our other products represent a fundamentally new way of performing surgery. Achieving physician, patient, and third-party payor acceptance of da Vinci Surgery as a preferred method of performing surgery will be crucial to our success. If our products fail to achieve market acceptance, customers will not purchase our products and we will not be able to generate the revenue necessary to support our business. We believe that physicians and third-party payors' acceptance of the benefits of procedures performed using our products will be essential for acceptance of our products by patients. Physicians will not recommend the use of our products unless we can demonstrate that they produce results comparable or superior to existing surgical techniques. Even if we can prove the effectiveness of our products through clinical trials, surgeons may elect not to use our products for any number of other reasons. For example, cardiologists may continue to recommend conventional heart surgery simply because such surgery is already widely accepted. In addition, surgeons may be slow to adopt our products because of the perceived liability risks arising from the use of new products and the uncertainty of reimbursement from third-party payors, particularly in light of ongoing health care reform initiatives and the evolving U.S. health care environment following the 2016 U.S. elections.
We expect that there will be a learning process involved for surgical teams to become proficient in the use of our products. Broad use of our products will require training of surgical teams. Market acceptance could be delayed by the time required to complete this training. We may not be able to rapidly train surgical teams in numbers sufficient to generate adequate demand for our products.
ECONOMIC CONDITIONS COULD MATERIALLY ADVERSELY AFFECT OUR COMPANY.
In recent years, there have been credit and sovereign debt concerns in certain European countries, as well as concerns about continued slowed economic growth in China and other OUS markets, have caused economic uncertainty, disruptions in the financial credit markets, volatile currency exchange rates and energy costs, concerns about inflation, slower economic activity, decreased consumer confidence, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns. Uncertainty about current global economic conditions continues to pose a risk as customers may choose to postpone or reduce spending in response to restraints on credit. There could be additional effects from adverse conditions in the credit markets on our business, including the insolvency of key suppliers or their inability to obtain credit to finance the development and/or manufacture of our products resulting in product delays, and the inability of our customers and distributors to obtain credit to finance purchases of our products.
In addition, our business is closely tied to the overall U.S. healthcare system, relating to which there are concerns and uncertainties as a result of explicit statements made by the U.S. federal government about its intentions to modify, repeal, or otherwise invalidate all, or certain provisions of, the PPACA. In addition, the U.S. federal government has called for substantial changes to trade, fiscal, and tax policies, which may include comprehensive tax reform and changes to existing trade agreements, including, but not limited to, the North American Free Trade Agreement ("NAFTA"), may have a significant impact on our operations. We cannot predict the impact, if any, that these changes could have on our business.
If economic conditions worsen or fail to improve or new legislation is passed related to the healthcare system, trade, fiscal or tax policies, customer demand may not materialize to the levels we require to achieve our anticipated

financial results, which could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

BECAUSE OUR MARKETS ARE HIGHLY COMPETITIVE, CUSTOMERS MAY CHOOSE TO PURCHASE OUR COMPETITORS' PRODUCTS OR SERVICES OR MAY NOT ACCEPT DA VINCI SURGERY, WHICH WOULD RESULT IN REDUCED REVENUE AND LOSS OF MARKET SHARE.

da Vinci Surgery is a relatively new technology that competes with established and emerging treatment options in both disease management and reconstructive medical procedures. These competitive treatment options include conventional MIS, open surgery, interventional approaches, and pharmacological regimens. Some of these procedures are widely accepted in the medical community

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and in many cases have a long history of use. Technological advances could make such treatments more effective or less expensive than using our products, which could render our products obsolete or unmarketable. Studies could be published that show that other treatment options are more beneficial and/or cost-effective than da Vinci Surgery. We cannot be certain that physicians will use our products to replace or supplement established treatments or that our products will continue to be competitive with current or future technologies.

Additionally, we expect to face competition from companies that develop wristed, robotic or computer-assisted surgical systems and products in the future. The following companies have introduced products in the field of robotic surgery or have made explicit statements about their efforts to enter the field: Auris Surgical Robotics Inc.; Avatera Medical GmbH; Cambridge Medical Robotics Ltd; Johnson & Johnson and Google Inc. and their joint venture, Verb Surgical Inc.; Medicaroid Inc.; MedRobotics Corp.; meerecompany Inc.; Medtronic PLC; Olympus Corp.; Samsung Corporation; Smart Robot Technology Group Co. Ltd.; TransEnterix Inc.; and Titan Medical Inc. Companies with substantial experience in industrial robotics could potentially expand into the field of surgical robotics and become a competitor. Our revenues may be reduced due to pricing pressure or eliminated if our competitors develop and market products that are more effective or less expensive than our products. If we are unable to compete successfully, our revenues will suffer, which could have a material adverse effect on our business, financial condition, result of operations or cash flows. We may not be able to maintain or improve our competitive position against current or potential competitors, especially those with greater resources. In addition, third-party service providers that provide service to da Vinci surgical system operators may emerge and compete with us on price or offerings. To date, substantially all of our customers have sourced services on their da Vinci surgical systems from us through service contract commitments or time and materials contracts. If we are unable to compete successfully with any third-party service providers, our revenues may suffer.

Recently, third party entities have begun to offer robotic surgery consulting services targeted at analyzing the cost-effectiveness of hospitals' robotic surgery programs, including procedures performed, placement of systems, and consumption of instruments and accessories. We currently provide similar services and analysis to our customers, but it is difficult to assess the impact that this may have on our business.

OUR CUSTOMERS MAY USE UNAUTHORIZED OR UNAPPROVED INSTRUMENTS AND ACCESSORIES, WHICH WOULD RESULT IN REDUCED REVENUE AND LOSS OF MARKET SHARE.

A large portion of our revenue is generated through our sales of instruments and accessories. Third parties have attempted to and may discover ways to manufacture and sell counterfeit reprocessed instruments and/or alter instruments that are compatible and function with the da Vinci surgical system, and such activities may reduce our market share. Our sales arrangements with customers generally prohibit the use of unauthorized or unapproved instruments and accessories with the da Vinci surgical systems, warranties will be void if such instruments and accessories are used, and a programmed memory chip inside each instrument is designed to prevent the instrument from being used for more than the prescribed number of procedures to help ensure that its performance meets specifications during each procedure. However, these measures may not prevent the use of unauthorized or unapproved instruments and accessories by our customers. In addition to potential reductions to our revenues and market share, sales of unauthorized instruments and accessories by third parties may create safety and health risks to da Vinci patients and could cause negative publicity for us if these products cause injuries and/or do not function as intended when used with the da Vinci surgical systems, any of which could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

NEW PRODUCT DEVELOPMENTS AND INTRODUCTIONS MAY ADVERSELY IMPACT OUR FINANCIAL RESULTS.

We develop and introduce new products with enhanced features and extended capabilities from time to time. We may introduce new products that target different markets than what our existing products target. The success of new product introductions depends on a number of factors including, but not limited to, timely and successful research and development, regulatory clearances or approvals, pricing, competition, market and consumer acceptance, the effective forecasting and management of product demand, inventory levels, the management of manufacturing and supply costs, and the risk that new products may have quality or other defects in the early stages of introduction.

We invest substantially in various research and development projects to expand our product offerings. Our research and development efforts are critical to our success, and our research and development projects may not be successful. We may be unable to develop and market new products successfully, and the products we invest in and develop may not be well-received by customers or meet our expectations. Our research and development investments may not generate significant operating income or contribute to our future operating results for several years, and such contributions may not meet our expectations or even cover the costs of such investments. In addition, the introduction or announcement of new products or product enhancements may shorten the life cycle of our existing products or reduce demand for our current products, thereby offsetting any benefits of successful product introductions and potentially leading to challenges in managing inventory of existing products.

Our products are subject to various regulatory processes, and we must obtain and maintain regulatory approvals in order to sell our new products. If a potential purchaser believes that we plan to introduce a new product in the near future or if a potential

purchaser is located in a country where a new product that we have introduced has not yet received regulatory approval, planned purchases may be deferred or delayed. We have in the past experienced a slowdown in demand for existing products in advance of new product introductions and may experience a slowdown in demand in the future as well. It is also possible that a new product introduction could cause downward pressure on the prices of our existing products or require us to change how we sell our products, either of which could have material adverse effect on our revenues.

If we fail to effectively develop new products and manage new product introductions in the future, our business, financial condition, results of operations or cash flows could be materially adversely impacted.

WE EXPECT GROSS PROFIT MARGINS TO VARY OVER TIME, AND CHANGES IN OUR GROSS PROFIT MARGINS COULD ADVERSELY AFFECT OUR FINANCIAL CONDITION OR RESULTS OF OPERATIONS.

Our gross profit margins have fluctuated from period to period, and we expect that they will continue to fluctuate in the future. Our gross profit margins may be adversely affected by numerous factors, including:

- changes in customer, geographic, or product mix, including mix of da Vinci Surgical System models sold;
- changes in the portion of sales involving a trade-in of another system and the amount of trade-in credits given;
- introduction of new products, which may have lower margins than our existing products;
- our ability to maintain or reduce production costs;
- changes to our pricing strategy;
- changes in competition;
- changes in production volume driven by demand for our products;
- changes in material, labor or other manufacturing-related costs, including impact of foreign exchange rate fluctuations for foreign-currency denominated costs;
- changes to U.S. and foreign trade policies, including the enactment of tariffs on goods imported into the U.S., including but not limited to, goods imported from Mexico where we manufacture a majority of our instruments that we sell;
- inventory obsolescence and product recall charges; and
- market conditions.

If we are unable to offset the unfavorable impact of the factors noted above by increasing the volume of products shipped, reducing product manufacturing costs or otherwise, our business, financial condition, results of operations or cash flows may be materially adversely affected.

WE EXPERIENCE LONG AND VARIABLE CAPITAL SALES CYCLES AND SEASONALITY IN OUR BUSINESS, WHICH MAY CAUSE FLUCTUATIONS IN OUR FINANCIAL RESULTS.

Our da Vinci Surgical System has a lengthy sales and purchase order cycle because it is a major capital item and its purchase generally requires the approval of senior management of hospitals, their parent organizations, purchasing groups, and government bodies, as applicable. In addition, sales to some of our customers are subject to competitive bidding or public tender processes. These approval and bidding processes can be lengthy. In addition, IDN groups are creating larger networks of da Vinci system operators, have increasing purchasing power, and are increasingly evaluating their da Vinci Surgery programs to optimize the efficiency of the da Vinci system operations. As a result, hospitals may delay or accelerate system purchases in conjunction with timing of their capital budget timelines. Further, the introduction of new products could adversely impact our sales cycle as customers take additional time to assess the benefits and costs of such products. As a result, it is difficult for us to predict the length of capital sales cycles and, therefore, the exact timing of capital sales. Historically, our sales of da Vinci Surgical Systems have tended to be heaviest during the third month of each fiscal quarter, lighter in the first and third fiscal quarters, and heavier in the fourth fiscal quarter.

We have experienced procedure growth for a number of benign conditions, including hysterectomies for benign conditions, sacrocolpopexies, hernia repair, cholecystectomies, and certain other surgeries. Many of these types of surgeries may be postponed in the short term by patients to avoid vacation periods and for other personal scheduling reasons. Patients may also accelerate procedures to take advantage of insurance funding cut-off dates. Historically, we have experienced lower procedure volume in the first and third fiscal quarters and higher procedure volume in the second and fourth fiscal quarters. Timing of procedures and changes in procedure growth directly affect the timing of

instrument and accessory purchases and capital purchases by customers.

The above factors may contribute to substantial fluctuations in our quarterly operating results. Because of these fluctuations, it is possible that in some future quarters our operating results will fall below the expectations of securities analysts or investors. If that happens, the market price of our stock would likely decrease. These fluctuations, among other factors, also mean that our operating results in any particular period may not be relied upon as an indication of future performance.

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WE ARE SUBJECT TO A VARIETY OF RISKS DUE TO OUR OPERATIONS OUTSIDE OF THE U.S.

We manufacture, perform research and development activities, and distribute our products in OUS markets. Revenue from OUS markets accounted for approximately 28%, 29%, and 30% of our revenue for the years ended December 31, 2016, 2015, and 2014, respectively. Our OUS operations are, and will continue to be, subject to a number of risks including:

- failure to obtain the same degree of protection against infringement of our intellectual property rights as we have in the United States;
- multiple OUS regulatory requirements that are subject to change and that could impact our ability to manufacture and sell our products;
- protectionist laws and business practices that favor local competitors, which could slow our growth in OUS markets;
- local or national regulations that make it difficult or impractical to market or use our products;
- inability or regulatory limitations on our ability to move goods across borders;
- the risks associated with foreign currency exchange rate fluctuations;
- difficulty in establishing, staffing and managing OUS operations;
- the expense of establishing facilities and operations in new foreign markets;
- building and maintaining an organization capable of supporting geographically dispersed operations;
- anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act, and other local laws prohibiting corrupt payments to governmental officials; and
- political and economic instability.

On June 23, 2016, the United Kingdom (UK) held a referendum in which voters approved an exit from the European Union (the "EU"), commonly referred to as “Brexit”. As a result of the referendum, it is expected that the British government will begin negotiating the terms of the UK’s future relationship with the EU. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the UK and EU countries and increased regulatory complexities.

In addition, the U.S. federal government has made explicit statements about its intention to make changes to U.S. trade policy, including signing an executive order to withdraw from the negotiating process of the Trans-Pacific Partnership, renegotiate the terms of NAFTA, and imposing border taxes on imports into the U.S. We manufacture a majority of the instruments we sell in Mexico and any legislation enacted that impacts the relationship between the U.S. and Mexico and/or the continuity of NAFTA could adversely affect our operations and financial results. If enacted, any legislation taken by the U.S. federal government that restricts trade, such as tariffs, trade barriers, and other protectionist or retaliatory measures taken by governments in Europe, Asia, and other countries, could adversely impact our ability to sell products and services in our OUS markets.

Furthermore, a large portion of our OUS sales are denominated in U.S. dollars. As a result, an increase in the value of the U.S. dollar relative to foreign currencies could make our products less competitive and/or less affordable in OUS markets.

If we are unable to meet and manage these risks, our OUS operations may not be successful, which would limit the growth of our business and could have a material adverse effect on our business, financial condition, result of operations, or cash flows.

WE UTILIZE DISTRIBUTORS FOR A PORTION OF OUR SALES, WHICH SUBJECTS US TO A NUMBER OF RISKS THAT COULD HARM OUR BUSINESS.

We have strategic relationships with a number of key distributors for sales and service of our products in certain foreign countries. If these strategic relationships are terminated and not replaced, our revenues and/or ability to sell or service our products in the markets serviced by these distributors could be adversely affected. In addition, we may be named as a defendant in lawsuits against our distributors related to sales or service of our products performed by them. Please see our risk factor below titled “We are Subject to Product Liability and Negligence Claims Relating to the Use of Our Products and Other Legal Proceedings That Could Materially Adversely Affect Our Financial Condition, Divert Management's Attention, and Harm Our Business.” The actions of our distributors may affect our ability to effectively market our products in certain foreign countries or regulatory jurisdictions if the distributor holds the regulatory authorization in such countries or within such regions and causes, by action or inaction, the suspension

of such marketing authorization or sanctions for non-compliance. It may be difficult, expensive and time consuming for us to re-establish market access or regulatory compliance in such case.

WE ARE EXPOSED TO THE CREDIT RISK OF SOME OF OUR CUSTOMERS, WHICH COULD RESULT IN MATERIAL LOSSES.

We believe customer financing through leasing is an important consideration for some of our customers and have experienced an increase in demand for customer financing. We may experience loss from a customer’s failure to make payments according to the contractual lease terms. Our exposure to the credit risks relating to our lease financing arrangements may increase if our

customers are adversely affected by changes in healthcare laws, coverage and reimbursement, economic pressures or uncertainty, or other customer-specific factors.

Although we have programs in place that are designed to monitor and mitigate the associated risk, there can be no assurance that such programs will be effective in reducing credit risks relating to these lease financing arrangements. Although we have not experienced significant credit losses to date, should the level of credit losses we experience in the future exceed our expectations, they could have a material adverse effect on our financial condition or results of operations.

WE MAY INCUR LOSSES ASSOCIATED WITH CURRENCY FLUCTUATIONS AND MAY NOT BE ABLE TO EFFECTIVELY HEDGE OUR EXPOSURE.

Our operating results are subject to volatility due to fluctuations in foreign currency exchange rates. Our primary exposure to fluctuations in foreign currency exchange rates relates to revenue and operating expenses denominated in currencies other than the U.S. dollar. The weakening of foreign currencies relative to the U.S. dollar adversely affects our foreign currency-denominated revenue. Margins on OUS revenue could also be materially adversely affected by foreign currency exchange rate fluctuations as we may not be able to raise local prices to fully offset the strengthening of the U.S. dollar. Conversely, the strengthening of foreign currencies relative to the U.S. dollar, while generally beneficial to our foreign currency-denominated revenue and earnings, may cause us to reduce pricing on our products in our OUS markets and may cause us to incur losses on our foreign currency hedging instruments, thereby limiting the benefit that strengthened foreign currencies could have on our results of operations.

We attempt to mitigate a portion of these risks through foreign currency hedging, based on our judgment of the appropriate trade-offs among risk, opportunity, and expense. Although we have established a hedging program to partially hedge our exposure to foreign currency exchange rate fluctuations, primarily related to transactions denominated in the Euro, Japanese Yen, Korean Won, British Pound, and the Swiss Franc, and we regularly review our hedging program and make adjustments as necessary, our hedging activities may not offset more than a portion of the adverse financial impact caused by unfavorable movement in foreign currency exchange rates, which could materially adversely affect our financial condition or results of operations.

WE ARE EXPOSED TO CREDIT RISK AND FLUCTUATIONS IN THE MARKET VALUE OF OUR INVESTMENTS.

Our investment portfolio includes both domestic and international investments. The credit ratings and pricing of our investments can be negatively affected by liquidity concerns, credit deterioration, financial results, economic risk, political risk or other factors. As a result, the value and liquidity of our cash equivalents and marketable securities could fluctuate substantially. Our other income and expense could also vary materially from expectations depending on gains or losses realized on the sale or exchange of investments, impairment charges resulting from revaluations of debt and equity securities and other investments, changes in interest rates, increases or decreases in cash balances, volatility in foreign exchange rates, and changes in fair value of derivative instruments. Increased volatility in the financial markets and overall economic uncertainty could increase the risk that actual amounts realized on our investments may differ significantly from the fair values currently assigned to them.

While we have not realized any significant losses on our cash equivalents or marketable securities, future fluctuations in their value could have a material adverse impact on our business, financial condition, results of operations, or cash flows.

IF DEFECTS ARE DISCOVERED IN OUR PRODUCTS, WE MAY INCUR ADDITIONAL UNFORESEEN COSTS, HOSPITALS MAY NOT PURCHASE OUR PRODUCTS AND OUR REPUTATION MAY SUFFER.

Our success depends on the quality and reliability of our products. While we subject components sourced and products manufactured to stringent quality specifications and processes, our products incorporate mechanical parts, electrical components, optical components, and computer software, any of which may contain errors or exhibit failures, especially when products are first introduced. In addition, new products or enhancements may contain undetected errors or performance problems that, despite testing, are discovered only after commercial shipment. Because our products are designed to be used to perform complex surgical procedures, due to the serious and costly consequences of product failure, we and our customers have an increased sensitivity to such defects. In the past, we have voluntarily recalled certain products. Although our products are subject to stringent quality processes and

controls, we cannot assure that our products will not experience component aging, errors, or performance problems in the future. If we experience product flaws or performance problems, any or all of the following could occur:

- delays in product shipments;
- loss of revenue;
- delay in market acceptance;
- diversion of our resources;
- damage to our reputation;
- product recalls;
- regulatory actions;

- increased service or warranty costs; or
- product liability claims.

Costs associated with product flaws or performance problems could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

WE ARE SUBJECT TO PRODUCT LIABILITY AND NEGLIGENCE CLAIMS RELATING TO THE USE OF OUR PRODUCTS AND OTHER LEGAL PROCEEDINGS THAT COULD MATERIALLY ADVERSELY AFFECT OUR FINANCIAL CONDITION, DIVERT MANAGEMENT'S ATTENTION AND HARM OUR BUSINESS.

We are and may become subject to various legal proceedings and claims that arise in or outside the ordinary course of business. Certain current lawsuits and pending proceedings to which we are party, including purported class actions, derivative lawsuits, and product liability litigation, are described in Note 7 to the Consolidated Financial Statements included in Part II, Item 8.

In particular, our business exposes us to significant risks of product liability claims, which are inherent to the medical device industry. Product liability claims have been brought against us by or on behalf of individuals alleging that they have sustained personal injuries and/or death as a result of purported product defects, the alleged failure to warn, and/or the alleged inadequate training by us of physicians regarding the use of the da Vinci Surgical System. The individuals who have brought the product liability claims seek recovery for their alleged personal injuries and in many cases, punitive damages. Current product liability claims have resulted in negative publicity regarding our Company, and these and any other product liability or negligence claims or product recalls also could harm our reputation. Please see our risk factor below titled "Negative Publicity, Whether Accurate or Inaccurate, Concerning Our Products or Our Company Could Reduce Market Acceptance of Our Products and Could Result in Decreased Product Demand and a Decline in Revenues" for additional risks related to the potential effects of negative publicity on our business.

The outcome of these product liability claims and other legal proceedings cannot be predicted with certainty. We currently self-insure our product liability risk and maintain third party insurance coverage for certain other liabilities. However, we cannot determine whether our insurance coverage from third party carriers, or our self-insurance of product liability risk, would be sufficient to cover the costs or potential losses related to these lawsuits and proceedings or otherwise be excluded under the terms of any third party policy. Regardless of merit, litigation may be both time-consuming and disruptive to our operations and cause significant legal costs (including settlements, judgments, legal fees, and other related defense costs) and diversion of management attention. If we do not prevail in the purported class actions and derivative lawsuits, product liability litigation, or other legal proceedings, we may be faced with significant monetary damages or injunctive relief against us that could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

NEGATIVE PUBLICITY, WHETHER ACCURATE OR INACCURATE, CONCERNING OUR PRODUCTS OR OUR COMPANY COULD REDUCE MARKET ACCEPTANCE OF OUR PRODUCTS AND COULD RESULT IN DECREASED PRODUCT DEMAND AND A DECLINE IN REVENUES.

There have been articles published and papers written questioning patient safety and efficacy associated with da Vinci Surgery, the cost of da Vinci Surgery relative to other disease management methods, and the adequacy of surgeon training. Negative publicity, including statements made by public officials, whether accurate or inaccurate, concerning our products or our Company could reduce market acceptance of our products and could result in decreased product demand and a decline in revenues. In addition, significant negative publicity could result in an increased number of product liability claims, regardless of whether these claims are meritorious. The number of claims could be further increased by plaintiffs' law firms that use a wide variety of media to advertise their services and solicit clients for product liability cases against us.

WE ARE SUBJECT TO SIGNIFICANT, UNINSURED LIABILITIES.

For certain risks, we do not maintain insurance coverage because of cost and/or availability. For example, we self-insure our product liability risks and we indemnify our directors and officers for third-party claims and do not insure for the underlying losses. We also do not carry, among other types of coverage, earthquake insurance. In addition, in the future, we may not continue to maintain certain existing insurance coverage or adequate levels of coverage. Premiums for many types of insurance have increased significantly in recent years, and depending on

market conditions and our circumstances, in the future, certain types of insurance such as directors' and officers' insurance may not be available on acceptable terms, or at all. Because we retain some portion of our insurable risks, and in some cases we are self-insured completely, unforeseen or catastrophic losses in excess of insurance coverage could require us to pay substantial amounts, which may have a material adverse impact on our business, financial condition, results of operations, or cash flows.

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WE MAY ENCOUNTER MANUFACTURING PROBLEMS OR DELAYS THAT COULD RESULT IN LOST REVENUE.

Manufacturing our products is a complex process. We (or our critical suppliers) may encounter difficulties in scaling up or maintaining production of our products, including:

- problems involving production yields;
- quality control and assurance;
- component supply shortages;
- import or export restrictions on components, materials or technology;
- shortages of qualified personnel; and
- compliance with state, federal and foreign regulations.

If demand for our products exceeds our manufacturing capacity, we could develop a substantial backlog of customer orders. If we are unable to maintain larger-scale manufacturing capabilities, our ability to generate revenues will be limited and our reputation in the marketplace could be damaged, which may have a material adverse impact on our business, financial condition, results of operations, or cash flows.

OUR RELIANCE ON SOLE AND SINGLE SOURCE SUPPLIERS COULD HARM OUR ABILITY TO MEET DEMAND FOR OUR PRODUCTS IN A TIMELY MANNER OR WITHIN BUDGET.

Some of the components necessary for the assembly of our products are currently provided to us by sole-sourced suppliers or single-sourced suppliers. We generally purchase components through purchase orders rather than long-term supply agreements and generally do not maintain large volumes of inventory. While alternative suppliers exist and could be identified for sole-sourced components, the disruption or termination of the supply of components could cause a significant increase in the costs of these components, which could affect our operating results. A disruption or termination in the supply of components could also result in our inability to meet demand for our products, which could harm our ability to generate revenues, lead to customer dissatisfaction and damage our reputation. Furthermore, if we are required to change the manufacturer of a key component of our products, we may be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could delay our ability to manufacture our products in a timely manner or within budget, which may have a material adverse impact on our business, financial condition, results of operations, or cash flows.

IF INSTITUTIONS OR SURGEONS ARE UNABLE TO OBTAIN COVERAGE AND REIMBURSEMENT FROM THIRD-PARTY PAYORS FOR PROCEDURES USING OUR PRODUCTS, OR IF REIMBURSEMENT IS INSUFFICIENT TO COVER THE COSTS OF PURCHASING OUR PRODUCTS, WE MAY BE UNABLE TO GENERATE SUFFICIENT SALES TO SUPPORT OUR BUSINESS.

In the United States, hospitals generally bill for the services performed with our products to various third-party payors, such as Medicare, Medicaid, and other government programs and private insurance plans. If hospitals do not obtain sufficient reimbursement from third-party payors for procedures performed with our products, or if government and private payors' policies do not cover surgical procedures performed using our products, we may not be able to generate the revenues necessary to support our business. Our success in OUS markets also depends upon the eligibility of our products for coverage and reimbursement through government-sponsored health care payment systems and third-party payors. Reimbursement practices vary significantly by country. Many OUS markets have government-managed healthcare systems that control reimbursement for new products and procedures. Other foreign markets have both private insurance systems and government-managed systems that control reimbursement for new products and procedures. Market acceptance of our products may depend on the availability and level of coverage and reimbursement in any country within a particular time. In addition, health care cost containment efforts similar to those in the United States are prevalent in many of the other countries in which we intend to sell our products and these efforts are expected to continue. Please see our risk factor below titled "Changes in Healthcare Legislation and Policy May Have a Material Adverse Effect on Our Financial Condition and Results of Operations" for additional risks related to the ability of institutions or surgeons to obtain reimbursements.

IF WE LOSE OUR KEY PERSONNEL OR ARE UNABLE TO ATTRACT AND RETAIN ADDITIONAL PERSONNEL, OUR ABILITY TO COMPETE WILL BE HARMED.

We are highly dependent on the principal members of our management and scientific staff. Our product development plans depend, in part, on our ability to attract and retain engineers with experience in mechanics, electronics, software and optics. Attracting and retaining qualified personnel will be critical to our success, and competition for qualified personnel is intense. We may not be able to attract and retain personnel on acceptable terms given the competition for such personnel among technology and healthcare companies and universities. The loss of any of these persons or our inability to attract and retain qualified personnel could harm our business and our ability to compete.

NATURAL OR OTHER DISASTERS COULD DISRUPT OUR BUSINESS AND RESULT IN LOSS OF REVENUE OR IN HIGHER EXPENSES.

Natural disasters, terrorist activities, and other business disruptions, including but not limited to internet security threats, could seriously harm our revenue and financial condition and increase our costs and expenses. For example, the March 2011 earthquake and tsunami in Japan and their aftermath created economic uncertainty and disrupted economic activities in Japan, including a reduction in hospital spending. Furthermore, our corporate headquarters and many of our operations, including certain of our manufacturing facilities, are located in California, a seismically active region. We do not have multiple-site capacity for all of our operations in the event of a business disruption. A natural disaster in any of our major markets, or an unanticipated business disruption caused, for example, by internet security threats, damage to global communication networks, or similar events could have a material adverse impact on our business, financial condition, results of operations, or cash flows.

EPIDEMIC DISEASES OR THE PERCEPTION OF THEIR EFFECT COULD HAVE A MATERIAL ADVERSE EFFECT ON OUR BUSINESS, FINANCIAL CONDITION, RESULTS OF OPERATIONS, OR CASH FLOWS.

Outbreaks of pandemic or contagious diseases, such as the Ebola virus, Middle East Respiratory Syndrome, Severe Acute Respiratory Syndrome, or the H1N1 virus, could divert medical resources and priorities towards the treatment of that disease. An outbreak of a contagious disease could also negatively affect hospital admission rates. This could negatively impact the number of da Vinci procedures performed and have a material adverse effect on our business, financial condition, results of operations, or cash flows.

IF WE DO NOT SUCCESSFULLY MANAGE OUR COLLABORATION ARRANGEMENTS, LICENSING ARRANGEMENTS, JOINT VENTURES, STRATEGIC ALLIANCES, OR PARTNERSHIPS WITH THIRD PARTIES, WE MAY NOT REALIZE THE EXPECTED BENEFITS FROM SUCH ALLIANCES AND IT MAY HAVE A MATERIAL ADVERSE EFFECT ON OUR BUSINESS, FINANCIAL CONDITION, RESULTS OF OPERATIONS, OR CASH FLOWS.

From time to time, we enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances or partnerships to complement or augment our research and development, product development, training, procedure development, and marketing efforts. Proposing, negotiating and implementing collaborations, in-licensing agreements, joint ventures, strategic alliances, or partnerships may be a lengthy and complex process. In addition, other companies, including those with substantially greater financial, marketing, sales, technology, or other business resources, may compete with us for these opportunities or arrangements. As a result, we may not identify, secure, or complete any such arrangements in a timely manner, on a cost-effective basis or on otherwise favorable terms, if it all.

There can be no assurance we will realize the expected benefits from these alliances. In addition, we may not be in a position to exercise sole decision making authority regarding any collaboration or other arrangement, which could create the potential risk of creating impasses on decisions, and our alliances may have economic or business interests that are, or that may become, inconsistent with our interests. It is possible that conflicts may arise in these relationships, such as conflicts concerning the achievement of performance milestones, or the interpretation of significant terms under any agreement, such as those related to financial obligations, termination rights or the ownership or control of intellectual property developed during the collaboration. These alliances can be difficult to manage, given the potentially different interests of the parties involved, and we could suffer delays in product development or other operational difficulties.

The alliances may involve significant expense and divert the focus or attention of our management and other key personnel. Any of these relationships may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, or disrupt our ordinary business activities. Such arrangements may also expose us to numerous known and unknown risks, including unique risks with respect to the economic, political and regulatory environment of any foreign entities with whom we partner. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations, or cash flows.

IF WE FAIL TO SUCCESSFULLY ACQUIRE OR INTEGRATE NEW BUSINESSES, PRODUCTS AND TECHNOLOGY, WE MAY NOT REALIZE EXPECTED BENEFITS OR OUR BUSINESS MAY BE HARMED.

We need to grow our businesses in response to changing technologies, customer demands, and competitive pressures. In some circumstances, we may decide to grow our business through the acquisition of complementary businesses,

products, or technologies rather than through internal development.

Identifying suitable acquisition candidates can be difficult, time-consuming and costly, and we may not be able to identify suitable candidates or successfully complete identified acquisitions. In addition, completing an acquisition can divert our management and key personnel from our business operations, which could harm our business and affect our financial results. Even if we complete an acquisition, we may not be able to successfully integrate newly acquired organizations, products, technologies, or employees into our operations, or may not fully realize some of the expected synergies. An acquired company may have deficiencies in product quality or regulatory marketing authorizations which are not detected during due diligence activities or which are unasserted at the time of acquisition. It may be difficult, expensive and time consuming for us to re-establish

market access, regulatory compliance, or cure such deficiencies in product quality in such cases which may have a material adverse impact on our financial condition and results of operations, or cash flows.

Integrating an acquisition can also be expensive and time-consuming, and may strain our resources. In many instances, integrating a new business will also involve implementing or improving internal controls appropriate for a public company at a business that lacks them. In addition, we may be unable to retain the employees of acquired companies, or the acquired company's customers, suppliers, distributors, or other partners for a variety of reasons, including that these entities may be our competitors or may have close relationships with our competitors, which may have a material adverse impact on our business, financial condition, results of operations, or cash flows.

CHANGES TO FINANCIAL ACCOUNTING STANDARDS MAY AFFECT OUR REPORTED RESULTS OF OPERATIONS.

A change in accounting standards or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. Changes to existing standards or the reevaluation of current practices may adversely affect our reported financial results or the way we conduct our business.

WE USE ESTIMATES, MAKE JUDGMENTS AND APPLY CERTAIN METHODS IN MEASURING THE PROGRESS OF OUR BUSINESS IN DETERMINING OUR FINANCIAL RESULTS AND IN APPLYING OUR ACCOUNTING POLICIES. AS THESE ESTIMATES, JUDGMENTS, AND METHODS CHANGE, OUR ASSESSMENT OF THE PROGRESS OF OUR BUSINESS AND OUR RESULTS OF OPERATIONS COULD VARY.

The methods, estimates, and judgments we use in applying our accounting policies have a significant impact on our results of operations. Such methods, estimates, and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time may lead us to change our methods, estimates, and judgments. Changes in any of our assumptions may adversely affect our reported financial results.

We utilize methods for determining surgical market sizes as well as the number and type (cancerous or benign) of certain da Vinci procedures performed that involve estimates and judgments, which are, by their nature, subject to substantial risks, uncertainties, and assumptions. Our estimates of surgical market sizes or the number and type of da Vinci procedures performed do not have an impact on our results of operations, but are used to estimate the progress of our business. Estimates and judgments for determining surgical market sizes and the number and type of da Vinci procedures and the accuracy of these estimates may be impacted over time with changes in treatment modalities, hospital reporting behavior, system internet connectivity, distributor reporting behavior, increases in procedures per field employee, and other factors. In addition, from time to time, we may change the method for determining market sizes and the number and type of da Vinci procedures, causing variation in our reporting.

CHANGES IN OUR EFFECTIVE TAX RATE MAY IMPACT OUR RESULTS OF OPERATIONS.

We are subject to taxes in the U.S. and other jurisdictions. Tax rates in these jurisdictions may be subject to significant change due to economic and/or political conditions. A number of other factors may also impact our future effective tax rate including:

- the jurisdictions in which profits are determined to be earned and taxed;
- the resolution of issues arising from tax audits with various tax authorities;
- changes in valuation of our deferred tax assets and liabilities;
- increases in expenses not deductible for tax purposes, including write-offs of acquired intangibles and impairment of goodwill in connection with acquisitions;
- changes in availability of tax credits, tax holidays, and tax deductions;
- changes in share-based compensation;
- changes in tax laws or the interpretation of such tax laws and changes in generally accepted accounting principles; and
- the repatriation of non-U.S. earnings for which we have not previously provided for U.S. taxes.

The U.S. federal government has called for potentially substantial changes to U.S. tax policies and laws. We are unable to predict what U.S. tax reform may be proposed or enacted in the future or what effect such changes would have on our business. Any significant increase in our future effective tax rate could have a material adverse impact on

our business, financial condition, results of operations, or cash flows.

DISRUPTION OF CRITICAL INFORMATION SYSTEMS OR MATERIAL BREACHES IN THE SECURITY OF OUR SYSTEMS COULD HARM OUR BUSINESS, CUSTOMER RELATIONS AND FINANCIAL CONDITION.

Information technology helps us operate efficiently, interface with customers, maintain financial accuracy and efficiency and accurately produce our financial statements. If we do not allocate and effectively manage the resources necessary to build and

sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions or the loss of or damage to intellectual property through security breach. If our data management systems do not effectively collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies or human error, our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations will be impaired, perhaps materially. Any such impairment could materially and adversely affect our financial condition, results of operations, cash flows and the timeliness with which we report our internal and external operating results.

Our business requires us to use and store customer, employee and business partner personally identifiable information ("PII"). This may include names, addresses, phone numbers, email addresses, contact preferences, tax identification numbers and payment account information. We require user names and passwords in order to access our information technology systems. We also use encryption and authentication technologies to secure the transmission and storage of data. These security measures may be compromised as a result of security breaches by unauthorized persons, employee error, malfeasance, faulty password management or other irregularity, and result in persons obtaining unauthorized access to our data or accounts. Third parties may attempt to fraudulently induce employees or customers into disclosing user names, passwords or other sensitive information, which may in turn be used to access our information technology systems. For example, our employees have received "phishing" emails and phone calls attempting to induce them to divulge passwords and other sensitive information.

In addition, unauthorized persons may attempt to hack into our products or systems to obtain personal data relating to patients or employees, our confidential or proprietary information or confidential information we hold on behalf of third parties. If the unauthorized persons successfully hack into or interfere with our connected products or services, they may create issues with product functionality that could pose a risk of loss of data, a risk to patient safety, and a risk of product recall or field activity. We have programs in place to detect, contain and respond to data security incidents, and we make ongoing improvements to our information-sharing products in order to minimize vulnerabilities, in accordance with industry and regulatory standards. However, because the techniques used to obtain unauthorized access to or sabotage systems change frequently and may be difficult to detect, we may not be able to anticipate and prevent these intrusions or mitigate them when and if they occur.

We also rely on external vendors to supply and/or support certain aspects of our information technology systems. The systems of these external vendors may contain defects in design or manufacture or other problems that could unexpectedly compromise information security of our own systems, and we are dependent on these third parties to deploy appropriate security programs to protect their systems.

While we devote significant resources to network security, data encryption and other security measures to protect our systems and data, these security measures cannot provide absolute security. We may experience a breach of our systems and may be unable to protect sensitive data. The costs to us to eliminate or alleviate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in unexpected interruptions, delays, cessation of service and may harm our business operations. Moreover, if a computer security breach affects our systems or results in the unauthorized release of PII, our reputation and brand could be materially damaged and use of our products and services could decrease. We would also be exposed to a risk of loss or litigation and potential liability, which could have a material adverse impact on our business, financial condition, results of operations, or cash flows.

RISKS RELATING TO OUR REGULATORY ENVIRONMENT

CHANGES IN HEALTHCARE LEGISLATION AND POLICY MAY HAVE A MATERIAL ADVERSE EFFECT ON OUR FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

In March 2010, the U.S. President signed the PPACA, which made changes that have impacted and are expected to significantly impact the pharmaceutical and medical device industries.

The PPACA contains a number of provisions designed to generate the revenues necessary to fund health insurance coverage expansions among other things. This includes fees or taxes on certain health-related industries, including medical device manufacturers. For sales between January 1, 2013, and December 31, 2015, medical device manufacturers were required to pay an excise tax (or sales tax) of 2.3% of certain U.S. medical device revenues. Though there were some exceptions to the excise tax, this excise tax did apply to all or most of our products sold

within the United States. In December 2015, President Obama signed into law the Appropriations Act. The Appropriations Act includes a two-year moratorium on the medical device excise tax such that medical device revenues in 2016 and 2017 will be exempt from the excise tax. Unless there is further legislative action during that two-year period, the tax will be automatically reinstated for sales of medical devices on or after January 1, 2018. The PPACA implemented a number of Medicare payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians, and other providers to improve the coordination, quality, and efficiency of certain healthcare services through bundled payment models, and appropriated funding for comparative effectiveness research.

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The taxes imposed by the PPACA and the expansion in the government’s role in the U.S. healthcare industry may result in decreased profits to us, lower reimbursement by payors for our products, and/or reduced medical procedure volumes, all of which may have a material adverse impact on our business, financial condition, results of operations, or cash flows.

There have been judicial and Congressional challenges to certain aspects of the PPACA, and we expect that the U.S. federal government will seek to modify, repeal or otherwise invalidate all, or certain provisions of, the PPACA. For instance, on January 20, 2017, an executive order was issued, in which it was stated that it is the U.S. federal government's policy to seek the prompt repeal of the PPACA, and directed the heads of all executive departments and agencies to minimize the economic and regulatory burdens of the PPACA maximum extent permitted by law. Additional state and federal health care reform measures that may be adopted in the future could have a material adverse effect on our industry generally and on our customers. Any changes of, or uncertainty with respect to future reimbursement rates, or changes in hospital admission rates could impact our customers' demand for our products and services, which in turn could impact our ability to successfully commercialize our products, or could limit or eliminate our spending on certain development projects. These changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013, and will remain in effect through 2025 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. MACRA repealed the formula by which Medicare made annual payment adjustments to physicians and replaced the former formula with fixed annual updates and a new system of incentive payments scheduled to begin in 2019 that are based on various performance measures and physicians’ participation in alternative payment models such as accountable care organizations. It is unclear what impact MACRA may have on our business, financial condition, results of operations, or cash flows.

Further, the federal, state and local governments, Medicare, Medicaid, managed care organizations, and foreign governments have in the past considered, are currently considering, and may in the future consider healthcare policies and proposals intended to curb rising healthcare costs, including those that could significantly affect both private and public reimbursement for healthcare services. Future significant changes in the healthcare systems in the U.S. or other countries, including retroactive and prospective rate and coverage criteria changes, competitive bidding or tender processes for certain products and services, and other changes intended to reduce expenditures along with uncertainty about whether and how changes may be implemented, could have a negative impact on the demand for our products. We are unable to predict whether other healthcare policies, including policies stemming from legislation or regulations affecting our business may be proposed or enacted in the future; what effect such policies would have on our business; or the effect ongoing uncertainty about these matters will have on the purchasing decisions of our customers.

WE ARE SUBJECT TO FEDERAL, STATE AND FOREIGN LAWS GOVERNING OUR BUSINESS PRACTICES WHICH, IF VIOLATED, COULD RESULT IN SUBSTANTIAL PENALTIES. ADDITIONALLY, CHALLENGES TO OR INVESTIGATION INTO OUR PRACTICES COULD CAUSE ADVERSE PUBLICITY AND BE COSTLY TO RESPOND TO AND THUS COULD HARM OUR BUSINESS.

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires us to track and disclose the source of any tantalum, tin, gold, and tungsten used in manufacturing which may originate in the Democratic Republic of the Congo or adjoining regions (so called “conflict minerals”). These metals are central to the technology industry and are present in some of our products as component parts. In most cases no acceptable alternative material exists which has the necessary properties. Because it is not possible to determine the source of the metals by analysis, we must obtain a good faith description of the source of the intermediate components and raw materials from parties in our supply chain. The components that incorporate those metals may originate from many sources and we purchase fabricated products from manufacturers who may have a long and difficult-to-trace supply chain. As the spot price of these

materials varies, producers of the metal intermediates can be expected to change the mix of sources used. Accordingly, components and assemblies we buy may have a mix of sources as their origin. We are required to carry out a diligent effort to determine and disclose the source of these materials. There can be no assurance we can obtain this information accurately or reliably, or at all, from intermediate producers who may be unwilling or unable to provide this information or further identify their sources of supply or to notify us if these sources change. In addition, these metals are subject to price fluctuations and shortages which can affect our ability to obtain the manufactured materials we rely on at favorable terms or from consistent sources. These changes could have an adverse impact on our ability to manufacture and market our devices and products.

The Medicare and Medicaid anti-kickback laws, and several similar state laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers, prohibit payments or other remuneration that could be considered to induce hospitals, physicians or other potential purchasers of our products either to refer patients or to purchase, lease or order, or arrange for or recommend the purchase, lease or order, of healthcare products or services for which payment may be made under federal and state healthcare programs, such as Medicare and Medicaid and any other third-party payor programs. Further, the PPACA, among other things, amends the intent requirement of the federal anti-kickback and criminal health care fraud statutes.

A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the false claims statutes. Although we would not submit claims directly to government payors, manufacturers can be held liable under the federal false claim act if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label.
These laws may affect our sales, marketing, and other promotional activities by limiting the kinds of financial arrangements we may have with hospitals, physicians or other potential purchasers of our products. They particularly impact how we structure our sales offerings, including discount practices, customer support, education and training programs, physician consulting and other service arrangements. These laws are broadly written, and it is often difficult to determine precisely how these laws will be applied to specific circumstances. Violating anti-kickback laws can result in civil and criminal penalties, which can be substantial and include exclusion from government healthcare programs for noncompliance. Even an unsuccessful challenge or investigation into our practices could cause adverse publicity, and be costly to defend, and thus could harm our business and results of operations.
The PPACA also imposes new reporting and disclosure requirements on device manufacturers for any "transfer of value" made or distributed to prescribers and other healthcare providers. Such information must be made publicly available in a searchable format. In addition, device manufacturers are required to report and disclose any ownership or investment interests held by physicians and their immediate family members, as well as any transfers of value made to such physician owners and investors, during the preceding calendar year. Failure to submit required information may result in civil monetary penalties of up to an aggregate of $150,000 per year (and up to an aggregate of $1 million per year for "knowing failures"), for all payments, transfers of value or ownership or investment interests not reported in an annual submission. Device manufacturers are required to submit reports to CMS by the 90th day of each calendar year.
In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians, including the tracking and reporting of gifts, compensation and other remuneration to physicians. Certain states mandate implementation of commercial compliance programs to ensure compliance with these laws, impose restrictions on device manufacturer marketing practices and/or require the tracking and reporting of gifts, compensation and other remuneration to physicians. The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a healthcare company may be found out of compliance of one or more of the requirements, subjecting us to significant civil monetary penalties.
Compliance with complex foreign and U.S. laws and regulations that apply to our OUS operations increases our cost of doing business in foreign jurisdictions and could expose us or our employees to fines and penalties in the United States and/or abroad. These numerous and sometimes conflicting laws and regulations include U.S. laws such as the Foreign Corrupt Practices Act, and similar laws in foreign countries, such as the U.K. Bribery Act of 2010, which became effective on July 1, 2011. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business and damage to our reputation. Although we have implemented policies and procedures designed to ensure compliance with these laws, there can be no assurance that our employees, contractors or agents will not violate our policies.
OUR PRODUCTS ARE SUBJECT TO A LENGTHY AND UNCERTAIN DOMESTIC REGULATORY REVIEW PROCESS. IF WE DO NOT OBTAIN AND MAINTAIN THE NECESSARY DOMESTIC REGULATORY AUTHORIZATIONS, WE WILL NOT BE ABLE TO PROVIDE OUR PRODUCTS IN THE UNITED STATES.
Our products and operations are subject to extensive regulation in the United States by the FDA. The FDA regulates the development and clinical testing, manufacturing, labeling, storage, record keeping, promotion, sales, distribution and post-market support and medical device reporting in the United States to ensure that medical products distributed domestically are safe and effective for their intended uses. In order for us to market products for use in the United States, we generally must first obtain clearance from the FDA pursuant to Section 510(k) of the Federal Food Drug and Cosmetic Act ("FFDCA"). Clearance under Section 510(k) requires demonstration that a new device is substantially equivalent to another device with 510(k) clearance or grandfathered ("pre-amendment") status. If we significantly

modify our products after they receive FDA clearance, the FDA may require us to submit a separate 510(k) or premarket approval application ("PMA") for the modified product before we are permitted to market the products in the United States. In addition, if we develop products in the future that are not considered to be substantially equivalent to a device with 510(k) clearance or grandfathered status, we will be required to obtain FDA approval by submitting a PMA. A PMA is typically a much more complex, lengthy and burdensome application than a 510(k). To support a PMA, the FDA would likely require that we conduct one or more clinical studies to demonstrate that the device is safe and effective. In some cases such studies may be requested for a 510(k) as well. The FDA may not act favorably or quickly in its review of our 510(k) or PMA submissions, or we may encounter significant difficulties and costs in our efforts to obtain FDA clearance or approval, all of which could delay or preclude the sale of new products in the United States. Moreover, we may not be able to meet the requirements to obtain 510(k) clearance or PMA approval, in which case the FDA may not grant any necessary clearances or approvals. In addition, the FDA may place significant limitations upon the intended use of our products as a condition to a 510(k) clearance or PMA approval. Product applications can also be denied or withdrawn due to failure to comply with regulatory

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requirements or the occurrence of unforeseen problems following clearance or approval. Any delays or failure to obtain FDA clearance or approvals of new products we develop, any limitations imposed by the FDA on new product use, or the costs of obtaining FDA clearance or approvals could have a material adverse effect on our business, financial condition, results of operations or cash flows.

In addition, the FDA or other regulatory agencies may change their policies, adopt additional regulations or revise existing regulations, or take other actions which may prevent or delay approval or clearance of our products under development or impact our ability to modify our currently approved or cleared products on a timely basis. We may be found noncompliant as a result of future changes in, or interpretations of, regulations by the FDA or other regulatory agencies.

In order to conduct a clinical investigation involving human subjects for the purpose of demonstrating the safety and effectiveness of a medical device, a company must, among other things, apply for and obtain Institutional Review Board ("IRB") approval of the proposed investigation. In addition, if the clinical study involves a "significant risk" (as defined by the FDA) to human health, the sponsor of the investigation must also submit and obtain FDA approval of an Investigational Device Exemption ("IDE") application. Many of our products to date have been or would be considered significant risk devices requiring IDE approval prior to investigational use. We may not be able to obtain FDA and/or IRB approval to undertake clinical trials in the United States for any new devices we intend to market in the United States in the future. If we obtain such approvals, we may not be able to conduct studies which comply with the IDE and other regulations governing clinical investigations or the data from any such trials may not support clearance or approval of the investigational device. Failure to obtain such approvals or to comply with such regulations could have a material adverse effect on our business, financial condition and results of operations.

Certainty that clinical trials will meet desired endpoints, produce meaningful or useful data and be free of unexpected adverse effects, or that the FDA will accept the validity of foreign clinical study data cannot be assured, and such uncertainty could preclude or delay market clearance or authorizations resulting in significant financial costs and reduced revenue.

In addition, some products may be regulated by the FDA as drugs, biologics or combination devices which carry still greater requirements for clinical trials, regulatory submissions and approvals.

COMPLYING WITH FDA REGULATIONS IS A COMPLEX PROCESS, AND OUR FAILURE TO COMPLY FULLY COULD SUBJECT US TO SIGNIFICANT ENFORCEMENT ACTIONS.

Because our products, including the da Vinci Surgical System, are commercially distributed, numerous quality and post-market regulatory requirements apply, including the following:

- continued compliance to the QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures during the development and manufacturing process;
- labeling regulations;
- the FDA's general prohibition against false or misleading statements in the labeling or promotion of products for unapproved or "off-label" uses;
- stringent complaint reporting and Medical Device Reporting regulations, which requires that manufacturers keep detailed records of investigations or complaints against their devices and to report to the FDA if their device 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;
- adequate use of the Corrective and Preventive Actions process to identify and correct or prevent significant systemic failures of products or processes or in trends which suggest same; and
- the reporting of Corrections and Removals, which requires that manufacturers report to the FDA recalls and field corrective actions taken to reduce a risk to health or to remedy a violation of the FFDCA that may pose a risk to health.

We are subject to inspection and marketing surveillance by the FDA to determine our compliance with regulatory requirements. If the FDA finds that we have failed to comply, it can institute a wide variety of enforcement actions, ranging from inspectional observations (Form FDA 483) to a public Warning Letter to more severe civil and criminal sanctions including the seizure of our products and equipment or ban on the import or export of our products. The FDA has in the past issued and could in the future issue Warning Letters or other communications to us. If we fail to

satisfy or remediate the matters discussed in any such Warning Letters or communications, the FDA could take further enforcement action, including prohibiting the sale or marketing of the affected product. Our failure to comply with applicable requirements could lead to an enforcement action that may have an adverse effect on our financial condition and results of operations. The receipt of a Warning Letter places certain limits on the ability to obtain FDA issued Certificates to Foreign Government ("CFGs") used for new and re-registration of products in certain foreign countries.

The FDA also strictly regulates labeling, advertising, promotion, and other activities relating to the marketing of our products. Medical devices may be promoted only for their cleared or approved indications and in accordance with the provisions of the

cleared or approved label. It is possible that federal or state enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under a variety of statutory authorities, including under the FFDCA as well as laws prohibiting false claims for reimbursement.

In addition, any modification or change of medical devices cleared for market requires the manufacturer to make a determination whether the change is significant enough to require new 510(k) clearance. We have created labeling, advertising and user training for the da Vinci Surgical System to describe specific surgical procedures that we believe are fully within the scope of our existing 510(k) indications for use stated in our 510(k) clearances. Although we have relied on expert in-house and external staff, consultants and advisors, some of whom were formerly employed by FDA and familiar with FDA perspective, we cannot assure that the FDA would agree that all such specific procedures are within the scope of the existing general clearance or that we have compiled adequate information to support the safety and efficacy of using the da Vinci Surgical System for all such specific procedures. From time to time we modify our products, including the hardware and software in the da Vinci Surgical System, after we obtain 510(k) clearance from the FDA for the devices in ways that we do not believe require new 510(k) clearance. We cannot assure that the FDA would agree in all cases with our determinations not to seek new 510(k) clearance for any of these changes. If the FDA disagrees with our assessments that a new 510(k) clearance was not required prior to commercializing the devices with these changes or modifications, then the FDA could impose enforcement sanctions and/or require us to obtain 510(k) clearance for any modification to our products. We may be prohibited from marketing the modified device until such 510(k) clearance is granted.

We have a wholly owned manufacturing facility located in Mexicali, Mexico which manufactures reusable and disposable surgical instruments. This facility is registered with the FDA as well as Mexican authorities. The facility is operated under U.S. and international quality system regulations including those applicable to Canada, the European Union, and Japan among others. Our wholly owned manufacturing facility in Mexicali, Mexico has an FDA Establishment Registration but has not been inspected by the FDA to date. If the FDA were to identify non-conformances in our product documentation or quality system compliance, they could hold indefinitely the importation of instruments at the border which would deprive us of the ability to sell and supply the majority of our customers until the FDA requirements have been satisfied. Similar supply disruptions could occur if key suppliers outside of the U.S. were to encounter non-conformances with their documentation or quality system compliance.

OUR PRODUCTS ARE SUBJECT TO VARIOUS INTERNATIONAL REGULATORY PROCESSES AND APPROVAL REQUIREMENTS. IF WE DO NOT OBTAIN AND MAINTAIN THE NECESSARY INTERNATIONAL REGULATORY APPROVALS, WE WILL NOT BE ABLE TO PROVIDE OUR PRODUCTS IN FOREIGN COUNTRIES.

To be able to provide our products in other countries, we must obtain regulatory approvals and comply with the regulations of those countries which may differ substantially from those of the United States. These regulations, including the requirements for approvals and the time required for regulatory review, vary from country to country. Obtaining and maintaining foreign regulatory approvals is complex, and we cannot be certain that we will receive regulatory approvals in any foreign country in which we plan to market our products, or to obtain such approvals on a favorable schedule. If we fail to obtain or maintain regulatory approval in any foreign country in which we plan to market our products, our ability to generate revenue will be harmed. In particular, if the FDA refuses to provide CFGs our ability to register products or renew such registrations may be delayed or denied.

The EU requires that manufacturers of medical products obtain the right to affix the CE mark to their products before selling them in member countries of the EU. The CE mark is an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. In order to obtain the authorization to affix the CE mark to products, a manufacturer must obtain certification that its processes and products meet certain European quality standards. In January 1999, we received permission to affix the CE mark to our da Vinci Surgical System and EndoWrist instruments and have maintained this authorization continuously since that time. From time to time we seek the authorization to affix the CE mark to new or modified products. Subsequent products and accessories have received marketing authorization by our Notified Body, PreSafe.

As we modify existing products or develop new products in the future, including new instruments, we currently plan to apply for authorization to affix the CE mark to such products. In addition, we are subject to annual regulatory audits in order to maintain the CE mark authorizations we have already obtained including inspection of our compliance to required standards and directives. We cannot be certain we will be able to affix the CE mark for new or modified products or that we will continue to meet the quality and performance standards required to maintain the authorizations we have already received. If we are unable to maintain permission to affix the CE mark to our products, we will no longer be able to sell our products in member countries of the EU and many affiliated countries that accept the CE mark, which would have a material adverse effect on our results of operations. Some member states of the European Union have additional requirements for registration and notification which may add to the time and effort to obtain market access. In addition, the regulations applied to end users of our products may increase over time, forcing us to provide additional solutions to regulations which do not apply directly to us, but which apply indirectly as they may limit our customers' ability to use our products.

To date, we received approvals from the Japanese Ministry of Health, Labor and Welfare ("MHLW") for our da Vinci S, Si, and Xi Surgical Systems and various associated instruments and accessories for use in certain da Vinci procedures. We may seek

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additional approvals for other products and/or indications, however, there can be no assurance that such approvals will be granted. In addition, because not all of our instruments have received product approvals, and reimbursement is an additional process to generate market acceptance, it is possible that procedures will be adopted slowly or not at all. Sales of our products depend, in part, on the extent to which the costs of our products are reimbursed by governmental health administration authorities. To date, we have received reimbursement approval for prostatectomy and partial nephrectomy procedures in Japan. There are multiple pathways to obtain reimbursement for procedures including those that require in-country clinical data and which are considered for reimbursed status in April of even numbered years. If we are not successful in obtaining the necessary reimbursement approvals or obtaining approvals for future products and procedures, then the demand for our products could be limited. These limitations could eliminate a significant market opportunity for our products in Japan.

Our capital sales in China are subject to importation authorizations and central purchasing tender processes. Therefore, future system sales and our ability to grow future procedure volumes are dependent on the completion of these central purchasing tender authorizations, the most recent of which expired at the end of 2015. The timing and magnitude of these future authorizations, which may determine our system placements in future years, is not certain and we expect to continue to experience variability in the timing of capital sales in China.

IF OUR MANUFACTURING FACILITIES DO NOT CONTINUE TO MEET FEDERAL, STATE OR OTHER MANUFACTURING STANDARDS, WE MAY BE REQUIRED TO TEMPORARILY CEASE ALL OR PART OF OUR MANUFACTURING OPERATIONS, IMPORT/EXPORT OF OUR PRODUCTS AND/OR RECALL SOME PRODUCTS WHICH WOULD RESULT IN SIGNIFICANT PRODUCT DELIVERY DELAYS AND LOST REVENUE.

Our manufacturing facilities are subject to periodic inspection by regulatory authorities and our operations will continue to be regulated and inspected by the FDA and other regulatory agencies for compliance with Good Manufacturing Practice requirements contained in the QSR and other regulatory requirements. We are also required to comply with International Organization for Standardization (“ISO”) quality system standards as well as European Directives and norms in order to produce products for sale in the European Union. In addition, many countries such as Canada and Japan have very specific additional regulatory requirements for quality assurance and manufacturing. If we fail to continue to comply with Good Manufacturing Practice requirements, as well as ISO or other regulatory standards, we may be required to cease all or part of our operations until we comply with these regulations.

We continue to be subject to FDA and certain other inspections at any time. Maintaining such compliance is difficult and costly. We cannot be certain that our facilities will be found to comply with Good Manufacturing Practice requirements or ISO standards and other regulatory requirements in future inspections and audits by regulatory authorities.

Our Sunnyvale, California facility is licensed by the State of California to manufacture medical devices. We have been subject to periodic inspections by the California Department of Health Services Food and Drug Branch and, if we are unable to maintain this license following any future inspections, we will be unable to manufacture or ship some products, which would have a material adverse effect on our results of operations. In 2012 the State of California announced suspension of routine inspections but this policy could be modified or inspections could be resumed for specific circumstances. In addition, both our Sunnyvale, California and Mexicali, Mexico facilities are subject to periodic inspections by other regulatory bodies, including third party auditors on behalf of national regulatory authorities. Compliance with multiple regulatory standards is complex, difficult and costly to maintain, and material deficiencies could result in significant limitations on our ability to manufacture, transport and sell our products in one or more countries.

IF HOSPITALS AND OTHER SURGERY FACILITIES DO NOT CONTINUE TO MEET FEDERAL, STATE OR OTHER REGULATORY STANDARDS, THEY MAY BE REQUIRED TO TEMPORARILY CEASE ALL OR PART OF THEIR DA VINCI UTILIZATION.

Our global customers are subject to periodic inspection by regulatory authorities. Our customers are required to comply with applicable local and international regulations, including with respect to the reprocessing of da Vinci instruments and accessories. Hospitals may not follow cleaning and sterilization instructions properly, or equipment used for cleaning and sterilization may malfunction or be used improperly. If our customers deviate from cleaning and

sterilization instructions, regulatory authorities may require them to suspend use of da Vinci Surgical Systems.

RISKS RELATING TO OUR INTELLECTUAL PROPERTY

IF WE ARE UNABLE TO FULLY PROTECT AND SUCCESSFULLY DEFEND OUR INTELLECTUAL PROPERTY FROM USE BY THIRD PARTIES, OUR ABILITY TO COMPETE IN THE MARKET WILL BE HARMED.

Significant competitors have emerged and in medical robotics. Our commercial success depends in part on obtaining patent protection for the proprietary technologies contained in our products, and on successfully defending our patents against infringing products and/or services in litigation or administrative proceedings, including patent oppositions, reviews, or reexaminations. We will incur substantial costs in obtaining patents and, if necessary, defending our patent rights. We do not know whether we will be successful in obtaining the desired patent protection for our new proprietary technologies, or that the protection we do obtain

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will be found valid and enforceable when challenged. The success of defending our proprietary rights can be highly uncertain because it involves complex and often evolving legal issues and procedures that are dependent on particular facts of each case.

In addition to patents, we also rely on other intellectual property rights such as trade secret, copyright and trademark laws to protect proprietary technologies. We further utilize nondisclosure agreements and other contractual provisions as well as technical measures to protect our proprietary technologies. Nevertheless, these measures may be inadequate in protecting our technologies. If these measures are proved to be inadequate in protecting our technologies, our competitive advantages may be reduced. Moreover, we may not have adequate remedies for potential breaches by employees, consultants and others who participate in developing our proprietary technologies against their agreements with us regarding intellectual property. As a result, our trade secrets may be lost. Notwithstanding our efforts to protect our intellectual property, our competitors may independently develop similar or alternative technologies or products that are equal or superior to our technologies without infringing any of our intellectual property which would harm our ability to compete in the market.

As foreign markets become more significant in revenue for us, our foreign operations and strategic alliances with foreign entities will likely increase. Our exposure to risks associated with these operations requires us to increase our reliance on protecting our intellectual property against infringing products and/or services in markets outside the United States. The laws and judicial systems in these countries may introduce yet another level of uncertainty to our effort to obtain the desired protection as well as defending our rights.

OTHERS MAY BE SUCCESSFUL IN ASSERTING THAT OUR PRODUCTS INFRINGE THEIR INTELLECTUAL PROPERTY RIGHTS, WHICH MAY CAUSE US TO PAY SUBSTANTIAL DAMAGES AND/OR ENJOIN US FROM COMMERCIALIZING OUR PRODUCTS.

As we continue to introduce and commercialize new products and technologies, there may be U.S. and foreign patents issued to third parties that relate to our products. Some of these patents may be broad enough to cover one or more aspects of our products. We do not know whether any of these patents, if challenged, would be held valid, enforceable and infringed. From time to time, we receive, and likely will continue to receive, letters from third parties accusing us of infringing and/or inviting us to license their patents. We may be sued by, or become involved in an administrative proceeding with, one or more of these third parties.

We cannot be certain that a court or administrative body would agree with any arguments or defenses we may have concerning invalidity, unenforceability or non-infringement of any third-party patent. In addition, other parties may have filed or will file patent applications covering products that are similar or identical to ours. We cannot be certain that patents issuing from our own patent application covering our products will have a priority date over any patents issuing from applications filed by a third party.

The medical device industry has experienced extensive intellectual property litigation and administrative proceedings. If third parties assert infringement claims or institute administrative proceedings against us, our technical and management personnel will need to spend time and effort and we will incur large expenses in defending these attacks. We cannot be certain that we will prevail in infringement, invalidity or unenforceability claims against us. If plaintiffs in patent administrative proceedings are successful, our patent portfolio may be adversely affected. If plaintiffs in any patent action are successful, we may be enjoined from selling our products, we may have to pay substantial damages, including treble damages, or we may be required to obtain a license that requires us to pay substantial royalties. In addition, any public announcements related to litigation or administrative proceedings initiated or threatened against us could cause our stock price to decline.

OUR PRODUCTS RELY ON LICENSES FROM THIRD PARTIES, AND IF WE LOSE ACCESS TO THESE TECHNOLOGIES, OUR REVENUES COULD DECLINE.

We rely on technology that we license from others, including technology that is integral to our products. We have entered into license agreements with several industry partners. Any of these agreements may be terminated for breach. If any of these agreements are terminated, we may be unable to reacquire the necessary license on satisfactory terms, or at all. The loss or failure to maintain these licenses could prevent or delay further development or commercialization of our products, which may have a material adverse effect on our business, financial condition, results of operations or cash flows.

RISKS RELATING TO OUR TRADING MARKETS

OUR FUTURE OPERATING RESULTS MAY BE BELOW SECURITIES ANALYSTS' OR INVESTORS' EXPECTATIONS, WHICH COULD CAUSE OUR STOCK PRICE TO DECLINE.

Due to the nascent nature of our industry, we have limited insight into trends that may emerge in our market and affect our business. The revenue and income potential of our market are unproven, and we may be unable to continue to generate significant revenues. Our products typically have lengthy sales cycles. In addition, our costs may be higher than we anticipated. If we fail to generate sufficient revenues or our costs are higher than we expect, our results of operations may be materially adversely affected. Further, future revenue from sales of our products is difficult to forecast because the market for new surgical technologies is still evolving. Our results of operations will depend upon numerous factors, including:

- the extent to which our products achieve and maintain market acceptance;

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- actions relating to regulatory matters;
- our timing and ability to develop our manufacturing and sales and marketing capabilities;
- demand for our products;
- the size and timing of particular sales and any collection delays related to those sales;
- product quality and supply problems;
- the progress of surgical training in the use of our products;
- our ability to develop, introduce and market new or enhanced versions of our products on a timely basis;
- third-party payor reimbursement policies;
- our ability to protect our proprietary rights and defend against third party challenges;
- our ability to license additional intellectual property rights; and
- the progress and results of clinical trials.

Our operating results in any particular period will not be a reliable indication of our future performance. It is likely that in some future quarters, our operating results will be below the expectations of securities analysts or investors. If this occurs, the price of our common stock and the value of your investment will likely decline.

OUR STOCK PRICE HAS BEEN, AND WILL LIKELY CONTINUE TO BE, VOLATILE.

The market price of our common stock has experienced fluctuations and may fluctuate significantly in the future. For example, during fiscal 2013, the NASDAQ closing price of one share of our common stock reached a high of $583.67 and a low of $355.93, during fiscal 2014, it reached a high of $540.63 and a low of $352.35, during fiscal 2015, it reached a high of $557.20 and a low of $454.86, and during fiscal 2016, it reached a high of $724.83 and a low of $507.28. Our stock price can fluctuate for a number of reasons, including:

- announcements about us or our competitors;
- quarterly variations in operating results;
- introduction or abandonment of new technologies or products;
- regulatory approvals and enforcement actions;
- changes in product pricing policies;
- changes in earnings estimates by analysts or changes in accounting policies;
- economic changes and overall market volatility;
- litigation; and
- political uncertainties.

In addition, stock markets have experienced significant price and volume volatility in the past, especially recently. This volatility has had a substantial effect on the market prices of securities of many public companies for reasons frequently unrelated or disproportionate to the operating performance of the specific companies. In addition, the securities of many medical device companies, including us, have historically been subject to extensive price and volume fluctuations that may affect the market price of their common stock. If these broad market fluctuations continue, they may have a material adverse impact on the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

As of December 31, 2016, we own approximately 927,000 square feet of space on 70 acres of land in Sunnyvale, California, where we house our headquarters, research and development, service and support functions, and certain of our manufacturing operations. In Norcross, Georgia, we own approximately 92,000 square feet of space on 10 acres which serves as our East Coast sales and training headquarters. In Aubonne, Switzerland, we own approximately 35,000 square feet of space on 2 acres, which is used for our headquarters outside of the United States and 15,000 square feet of space is leased to a third party. In Southhaven, Mississippi, we lease 117,000 square feet of space for service operations and will be used for future expansion of our operations. We lease 62,000 square feet in Tokyo, Japan for our Japan training center and sales operations. We lease 157,000 square feet in Mexicali, Mexico where we manufacture most of our EndoWrist instruments. We lease facilities in Milford, Connecticut, Raleigh, North Carolina, and Blacksburg, Virginia for research and development and other operations. We also lease facilities for sales and operations in Osaka, Japan and Seoul, South Korea.

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ITEM 3. LEGAL PROCEEDINGS

The information included in Note 7 to the Consolidated Financial Statements included in Part II, Item 8 of this report is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

PRICE RANGE OF COMMON STOCK

Our common stock is being traded on The NASDAQ Global Select Market under the symbol "ISRG." The following table sets forth the high and low closing prices of our common stock for each period indicated and are as reported by NASDAQ.

	2016		2015	
Fiscal	High	Low	High	Low
First Quarter	$603.07	$507.28	$535.36	$487.52
Second Quarter	$661.41	$606.50	$552.98	$483.78
Third Quarter	$724.83	$664.67	$557.20	$455.47
Fourth Quarter	$724.61	$619.01	$553.37	$454.86

As of January 20, 2017, there were 203 stockholders of record of our common stock, although we believe that there are a significantly larger number of beneficial owners of our common stock.

DIVIDENDS

We have never declared or paid any cash dividends on our common stock. We intend to retain earnings for use in the operation and expansion of our business.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table contains information as of December 31, 2016 for two categories of equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	2,666,131	$ 439.31	1,917,140
Equity compensation plans not approved by security holders	422,408	$ 481.55	131,045
Total	3,088,539	$ 445.09	2,048,185

RECENT SALES OF UNREGISTERED SECURITIES

None.

ISSUER PURCHASES OF EQUITY SECURITIES

The table below summarizes our stock repurchase activity for the quarter ended December 31, 2016:

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)	
October 1 to October 31, 2016	—	$ —	—	$ 808.2	million
November 1 to November 30, 2016	10,674	$ 632.77	10,674	$ 801.5	million
December 1 to December 31, 2016	44,020	$ 629.68	44,020	$ 2,991.6	million
Total during quarter ended December 31, 2016	54,694	$ 630.29	54,694		

(1) Since March 2009, we have had an active stock repurchase program. As of December 31, 2016, the Board of Directors has authorized an aggregate amount of up to $6.2 billion for stock repurchases, of which the most recent authorization occurred in December 2016 when the Board increased the authorized amount available under the Company's share repurchase program to $3.0 billion. The remaining $2,991.6 million represents the amount available

to repurchase shares under the authorized repurchase program as of December 31, 2016. The authorized stock repurchase program does not have an expiration date.

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STOCK PERFORMANCE GRAPH

The graph set forth below compares the cumulative total stockholder return on our common stock between December 31, 2011 and December 31, 2016, with the cumulative total return of (i) the S&P Healthcare Index, (ii) the NASDAQ Composite Index and (iii) the S&P 500 Index, over the same period. This graph assumes the investment of $100.00 on December 31, 2011 in our common stock, the S&P Healthcare Index, the NASDAQ Composite Index, and the S&P 500 Index and assumes the reinvestment of dividends, if any.

The comparisons shown in the graph below are based upon historical data. We caution that the stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our common stock.

COMPARISON OF CUMULATIVE TOTAL RETURN AMONG INTUITIVE SURGICAL, NASDAQ COMPOSITE, S&P HEALTH CARE INDEX, AND S&P 500 INDEX

	December 31,					
	2011	2012	2013	2014	2015	2016
Intuitive Surgical, Inc.	$100.00	$105.91	$82.95	$114.24	$117.96	$136.97
NASDAQ Composite	$100.00	$117.45	$164.57	$188.84	$201.98	$219.89
S&P 500 Healthcare Index	$100.00	$117.89	$166.76	$209.02	$223.42	$242.43
S&P 500 Index	$100.00	$116.00	$153.57	$174.60	$177.01	$198.18

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ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our Consolidated Financial Statements and the accompanying Notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this report. The selected data in this section is not intended to replace the Consolidated Financial Statements.

	Fiscal Year				
	2016	2015	2014	2013	2012
	(In millions, except per share amounts and headcount)				
Revenue	$2,704.4	$2,384.4	$2,131.7	$2,265.1	$2,178.8
Gross profit	$1,890.1	$1,577.9	$1,413.8	$1,594.2	$1,570.3
Net income	$735.9	$588.8	$418.8	$671.0	$656.6
Net income per common share:					
Basic	$19.21	$15.87	$11.35	$17.12	$16.50
Diluted	$18.73	$15.54	$11.11	$16.73	$15.98
Shares used in computing basic and diluted net income per share:					
Basic	38.3	37.1	36.9	39.2	39.8
Diluted	39.3	37.9	37.7	40.1	41.1
Cash, cash equivalents and investments	$4,837.9	$3,347.8	$2,497.0	$2,753.9	$2,920.5
Total assets	$6,486.9	$4,907.3	$3,959.4	$3,950.3	$4,059.2
Other long-term liabilities	$112.6	$95.9	$78.8	$68.0	$77.5
Stockholders' equity	$5,777.8	$4,319.5	$3,379.4	$3,501.4	$3,580.1
Total headcount	3,755	3,211	2,978	2,792	2,362

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

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

da Vinci Surgical Systems enable surgeons to extend the benefits of MIS to many patients who would otherwise undergo a more invasive surgery by using computational, robotic and imaging technologies to overcome many of the limitations of conventional MIS. Surgeons using a da Vinci Surgical System operate while seated comfortably at a console viewing a 3-D representation of a HD image of the surgical field. This immersive visualization 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 the open surgery technique. Our technology is designed to provide surgeons with a range of motion of MIS instruments 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 products fall into four broad categories - the da Vinci Surgical Systems, InSite and Firefly Fluorescence imaging systems ("Firefly"), instruments and accessories (e.g., EndoWrist, EndoWrist Vessel Sealer, da Vinci Single-Site and EndoWrist Stapler), and training technologies. We have commercialized four generations of da Vinci Surgical Systems: the first is our da Vinci standard Surgical System, commercialized in 1999, the second is our da Vinci S Surgical System, commercialized in 2006, the third is our da Vinci Si Surgical System, commercialized in 2009, and the fourth is our da Vinci Xi Surgical System, commercialized in the second quarter of 2014. These systems include a surgeon's console (or consoles), imaging electronics, a patient-side cart, and computational hardware and software. We offer over 65 different multiport da Vinci instruments enabling surgeons' flexibility in choosing the types of tools needed in a particular surgery. These multiport instruments are generally robotically controlled versions of surgical tools that surgeons would use in either open or laparoscopic surgery. We offer advanced instrumentation for the da Vinci Si and da Vinci Xi platforms, including the EndoWrist Vessel Sealer and EndoWrist Stapler products, to provide surgeons with sophisticated, computer-aided tools to precisely and efficiently interact with tissue. We offer our Single-Site instruments for use with the da Vinci Si and da Vinci Xi Surgical Systems in cholecystectomy, benign hysterectomy, and salpingo-oophorectomy procedures. Single-Site instruments enable surgeons to also perform surgery through a single port via the patient's belly button, resulting in the potential for virtually scarless results. Training technologies include our da Vinci Skills Simulator, da Vinci Connect remote case observation and mentoring tool, and our dual console for use in surgeon proctoring and collaborative surgery.

Procedures

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

Worldwide Procedures

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

The adoption of da Vinci Surgery has the potential to grow for those procedures that offer greater patient value than non-da Vinci alternatives, within the prevailing economics of healthcare providers. da Vinci Surgical Systems are

used primarily in gynecologic surgery, general surgery, urologic surgery, cardiothoracic surgery, and head and neck surgery. We focus our organization and investments on developing, marketing, and training for those products and targeted procedures where da Vinci can bring patient value relative to alternative treatment options and/or economic benefit to healthcare providers. Target procedures in gynecology include da Vinci Hysterectomy ("dVH"), for both cancer and benign conditions, and sacrocolpopexy. Target procedures in general surgery include hernia repair (both ventral and inguinal), colorectal procedures, and cholecystectomy. Target procedures in urology

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include da Vinci Prostatectomy (“dVP”) and partial nephrectomy. In cardiothoracic surgery, target procedures include da Vinci Lobectomy and da Vinci Mitral Valve Repair. In head and neck surgery, target procedures include certain procedures resecting benign and malignant tumors classified as T1 and T2. Not all the indications, procedures, or products described may be available in a given country or region or on all generations of da Vinci Surgical Systems. Patients need to consult the product labeling in their specific country and for each product in order to determine the actual authorized uses, as well as important limitations, restrictions, or contraindications.

In 2016, approximately 753,000 surgical procedures were performed with the da Vinci Surgical System, compared with approximately 652,000 and 570,000 procedures performed in 2015 and 2014, respectively. The growth in our overall procedure volume in 2016 was driven by growth in U.S. general surgery procedures and worldwide urologic procedures.

U.S. Procedures

Overall U.S. procedure volume grew to approximately 563,000 in 2016, compared with approximately 499,000 in 2015, and approximately 449,000 in 2014. Gynecology is our largest U.S. surgical specialty and the procedure volume was approximately 246,000 in 2016, compared with 238,000 in 2015 and 235,000 in 2014. General surgery is our second largest and fastest growing specialty in the U.S. with procedure volume that grew to approximately 186,000 in 2016, compared with approximately 140,000 in 2015 and 107,000 in 2014. U.S. urology procedure volume was approximately 109,000 in 2016, compared with approximately 102,000 in 2015, and 91,000 in 2014.

Procedures Outside of the U.S.

Overall OUS procedures grew to approximately 190,000 in 2016, compared with approximately 153,000 in 2015 and approximately 121,000 in 2014. Procedure growth in most OUS markets was driven largely by urology procedure volume. dVP procedure volume grew to approximately 92,000 in 2016, compared with approximately 79,000 in 2015, and approximately 65,000 in 2014. Partial nephrectomy, general surgery, and gynecologic oncology procedures also contributed to OUS procedure growth.

See “Recent Business Events and Trends” for further discussion on U.S. and OUS procedures.

Business Model

Overview

We generate revenue from both the initial capital sales of da Vinci Surgical Systems and from subsequent sales of instruments, accessories and service, as recurring revenue. The da Vinci Surgical System generally sells for approximately between $0.6 million and $2.5 million, depending upon the model, configuration and geography, and represents a significant capital equipment investment for our customers. We generate recurring revenue as our customers purchase our EndoWrist and Single-Site instrument and accessory products used in performing procedures with the da Vinci Surgical System. Our instruments and accessories have a limited life and will either expire or wear out as they are used in surgery, at which point they need to be replaced. We typically enter into service contracts at the time systems are sold at an annual rate of approximately $80,000 to $170,000, depending upon the configuration of the underlying system and composition of the services offered under the contract. These service contracts have generally been renewed at the end of the initial contractual service periods.

Recurring Revenue

Recurring revenue has generally grown at a faster rate than system revenue in the last few fiscal years. Recurring revenue increased to $1.9 billion, or 71% of total revenue in 2016, compared with $1.7 billion, or 70% of total revenue in 2015 and $1.5 billion, or 70% of total revenue in 2014. The growth of recurring revenue and its increasing proportion of total revenue largely reflect continued procedure adoption on a growing base of installed da Vinci Surgical Systems. The installed base of da Vinci Surgical Systems has grown to approximately 3,919 at December 31, 2016, compared with 3,597 at December 31, 2015, and 3,266 at December 31, 2014.

Procedure Mix / Products

Our procedure business is primarily comprised of: (1) cancer and other highly complex procedures and (2) less complex procedures for benign conditions. Cancer and other highly complex procedures tend to be reimbursed at higher rates than less complex procedures for benign conditions. Thus, hospitals are more sensitive to the costs associated with treating less complex benign conditions. Our strategy is to provide hospitals with attractive clinical and economic solutions in each of these procedure categories. Our fully featured da Vinci Xi system with advanced

instruments including the EndoWrist Vessel Sealer, EndoWrist Stapler products, and our Table Motion product target the more complex procedure segment. Lower priced products, including the three-arm da Vinci Si-e System, refurbished da Vinci Si, and Single-Site instruments, are targeted towards less complex procedures.

Procedure Seasonality

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

Distribution Channels

We provide our products through direct sales organizations in the U.S., Japan, South Korea, and Europe, excluding Spain, Portugal, Italy, Greece, and Eastern European countries. In the remainder of our OUS markets, we provide our products through distributors.

Intuitive Surgical da Vinci System Leasing

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

In the years ended December 31, 2016, 2015, and 2014, we shipped 95, 63, and 41 systems under lease arrangements, respectively, of which 62, 43, and 14 were classified as operating leases, respectively. Generally, the operating lease arrangements provide our customers with the right to purchase the leased system sometime during or at the end of the lease term. Revenue generated from customer purchases of systems under operating lease arrangements (“Lease Buyouts”) was $38.2 million, $9.4 million, and $0 million for the years ended December 31, 2016, 2015, and 2014, respectively. We expect that revenue recognized from customer exercises of the buyout options will fluctuate based on the timing of when, and if, customers choose to exercise their buyout options. Operating lease revenue for the years ended December 31, 2016, 2015, and 2014, was $16.6 million, $7.0 million and $1.3 million, respectively. As of December 31, 2016, 79 da Vinci systems were installed at customers under operating lease arrangements. We believe our leasing program has been an effective and well-received, and we are willing to expand it based on customer demand.

Regulatory Activities

Clearances and Approvals

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

In March 2014, we received FDA clearance to market our da Vinci Xi Surgical System in the U.S., our fourth generation da Vinci Surgical System (see the description of the da Vinci Xi Surgical System in the New Product Introductions section below). In June 2014, we received CE mark clearance for our da Vinci Xi Surgical System in Europe. We received regulatory clearances for the da Vinci Xi Surgical System in South Korea in October 2014 and in Japan in March 2015. The regulatory status of the da Vinci Xi Surgical System in other OUS markets varies by country.

We also received FDA clearance on an initial set of instruments for the Xi Surgical system in early 2014. Later in 2014, we received FDA clearances for Xi versions of our EndoWrist Vessel Sealer, Firefly, and EndoWrist Stapler 45. In September 2014, we received FDA clearance to market the wristed version of our Single-Site needle driver product for use on benign hysterectomy, cholecystectomy, and salpingo oophorectomy procedures. In the second quarter of 2015, we received FDA clearance for an additional set of da Vinci Xi instruments. In April 2015, we received CE Mark status to sell the EndoWrist Stapler for the Si and Xi Surgical Systems in European markets. In June 2015, we received CE mark clearance in Europe and in January 2016 we received U.S. FDA clearance for our

Integrated Table Motion product. In March 2016, we received FDA 510(k) clearances in the U.S. for Single-Site instruments and the 30mm EndoWrist stapler products for the da Vinci Xi Surgical System (see the description of the EndoWrist Stapler 30 in the New Product Introductions section below). In March 2016, we also received CE mark clearances in Europe for Single-Site instruments and the 30mm EndoWrist stapler products for the da Vinci Xi Surgical System.

In April 2014, we received FDA clearance to market our da Vinci Single Port Surgical System in the U.S. for single-port urologic surgeries. At the time, we decided not to market that version of the da Vinci Single Port Surgical System. We instead elected to pursue the necessary modifications to integrate it into the da Vinci Xi product family as a dedicated single port patient console compatible with the existing da Vinci Xi surgeon console, vision cart, and other equipment. We have since completed

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these modifications and have begun clinical evaluations of the product. We plan to seek FDA clearance(s) for this da Vinci Xi version of the da Vinci Single Port Surgical System for procedure(s) in which a single small entry point to the body and parallel delivery of instruments is important. Such surgeries could include those performed through a natural orifice like the mouth for head and neck procedures or those performed through a single skin incision. We do not anticipate material revenue contribution from the da Vinci Single Port Surgical System in 2017.

We obtained approval from the Japanese Ministry of Health, Labor, and Welfare (“MHLW”) for our da Vinci Xi Surgical System in March 2015. National reimbursement status was received for dVP procedures in Japan effective April 2012 and for da Vinci partial nephrectomy procedures in April 2016. With our support, Japanese surgical societies are seeking reimbursement for additional procedures through the MHLW’s Senshin Iryo processes as well as alternative reimbursement processes. Senshin Iryo approvals require in-country clinical data and are considered in April of even numbered years. There can be no assurance that we will gain additional reimbursements for the procedures or at the times we have targeted. If we are not successful in obtaining additional regulatory clearances, importation licenses, and adequate procedure reimbursements for future products and procedures, then the demand for our products in Japan could be limited.

Recalls and Corrections

Medical device companies have regulatory obligations to correct or remove medical devices in the field that could pose a risk to health. The definition of “recalls and corrections” is expansive and includes repair, replacement, inspections, re-labeling, 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 which a medical device manufacturer may take in the field without reporting, including routine servicing, the introduction of new products and new indications for use, 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 which is a recall or correction, we will notify customers regarding the field action, provide any additional documentation required in their national language, and arrange, as required, return or replacement of the affected product or a field service visit to perform the correction.

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

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Recent Business Events and Trends
Procedures
Overall. During the year ended December 31, 2016, total da Vinci procedures grew approximately 15% compared with 14% for the year ended December 31, 2015. U.S. procedure growth during the year ended December 31, 2016 was approximately 13%, compared with approximately 11% for the year ended December 31, 2015. The higher 2016 U.S. procedure growth was largely attributable to growth in general surgery procedures, most notably hernia repair and colorectal procedures, as well as moderate growth in more mature gynecologic and urologic procedure categories. Procedure volume OUS for the year ended December 31, 2016, grew approximately 24% compared with approximately 26% growth for the year ended December 31, 2015, driven by continued growth in dVP procedures and earlier stage growth in kidney cancer procedures. We believe growth in these global markets is being driven by increased acceptance among surgeons and health systems, supported by expanded global evidence validating the clinical and economic value of dVP.
The 2016 OUS procedure growth rate reflects continued da Vinci adoption in European and Asian markets. Growth was strong in Asia and variable by country in Europe. We experienced strong procedure growth in China as systems sold under a previous public hospital quota system have been installed. However, procedure adoption in China, future system placements and our ability to sustain procedure growth are dependent on obtaining additional importation authorizations and hospitals completing a central purchasing tender process under the authorization. The most recent authorization expired at the end of 2015. The timing and magnitude of future authorizations, which may enable future system placements, is not certain. In Japan, procedure growth rates are likely to be paced by the timing of procedure reimbursement approvals for procedures in addition to dVP and partial nephrectomy. We also experienced strong procedure growth in Japan since receiving the national reimbursements, outlined above, for dVP and partial nephrectomy. However, as adoption for these procedures has progressed, procedure growth in Japan is slowing.
U.S. Gynecology. Gynecology is our largest U.S. surgical specialty and the procedure volume was approximately 246,000 in 2016, compared with 238,000 in 2015 and 235,000 in 2014. We believe that overall U.S. gynecologic surgery volume for benign conditions (robotic and other modalities) has been pressured in recent years by factors including, but not limited to, a trend by payers toward encouraging conservative disease management, trends towards higher patient deductibles and co-pays, and FDA actions regarding the use of power morcellation in uterine surgeries. Combining robotic, laparoscopic, and vaginal approaches, MIS represents about 80% of the U.S. hysterectomy market for benign conditions, and thus the rate of migration from open surgeries to MIS has slowed. We believe that our modest growth in dVH procedures in 2015 and 2016 was driven by an increasing proportion of dVH procedures consolidating to gynecologic oncologists, a group of surgeons more aligned with da Vinci Surgical System utilization. Total U.S. dVH procedure volume was approximately 204,000, 196,000, and 191,000 in 2016, 2015, and 2014, respectively.
U.S. General Surgery. General surgery is our second largest and fastest growing specialty in the U.S. with procedure volume that grew to approximately 186,000 in 2016, compared with approximately 140,000 in 2015, and 107,000 in 2014. Ventral and inguinal hernia, combined, contributed to the most incremental growth in U.S. general surgery procedures in 2015 and 2016. We believe that growth in da Vinci hernia repair reflects improved clinical outcomes within certain patient populations, as well as potential cost benefits relative to certain alternative treatments. We believe hernia repair procedures represent a significant opportunity with the potential to drive growth in future periods, however, given the differences in complexity among hernia patient populations and varying surgeon opinion regarding optimal surgical technique, it is difficult to estimate the timing of and to what extent da Vinci hernia repair procedure volume will grow in the future. We expect a large portion of hernia repairs will continue to be performed via different modalities of surgery.
Adoption of da Vinci for colorectal procedures, which includes several underlying procedures including low anterior resections for rectal cancers and certain colon procedures for benign and cancerous conditions, has been ongoing for several years, and is supported by our recently launched technologies such as the da Vinci Xi Surgical System, EndoWrist Stapler, EndoWrist Vessel Sealer, and Integrated Table Motion.
dVP. U.S. dVP is the largest urology procedure in the U.S. with 70,000 dVPs performed in 2016, compared with 66,000 in 2015, and 60,000 in 2014.

We believe the return to growth in U.S. dVP in 2014 and our subsequent growth rate reflects surgical procedures being performed for men who may have previously deferred screening or definitive treatment. We believe that our lower 2016 growth rate reflects surgical volumes coming into closer alignment with new diagnoses of prostate cancer. As the U.S. standard of care for the surgical treatment of prostate cancer, we expect that the number of dVP procedures performed in the U.S. will fluctuate with the overall prostatectomy market. dVP is the largest overall OUS procedure with approximately 92,000 performed in 2016, compared with 79,000 in 2015, and 65,000 in 2014. dVP is at various stages of adoption in different areas of the world.

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System Demand

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

New Product Introductions

da Vinci Xi Surgical System. During April 2014, we launched our newest da Vinci model, the da Vinci Xi, in the U.S. The da Vinci Xi can be used across a wide spectrum of MIS procedures, and has been optimized for multi-quadrant surgeries. The da Vinci Xi expands upon core da Vinci features including wristed instruments, 3-D HD visualization, intuitive motion, and ergonomic design, while improving ease of use, and delivering several new features, including:

- A new overhead instrument arm architecture designed to facilitate anatomical access from virtually any position.
- A new digital endoscope architecture that creates a simpler, more compact design with improved vision definition and clarity.
- An ability to attach the endoscope to any arm, providing flexibility for visualizing the surgical site.
- Smaller, thinner arms with newly designed joints that offer a greater range of motion than before.
- Longer instrument shafts designed to give surgeons greater operative reach.
- Ease of use enhancements, including automated pre-surgical deployment of the da Vinci robot arms.

With the da Vinci Xi, we now offer hospitals a broader line of da Vinci Surgical Systems to match their surgical profile and patient care requirements. These include the da Vinci Si-e, a lower price system suited for surgeries requiring two instrument arms; the da Vinci Si, which has the capability of controlling three instrument arms; and the da Vinci Xi, which has four universal instrument arms that attach to a rotating overhead platform. We separately applied for FDA clearance for the da Vinci Xi Firefly, Vessel Sealer, and Stapler 45 products and received clearances for these products in 2014. See the Clearances and Approvals section above for more information on regulatory clearances of the da Vinci Xi platform products.

da Vinci Xi Integrated Table Motion. Integrated Table Motion coordinates the movements of the da Vinci robot arms with an advanced operating room table, the TruSystem® 7000dV sold by Trumpf Medical™, to enable shifting a patient's position in real-time while the da Vinci surgical robotic arms remain docked. This gives operating room teams the capabilities to optimally position the operating table so that gravity exposes anatomy during multi-quadrant da Vinci System procedures, maximize reach and access to target anatomy enabling surgeons to interact with tissue at an ideal working angle, and reposition the table during the procedure to enhance anesthesiologists’ care of the patient.

EndoWrist Stapler 45. In October 2012, we received FDA clearance for the EndoWrist Stapler 45 instrument with Blue and Green 45mm reloads for use with the da Vinci Si Surgical System. The EndoWrist Stapler 45 is a wristed, stapling instrument intended for resection, transection and/or creation of anastomoses in general, gynecologic, and urologic surgery. This instrument enables operators to precisely position and fire the stapler. Its initial surgical use was directed towards colorectal procedures. In January 2015, we began to ship initial da Vinci Xi versions of the EndoWrist Stapler 45, including Blue, Green, and White 45 mm reloads. The White reloads are only available on the da Vinci Xi platform.

EndoWrist Stapler 30. In March 2016, we received FDA clearance in the U.S. for the EndoWrist Stapler 30 instrument with Blue, Green, White, and Gray 30mm reloads for use with the da Vinci Xi Surgical System. It is intended to deliver particular utility with fine tissue interaction in lobectomy and other thoracic procedures. The EndoWrist Stapler 30 is a wristed, stapling instrument intended for resection, transection and/or creation of

anastomoses.

Intuitive Surgical-Fosun Medical Technology (Shanghai) Co., Ltd.

In September 2016, we agreed to establish a joint venture with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. "Fosun Pharma", a subsidiary of Fosun International Limited, to research, develop, manufacture, and sell robotic-assisted catheter-based medical devices. The joint venture will initially produce products targeting early diagnosis and cost-effective treatment of lung cancer, one of the most commonly diagnosed forms of cancer in the world. The technology will be used in robotic-assisted medical devices based on catheters and incorporates proprietary intellectual property developed or owned by us. The joint venture will be

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located in Shanghai, China, where it will perform research and development activities and manufacture catheter-based products for global distribution. Distribution in China will be conducted by the joint venture. Distribution outside of China will be conducted by us. The joint venture will be owned 60% by us and 40% by Fosun Pharma. The companies will contribute up to $100 million as required by the joint venture, an arrangement representing a significant expansion of our relationship with Fosun Pharma. Since 2011, Chindex Medical Limited, a subsidiary of Fosun Pharma, has been our distribution partner for da Vinci Surgical Systems in China.

Formation of the joint venture company is subject to approvals by the relevant PRC government authorities and administrative agencies. Upon formation, we expect the joint venture will commence the hiring of employees and establish manufacturing and research and development infrastructures. We expect that the joint venture will incur net losses before product commercialization, and we do not expect the joint venture to generate revenue until after 2017. There can be no assurance that we and the joint venture can successfully complete the development of the robotic-assisted catheter-based medical devices, that we or the joint venture will obtain the necessary regulatory approvals and successfully commercialize the products, that the joint venture will not require additional contributions to fund its business, or that the joint venture will become profitable.

2016 Financial Highlights

- Total revenue increased by 13% to $2.7 billion for the year ended December 31, 2016, compared with $2.4 billion for the year ended December 31, 2015.
- Approximately 753,000 da Vinci procedures were performed during the year ended December 31, 2016, an increase of approximately 15% compared with approximately 652,000 for the year ended December 31, 2015.
- Instrument and accessory revenue increased by 17% to $1.4 billion for the year ended December 31, 2016, compared with $1.2 billion for the year ended December 31, 2015.
- Recurring revenue increased by 15% to $1.9 billion for the year ended December 31, 2016, compared with $1.7 billion for the year ended December 31, 2015, representing 71% and 70% of total revenue in 2016 and 2015, respectively.
- Systems revenue increased by 10% to $791.6 million for the year ended December 31, 2016, compared with $721.9 million for the year ended December 31, 2015. 537 da Vinci Surgical Systems were shipped for the year ended December 31, 2016, compared with 492 for the year ended December 31, 2015.
- As of December 31, 2016, we had a da Vinci Surgical System installed base of approximately 3,919 systems, an increase of approximately 9% compared with the installed base as of December 31, 2015.
- Gross profit as a percentage of revenue increased to 69.9% for the year ended December 31, 2016, compared with 66.2% for the year ended December 31, 2015. Gross profit for the year ended December 31, 2016, included a $7.1 million benefit due to a Medical Device Excise Tax (“MDET”) refund.
- Operating income increased by 28% to $945.2 million for the year ended December 31, 2016, compared with $740.0 million for the year ended December 31, 2015. Operating income included $178.0 million and $168.1 million of share-based compensation expense related to employee stock plans for the years ended December 31, 2016, and 2015, respectively. Operating income for the year ended December 31, 2016, and 2015, also included pre-tax litigation charges of $12.1 million and $13.2 million, respectively.
- As of December 31, 2016, we had $4.8 billion in cash, cash equivalents, and investments. Cash, cash equivalents, and investments increased by $1.5 billion compared with December 31, 2015, primarily as a result of cash provided by operating activities and employee stock option exercises.

Results of Operations

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

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	Years Ended December 31,								
	2016	% of total revenue		2015	% of total revenue		2014	% of total revenue	
Revenue:									
Product	$2,187.4	81	%	$1,919.6	81	%	$1,702.7	80	%
Service	517.0	19	%	464.8	19	%	429.0	20	%
Total revenue	2,704.4	100	%	2,384.4	100	%	2,131.7	100	%
Cost of revenue:									
Product	663.3	25	%	647.2	27	%	569.9	27	%
Service	151.0	5	%	159.3	7	%	148.0	7	%
Total cost of revenue	814.3	30	%	806.5	34	%	717.9	34	%
Product gross profit	1,524.1	56	%	1,272.4	54	%	1,132.8	53	%
Service gross profit	366.0	14	%	305.5	12	%	281.0	13	%
Gross profit	1,890.1	70	%	1,577.9	66	%	1,413.8	66	%
Operating expenses:									
Selling, general and administrative	705.3	26	%	640.5	27	%	691.0	32	%
Research and development	239.6	9	%	197.4	8	%	178.0	8	%
Total operating expenses	944.9	35	%	837.9	35	%	869.0	40	%
Income from operations	945.2	35	%	740.0	31	%	544.8	26	%
Interest and other income, net	35.6	1	%	18.5	1	%	4.2	—	%
Income before taxes	980.8	36	%	758.5	32	%	549.0	26	%
Income tax expense	244.9	9	%	169.7	7	%	130.2	6	%
Net income	$735.9	27	%	$588.8	25	%	$418.8	20	%

Total Revenue

Total revenue was $2.7 billion for the year ended December 31, 2016, and increased by 13% compared with $2.4 billion for the year ended December 31, 2015. Total revenue for the year ended December 31, 2015, increased by 12% compared with $2.1 billion for the year ended December 31, 2014. The increase in total revenue for the year ended December 31, 2016, reflects 15% higher recurring revenue driven by approximately 15% higher procedure volume, and 10% higher systems revenue. The increase in total revenue for the year ended December 31, 2015, reflects 14% higher systems revenue and 11% higher recurring revenue driven by approximately 14% higher procedure volume.

We sell our products and services in Euros and British Pounds in those European markets where we have direct distribution channels, and in Japanese Yen and Korean Won in Japan and South Korea, respectively. Foreign currency did not have a material impact on total revenue for the year ended December 31, 2016, as compared with 2015. Revenue for the year ended December 31, 2015, as compared with 2014, was negatively impacted by the strengthening of the U.S. dollar against these other currencies. We hedge a portion of our foreign currency denominated revenue and those hedges partially offset the negative impact of the strengthened U.S. dollar on revenue for the year ended December 31, 2015. Revenue denominated in foreign currencies was approximately 19%, 19%, and 16% of total revenue for the years ended December 31, 2016, 2015, and 2014, respectively. The U.S. dollar generally has strengthened against the other currencies that we transaction our sales in during latter half of 2016. If the U.S. dollar continues to remain as strong or strengthens further against the other currencies we transact our sales in, and we are not able to adjust our foreign currency denominated pricing, our revenue may be negatively impacted in 2017.

Revenue generated in the U.S. accounted for 72%, 71%, and 70% of total revenue during the years ended December 31, 2016, 2015, and 2014, respectively. We believe that U.S. revenue has accounted for the large majority of total revenue due to patients' ability to choose their provider and method of treatment in the U.S., reimbursement structures supportive of innovation and minimally invasive surgery, and initial investments focused on U.S. infrastructure. We have been investing in our business in the OUS market 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.

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The following table summarizes our revenue and da Vinci Surgical System unit shipments for the years ended December 31, 2016, 2015, and 2014, respectively (in millions, except percentages and unit shipments):

	Years Ended December 31,		
	2016	2015	2014
Revenue			
Instruments and accessories	$1,395.8	$1,197.7	$1,070.2
Systems	791.6	721.9	632.5
Total product revenue	2,187.4	1,919.6	1,702.7
Services	517.0	464.8	429.0
Total revenue	$2,704.4	$2,384.4	$2,131.7
Recurring revenue	$1,912.8	$1,662.5	$1,499.2
% of total revenue	71 %	70 %	70 %
United States	$1,955.0	$1,695.8	$1,490.9
OUS	749.4	688.6	640.8
Total revenue	$2,704.4	$2,384.4	$2,131.7
% of Revenue - United States	72 %	71 %	70 %
% of Revenue - OUS	28 %	29 %	30 %
Unit Shipments by Region:			
United States unit shipments	338	298	238
OUS unit shipments	199	194	193
Total unit shipments*	537	492	431
Unit Shipments by Model:			
da Vinci S	1	1	10
da Vinci Si-e - Single console (3 arm)	2	7	29
da Vinci Si - Single console (4 arm)	122	107	143
da Vinci Si - Dual console	5	22	43
da Vinci Xi - Single console	301	250	157
da Vinci Xi - Dual console	106	105	49
Total unit shipments*	537	492	431
Unit Shipments involving System Trade-ins:			
Unit shipments involving trade-ins of da Vinci standard Surgical Systems	1	5	18
Unit shipments involving trade-ins of da Vinci S Surgical Systems	86	99	82
Unit shipments involving trade-ins of da Vinci Si Surgical Systems	69	47	31
Total unit shipments involving trade-ins	156	151	131
Unit shipments not involving trade-ins	381	341	300
Total unit shipments*	537	492	431
*Systems shipped under operating leases (included in total unit shipments)	62	43	14

Product Revenue

2015-2016

Product revenue increased by 14% to $2.2 billion for the year ended December 31, 2016, compared with $1.9 billion for the year ended December 31, 2015.

Instrument and accessory revenue increased by 17% to $1.4 billion for the year ended December 31, 2016, compared with $1.2 billion for the year ended December 31, 2015. The increase in instrument and accessory revenue was driven by procedure growth of approximately 15% and higher sales of our advanced instruments, partially offset by customer buying patterns. 2016 U.S. procedure growth was approximately 13% compared with 11% in 2015 and was largely

attributable to growth in general

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surgery procedures, most notably hernia repair and colorectal procedures, as well as moderate growth in more mature gynecologic and urologic procedure categories. OUS procedure growth was approximately 24% for 2016, compared with 26% for 2015, driven by continued growth in dVP and earlier stage growth in kidney cancer procedures.
Systems revenue increased by 10% to $791.6 million for the year ended December 31, 2016, compared with $721.9 million for the year ended December 31, 2015. Higher systems revenue was driven by higher system shipments, higher number of Lease Buyouts, and higher revenue from our Integrated Table Motion product. Revenue from Lease Buyouts was $38.2 million for year ended December 31, 2016, compared with $9.4 million for the year ended December 31, 2015. We expect revenue from Lease Buyouts to fluctuate period to period based on the timing of when, and if, customers choose to exercise the buyout options embedded in their leases.
During 2016, a total of 537 systems were shipped compared with 492 systems in 2015. By geography, 338 systems were shipped into the U.S., 96 into Asia, 79 into Europe, and 24 into other markets, compared with 298 systems shipped into the U.S., 77 into Asia, 90 into Europe, and 27 into other markets in 2015. During 2016, 62 of the 537 systems were shipped under operating lease arrangements compared with 43 of 492 systems shipped during 2015. Operating lease revenue was $16.6 million for the year ended December 31, 2016, compared with $7.0 million for the year ended December 31, 2015. The increase in systems shipments was primarily driven by procedure growth in 2016.
The da Vinci Surgical System average selling price (“ASP”), excluding the impact of systems shipped under operating leases, was approximately $1.52 million and $1.54 million for 2016 and 2015, respectively. ASPs fluctuate period to period based on geographic and product mix, product pricing, systems shipped involving trade-ins, and changes in foreign exchange rates.
2014-2015
Product revenue increased by 13% to $1.9 billion during the year ended December 31, 2015, from $1.7 billion during the year ended December 31, 2014.
Instrument and accessory revenue increased by 12% to $1.2 billion for the year ended December 31, 2015, compared with $1.1 billion for the year ended December 31, 2014. The increase in instrument and accessory revenue was driven by an approximate 14% increase in procedure volume, reflecting approximately 11% U.S. procedure growth and 26% OUS procedure growth as well as a higher product mix of advanced instruments, partially offset by an unfavorable impact of weakening foreign currencies.
Systems revenue increased by 14% to $721.9 million during the year ended December 31, 2015, compared with $632.5 million during the year ended December 31, 2014, driven by higher da Vinci Surgical Systems shipped in 2015. We shipped 492 da Vinci Surgical Systems in 2015, compared with 431 in 2014, primarily reflecting higher system sales into the U.S. During 2015, 298 systems were shipped into the U.S., 90 into Europe, 77 into Asia, and 27 into other markets, compared with 238 systems shipped into the U.S., 97 into Europe, 67 into Asia, and 29 into other markets in 2014. The increase in U.S. systems sales was driven by higher procedure growth in 2015 and a favorable market response to the da Vinci Xi System that was launched in the second quarter of 2014.
The da Vinci Surgical System ASP, excluding the impact of systems shipped under operating leases, was approximately $1.54 million and $1.50 million for 2015 and 2014. The systems ASP reflected a higher proportion of da Vinci Xi and dual console systems sold in 2015, partially offset by the negative impact of weaker foreign currencies.
Service Revenue
Service revenue increased by 11% to $517.0 million for the year ended December 31, 2016, compared with $464.8 million for the year ended December 31, 2015. Service revenue increased by 8% to $464.8 million for the year ended December 31, 2015, compared with $429.0 million for the year ended December 31, 2014. Higher service revenue in 2016 and 2015 was primarily driven by a larger installed base of da Vinci Surgical Systems producing service revenue.
Gross Profit
Product gross profit increased by 20% for the year ended December 31, 2016, to $1.5 billion, representing 69.7% of product revenue, compared with $1.3 billion, representing 66.3% of product revenue, for the year ended December 31, 2015. The higher 2016 product gross profit was primarily driven by higher product revenue and higher gross profit margin.

The higher product gross profit margin for the year ended December 31, 2016, as compared with the year ended December 31, 2015, was driven by product cost reductions and manufacturing efficiencies on our da Vinci Xi System and other newer products, the MDET impact described below, and favorable product mix, including higher sales of our da Vinci Xi Integrated Table Motion product.
In September 2016 the Internal Revenue Service approved a $7.1 million refund claim that we submitted in connection with MDET filings for the periods from the first quarter of 2013 to the third quarter of 2014. Product gross profit included a $7.1 million benefit related to the MDET refund for the year ended December 31, 2016, compared with $17.0 million expense for the year

ended December 31, 2015. The Consolidated Appropriations Act, 2016 includes a two-year moratorium such that medical device sales in 2016 and 2017 will be exempt from the medical device excise tax.

Product gross profit for the year ended December 31, 2015, increased by 12% to $1.3 billion, or 66.3% of product revenue, compared with $1.1 billion, or 66.5% of product revenue, for the year ended December 31, 2014. The lower 2015 product gross profit margin was driven by a higher sales mix of recently introduced products that yield lower gross profit margins, including the da Vinci Xi Surgical System and EndoWrist One Vessel Sealer and Stapler, and an unfavorable foreign currency impact related to OUS sales.

Margins on newly launched products will typically be lower than that of our more mature products reflecting vendor pricing on lower volumes and temporary tooling costs. Over time, as volumes increase and we refine our manufacturing processes and products, we expect to see improvement in the margins of these newly launched products as realized and described above in the 2016 results. However, gross margins may ultimately differ for these newly launched products relative to previously launched products based on market conditions, volume, and complexity of the product.

Product gross profit for the year ended December 31, 2016, 2015, and 2014, included share-based compensation expense of $25.2 million, $22.8 million, and $19.1 million, respectively. Product gross profit for the year ended December 31, 2016, 2015, and 2014 included amortization expense of intangible assets of $7.8 million, $12.7 million, and $10.8 million, respectively.

Service gross profit for the year ended December 31, 2016, increased to $366.0 million, or 70.8% of service revenue, compared with $305.5 million, or 65.7% of service revenue for the year ended December 31, 2015. The higher 2016 service gross profit was driven by higher service revenue, reflecting a larger installed base of da Vinci Surgical Systems, and higher service gross profit margin. The higher service gross profit margin for the year ended December 31, 2016, as compared with the year ended December 31, 2015, was primarily driven by improved efficiency and gains made in servicing the da Vinci Xi Surgical System. During the year ended December 31, 2016, particularly during the second quarter, we were generally able to utilize lower cost refurbished endoscopes to meet customer service and replacement needs. Our ability to utilize lower cost refurbished endoscopes to meet service needs may vary period to period. As our installed base of da Vinci Xi surgical system increases, we will need to expand our service pool with new endoscopes, which is expected to result in higher field replacement costs.

Service gross profit for the year ended December 31, 2015, increased to $305.5 million, or 65.7% of service revenue, compared with $281.0 million, or 65.5% of service revenue for the year ended December 31, 2014. The higher 2015 service gross profit was driven by higher service revenue, reflecting a larger installed base of da Vinci Surgical Systems.

Service gross profit for the years ended December 31, 2016, 2015, and 2014, included share-based compensation expense of $12.4 million, $12.9 million and $13.5 million, respectively.

Selling, General and Administrative Expenses

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

Selling, general and administrative expenses for the year ended December 31, 2016, increased by 10% to $705.3 million, compared with $640.5 million for the year ended December 31, 2015. The increase was primarily due to higher OUS expenses associated with our expanded Asian and European teams, infrastructure, higher headcount, and higher legal fees. Selling, general and administrative expenses also included pre-tax litigation charges of $12.1 million and $13.2 million for the year ended December 31, 2016, and 2015 respectively.

Selling, general and administrative expenses for the year ended December 31, 2015, decreased by 7% to $640.5 million compared with $691.0 million for the year ended December 31, 2014. The decrease was primarily due to lower pre-tax litigation charges of $13.2 million in 2015, compared with $82.4 million in 2014, and to a lesser extent, the impact of the stronger U.S. dollar on expenses denominated in foreign currencies. These decreases were partially offset by increased costs associated with the expansion of our Japanese and other organizations OUS, as well as higher regulatory compliance costs and higher incentive compensation costs.

Share-based compensation expense charged to selling, general and administrative expenses during the years ended December 31, 2016, 2015, and 2014 were $97.4 million, $94.7 million, and $99.0 million, respectively.

Research and Development Expenses

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

Research and development expenses for the year ended December 31, 2016, increased by 21% to $239.6 million, compared with $197.4 million for the year ended December 31, 2015. The increase was primarily due to higher personnel and other project costs to support a broader set of product development initiatives, including additional da Vinci Xi platform products, our da Vinci

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Single Port Surgical System, robotic-assisted catheter-based medical devices, advanced imaging and analytics, advanced instrumentation, and next generation robotics.

Research and development expenses for the year ended December 31, 2015, increased by 11% to $197.4 million compared with $178.0 million for the year ended December 31, 2014. The increase was driven primarily by growth in our product development organization, including development in advanced imaging, advanced instrumentation, and next generation robotics, and higher incentive compensation costs.

Share-based compensation expense charged to research and development expense during the years ended December 31, 2016, 2015, and 2014, was $43.0 million, $37.7 million and $37.5 million, respectively. Amortization expense related to intangible assets for the years ended December 31, 2016, 2015, and 2014, was $10.4 million, $11.7 million and $11.6 million, respectively.

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

Operating Expenses

We plan to make substantial investments in several strategic areas to advance several key product development innovations in research, development, and clinical investment into 2017. We anticipate that we will invest up to $80 million more in 2017 in these areas than our typical growth rate.

Interest and Other Income, Net

Interest and other income, net, was $35.6 million for the year ended December 31, 2016, compared with $18.5 million for 2015 and $4.2 million for 2014. The increase in interest and other income, net for the year ended December 31, 2016, was primarily driven by higher interest earned during the year ended December 31, 2016, on higher cash and investment balances. The increase in interest and other income, net for the year ended December 31, 2015, was partly due to higher 2015 interest income as compared with 2014 and the $8.5 million impairment charges recorded in 2014 related to two equity investments.

Income Tax Expense

Our income tax expense was $244.9 million, $169.7 million, and $130.2 million for the years ended December 31, 2016, 2015, and 2014, respectively. The effective tax rate for 2016 was approximately 25.0% compared with 22.4% for 2015, and 23.7% for 2014. Our tax rates for these periods differ from the U.S. federal statutory rate of 35% primarily due to the effect of income earned by certain of our overseas entities being taxed at rates lower than the federal statutory rate and reversal of certain unrecognized tax benefits, partially offset by state income taxes net of federal benefit. We intend to indefinitely reinvest outside the U.S. all of our undistributed foreign earnings that were not previously subject to U.S. tax.

Our 2016, 2015, and 2014 tax provision reflected tax benefits of $15.8 million, $6.4 million, and $20.3 million, respectively, associated with the reversal of unrecognized tax benefits and interests resulting from expiration of statutes of limitations in multiple jurisdictions and certain audit settlements. Our 2015 tax provision also reflected a $29.3 million tax benefit resulting from a recent U.S. Tax Court opinion involving an independent third party, issued in the third quarter of 2015. Based on the findings of the U.S. Tax Court, we were required to, and did, refund to our foreign subsidiaries the share-based compensation element of certain intercompany charges made in prior periods. Starting from 2015, share-based compensation has been excluded from intercompany charges.

We file federal, state, and foreign income tax returns in many jurisdictions in the U.S. and abroad. Years prior to 2013 are considered closed for most significant jurisdictions. Certain of our unrecognized tax benefits could reverse based on the normal expiration of various statutes of limitations, which could affect our effective tax rate in the period in which they reverse.

We are subject to the examination of our income tax returns by various tax authorities and 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.

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Liquidity and Capital Resources

Sources and Uses of Cash

Our principal source of liquidity is cash provided by operations and issuance of common stock through exercise of stock options and our employee stock purchase program. Cash and cash equivalents plus short and long-term investments increased by $1.5 billion to $4.8 billion at December 31, 2016, from $3.3 billion at December 31, 2015, and $2.5 billion at December 31, 2014. Cash generation is one of our fundamental strengths and provides us with substantial financial flexibility in meeting our operating, investing, and financing needs.

On January 27, 2017, we made a payment of $2.0 billion related to an accelerated share repurchase program that we entered into with Goldman, Sachs & Co. to repurchase our common stock. We made that payment using part of our cash and investments held in the U.S. at December 31, 2016. For further details of the accelerated share repurchased program, see "Note 8. Stockholders' Equity" to "Item 8. Financial Statements and Supplementary Data".

As of December 31, 2016, $1,309.5 million of our cash, cash equivalents and investments were held by foreign subsidiaries. Amounts held by foreign subsidiaries are generally subject to U.S. income tax on repatriation to the U.S. We currently have no plans to repatriate any foreign earnings back to the U.S. Our intent is to reinvest these funds outside of the U.S. indefinitely, and we believe our cash flows provided by our U.S. operations will meet our U.S. liquidity needs for the foreseeable future.

See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" for discussion on the impact of interest rate risk and market risk on our investment portfolio.

Consolidated Cash Flow Data

	Years Ended December 31,		
	2016	2015	2014
(in millions)			
Net cash provided by (used in)			
Operating activities	$1,042.9	$771.9	$665.1
Investing activities	(1,279.4)	(849.5)	(153.9)
Financing activities	558.5	193.4	(692.4)
Effect of exchange rates on cash and cash equivalents	—	(1.5)	(0.6)
Net increase (decrease) in cash and cash equivalents	$322.0	$114.3	$(181.8)

Operating Activities

For the year ended December 31, 2016, cash provided by our operating activities of $1,042.9 million exceeded our net income of $735.9 million primarily due certain to non-cash charges as outlined below:

1. Our net income included non-cash charges including in the form of share-based compensation of $177.6 million; depreciation and loss of disposal of property, plant, and equipment of $73.9 million; investment related non-cash charges of $35.9 million; deferred income tax of $18.7 million; amortization of intangible assets of $18.2 million; partly offset by tax benefits from employee stock plans of $14.3 million.

2. The non-cash charges outlined above were partly offset by changes in operating assets and liabilities that resulted in $3.0 million of cash used by operating activities during the year ended December 31, 2016. Operating assets and liabilities are primarily comprised of accounts receivable, inventory, prepaid expenses, deferred revenue, and other accrued liabilities. Inventory, including the transfer of equipment from inventory to property, plant and equipment, increased by $46.7 million. Accounts receivable increased $35.9 million primarily driven by higher revenue and timing of collections. Prepaids and other assets increased $28.7 million primarily driven by higher lease receivable balances resulting from sales-type lease arrangement transactions entered into during year ended December 31, 2016. The unfavorable impact of these items on cash provided by operating activities was partly offset by a $53.8 million increase in other liabilities, primarily due to higher income tax payable, a $19.9 million increase in deferred revenue, an $18.7 million increase in accrued compensation and employee benefits, and a $15.9 million increase in accounts payable. Deferred revenue, which includes deferred service revenue that is being recognized as revenue over the service contract period, increased primarily due to the increase in the number of installed systems for which service contracts existed.

For the year ended December 31, 2015, cash provided by our operating activities of $771.9 million exceeded our net income of $588.8 million for two primary reasons:

1. Our net income included non-cash charges primarily in the form of share-based compensation of $167.9 million, depreciation and loss of disposal of property, plant, and equipment of $65.1 million, income tax benefits from employee

stock plans of $21.5 million, amortization of intangible assets of $24.4 million, and accretion of discounts and amortization of premiums on investments of $26.4 million.

2. The non-cash charges outlined above were partly offset by changes in operating assets and liabilities that resulted in $92.5 million of cash used by operating activities.

Operating assets and liabilities are primarily comprised of accounts receivable, inventory, deferred revenue, other accrued liabilities, and prepaid expenses. Accounts receivable increased $79.2 million in 2015 reflecting higher sales in 2015 and timing of sales and collections. Prepaids and other assets increased $10.5 million primarily driven by higher lease receivable balances resulting from sales-type lease arrangements entered into in 2015. Accrued liabilities decreased by $10.5 million mainly due to settlement payments made related to accrued product liability litigation. Other changes in operating assets and liabilities include an inventory increase of $10.7 million, net of equipment transfers from inventory to property, plant and equipment, and a decrease in accounts payable of $11.3 million also resulted in cash used by operating activities. The unfavorable impact of these items on cash provided by operating activities was partly offset by a $21.5 million increase in accrued compensation and employee benefits and an $8.2 million increase of deferred revenue.

For the year ended December 31, 2014, cash flow from operations of $665.1 million exceeded our net income of $418.8 million for two primary reasons:

1. Our net income included substantial non-cash charges primarily in the form of share-based compensation, amortization of intangible assets, taxes, and depreciation. These non-cash charges totaled $232.1 million during the year ended December 31, 2014.
2. Changes in operating assets and liabilities resulted in approximately $14.2 million in cash provided by operating activities during the year ended December 31, 2014.

Accrued liabilities increased $63.4 million, mainly driven by an increase in product liability accruals. Deferred revenue increased by $19.8 million in 2014 primarily due to the increase in the number of installed systems for which service contracts existed. Also, accrued compensation and accounts payable increased $39.1 million. The favorable impact of these items on cash provided by operating activities was partly offset by an increase in accounts receivable of $13.7 million in 2014 reflecting timing of our system sales and related collections, a net increase in inventory of $26.8 million primarily due to expanded product offerings, and an increase in prepaids and other assets of $67.6 million, primarily driven by timing of tax payments and an increase in lease receivables relating to sales-type lease arrangements entered into during 2014.

Investing Activities

Net cash used in investing activities for the year ended December 31, 2016, consisted of purchases of investments (net of the proceeds from the sales and maturities of investments) of $1.2 billion and purchases of property, plant and equipment $53.9 million.

Net cash used in investing activities for the year ended December 31, 2015, consisted of purchases of investments (net of the proceeds from the sales and maturities of investments) of $768.5 million and purchases of property and equipment $81.0 million.

Net cash used in investing activities for the year ended December 31, 2014, consisted primarily of cash used for purchases of property and equipment of $105.6 million and purchases of businesses of $84.3 million, partially offset by the proceeds from the sales and maturities of investments (net of purchases of investments) of $36.0 million. Purchases of property included the acquisition of approximately 15 acres of land in Sunnyvale, California for future expansion in 2014. For the year ended December 31, 2014, we acquired certain intellectual property, know-how, fixed assets, and employees from Luna Innovations, Inc. and we reacquired the distribution rights from our former Japanese distributor, Adachi Co, Ltd.

We invest predominantly in high quality, fixed income securities. Our investment portfolio may at any time contain investments in U.S. Treasury and U.S. government agency securities, taxable and/or tax exempt municipal notes, corporate notes and bonds, commercial paper, cash deposits, and money market funds.

Financing Activities

Net cash provided by financing activities in 2016 consisted primarily of proceeds from stock option exercises and employee stock purchases of $580.9 million and excess tax benefits of $44.1 million, partly offset by $42.5 million

used for the repurchase of 0.1 million shares of our common stock through open market transactions and taxes paid on behalf of employees related to net share settlement of vested employee equity awards of $24.0 million.

Net cash provided by financing activities in 2015 consisted primarily of proceeds from stock option exercises and employee stock purchases of $361.1 million and excess tax benefits of $34.3 million, partly offset by $183.7 million used for the repurchase of 0.4 million shares of our common stock through open market transactions and taxes paid on behalf of employees related to net share settlement of vested employee equity awards of $11.0 million.

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Net cash used in financing activities in 2014 consisted primarily of $1.0 billion used for the repurchase of 2.5 million shares of our common stock through an accelerated share repurchase program, offset by proceeds from stock option exercises and employee stock purchases of $283.6 million and excess tax benefits of $24.0 million.
Our cash requirements depend on numerous factors, including market acceptance of our products, the resources we devote to developing and supporting our products and other factors. We expect to continue to devote substantial resources to expand procedure adoption and acceptance of our products. We have made substantial investments in our commercial operations, product development activities, facilities, and intellectual property. Based upon our business model, we anticipate that we will continue to be able to fund future growth through cash provided from operations. We believe that our current cash, cash equivalents and investment balances, together with income to be derived from the sale of our products, will be sufficient to meet our liquidity requirements beyond one year and for the foreseeable future.
Contractual Obligations and Commercial Commitments
The following table summarizes our contractual obligations as of December 31, 2016 (in millions):

	Payments due by period				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating leases	$36.7	$ 7.1	$ 9.2	$ 5.4	$15.0
Purchase commitments and obligations	345.8	342.7	3.1	—	—
Total contractual obligations	$382.5	$ 349.8	$ 12.3	$ 5.4	$15.0

Operating leases. We lease spaces for operations in the U.S. as well as in Japan, South Korea, Mexico, and other foreign countries. We also lease automobiles for certain sales and field service employees. Operating lease amounts include future minimum lease payments under all our non-cancellable operating leases with an initial term in excess of one year.
Purchase commitments and obligations. These amounts include an estimate of all open purchase orders and contractual obligations in the ordinary course of business, including commitments with contract manufacturers and suppliers, for which we have not received the goods or services and acquisition and licensing of intellectual property. A majority of these purchase obligations are due within a year. Although open purchase orders are considered enforceable and legally binding, the terms generally allow us the option to cancel, reschedule, and adjust our requirements based on our business needs prior to the delivery of goods or performance of services. In addition to the above, we have committed to make potential future milestone payments to third parties as part of licensing, collaboration and development arrangements. Payments under these agreements generally become due and payable only upon achievement of certain developmental, regulatory and/or commercial milestones. Because the achievement of these milestones is neither probable nor reasonably estimable, such contingencies have not been recorded on our Consolidated Balance Sheets and have not been included in the table above.
Other commitments. We are unable to make a reasonably reliable estimate as to when payments may occur for our unrecognized tax benefits. Therefore, our liability for unrecognized tax benefits is not included in the table above.
Off-Balance Sheet Arrangements
As of December 31, 2016, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K promulgated under the Exchange Act.
Critical Accounting Estimates
Our Consolidated Financial Statements are prepared in conformity with U.S. generally accepted accounting principles ("U.S. GAAP"), which requires us to make judgments, estimates and assumptions. See "Note 2. Summary of Significant Accounting Policies," in Notes to the Consolidated Financial Statements, which is included in "Item 8. Financial Statements and Supplementary Data," which describes our significant accounting policies and methods used in the preparation of our Consolidated Financial Statements. The methods, estimates and judgments that we use in applying our accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates regarding matters that are inherently uncertain. Our most critical accounting estimates include:

- the valuation and recognition of investments, which impacts our investment portfolio balance when we assess fair value, and interest and other income, net, when we record impairments;
- the valuation of revenue and allowance for sales returns and doubtful accounts, which impacts revenue;
- the estimation of transactions to hedge, which impacts revenue and other expense;
- the valuation of inventory, which impacts gross profit margins;
- the assessment of recoverability of intangible assets and their estimated useful lives, which primarily impacts gross profit margin or operating expenses when we record asset impairments or accelerate their amortization;

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- the valuation and recognition of share-based compensation, which impacts gross profit margin and operating expenses;
- the recognition and measurement of current and deferred income taxes (including the measurement of uncertain tax positions), which impact our provision for taxes; and
- the estimate of probable loss associated with product liability claims, which impacts accrued liabilities and operating expenses.

Investments Valuation

Fair Value

Our investment portfolio may at any time contain investments in U.S. Treasury and U.S. government agency securities, Non-U.S. government securities, taxable and/or tax exempt municipal notes, corporate notes and bonds, commercial paper, cash deposits, and money market funds. In the current market environment, the assessment of the fair value of investments can be difficult and subjective. U.S. GAAP establishes three levels of inputs that may be used to measure fair value. Each level of input has different levels of subjectivity and difficulty involved in determining fair value. Valuation of Level 1 and 2 instruments generally do not require significant management judgment and the estimation is not difficult. Level 3 instruments include unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. The determination of fair value for Level 3 instruments requires the most management judgment and subjectivity. There were no Level 3 securities for the periods presented.

Other-than-temporary impairment

After determining the fair value of our available-for-sales instruments, gains or losses on these securities are recorded to other comprehensive income, until either the security is sold or we determine that the decline in value is other-than-temporary. The primary differentiating factors we considered in classifying impairments as either temporary or other-than-temporary impairments are our intent and ability to retain our investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value, the length of the time and the extent to which the market value of the investment has been less than cost, the financial condition and near-term prospects of the issuer. Given the current market conditions, these judgments could prove to be wrong, and companies with relatively high credit ratings and solid financial conditions may not be able to fulfill their obligations.

No impairment charges were recorded during the years ended December 31, 2016 and 2015. During the year ended December 31, 2014, we recorded pre-tax losses of $8.5 million related to a decline in the value of two equity investments that we concluded were other-than-temporary. As of December 31, 2016, and 2015, net unrealized losses on investments of $8.6 million and $4.2 million, net of tax, respectively, were included in accumulated other comprehensive loss.

Allowance for sales returns and doubtful accounts. We record estimated reductions in revenue for potential returns of products by customers and other allowances. As a result, management must make estimates of potential future product returns and other allowances related to current period product revenue. In making such estimates, management analyzes historical returns, current economic trends and changes in customer demand and acceptance of our products. If management were to make different judgments or utilize different estimates, material differences in the amount of reported revenue could result.

Similarly, we make estimates of the collectability of accounts receivable, especially analyzing the aging and nature of accounts receivable and historical bad debts, customer concentrations, customer credit-worthiness, current economic trends, and changes in customer payment terms when evaluating the adequacy of the allowance for doubtful accounts. Credit evaluations are undertaken for all major sale transactions before shipment is authorized. On a quarterly basis, we evaluate aged items in the accounts receivable aging report and provide an allowance in an amount we deem adequate for doubtful accounts. If management were to make different judgments or utilize different estimates, material differences in the amount of our reported operating expenses could result.

Hedge Accounting for Derivatives. We utilize foreign currency forward exchange contracts to hedge certain anticipated foreign currency sales transactions. When specific criteria required by relevant accounting standards have been met, changes in fair values of hedge contracts relating to anticipated transactions are recorded in other comprehensive income (“OCI”) rather than net income until the underlying hedged transaction affects net income. By

their nature, our estimates of anticipated transactions may fluctuate over time and may ultimately vary from actual transactions. When we determine that the transactions are no longer probable within a certain time-frame, we are required to reclassify the cumulative changes in the fair values of the related hedge contracts from OCI to net income.
Inventory valuation. Inventory is stated at the lower of standard cost, which approximates actual costs, or market, on a first-in, first-out basis. The cost basis of our inventory is reduced for any products that are considered excessive or obsolete based upon assumptions about future demand and market conditions. If actual future demand or market conditions are less favorable than those projected by management, additional inventory write-downs may be required, which could have a material adverse effect on the results of our operations.

Intangible Assets. Our intangible assets include identifiable intangibles and goodwill. Identifiable intangibles include developed technology, patents, distribution rights, customer relationships, and licenses. All of our identifiable intangibles have finite lives. Goodwill and intangible assets with indefinite lives are subject to an annual impairment review (or more frequent if impairment indicators arise) by applying a fair-value based test. There have been no impairments from the analysis required by U.S. GAAP.

Identifiable intangible assets with finite lives are subject to impairment testing and are reviewed for impairment when events or circumstances indicate that the carrying value of an asset is not recoverable and its carrying amount exceeds its fair value. We evaluate the recoverability of the carrying value of these identifiable intangible assets based on estimated undiscounted cash flows to be generated from such assets. If the cash flow estimates or the significant operating assumptions upon which they are based change in the future, we may be required to record additional impairment charges.

The valuation and classification of intangible assets and goodwill and the assignment of useful lives for purposes of amortization involves judgments and the use of estimates. The evaluation of these intangibles and goodwill for impairment under established accounting guidelines is required on a recurring basis. Changes in business conditions could potentially require future adjustments to the assumptions made. When we determine that the useful lives of assets are shorter than we had originally estimated, we accelerate the rate of amortization over the assets' new, shorter useful lives. No impairment charge or accelerated amortization was recorded for the years ended December 31, 2016, 2015, and 2014. A considerable amount of judgment is required in assessing impairment, which includes financial forecasts. If conditions are different from management's current estimates, material write-downs of long-lived assets may be required, which would adversely affect our operating results.

Revenue recognition. Our system sale arrangements contain multiple elements, including system(s), system accessories, instruments, accessories, and system service. We generally deliver all of the elements, other than service, within days of entering into the system sale arrangement. Each of these elements is a separate unit of accounting. System accessories, instruments, accessories, and service are also sold on a stand-alone basis.

For multiple-element arrangements, revenue is allocated to each unit of accounting based on their relative selling prices. Relative selling prices are based first on vendor specific objective evidence of fair value ("VSOE"), then on third-party evidence of selling price ("TPE") when VSOE does not exist, and then on management's best estimate of the selling price ("ESP") when VSOE and TPE do not exist.

Our system sales arrangements generally include a one-year period of free service and four additional years of service that are generally billed for separately on an annual basis at a contractually stated price. The revenue allocated to the free service period is deferred and recognized ratably over the free service period. Amounts billed for the additional years of service are recorded into deferred revenue when they are billed and recognized ratably over the service period.

Because we have neither VSOE nor TPE for our systems, the allocation of revenue is based on ESP for the systems sold. The objective of ESP is to determine the price at which we would transact a sale, had the product been sold on a stand-alone basis. We determine ESP for our systems by considering multiple factors, including, but not limited to, features and functionality of the system, geographies, type of customer, and market conditions. We regularly review ESP and maintain internal controls over establishing and updating these estimates.

Accounting for stock options. We account for share-based compensation in accordance with the fair value recognition provisions of U.S. GAAP. We use the Black-Scholes-Merton option-pricing model which requires the input of highly subjective assumptions. These assumptions include estimating the length of time employees will retain their vested stock options before exercising them, the estimated volatility of our common stock price over the expected term, and the number of options that will ultimately not complete their vesting requirements. The assumptions for expected volatility and expected term are the two assumptions that most significantly affect the grant date fair value of stock options. Changes in expected risk-free rate of return do not significantly impact the calculation of fair value, and determining this input is not highly subjective.

We use implied volatility based on freely traded options in the open market, as we believe implied volatility is more reflective of market conditions and a better indicator of expected volatility than historical volatility. In determining the appropriateness of relying on implied volatility, we considered the following:

- the sufficiency of the trading volume of freely traded options;
- the ability to reasonably match the terms, such as the date of the grant and the exercise price of the freely traded options to options granted; and
- the length of the term of the freely traded options used to derive implied volatility.

The expected term represents the weighted-average period that our stock options are expected to be outstanding. The expected term is based on the observed and expected time to exercise. We determine expected term based on historical exercise patterns and our expectation of the time it will take for employees to exercise options still outstanding.

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U.S. GAAP requires us to develop an estimate of the number of share-based awards that will be forfeited due to employee turnover. Adjustments in the estimated forfeiture rates can have a significant effect on our reported share-based compensation, as we recognize the cumulative effect of the rate adjustments for all expense amortization in the period the estimated forfeiture rates were adjusted. We estimate and adjust forfeiture rates based on a periodic review of recent forfeiture activity and expected future employee turnover. If a revised forfeiture rate is higher than previously estimated forfeiture rate, we may make an adjustment that will result in a decrease to the expense recognized in the financial statements during the period when the rate was changed. Adjustments in the estimated forfeiture rates could also cause changes in the amount of expense that we recognize in future periods.
Changes in these subjective assumptions can materially affect the estimate of fair value of stock options and, consequently, the related amount of share-based compensation expense recognized on the Consolidated Statements of Income.
Accounting for income taxes. Significant management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against net deferred tax assets in accordance with U.S. GAAP. These estimates and judgments occur in the calculation of tax credits, benefits, and deductions, and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes, as well as the interest and penalties related to uncertain tax positions. Significant changes to these estimates may result in an increase or decrease to our tax provision in the current or subsequent period.
We must assess the likelihood that we will be able to recover our deferred tax assets. If recovery is less than a 50% likelihood, we must increase our provision for taxes by recording a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be recoverable. As of December 31, 2016, we believe it is more likely than not that our deferred tax assets ultimately will be recovered with the exception of our California deferred tax assets. We believe that due to the computation of California taxes under the single sales factor, it is more likely than not that our California deferred tax assets will not be realized. Should there be a change in our ability to recover our deferred tax assets, our tax provision would be affected in the period in which such change takes place.
The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. If we determine that a tax position will more likely than not be sustained on audit, then the second step requires us to estimate and measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as we have to determine the probability of various possible outcomes. We re-evaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effective settlement of audit issues, and new audit activity. Such a change in recognition or measurement would result in the recognition of a tax benefit or an additional charge to the tax provision.
Accounting for legal contingencies. We are involved in a number of legal proceedings involving product liability, intellectual property, shareholder derivative actions, securities class actions, insurance, employee related, and other matters. We record a liability and related charge to earnings in our consolidated financial statements for legal contingencies when the loss is considered probable and the amount can be reasonably estimated. Our assessment is reevaluated each accounting period and is based on all available information, including discussion with any outside legal counsel that represents us. If a reasonable estimate of a known or probable loss cannot be made, but a range of probable losses can be estimated, the low-end of the range of losses is recognized if no amount within the range is a better estimate than any other. If a loss is reasonably possible, but not probable and can be reasonably estimated, the estimated loss or range of loss is disclosed in the notes to the consolidated financial statements.
When determining the estimated probable loss or range of losses, significant judgment is required to be exercised in order to estimate the amount and timing of the loss to be recorded. Estimates of probable losses resulting from litigation are inherently difficult to make, particularly when the matters are in early procedural stages with incomplete facts and information. The final outcome of legal proceedings is dependent on many variables difficult to predict, and

therefore, the ultimate cost to entirely resolve such matters may be materially different than the amount of current estimates. Consequently, new information or changes in judgments and estimates could have a material adverse effect on our business, financial condition, and results of operations or cash flows.

RECENT ACCOUNTING PRONOUNCEMENTS

See “Note 2. Summary of Significant Accounting Policies” of the Notes to Consolidated Financial Statements in “Item 8. Financial Statements and Supplementary Data” for a full description of recent accounting pronouncements including the respective expected dates of adoption and estimated effects, if any on our consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate and Market Risk

The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve this objective, we maintain our portfolio of cash equivalents and short-term and long-term investments in a variety of high quality securities, including U.S. treasuries and government agencies, corporate debt, money market funds, commercial paper, and taxable or tax exempt municipal bonds. The securities are classified as available-for-sale and consequently are recorded at fair value with unrealized gains or losses reported as a separate component of accumulated other comprehensive income (loss). The weighted-average maturity of our investments as of December 31, 2016, was approximately 1.1 years. If interest rates rise, the market value of our investments may decline, which could result in a realized loss if we are forced to sell an investment before its scheduled maturity. A hypothetical increase in interest rate by 25 basis points would have resulted in a decrease in the fair value of our net investment position of approximately $12.5 million as of December 31, 2016. We do not utilize derivative financial instruments to manage our interest rate risks.

The uncertain financial markets have resulted in a tightening in the credit markets, a reduced level of liquidity in many financial markets, and extreme volatility in fixed income and credit markets. The credit ratings of the securities we have invested in could further deteriorate and may have an adverse impact on the carrying value of these investments.

Foreign Exchange Risk

The majority of our revenue, expense, and capital purchasing activities are transacted in U.S. dollars. However, we sell in Euros and British Pounds in those European markets where we have direct distribution channels, as well as in Japanese Yen, and in Korean Won. We operate in a number of markets on a direct sales basis and incur operating expenses in local currencies in Europe, Japan, and South Korea. We also purchase certain product components from non-U.S. suppliers in local currency. As a result, because a portion of our operations consist of sales activities outside of the U.S., we have foreign exchange exposures to non-U.S. dollar revenues, operating expenses, accounts receivable, accounts payable, and foreign currency bank balances.

For the year ended December 31, 2016, sales denominated in foreign currencies (Euro, British Pound, Japanese Yen, and Korean Won) were approximately 19% of total revenue. The objective of our hedging program is to mitigate the impact of changes in currency exchange rates on our net cash flow from foreign currency denominated sales. For the year ended December 31, 2016, our revenue would have decreased by approximately $25.2 million if the U.S. dollar exchange rate strengthened by 10%. We also hedge the net recognized non-functional currency balance sheet exposures with foreign exchange forward contracts to reduce the risk that our earnings and cash flows will be adversely affected by changes in exchange rates. A 10% strengthening of the U.S. dollar exchange rate against all currencies to which we have exposure, after considering foreign currency hedges and offsetting positions as of December 31, 2016, would have resulted in a less than $0.5 million decrease in the carrying amounts of those net assets. Actual gains and losses in the future may differ materially from the hypothetical gains and losses discussed above based on changes in the timing and amount of foreign currency exchange rate movements and our actual exposure and hedging transactions. Bank counterparties to foreign exchange forward contracts expose us to credit-related losses in the event of their nonperformance. To mitigate that risk, we only contract with counterparties that meet certain minimum requirements under our counterparty risk assessment process. We monitor ratings and potential downgrades on at least a quarterly basis. Based on our ongoing assessment of counterparty risk, we will adjust our exposure to various counterparties.

Although we sell to distributors outside of the U.S. in U.S. dollars, strengthening of the dollar can impact our distributors' margins and could impact the end customers' ability to purchase our product if our distributors seek to recover the impact of the change in the dollar by increasing product and service prices. Less than 10% of our revenue is conducted through distributors outside the U.S. Strengthening of the dollar relative to non-U.S. currencies could have an adverse impact on our business.

Our operations outside of the U.S. are subject to risks typical of operations outside of the U.S., including, but not limited to, differing economic conditions, changes in political climate, differing tax structures, other regulations and restrictions, and foreign exchange rate volatility.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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All other schedules have been omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or the Notes thereto.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Intuitive Surgical, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows present fairly, in all material respects, the financial position of Intuitive Surgical, Inc. and its subsidiaries at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
San Jose, California
February 3, 2017

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INTUITIVE SURGICAL, INC.
CONSOLIDATED BALANCE SHEETS
(IN MILLIONS, EXCEPT PAR VALUE AMOUNTS)

	December 31,	
	2016	2015
ASSETS		
Current assets:		
Cash and cash equivalents	$1,036.6	$714.6
Short-term investments	1,518.0	845.2
Accounts receivable, net of allowances of $1.9 and $2.1 at December 31, 2016 and 2015, respectively	430.2	394.3
Inventory	182.3	167.9
Prepaids and other current assets	83.3	73.5
Total current assets	3,250.4	2,195.5
Property, plant and equipment, net	458.4	432.1
Long-term investments	2,283.3	1,788.0
Deferred tax assets	150.9	167.8
Intangible and other assets, net	142.8	122.8
Goodwill	201.1	201.1
Total assets	$6,486.9	$4,907.3
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$68.5	$52.6
Accrued compensation and employee benefits	136.4	117.3
Deferred revenue	240.6	225.6
Other accrued liabilities	151.0	96.4
Total current liabilities	596.5	491.9
Other long-term liabilities	112.6	95.9
Total liabilities	709.1	587.8
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, 2.5 shares authorized, $0.001 par value, issuable in series; no shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	—	—
Common stock, 100.0 shares authorized, $0.001 par value, 38.8 shares and 37.4 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	—	—
Additional paid-in capital	4,211.8	3,429.8
Retained earnings	1,574.9	899.2
Accumulated other comprehensive loss	(8.9)	(9.5)
Total stockholders' equity	5,777.8	4,319.5
Total liabilities and stockholders' equity	$6,486.9	$4,907.3

See accompanying Notes to Consolidated Financial Statements.

	Years Ended December 31,		
	2016	2015	2014
Revenue:			
Product	$2,187.4	$1,919.6	$1,702.7
Service	517.0	464.8	429.0
Total revenue	2,704.4	2,384.4	2,131.7
Cost of revenue:			

Product	663.3	647.2	569.9
Service	151.0	159.3	148.0
Total cost of revenue	814.3	806.5	717.9
Gross profit	1,890.1	1,577.9	1,413.8
Operating expenses:			
Selling, general and administrative	705.3	640.5	691.0
Research and development	239.6	197.4	178.0
Total operating expenses	944.9	837.9	869.0
Income from operations	945.2	740.0	544.8
Interest and other income, net	35.6	18.5	4.2
Income before taxes	980.8	758.5	549.0
Income tax expense	244.9	169.7	130.2
Net income	$735.9	$588.8	$418.8
Net income per share:			
Basic	$19.21	$15.87	$11.35
Diluted	$18.73	$15.54	$11.11
Shares used in computing net income per share:			
Basic	38.3	37.1	36.9
Diluted	39.3	37.9	37.7

See accompanying Notes to Consolidated Financial Statements.

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INTUITIVE SURGICAL, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(IN MILLIONS)

	Years Ended December 31,		
	2016	2015	2014
Net income	$735.9	$588.8	$418.8
Other comprehensive income (loss):			
Change in foreign currency translation gains (losses)	2.0	(1.2)	(2.5)
Available-for-sale investments:			
Change in unrealized losses, net of tax	(4.6)	(3.2)	(3.9)
Less: Reclassification adjustment for net gains (losses) on investments recognized during the year, net of tax	0.2	(0.8)	2.0
Net change, net of tax effect	(4.4)	(4.0)	(1.9)
Derivative instruments:			
Change in unrealized gains	4.1	7.8	8.6
Less: Reclassification adjustment for gains (losses) on derivative instruments recognized during the year, net of tax	(0.6)	(7.4)	(7.5)
Net change, net of tax effect	3.5	0.4	1.1
Employee benefit plans:			
Change in unrealized losses, net of tax	(0.7)	(0.4)	(4.2)
Less: Reclassification adjustment for gains (losses) on employee benefit plans recognized during the year, net of tax	0.2	0.8	0.3
Net change, net of tax effect	(0.5)	0.4	(3.9)
Other comprehensive gains (losses)	0.6	(4.4)	(7.2)
Total comprehensive income	$736.5	$584.4	$411.6

See accompanying Notes to Consolidated Financial Statements.

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INTUITIVE SURGICAL, INC.
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
(IN MILLIONS)

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (loss)	Total
	Shares	Amount				
Balances at December 31, 2013	38.2	$ —	$2,519.9	$979.4	$ 2.1	$3,501.4
Issuance of common stock through employee stock plans	0.9		283.6			283.6
Income tax benefit from employee stock plans			13.9			13.9
Share-based compensation expense related to employee stock plans			168.9			168.9
Repurchase and retirement of common stock	(2.5)		(89.5)	(910.5)		(1,000.0)
Net income				418.8		418.8
Other comprehensive loss					(7.2)	(7.2)
Balances at December 31, 2014	36.6	$ —	$2,896.8	$487.7	$ (5.1)	$3,379.4
Issuance of common stock through employee stock plans	1.2		361.1			361.1
Income tax benefit from employee stock plans			21.4			21.4
Shares withheld related to net share settlement of equity awards			(1.1)	(9.9)		(11.0)
Share-based compensation expense related to employee stock plans			167.9			167.9
Repurchase and retirement of common stock	(0.4)		(16.3)	(167.4)		(183.7)
Net income				588.8		588.8
Other comprehensive loss					(4.4)	(4.4)
Balances at December 31, 2015	37.4	$ —	$3,429.8	$899.2	$ (9.5)	$4,319.5
Issuance of common stock through employee stock plans	1.5		580.9			580.9
Income tax benefit from employee stock plans			29.8			29.8
Shares withheld related to net share settlement of equity awards			(2.2)	(21.8)		(24.0)
Share-based compensation expense related to employee stock plans			177.6			177.6
Repurchase and retirement of common stock	(0.1)		(4.1)	(38.4)		(42.5)
Net income				735.9		735.9
Other comprehensive income					0.6	0.6
Balances at December 31, 2016	38.8	$ —	$4,211.8	$1,574.9	$ (8.9)	$5,777.8

See accompanying Notes to Consolidated Financial Statements.

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INTUITIVE SURGICAL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN MILLIONS)

	Years Ended December 31,		
	2016	2015	2014
Operating activities:			
Net income	$735.9	$588.8	$418.8
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and loss on disposal of property, plant, and equipment, net	73.9	65.1	52.0
Amortization of intangible assets	18.2	24.4	22.4
Loss (gain) on investment, accretion of discounts, and amortization of premiums on investments, net	35.9	26.4	33.9
Deferred income taxes	18.7	4.6	(35.0)
Income tax benefits from employee stock plans	29.8	21.5	13.9
Excess tax benefit from employee stock plans	(44.1)	(34.3)	(24.0)
Share-based compensation expense	177.6	167.9	168.9
Changes in operating assets and liabilities, net of effects of acquisition:			
Accounts receivable	(35.9)	(79.2)	(13.7)
Inventory	(46.7)	(10.7)	(26.8)
Prepaids and other assets	(28.7)	(10.5)	(67.6)
Accounts payable	15.9	(11.3)	17.7
Accrued compensation and employee benefits	18.7	21.5	21.4
Deferred revenue	19.9	8.2	19.8
Other liabilities	53.8	(10.5)	63.4
Net cash provided by operating activities	1,042.9	771.9	665.1
Investing activities:			
Purchase of investments	(2,585.5)	(1,827.4)	(1,344.6)
Proceeds from sales of investments	389.9	233.1	665.9
Proceeds from maturities of investments	970.1	825.8	714.7
Purchase of property, plant and equipment, intellectual property	(53.9)	(81.0)	(105.6)
Acquisition of business, net of cash acquired	—	—	(84.3)
Net cash used in investing activities	(1,279.4)	(849.5)	(153.9)
Financing activities:			
Proceeds from issuance of common stock relating to employee stock plans	580.9	361.1	283.6
Excess tax benefit from employee stock plans	44.1	34.3	24.0
Taxes paid related to net share settlement of equity awards	(24.0)	(11.0)	—
Repurchase and retirement of common stock	(42.5)	(183.7)	(1,000.0)
Other financing activities	—	(7.3)	—
Net cash provided by (used in) financing activities	558.5	193.4	(692.4)
Effect of exchange rate changes on cash and cash equivalents	—	(1.5)	(0.6)
Net increase (decrease) in cash and cash equivalents	322.0	114.3	(181.8)
Cash and cash equivalents, beginning of year	714.6	600.3	782.1
Cash and cash equivalents, end of year	$1,036.6	$714.6	$600.3

See accompanying Notes to Consolidated Financial Statements.

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INTUITIVE SURGICAL, INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. DESCRIPTION OF THE BUSINESS

Intuitive Surgical, Inc. designs, manufactures, and markets da Vinci® Surgical Systems and related instruments and accessories, which taken together, are advanced surgical systems that the Company considers an advanced generation of surgery. This advanced generation of surgery, which the Company calls da Vinci Surgery, combines the benefits of MIS for patients with the ease of use, precision and dexterity of open surgery. A da Vinci Surgical System consists of a surgeon's console, a patient-side cart and a high performance vision system. The da Vinci Surgical System translates a surgeon's natural hand movements, which are performed on instrument controls at a console, into corresponding micro-movements of instruments positioned inside the patient through small incisions, or ports. The da Vinci Surgical System is designed to provide its operating surgeons with intuitive control, range of motion, fine tissue manipulation capability and 3-D, HD vision while simultaneously allowing surgeons to work through the small ports enabled by MIS procedures.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying Consolidated Financial Statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and include the accounts of the Company and its wholly-owned subsidiaries. All significant inter-company balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying Notes to the Consolidated Financial Statements. The accounting estimates that require management's most significant, difficult and subjective judgments include the valuation and recognition of investments, the valuation of the revenue and allowance for sales returns and doubtful accounts, the estimation of hedging transactions, the valuation of inventory, the assessment of recoverability of intangible assets and their estimated useful lives, revenue recognition, the valuation and recognition of share-based compensation, the recognition and measurement of current and deferred income tax assets and liabilities, and legal contingencies estimates. Actual results could differ materially from these estimates.

Concentrations of Credit Risk and Other Risks and Uncertainties

The carrying amounts for financial instruments consisting of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short maturities. Marketable securities and derivative instruments are stated at their estimated fair values, based on quoted market prices for the same or similar instruments. The counterparties to the agreements relating to the Company's investment securities and derivative instruments consist of various major corporations, financial institutions, municipalities and government agencies of high credit standing.

The Company's accounts receivable are derived from net revenue to customers and distributors located throughout the world. The Company performs credit evaluations of its customers' financial condition and, generally, requires no collateral from its customers. The Company provides reserves for potential credit losses but has not experienced significant losses to date. As of December 31, 2016, and 2015, 73% and 69%, respectively, of accounts receivable were from domestic customers. No single customer represented more than 10% of total revenue for the years ended December 31, 2016, 2015, and 2014.

During the years ended December 31, 2016, 2015, and 2014, domestic revenue accounted for 72%, 71%, and 70% of total revenue, respectively, while outside of the U.S. revenue accounted for 28%, 29%, and 30%, respectively, of total revenue for each of the years then ended.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity from date of purchase of 90 days or less to be cash equivalents.

Investments

Available-for-sale investments. The Company's investments consist of U.S. treasury and U.S. government agency securities, taxable and tax exempt municipal notes, corporate notes and bonds, commercial paper, and money market funds. The Company has designated all investments as available-for-sale and therefore, such investments are reported at fair value, with unrealized gains and losses recorded in accumulated other comprehensive income. For securities sold prior to maturity, the cost of securities sold is based on the specific identification method. Realized gains and losses on the sale of investments are recorded in interest

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and other income, net in the Consolidated Statements of Income. Investments with original maturities greater than approximately three months and remaining maturities less than one year are classified as short-term investments. Investments with remaining maturities greater than one year are classified as long-term investments.
Other-than-temporary impairment. All of the Company’s investments are subject to a periodic impairment review. The Company recognizes an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. Factors considered in determining whether a loss is temporary included the extent and length of time the investment's fair value has been lower than its cost basis, the financial condition and near-term prospects of the investee, extent of the loss related to credit of the issuer, the expected cash flows from the security, the Company’s intent to sell the security, and whether or not the Company will be required to sell the security prior the expected recovery of the investment's amortized cost basis. During the year ended December 31, 2014, the Company recorded pre-tax other-than-temporary losses of $8.5 million related to equity investments. No such charges were recorded during the years ended December 31, 2016, and 2015.

Fair Value Measurements

The Company measures the fair value of money market funds, corporate equity securities and certain U.S. Treasury securities based on quoted prices in active markets for identical assets as Level 1 securities. Marketable securities, measured at fair value using Level 2 inputs, are primarily comprised of U.S. and non-U.S. government agencies and corporate debt securities. The Company reviews trading activity and pricing for these investments as of the measurement date. When sufficient quoted pricing for identical securities is not available, the Company uses market pricing and other observable market inputs for similar securities obtained from various third party data providers. These inputs either represent quoted prices for similar assets in active markets or have been derived from observable market data. This approach results in the Level 2 classification of these securities within the fair value hierarchy.

Inventory

Inventory is stated at the lower of standard cost, which approximates actual costs, or market, on a first-in, first-out basis. Inventory costs include direct materials, direct labor, and normal manufacturing overhead. The cost basis of the Company’s inventory is reduced for any products that are considered excessive or obsolete based upon assumptions about future demand and market conditions.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed on a straight-line basis over the estimated useful lives of the assets generally as follows:

	Useful Lives
Building	Up to 30 years
Building improvements	Up to 15 years
Leasehold improvements	Lesser of useful life or term of lease
Equipment and furniture	5 years
Operating lease assets	Greater of lease term or 1 to 5 years
Computer and office equipment	3 years
Enterprise-wide software	5 years
Purchased software	Lesser of 3 years or life of license

Depreciation expense for the years ended December 31, 2016, 2015, and 2014 was $70.7 million, $61.1 million, and $52.0 million, respectively.

Capitalized Software Costs for Internal Use

Internally developed software primarily includes enterprise-level business software that the Company customizes to meet its specific operational needs. The Company capitalized costs for internal use software of $11.8 million, $14.8 million, and $12.0 million during the years ended December 31, 2016, 2015, and 2014, respectively. Upon being placed in service, these costs are depreciated over an estimated useful life of up to 5 years.

Goodwill and Intangible Assets

Goodwill and intangible assets with indefinite useful lives are not amortized, but are tested for impairment at least annually during the fourth fiscal quarter, or as circumstances indicate their value may no longer be recoverable. Goodwill represents the excess of the purchase price over the fair value of net tangible and identifiable intangible

assets. The Company continues to operate in one segment, which is considered to be the sole reporting unit and therefore, goodwill was tested for impairment at the enterprise level. As of December 31, 2016, there has been no impairment of goodwill.

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Intangible assets are carried at cost, net of accumulated amortization. The Company does not have intangible assets with indefinite useful lives other than goodwill. Amortization is recorded on a straight-line basis over the intangible assets' useful lives, which range from approximately 1 to 9 years.

Impairment of Long-lived assets

The Company evaluates long-lived assets, which include amortizable intangible and tangible assets, for impairment whenever events or changes in circumstances indicate that the carrying value of long-lived assets may not be recoverable. The Company recognizes such impairment in the event the net book value of such assets exceeds the future undiscounted cash flows attributable to such assets. No material impairment losses were incurred in the periods presented.

Revenue Recognition

The Company's revenue consists of product revenue resulting from the sales of systems, instruments and accessories, and service revenue. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or service has been rendered, the price is fixed or determinable, and collectability is reasonably assured. Revenue is presented net of taxes collected from customers that are remitted to government authorities. The Company generally recognizes revenue at the following points in time:

•System sales. For systems sold directly to end customers, revenue is recognized when acceptance occurs, which is deemed to have occurred upon customer acknowledgment of delivery or installation, depending on the terms of the arrangement. For systems sold through distributors, revenue is recognized when title and risk of loss has transferred, which generally occurs at the time of shipment. Distributors do not have price protection rights and the Company's system arrangements generally do not provide a right of return. The da Vinci Surgical Systems are delivered with a software component. However, because the software and non-software elements function together to deliver the system's essential functionality, the Company's arrangements are excluded from being accounted for under software revenue recognition guidance.

•Instruments and accessories. Revenue from sales of instruments and accessories is generally recognized at the time of shipment. The Company allows its customers in the normal course of business to return unused products for a limited period of time subsequent to initial purchase and records an allowance against revenue recognized based on historical experience.

•Service. Service revenue is recognized ratably over the term of the service period. Revenue related to services performed on a time-and-materials basis is recognized when it is earned and billable.

The Company offers its customers the opportunity to trade in their older systems for credit towards the purchase of a newer generation system. The Company generally does not provide specified price trade-in rights or upgrade rights at the time of system purchase. Such trade-in or upgrade transactions are separately negotiated based on the circumstances at the time of the trade-in or upgrade, based on the then fair value of the system, and are generally not based on any pre-existing rights granted by the Company. Accordingly, such trade-ins and upgrades are not considered as separate deliverables in the arrangement for a system sale.

As part of a trade-in transaction, the customer receives a new generation system in exchange for its pre-owned system. The trade-in credit is negotiated at the time of the trade-in and is applied towards the purchase price of the new generation unit. Traded-in systems can be reconditioned and resold. The Company accounts for trade-ins consistent with the guidance in AICPA Technical Practice Aid 5100.01, Equipment Sales Net of Trade-Ins ("TPA 5100.01"). The Company applies the accounting guidance by crediting system revenue for the negotiated price of the new generation system, while the difference between (a) the trade-in allowance and (b) the net realizable value of the traded-in system less a normal profit margin is treated as a sales allowance. The value of the traded-in system is determined as the amount, after reconditioning costs are added, that will allow a normal profit margin on the sale of the reconditioned unit to be generated. When there is no market for the traded-in units, no value is assigned. Traded-in units are reported as a component of inventory until reconditioned and resold, or otherwise disposed.

In addition, customers may also have the opportunity to upgrade their systems, for example, by adding a fourth arm to a three-arm system or adding a second surgeon console for use with the da Vinci Si and Xi Surgical System. Such upgrades are performed by completing component level upgrades at the customer's site. Upgrade revenue is recognized when the component level upgrades are complete and all revenue recognition criteria are met.

The Company's system sale arrangements contain multiple elements including a system(s), system accessories, instruments, accessories, and system service. The Company generally delivers all of the elements, other than service, within days of entering into the system sale arrangement. Each of these elements is a separate unit of accounting. System accessories, instruments, accessories, and service are also sold on a stand-alone basis.
For multiple-element arrangements, revenue is allocated to each unit of accounting based on their relative selling prices. Relative selling prices are based first on vendor specific objective evidence of fair value (“VSOE”), then on third-party evidence of selling price (“TPE”) when VSOE does not exist, and then on management's best estimate of the selling price (“ESP”) when VSOE and TPE do not exist.

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The Company’s system sales arrangements generally include a one-year period of free service and four additional years of service that are generally billed for separately on an annual basis at a contractually stated price. The revenue allocated to the free service period is deferred and recognized ratably over the free service period. Amounts billed for the additional years of service are recorded into deferred revenue when they are billed and recognized ratably over the service period. Deferred revenue, for the periods presented, was primarily comprised of contract consideration related to services not yet performed.

Because the Company has neither VSOE nor TPE for its systems, the allocation of revenue is based on ESP for the systems sold. The objective of ESP is to determine the price at which the Company would transact a sale, had the product been sold on a stand-alone basis. The Company determines ESP for its systems by considering multiple factors, including, but not limited to, features and functionality of the system, geographies, type of customer, and market conditions. The Company regularly reviews ESP and maintains internal controls over establishing and updating these estimates.

Leases

The Company enters into sales-type lease and operating lease arrangements with certain qualified customers to purchase or rent its systems. Sales-type leases have terms that generally range from 24 to 84 months and are usually collateralized by a security interest in the underlying assets. Revenue related to multiple-element arrangements are allocated to lease and non-lease elements based on their relative selling prices as prescribed by the Company's revenue recognition policy. Lease elements generally include a da Vinci Surgical System, while non-lease elements generally include service, instruments and accessories. In determining whether a transaction should be classified as a sales-type or operating lease, the Company considers the following terms: (1) whether title of the system transfers automatically or for a nominal fee at the end of the term of the lease, (2) whether the present value of the minimum lease payments are equal to or greater than 90% of the fair market value of the system at the inception of the lease, (3) whether the life of the lease exceeds 75% of the life of the asset, and (4) whether there is an option to purchase the asset at a "bargain price" at the end of the lease term.

The Company generally recognizes revenue from sales-type lease arrangements at the time the system is accepted by the customer, assuming all other revenue recognition criteria have been met. Revenue from sales-type leases is presented as product revenue. Revenue from operating lease arrangements is recognized as earned over the lease term, which is generally on a straight-line basis and is presented as product revenue. Operating lease revenue for the years ended December 31, 2016, 2015, and 2014 was $16.6 million, $7.0 million, and $1.3 million, respectively.

Allowance for Sales Returns and Doubtful Accounts

The allowance for sales returns is based on the Company’s estimates of potential future product returns and other allowances related to current period product revenue. The Company analyzes historical returns, current economic trends, and changes in customer demand and acceptance of the Company's products. The allowance for doubtful accounts is based on the Company’s assessment of the collectability of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer’s ability to pay.

Share-Based Compensation

The Company accounts for share-based employee compensation plans using the fair value recognition and measurement provisions under U.S. GAAP. The Company’s share-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as expense over the requisite service period.

Expected Term: The expected term represents the weighted-average period that the stock options are expected to be outstanding prior to being exercised. The Company determines expected term based on historical exercise patterns and its expectation of the time it will take for employees to exercise options still outstanding.

Expected Volatility: The Company uses market-based implied volatility for purposes of valuing options granted. Market-based implied volatility is derived based on at least one-year traded options on the Company’s common stock. The extent to which the Company relies on market-based volatility when valuing options, depend among other things, on the availability of traded options on the Company’s stock and the term of such options. Due to sufficient volume of the traded options, the Company used 100% market-based implied volatility to value options granted, which the Company believes is more representative of future stock price trends than historical volatility.

Risk-Free Interest Rate: The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for the expected term of the option.
The fair value of restricted stock units is determined based on the closing quoted price of the Company's common stock on the day of the grant. See "Note 9. Share-Based Compensation," for a detailed discussion of the Company's stock plans and share-based compensation expense.

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Computation of Net Income per Share
Basic net income per share is computed using the weighted-average number of shares outstanding during the period. Diluted net income per share is computed using the weighted-average number of shares and dilutive potential shares outstanding during the period. Dilutive potential shares primarily consist of employee stock options and restricted stock units.
U.S. GAAP requires that employee equity share options, non-vested shares and similar equity instruments granted by the Company be treated as potential common shares outstanding in computing diluted earnings per share. Diluted shares outstanding include the dilutive effect of equity awards, which is calculated based on the average share price for each fiscal period using the treasury stock method. Under the treasury stock method, the amount the employee must pay for exercising stock options, the amount of compensation cost for future service that the Company has not yet recognized, and the amount of tax benefits that would be recorded in additional-paid-in-capital ("APIC") when the award becomes deductible are all assumed to be used to repurchase shares.
Research and Development Expenses
Research and development expenses include amortization of intangible assets, costs associated with co-development R&D licensing arrangements, costs of prototypes, salaries, benefits and other headcount related costs, contract and other outside service fees, and facilities and overhead costs.
Foreign Currency and Other Hedging Instruments
For subsidiaries whose local currency is their functional currency, their assets and liabilities are translated into U.S. dollars at exchange rates at the balance sheet date and revenues and expenses are translated using average exchange rates in effect during the period. Gains and losses from foreign currency translation are included in accumulated other comprehensive income (loss) within stockholders' equity in the Consolidated Balance Sheets. For all non-functional currency account balances, the re-measurement of such balances to the functional currency results in either a foreign exchange gain or loss, which is recorded to interest and other income, net in the Consolidated Statements of Income in the same accounting period that the re-measurement occurred.
The Company uses derivatives to partially offset its business exposure to foreign currency exchange risk. The terms of the Company's derivative contracts are generally twelve months or shorter. The Company typically hedges portions of its forecasted foreign currency exposure associated with revenue and expenses. The Company may also enter into foreign currency forward contracts to offset the foreign currency exchange gains and losses generated by re-measurement of certain assets and liabilities denominated in non-functional currencies. The hedging program is not designated for trading or speculative purposes.
The Company's accounting policies for these instruments are based on whether the instruments are designated as hedge or non-hedge instruments. The Company records all derivatives on the Consolidated Balance Sheets at fair value. The effective portions of cash flow hedges are recorded in other comprehensive income (loss) ("OCI") until the hedged item is recognized in earnings. Derivative instruments designated as cash flow hedges are de-designated as hedges when it is probable the forecasted hedged transaction will not occur in the initially identified time period or within a subsequent two month time period. Gains and losses in OCI associated with such derivative instruments are reclassified immediately into earnings through interest and other income, net. Any subsequent changes in fair value of such derivative instruments also are reflected in current earnings.
Derivatives that are not designated as hedging instruments and the ineffective portions of cash flow hedges are adjusted to fair value through earnings in interest and other income, net.
Income Taxes
Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the year in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts that are expected more likely than not to be realized in the future.

The Company recognizes tax benefits from uncertain tax positions only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

Segments

The Company operates in one segment. Management uses one measurement of profitability and does not segregate its business for internal reporting. As of December 31, 2016 and 2015, 86% and 88% of long-lived assets were in the United States. Revenue

is attributed to a geographic region based on the location of the end customer. For the years ended December 31, 2016, 2015, and 2014, 72%, 71%, and 70%, respectively, of net revenue were generated in the United States.

Legal Contingencies

The Company is involved in a number of legal proceedings involving product liability, intellectual property, shareholder derivative actions, securities class actions, and other matters. A liability and related charge are recorded to earnings in the Company's consolidated financial statements for legal contingencies when the loss is considered probable and the amount can be reasonably estimated. The assessment is reevaluated each accounting period and is based on all available information, including discussion with outside legal counsel. If a reasonable estimate of a known or probable loss cannot be made, but a range of probable losses can be estimated, the low-end of the range of losses is recognized if no amount within the range is a better estimate than any other. If a material loss is reasonably possible, but not probable and can be reasonably estimated, the estimated loss or range of loss is disclosed in the notes to the consolidated financial statements. The Company expenses legal fees as incurred.

When determining the estimated probable loss or range of losses, significant judgment is required to be exercised in order to estimate the amount and timing of the loss to be recorded. Estimates of probable losses resulting from litigation are inherently difficult to make, particularly when the matters are in early procedural stages with incomplete facts and information. The final outcome of legal proceedings is dependent on many variables difficult to predict, and therefore, the ultimate cost to entirely resolve such matters may be materially different than the amount of current estimates. Consequently, new information or changes in judgments and estimates could have a material adverse effect on the Company's business, financial condition, and results of operations or cash flows.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers. This new standard will replace most of the existing revenue recognition guidance in U.S. GAAP when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. The new standard, as amended, becomes effective for the Company in the first quarter of fiscal year 2018, but allows the Company to adopt the standard one year earlier if it so chooses. The Company currently plans to adopt this accounting standard in the first quarter of fiscal year 2018.

The Company currently anticipates adopting this ASU using the full retrospective method to restate each prior reporting period presented in our consolidated financial statements. While the Company is continuing to assess the effect of this new standard, the Company currently believes that contractual future billings related to services included in our multi-year contracts will be considered performance obligations that should be part of the contract consideration allocated to all deliverables. Under the current standard future service billings are considered to be contingent revenue. Accordingly, the amount of contract consideration allocated to the performance obligations identified in the Company’s system arrangements would be different under the new standard than the amount allocated under the current standard. The Company currently expects that under the new standard a greater amount of the contract consideration would be allocated to the product-related performance obligations, which are generally delivered upfront. In addition, the Company also expects that incremental contract acquisition costs of obtaining revenue generating contracts, such as sales commissions paid in connection with system sales with multi-year service commitments, would be capitalized and amortized over the economic life of the contract. Under the current guidance, the Company expenses such costs when incurred.

The new revenue standard is principle based and interpretation of those principles may vary from company to company based on their unique circumstances. It is possible that interpretation, industry practice, and guidance may evolve as companies and the accounting profession work to implement this new standard. The Company is still in the process of evaluating the effect of the new standard on the Company’s historical financial statements. While the Company has not completed its evaluation, the Company currently believes that the impact to revenue and expense recognized will not be material to any of the years presented. As the Company completes its evaluation of this new standard, new information may arise that could change the Company's current understanding of the impact to revenue and expense recognized. Additionally, the Company will continue to monitor industry activities and any additional guidance provided by regulators, standards setters, or the accounting profession and adjust the Company’s assessment and implementation plans accordingly.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which amends the existing accounting standards for leases. The new standard requires lessees to record a right-of-use asset and a corresponding lease liability on the balance sheet (with the exception of short-term leases). The new standard also requires expanded disclosures regarding leasing arrangements. The new standard becomes effective for the Company in the first quarter of fiscal year 2019 and early adoption is permitted. The new standard is required to be adopted using the modified retrospective approach and requires application of the new standard at the beginning of the earliest comparative period presented. The Company generally does not finance purchases of equipment or other capital, but does lease some of its facilities. The Company's customers finance purchases of da Vinci systems and ancillary products, including directly with the Company. It is currently unknown whether the new standard will change customer buying

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patterns or behaviors. The Company is evaluating the effect that this new standard will have on its Consolidated Financial Statements and related disclosures.

In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-based Payment Accounting. This ASU simplifies the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This ASU requires that excess tax benefits and deficiencies be recognized as income tax benefit or expense in the income statement, instead of in equity as under the current guidance. In addition, these amounts will be classified as an operating activity in the statement of cash flows, instead of as a financing activity as they are currently presented. The Company currently plans to implement this ASU as required in the first quarter of fiscal year 2017. The Company also plans to apply the presentation requirements related to the presentation of excess tax benefits in the statement of cash flows retrospectively. The Company does not believe that a cumulative effect adjustment will be recorded in the year of adoption, but the Company anticipates increased income tax expense volatility as a result of adopting this ASU.

In October 2016, the FASB issued ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory, which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. This ASU will be effective for the Company in first quarter of 2018 with early adoption permitted. This ASU is required to be adopted using the modified retrospective approach, with a cumulative catch-up adjustment to retained earnings in the period of adoption. The Company is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business, which clarifies the definition of a business to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The standard will be effective for the Company in the first quarter of 2018. Early adoption is permitted. The Company is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

NOTE 3. FINANCIAL INSTRUMENTS

Cash, Cash Equivalents and Investments

The following tables summarize the Company’s cash and available-for-sale marketable securities’ amortized cost, gross unrealized gains, gross unrealized losses, and fair value by significant investment category reported as cash and cash equivalents or short-term or long-term investments as of December 31, 2016, and 2015 (in millions):

					Reported as:		
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2016							
Cash	$ 227.7	$ —	$ —	$227.7	$227.7	$ —	$ —
Level 1:							
Money market funds	612.4	—	—	612.4	612.4	—	—
U.S. treasuries	625.9	0.1	(2.0)	624.0	157.9	168.4	297.7
Subtotal	1,238.3	0.1	(2.0)	1,236.4	770.3	168.4	297.7
Level 2:							
Commercial paper	139.6	—	—	139.6	31.1	108.5	—
Corporate securities	1,471.8	0.7	(5.0)	1,467.5	2.9	555.4	909.2
U.S. government agencies	938.7	0.5	(2.9)	936.3	—	342.7	593.6
Non-U.S. government securities	18.5	—	—	18.5	—	16.0	2.5
Municipal securities	815.4	—	(3.5)	811.9	4.6	327.0	480.3
Subtotal	3,384.0	1.2	(11.4)	3,373.8	38.6	1,349.6	1,985.6
Total assets measured at fair value	$ 4,850.0	$ 1.3	$ (13.4)	$4,837.9	$1,036.6	$ 1,518.0	$ 2,283.3

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	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Reported as: Cash and Cash Equivalents	Short-term Investments	Long-term Investments
December 31, 2015							
Cash	$ 202.6	$ —	$ —	$ 202.6	$ 202.6	$ —	$ —
Level 1:							
Money market funds	430.6	—	—	430.6	430.6	—	—
U.S. treasuries & corporate equity securities	253.6	—	(1.8)	251.8	50.6	52.4	148.8
Subtotal	684.2	—	(1.8)	682.4	481.2	52.4	148.8
Level 2:							
Commercial paper	76.4	—	—	76.4	3.8	72.6	—
Corporate securities	1,131.0	0.8	(3.0)	1,128.8	—	384.5	744.3
U.S. government agencies	618.5	—	(1.5)	617.0	27.0	194.8	395.2
Non-U.S. government securities	28.8	—	(0.1)	28.7	—	10.3	18.4
Municipal securities	611.9	0.6	(0.6)	611.9	—	130.6	481.3
Subtotal	2,466.6	1.4	(5.2)	2,462.8	30.8	792.8	1,639.2
Total assets measured at fair value	$ 3,353.4	$ 1.4	$ (7.0)	$ 3,347.8	$ 714.6	$ 845.2	$ 1,788.0

There were no transfers between Level 1 and Level 2 measurements during the year ended December 31, 2016, and there were no changes in the valuation techniques used.

The following table summarizes the contractual maturities of the Company's marketable cash equivalents and available-for-sale investments (excluding cash and money market funds), at December 31, 2016 (in millions):

	Amortized Cost	Fair Value
Mature in less than one year	$ 1,714.9	$ 1,714.5
Mature in one to five years	2,295.0	2,283.3
Total	$ 4,009.9	$ 3,997.8

Realized gains and losses, net of tax, were not material for any of the periods presented.

As of December 31, 2016, and 2015, net unrealized losses on investments of $8.6 million and $4.2 million, net of tax, respectively, were included in accumulated other comprehensive loss in the accompanying Consolidated Balance Sheets.

The following tables present the breakdown of the available-for-sale investments with unrealized losses at December 31, 2016, and 2015 (in millions):

	Unrealized losses less than 12 months		Unrealized losses 12 months or greater		Total	
December 31, 2016	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate securities	$ 1,056.1	$ (5.0)	$ —	$ —	$ 1,056.1	$ (5.0)
U.S. Treasuries	357.1	(2.0)	—	—	357.1	(2.0)
U.S. Government and agency securities	538.2	(2.9)	—	—	538.2	(2.9)
Municipal securities	728.8	(3.5)	—	—	728.8	(3.5)
	$ 2,680.2	$ (13.4)	$ —	$ —	$ 2,680.2	$ (13.4)
December 31, 2015						
Corporate securities	$ 869.9	$ (3.0)	$ —	$ —	$ 869.9	$ (3.0)
U.S. Treasuries and equity securities	231.2	(1.8)	—	—	231.2	(1.8)
U.S. Government and agency securities	561.7	(1.5)	—	—	561.7	(1.5)

Municipal securities	340.0	(0.6)	—	—	340.0	(0.6)
Non-U.S. government securities	28.7	(0.1)	—	—	28.7	(0.1)
	$ 2,031.5	$ (7.0)	$ —	$ —	$2,031.5	$ (7.0)

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The unrealized losses on the available-for-sale investments are related to corporate securities and government securities. The Company determined these unrealized losses to be temporary. Factors considered in determining whether a loss is temporary included the length of time and extent to which the investment's fair value has been less than the cost basis; the financial condition and near-term prospects of the investee; extent of the loss related to credit of the issuer; the expected cash flows from the security; the Company's intent to sell the security; and whether or not the Company will be required to sell the security before the recovery of its amortized cost.

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, and intercompany balances and other monetary assets or liabilities denominated in currencies other than the U.S. dollar ("USD"). The derivative assets and liabilities are measured using Level 2 fair value inputs.

Cash Flow Hedges

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

For these derivatives, the Company reports the after-tax gain or loss from the hedge as a component of accumulated other comprehensive income (loss) in stockholders' equity and reclassifies into earnings in the same period in which the hedge transaction affects earnings. The Company reclassified net gains of $0.9 million, $7.2 million, and $7.5 million to revenue related to the hedged revenue transactions for the years ended December 31, 2016, 2015, and 2014, respectively. The amounts reclassified to 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, and CHF.

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

	Years Ended December 31,		
	2016	2015	2014
Recognized gains (losses) in interest and other income, net	$6.4	$7.0	$5.7
Foreign exchange gains (losses) related to balance sheet re-measurement	$(5.6)	$(7.9)	$(6.9)

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

	Derivatives Designated as Hedging Instruments		Derivatives Not Designated as Hedging Instruments	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Notional amounts:				
Forward contracts	$109.7	$ 89.1	$143.7	$ 128.7
Gross fair value recorded in:				
Prepaid and other current assets	$6.2	$ 2.0	$5.6	$ 2.6
Other accrued liabilities	$1.0	$ 0.5	$0.6	$ 0.2

NOTE 4. BALANCE SHEET DETAILS AND OTHER FINANCIAL INFORMATION

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The following table provides details of the inventories (in millions):

	December 31,	
	2016	2015
Inventory:		
Raw materials	$54.8	$53.3
Work-in-process	13.4	10.2
Finished goods	114.1	104.4
Total inventory	$182.3	$167.9

The following table provides details of the property, plant and equipment, net (in millions):

	December 31,	
	2016	2015
Property, plant and equipment, net:		
Land	$131.7	$131.7
Building and building/leasehold improvements	199.5	191.5
Machinery and equipment	217.7	197.6
Operating lease assets	34.7	15.0
Computer and office equipment	41.3	35.7
Capitalized software	114.2	84.5
Construction-in-process	41.2	43.2
Gross property, plant and equipment	780.3	699.2
Less: Accumulated depreciation*	(321.9)	(267.1)
Total property, plant and equipment, net	$458.4	$432.1
*Accumulated depreciation associated with operating lease assets	$(6.8)	$(2.6)

The following table provides details of the other accrued liabilities—short term (in millions):

	December 31,	
	2016	2015
Other accrued liabilities—short term:		
Taxes payable	$40.4	$11.4
Tolled product liability claims accrued	20.5	24.4
Other accrued liabilities	90.1	60.6
Total other accrued liabilities—short-term	$151.0	$96.4

The following table provides details of the other long-term liabilities balance sheet item (in millions):

	December 31,	
	2016	2015
Other long-term liabilities:		
Income taxes—long term	$84.9	$74.3
Other long-term liabilities	27.7	21.6
Total other long-term liabilities	$112.6	$95.9

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Supplemental Cash flow Information

The following table provides supplemental cash flow information (in millions):

	Years Ended December 31,		
	2016	2015	2014
Income taxes paid	$138.4	$110.3	$176.8
Supplemental non-cash investing activities:			
Equipment transfers from inventory to property, plant and equipment	$39.3	$26.7	$27.2

NOTE 5. LEASES

(a) Lease Receivables

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

	December 31,	
	2016	2015
Gross lease receivables	$104.3	$67.1
Unearned income	(4.8)	(3.4)
Allowance for credit loss	(0.6)	(0.4)
Net investment in sales-type leases	98.9	63.3
Reported as:		
Prepaids and other current assets	29.8	16.1
Intangible and other assets, net	69.1	47.2
Total, net	$98.9	$63.3

Contractual maturities of gross lease receivables at December 31, 2016, are as follows (in millions):

Fiscal Year	Amount
2017	32.1
2018	31.6
2019	22.0
2020	12.5
2021	5.1
2022 and thereafter	1.0
Total	$ 104.3

(b) Operating Leases

The Company's operating lease terms are generally less than five years. Future minimum lease payments related to noncancelable portion of operating leases at December 31, 2016 are as follows (in millions):

Fiscal Year	Amount
2017	24.4
2018	22.7
2019	19.9
2020	13.7
2021	4.5
2022 and thereafter	0.5
Total	$ 85.7

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

NOTE 6. INTANGIBLE ASSETS

The following table summarizes the components of gross intangible asset, accumulated amortization, and net intangible asset balances as of December 31, 2016, and 2015 (in millions):

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	December 31, 2016			December 31, 2015		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and developed technology	$158.7	$ (141.6)	$ 17.1	$159.7	$ (129.6)	$ 30.1
Distribution rights and others	9.2	(9.1)	0.1	9.2	(8.0)	1.2
Customer relationships	28.6	(14.3)	14.3	28.6	(10.2)	18.4
Total intangible assets	$196.5	$ (165.0)	$ 31.5	$197.5	$ (147.8)	$ 49.7

Amortization expense related to intangible assets was $18.2 million, $24.4 million, and $22.4 million for the years ended December 31, 2016, 2015, and 2014, respectively.

The estimated future amortization expense related to intangible assets as of December 31, 2016, is as follows (in millions):

Fiscal Year	Amount
2017	$ 12.5
2018	8.6
2019	3.6
2020	3.4
2021	2.3
2022 and thereafter	1.1
Total	$ 31.5

NOTE 7. COMMITMENTS AND CONTINGENCIES

OPERATING LEASES

The Company leases space for operations in United States, Mexico, Japan, South Korea, and certain other foreign countries. The Company also leases automobiles for certain sales and field service employees. These leases have varying terms up to fifteen years.

Future minimum lease commitments under the Company’s operating leases as of December 31, 2016, are as follows (in millions):

Fiscal Year	Amount
2017	$ 7.1
2018	5.7
2019	3.5
2020	2.8
2021	2.6
2022 and thereafter	15.0
Total	$ 36.7

Other commitments include an estimated amount of approximately $345.8 million relating to the Company's open purchase orders and contractual obligations that occur in the ordinary course of business, including commitments with suppliers, for which we have not received the goods or services.

CONTINGENCIES

The Company is involved in a variety of claims, lawsuits, investigations and proceedings relating to securities laws, product liability, intellectual property, insurance, contract disputes, employee related, 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. With the exception of the charges recorded related to the Company’s estimate of the probable loss associated with the tolled product liability claims described below, the Company has determined that an estimate of either probable losses or range of loss related to material pending or threatened litigation matters cannot be determined as of December 31, 2016. Nevertheless, it is possible that future legal costs (including settlements, judgments, legal fees and other related defense costs) could have a material adverse effect on the Company's business, financial

position, or future results of operations.

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The Company is also a party to various other legal actions that arise in the ordinary course of business and does not believe that any of these other legal actions will have a material adverse impact on the Company's business, financial position, or future results of operations.

In accordance with U.S. GAAP, the Company records a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to each case.

Purported Shareholder Class Action Lawsuits filed April 26, 2013 and May 24, 2013

On April 26, 2013, a purported class action lawsuit entitled Abrams v. Intuitive Surgical, et al., No. 5-13-cv-1920, was filed against a number of the Company's current and former officers and directors in the United States District Court for the Northern District of California. A substantially identical complaint, entitled Adel v. Intuitive Surgical, et al., No. 5:13-cv-02365, was filed in the same court against the same defendants on May 24, 2013. The Adel case was voluntarily dismissed without prejudice on August 20, 2013.

On October 15, 2013, plaintiffs in the Abrams matter filed an amended complaint. The case has since been re-titled In re Intuitive Surgical Securities Litigation, No. 5:13-cv-1920. The plaintiffs seek unspecified damages on behalf of a putative class of persons who purchased or otherwise acquired the Company's common stock between February 6, 2012, and July 18, 2013. The amended complaint alleges that the defendants violated federal securities laws by allegedly making false and misleading statements and omitting certain material facts in certain public statements and in the Company's filings with the SEC. On November 18, 2013, the court appointed the Employees' Retirement System of the State of Hawaii as lead plaintiff and appointed lead counsel. The Company filed a motion to dismiss the amended complaint on December 16, 2013, which was granted in part and denied in part on August 21, 2014. The plaintiffs elected not to further amend their complaint at that time. On October 22, 2014, the court granted the Company's motion for leave to file a motion for reconsideration of the court's August 21, 2014, order. The Company filed its motion for reconsideration on November 5, 2014. Following opposition and reply briefing, the court denied the motion on December 15, 2014, allowing the case to move forward on the claims that remain. The plaintiffs moved for class certification on September 1, 2015, the Company filed its opposition on October 15, 2015, and the plaintiffs filed their reply on November 16, 2015. On January 21, 2016, the court held a hearing on the motion. While that motion remained pending, on October 11, 2016, the Company sent plaintiffs' lead counsel Labaton Sucharow LLP a letter enclosing a draft motion for sanctions pursuant to Federal Rule of Civil Procedure 11, primarily based on statements to the court that lacked a proper factual basis. In response, on November 1, 2016, plaintiffs' local counsel withdrew from the case entirely and withdrew their signatures from the disputed pleadings. On November 2, 2016, Labaton Sucharow filed a motion for leave to file an amended complaint that did not include the disputed statements. On November 16, 2016, the Company filed an opposition to plaintiffs' motion, along with an independent motion to strike the amended complaint and the pleadings from which plaintiffs' local counsel withdrew their signatures. Following additional briefing, the motion for leave to amend and motion to strike were fully submitted to the Court on November 23, 2016, and December 7, 2016, respectively. At a conference on December 15, 2016, the court informed the parties that it would issue written rulings by January 30, 2017, addressing the motion to amend and motion to strike. At the Company's request, the court vacated the case schedule in the interim, with instructions for the parties to devise a new schedule within 15 days of its rulings. On December 22, 2016, the court entered an order granting plaintiffs' motion for class certification. In a footnote, the court indicated that it will grant plaintiffs' motion for leave to file an amended complaint. On January 25, 2017, the court entered an order granting plaintiffs' motion for leave to amend the complaint and denying the Company's motion to strike. On January 5, 2017, the Company filed a Petition for Permission to Appeal from the court's December 22, 2016 order granting class certification in the Ninth Circuit Court of Appeals. The Court of Appeals has not yet ruled on the Company's Petition. Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

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Purported Derivative Actions filed on February 3, 2014, February 21, 2014, March 21, 2014, June 3, 2014, and March 5, 2015

On February 3, 2014, an alleged stockholder, Robert Berg, caused a purported stockholder's derivative lawsuit entitled Berg v. Guthart et al., No. 4:14-CV-00515, to be filed in the United States District Court for the Northern District of California. The lawsuit names the Company as a nominal defendant and names a number of the Company's current and former officers and directors as defendants. The plaintiff seeks to recover, on the Company's behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and/or omissions made in connection with the Company's financial reporting for the period between 2012 and early 2014. The plaintiff also seeks a series of changes to the Company's corporate governance policies and an award of attorneys' fees. On April 3, 2014, the case was related to In re Intuitive Surgical Securities Litigation. On July 30, 2014, the court granted Berg's motion to be appointed lead plaintiff, denied the City of Birmingham's motion seeking such appointment (see below for additional description), and re-titled the matter In re Intuitive Surgical, Inc. Shareholder Derivative Litigation, No. 4:14-CV-00515. On August 13, 2014, the plaintiffs filed a consolidated complaint, making allegations substantially similar to the allegations in the original complaint. On September 12, 2014, the Company filed a motion to dismiss the consolidated complaint. The plaintiffs filed an opposition on October 9, 2014, and the Company filed its reply on October 30, 2014. The court denied the Company's motion to dismiss on November 16, 2015. On January 26, 2016, the Company moved to stay this lawsuit in favor of Public School Teachers' Pension and Retirement Fund of Chicago v. Guthart et al. (see below for additional description). Plaintiff opposed the motion to stay on February 16, 2016, the Company filed its reply on March 1, 2016, and a hearing was set for June 16, 2016. While the motion was pending, however, the Company and the plaintiff agreed in principle that the plaintiff would file a motion to intervene in the Public School Teachers' Pension and Retirement Fund of Chicago action and withdraw his opposition to the motion to stay. On March 17, 2016, the parties jointly requested that the court not rule on the motion to stay while the agreement was being implemented. Following additional negotiations, the plaintiff filed an unopposed motion to intervene on April 29, 2016. After additional briefing, on May 23, 2016, the court in the Public School Teacher's Pension and Retirement Fund of Chicago action granted the motion. Accordingly, on May 31, 2016, the parties filed a stipulation requesting that the court stay In re Intuitive Surgical, Inc. Shareholder Derivative Litigation. The court granted the stay on June 2, 2016. Additional discussions between the parties ensued, and on September 15, 2016, they executed a confidential Memorandum of Understanding that contains the essential terms of a settlement to which the parties have agreed in principle. That settlement, which is still being finalized, will provide for a dismissal with prejudice and release of all claims brought in both the In re Intuitive Surgical, Inc. Shareholder Derivative Litigation action and the Public School Teachers' Pension and Retirement Fund of Chicago action, as well as City of Plantation Police Officers' Employees' Retirement System v. Guthart et al. (see below for additional description). The settlement will be subject to court approval as described below. In the interim, the In re Intuitive Surgical, Inc. Shareholder Derivative Litigation action remains stayed. It is probable that the final settlement agreement will include terms that will require the Company to reimburse the plaintiffs' lawyers' legal fees. At this time, the Company is unable to estimate the probable amount of those legal fees. Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position or future results of operations.

On February 21, 2014, a second alleged stockholder caused a substantially similar purported stockholder's derivative lawsuit entitled Public School Teachers' Pension and Retirement Fund of Chicago v. Guthart et al., No. CIV 526930, to be filed in the Superior Court of the State of California, County of San Mateo, against the same parties and seeking the same relief. On March 26, 2014, the case was removed to the United States District Court for the Northern District of California, where it was related to In re Intuitive Surgical Securities Litigation and Berg v. Guthart on April 30, 2014. The district court remanded the case back to San Mateo County Superior Court on June 30, 2014. On August 28, 2014, the Company filed a motion seeking to stay the case in favor of the federal action and asking that the plaintiff be required to post a bond on the grounds that the action was duplicative and was not in the Company's best interests. On November 13, 2014, the superior court entered an order denying in part the Company's motion to stay and denying the Company's request for plaintiff's bond. On November 18, 2014, the Company petitioned the First Appellate District of the California, Court of Appeal for a writ of mandate directing the superior court to stay the case

in its entirety. At the same time, the Company requested an immediate stay of proceedings pending resolution of the petition. On November 19, 2014, the court of appeal granted the Company’s request for an immediate stay of the proceedings and set a briefing schedule for the petition. The plaintiff filed its opposition to the petition on December 8, 2014, and the Company filed its reply on December 22, 2014. The petition was denied on January 8, 2015. On January 20, 2015, the Company filed a demurer (moved to dismiss the complaint). The plaintiff filed its opposition to the demurrer on February 10, 2015, and the Company filed its reply on February 20, 2015. A hearing was held on February 27, 2015, and the court overruled the demurrer on March 27, 2015. The court's order was entered on April 2, 2015. On June 19, 2015, the Company moved for summary judgment, and a hearing on the Company's motion was set for September 4, 2015. On July 6, 2015, the court amended the case schedule, and the Company withdrew its motion for summary judgment. The court later further amended the case schedule, and trial was eventually reset for September 16, 2016. On May 23, 2016, the court granted an unopposed motion to intervene filed by the plaintiffs in In re Intuitive Surgical, Inc. Shareholder Derivative Litigation and City of Birmingham Relief and Retirement System v. Guthart et al. (see above and below for additional description). The Company filed a new motion for summary judgment on June 1, 2016, and the plaintiff filed a motion for summary adjudication regarding certain affirmative defenses on June 2, 2016. Following opposition and reply

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briefing, the court heard argument on the motions for summary judgment and summary adjudication on August 24, 2016. While the motions were pending, on September 15, 2016, the parties executed the confidential Memorandum of Understanding described above, which contains the essential terms of a settlement to which the parties have agreed in principle. That settlement, which is still being finalized, will provide for a dismissal with prejudice and release of all claims brought in the Public School Teachers' Pension and Retirement Fund of Chicago action, as well as the In re Intuitive Surgical, Inc. Shareholder Derivative Litigation action and the City of Plantation Police Officers' Employees' Retirement System action (see above and below, respectively, for additional description). The settlement will be subject to court approval. The parties notified the court of the Memorandum of Understanding on September 15, 2016, and on September 16, 2016, the court entered an order vacating the trial date, ruling that the motions for summary judgment and summary adjudication (along with other pre-trial motions) are moot, and scheduling an approval hearing regarding the settlement for January 17, 2017. At the hearing on that date, the parties informed the court that they are still finalizing the settlement and thus are not yet in a position to seek court approval. In response; the court scheduled a status conference for February 17, 2017; the date for the approval hearing has yet to be determined. Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

On March 21, 2014, a third alleged stockholder caused a substantially similar purported stockholder's derivative lawsuit entitled City of Birmingham Relief and Retirement System v. Guthart et al., No. 5-14-CV-01307, to be filed in the United States District Court for the Northern District of California against the same parties and seeking the same relief. On April 8, 2014, the lawsuit was related to In re Intuitive Surgical Securities Litigation and Berg v. Guthart. On July 30, 2014, the court consolidated the case with Berg v. Guthart and, as noted above, granted Berg's motion to be appointed lead plaintiff and denied the City of Birmingham's motion seeking such appointment. Accordingly, the City of Birmingham Relief and Retirement System action will be resolved by the pending settlement of the In re Intuitive Surgical, Inc. Shareholder Derivative Litigation action (see above for additional description). Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

On June 3, 2014, a fourth alleged stockholder caused a substantially similar purported stockholder's derivative lawsuit entitled City of Plantation Police Officers' Employees' Retirement System v. Guthart et al., C.A. No. 9726-CB, to be filed in the Court of Chancery of the State of Delaware. The Company filed a motion to stay proceedings in favor of the earlier-filed stockholder derivative lawsuits pending in federal and state courts in California. In light of the Company's motion, the plaintiff agreed to a stay of all proceedings in the case in favor of the earlier-filed actions. While the case was stayed, the parties agreed that the plaintiff would file a motion to intervene in the Public School Teachers' Pension and Retirement Fund of Chicago action (see above for additional description). The plaintiff filed an unopposed motion to intervene on April 29, 2016. After additional briefing, on May 23, 2016, the court in the Public School Teachers' Pension and Retirement Fund of Chicago action granted the plaintiff's motion. However, on June 21, 2016, in response to discovery requests, the plaintiff admitted that it did not continuously hold the Company's stock during all relevant times. Accordingly, on July 21, 2016, the plaintiff filed a request for dismissal as an additional plaintiff in the Public School Teachers' Pension and Retirement Fund of Chicago action, which the court in that action granted with prejudice on July 22, 2016. On September 15, 2016, the parties executed the confidential Memorandum of Understanding described above, which contains the essential terms of a settlement to which the parties have agreed in principle. That settlement, which is still being finalized, will provide for a dismissal with prejudice and release of all claims brought in the City of Plantation Police Officers' Employees' Retirement System action, as well as both the In re Intuitive Surgical, Inc. Shareholder Derivative Litigation action and the Public School Teachers' Pension and Retirement Fund of Chicago action (see above for additional description). The settlement will be subject to court approval as described above. In the interim, the City of Plantation Police Officers' Employees' Retirement System action remains stayed. Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

On March 5, 2015, a fifth alleged stockholder caused a substantially similar purported stockholder's derivative lawsuit entitled Back v. Guthart et al., No. 3:15-CV-01037, to be filed in the United States District Court for the Northern

District of California. On April 7, 2015, the lawsuit was related to In re Intuitive Surgical Securities Litigation and Berg v. Guthart. The Company filed a motion to dismiss the complaint on July 10, 2015. On August 13, 2015, the parties stipulated to a complete stay of the matter and the court entered an order reflecting the stay on August 17, 2015. The Company believes the settlement of the cases described above will make this action moot and will move for dismissal on that basis. Based on currently available information, the Company does not believe the resolution of this matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

Product Liability Litigation

The Company is currently named as a defendant in approximately 52 individual product liability lawsuits filed in various state and federal courts by plaintiffs who 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. The Company has also received a large number of product liability claims from plaintiffs' attorneys, many of which are subject to certain tolling

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agreements further discussed below. The Company has also been named as a defendant in a multi-plaintiff lawsuit filed in Missouri state court. In total, plaintiffs in that case seek damages on behalf of 55 patients who had da Vinci Surgeries in 22 different states.
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 has reached confidential settlements in many of the filed cases.
Plaintiffs' attorneys have also engaged in well-funded national advertising efforts seeking patients dissatisfied with da Vinci Surgery. The Company has received a significant number of such claims from plaintiffs' attorneys that it believes are a result of these advertising efforts. A substantial number of claims relate to alleged complications from surgeries performed with certain versions of Monopolar Curved Scissor ("MCS") instruments which included an MCS tip cover accessory that was the subject of a market withdrawal in 2012 and MCS instruments that were the subject of a recall in 2013. In an effort to avoid the expense and distraction of defending multiple lawsuits, the Company entered into tolling agreements to pause the applicable statutes of limitations for many of these claims and engaged in confidential mediation efforts.
After an extended confidential mediation process with legal counsel for many of the claimants covered by the tolling agreements, the Company determined during 2014 that, while it denies any and all liability, in light of the costs and risks of litigation, settlement of certain claims was appropriate. During the year ended December 31, 2016, and 2015, the Company recorded pre-tax charges of $8.3 million and $13.8 million, respectively, to reflect the estimated cost of settling a number of the product liability claims covered by the tolling agreements.
The Company's estimate of the anticipated cost of resolving these claims is based on negotiations with attorneys for claimants who have participated in the mediation process. Nonetheless, it is possible that more claims will be made by additional individuals and that the claimants whose claims were not resolved through the mediation program, as well as those claimants who have not participated in mediations, will choose to pursue greater amounts in a court of law. Consequently, the final outcome of these claims is dependent on many variables that are difficult to predict and the ultimate cost associated with these product liability claims may be materially different than the amount of the current estimate and accruals and could have a material adverse effect on the Company's business, financial position, and future results of operations. Although there is a reasonable possibility that a loss in excess of the amount recognized exists, the Company is unable to estimate the possible loss or range of loss in excess of the amount recognized at this time. As of December 31, 2016, and 2015, a total of $20.5 million and $24.4 million, respectively, were included in other accrued liabilities in the accompanying Consolidated Balance Sheets related to the tolled product liability claims.
In February 2011, the Company was named as a defendant in a product liability action that had originally been filed in Washington State Superior Court for Kitsap County against the healthcare providers and hospital involved in a decedent's surgery on such decedent's behalf (Josette Taylor, as Personal Representative of the Estate of Fred E. Taylor, deceased; and on behalf of the Estate of Fred E. Taylor v. Intuitive Surgical, Inc., No. 09-2-03136-5). In Taylor, plaintiff asserted wrongful death and product liability claims against the Company, generally alleging that the decedent died four years after surgery as a result of injuries purportedly suffered during the surgery, which was conducted with the use of the da Vinci Surgical System. The plaintiff in Taylor asserted that such injuries were caused, in whole or in part, by the Company's purported failure to properly train, warn, and instruct the surgeon. The lawsuit sought unspecified damages for past medical expenses, pain and suffering, loss of consortium as well as punitive damages. A trial commenced on April 15, 2013. On May 23, 2013, the jury returned a defense verdict, finding that the Company was not negligent. Judgment was entered in the Company's favor on June 7, 2013. Subsequent to the verdict, the plaintiff filed a notice of appeal. That appeal was denied on July 7, 2015. On July 27, 2015, plaintiff filed a motion for reconsideration with the Court of Appeal; the Court of Appeal denied the motion

for reconsideration on August 10, 2015. On September 9, 2015, plaintiff filed a Petition for Review with the Washington State Supreme Court. On February 10, 2016, the Washington Supreme Court issued an order granting the plaintiff's Petition for Review. Oral argument on the appeal before the Washington Supreme Court was heard on June 7, 2016. The court will issue an opinion at a future time.

Insurance Litigation

In October 2013, the Company was named as a defendant in an insurance action entitled Illinois Union Insurance Co. v. Intuitive Surgical, Inc., No. 3:13-cv-04863-JST, filed in the United States District Court for the Northern District of California. Plaintiff Illinois Union Insurance Co. ("Illinois Union") seeks to rescind the Life Sciences Products-Completed Operations Liability Policy issued by plaintiff to the Company, which provides coverage for product liability claims first made against the Company during the policy period March 1, 2013, to March 1, 2014. In December 2013, the Company was named as a defendant in another insurance action entitled Navigators Specialty Insurance Co. v. Intuitive Surgical, Inc., No. 5:13-cv-05801-JST, also filed in the Northern District of California. Plaintiff Navigators Specialty Insurance Co. ("Navigators") alleges that the Follow Form Excess

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Liability Insurance Policy issued by plaintiff to the Company for product liability claims first made against the Company during the policy period March 1, 2013 to March 1, 2014, should be rescinded. These cases have been consolidated under docket number 3:13-cv-04863. Both plaintiffs generally allege that the Company did not disclose the existence of tolling agreements or the number of claimants incorporated within those agreements, and allege that those agreements were material to plaintiffs' underwriting processes. On October 20, 2015, the Company filed a complaint alleging breach of contract and bad faith against Illinois Union and Navigators in an action entitled Intuitive Surgical Inc. v. Illinois Union Insurance Co., et al., No. 3:15-cv-04834-JST, based on the defendants failure to indemnify the Company for losses incurred in the defense and settlement of certain product liability claims brought against the Company during the insurance policy period March 1, 2013 to March 1, 2014. The Company's breach of contract and bad faith action against the insurers has been consolidated with the insurers' rescission actions for all purposes except for trial. Both Illinois Union and Navigators moved to dismiss the Company's complaint in that action. The court denied both Illinois Union and Navigators' motions to dismiss the breach of contract claims against the insurers, denied the motion to dismiss the bad faith claim against Illinois Union, and granted the motion to dismiss the bad faith claim against Navigators.

On March 15, 2016, Illinois Union and Navigators filed motions for summary judgment. On May 26, 2016, the Company and Navigators filed a notice with the court that they had reached a confidential settlement of the litigation between the two parties. On May 27, 2016, the Court denied Illinois Union's motion for summary judgment. Illinois Union sought leave to move for reconsideration of the Court's order denying Illinois Union's motion for summary judgment, which the court denied. On July 27, 2016, Illinois Union filed a motion to stay the case and for permission to file an interlocutory appeal with respect to the denial of summary judgment with the U.S. Court of Appeals for the Ninth Circuit. The Court denied the motion to stay on October 11, 2016. On September 15, 2016, the Court dismissed both the Company's breach of contract claim against Navigators and Navigators' rescission case against the Company with prejudice. Based on currently available information, the Company does not believe the Navigators settlement or resolution of the Illinois Union matter will have a material adverse effect on the Company's business, financial position, or future results of operations.

NOTE 8. STOCKHOLDERS' EQUITY

STOCK REPURCHASE PROGRAM

The Company's Board of Directors (the "Board") has authorized an aggregate of $6.2 billion of funding for the Company's common stock repurchase program (the "Repurchase Program") since originally established in March 2009, of which the most recent authorization occurred in December 2016 when the Board increased the authorized amount available under Repurchase Program to $3.0 billion. As of December 31, 2016, the remaining amount of share repurchases authorized by the Board was approximately $2,991.6 million under the Repurchase Program. The $42.5 million of share repurchases for the year ended December 31, 2016, were repurchased in the open market.

On January 24, 2017, subsequent to the end of fiscal year 2016, the Company entered into an accelerated share repurchase program (the "ASR Program") with Goldman, Sachs & Co. ("Goldman") to repurchase $2.0 billion of the Company's common stock. On January 27, 2017, the Company made a payment of $2.0 billion to Goldman and Goldman delivered to the Company an initial delivery of approximately 2.4 million shares of the Company's common stock, which represents 80% of the payment amount divided by the closing price of the Company's common stock on January 23, 2017. The total number of shares that the Company will repurchase under the ASR Program will be based generally on the daily volume-weighted average price per share of the Company's common stock during the repurchase period, less a discount. Depending on the circumstances at settlement, Goldman may be required to deliver additional shares of common stock to the Company or the Company may be required either to deliver shares of common stock or make a cash payment to Goldman. Final settlement of the ASR Program is expected to be completed by the end of the fourth quarter of 2017, although the completion date may be accelerated at Goldman's option during an acceleration period prior to the scheduled termination date.

The following table provides the stock repurchase activities during the years ended December 31, 2016, 2015, and 2014 (in millions, except per share amounts):

	Years Ended December 31,		
	2016	2015	2014

Shares repurchased	0.1	0.4	2.5
Average price per share	$605.10	$502.23	$397.52
Value of shares repurchased	$42.5	$183.7	$1,000.0

The Company uses the par value method of accounting for its stock repurchases. As a result of the share repurchases during the years ended December 31, 2016, 2015, and 2014, the Company reduced common stock and additional paid-in capital by an aggregate of $4.1 million, $16.3 million, and $89.5 million, respectively, and charged $38.4 million, $167.4 million, $910.5 million, respectively, to retained earnings.

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ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The components of accumulated other comprehensive income (loss) net of tax, for the years ended December 31, 2016, and 2015 are as follows (in millions):

	Year Ended December 31, 2016				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$1.5	$ (4.2)	$ (3.3)	$ (3.5)	$(9.5)
Other comprehensive income before reclassifications	4.1	(4.6)	2.0	(0.7)	0.8
Reclassified from accumulated other comprehensive income (loss)	(0.6)	0.2	—	0.2	(0.2)
Net current-period other comprehensive income (loss)	3.5	(4.4)	2.0	(0.5)	0.6
Ending balance	$5.0	$ (8.6)	$ (1.3)	$ (4.0)	$(8.9)

	Year Ended December 31, 2015				
	Gains (Losses) on Hedge Instruments	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Gains (Losses)	Employee Benefit Plans	Total
Beginning balance	$1.1	$ (0.2)	$ (2.1)	$ (3.9)	$(5.1)
Other comprehensive income before reclassifications	7.8	(3.2)	(1.2)	(0.4)	3.0
Reclassified from accumulated other comprehensive income (loss)	(7.4)	(0.8)	—	0.8	(7.4)
Net current-period other comprehensive income (loss)	0.4	(4.0)	(1.2)	0.4	(4.4)
Ending balance	$1.5	$ (4.2)	$ (3.3)	$ (3.5)	$(9.5)

NOTE 9. SHARE-BASED COMPENSATION

Stock Plans

2010 Incentive Award Plan

In April 2010, the Company’s stockholders approved the 2010 Incentive Award Plan (“2010 Plan”). Under this plan, the Company issues nonqualified stock options (“NSOs”) and restricted stock units (“RSUs”) to employees and certain consultants. The 2010 Plan generally permits NSOs to be granted at no less than the fair market value of the common stock on the date of grant, with terms of 10 years from the date of grant. The 2010 Plan expires in 2020. In April 2016, the Company's stockholders approved an amended and restated 2010 Plan to provide for an increase in the number of shares of common stock reserved for issuance from 6,250,000 to 7,050,000. As of December 31, 2016, approximately 1.7 million shares were reserved for future issuance under the 2010 Plan. A maximum of 0.8 million of these shares can be awarded as RSUs.

2009 Employment Commencement Incentive Plan

In October 2009, the Board of Directors adopted the 2009 Employment Commencement Incentive Plan (“New Hire Plan”). The New Hire Plan provides for the shares to be used exclusively for the grant of RSUs and NSOs to new employees (“New Hire Options”), who were not previously employees or non-employee directors of the Company. The Compensation Committee approves all equity awards under the New Hire Plan, which are granted to newly-hired employees once a month on the fifth business day of each month after their hire. Options are granted at an exercise price not less than the fair market value of the stock on the date of grant and have a term not to exceed 10 years.

In April 2015, the Board of Directors amended and restated the New Hire Plan to provide for an increase in the number of shares of common stock authorized for issuance pursuant to awards granted under the New Hire Plan from

1,155,000 to 1,455,000. As of December 31, 2016, approximately 0.1 million shares were reserved for future issuance under the New Hire Plan.

2000 Equity Incentive Plan

In March 2000, the Board of Directors adopted the 2000 Equity Incentive Plan ("2000 Plan"), which took effect upon the closing of the Company's initial public offering. Under this plan, certain employees, consultants and non-employee directors

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could be granted Incentive Stock Options (“ISOs”) and Nonstatutory Stock Options (“NSOs”) to purchase shares of the Company’s common stock. The 2000 Plan permitted ISOs to be granted at an exercise price not less than the fair value on the date of the grant and NSOs at an exercise price not less than 85% of the fair value on the date of grant. Options granted under the 2000 Plan generally expire 10 years from the date of grant and become exercisable upon grant subject to repurchase rights in favor of the Company until vested. The 2000 Plan expired in March 2010. However, options granted prior to the plan’s expiration continue to remain outstanding until their original expiration date.

Employee Option Vesting

Prior to 2012, annual stock options were granted to employees on February 15 of each year or the next business day if the date was not a business day (“Annual Grant”). The grants generally vested 6/48 upon completion of 6 months service and 1/48 per month thereafter. Beginning in 2013, the Company split the annual grant into a grant on February 15 (or the next business day if the date is not a business day) and a separate grant on August 15 (or the next business day if the date is not a business day). The February 15 grants vest 6/48 upon completion of 6 months service and 1/48 per month thereafter. The August 15 stock option grants vest 7/48 at the end of one month and 1/48 per month thereafter through a 3.5 year vesting period.

Prior to 2014, New Hire Options generally vested 6/48 upon completion of 6 months service and 1/48 per month thereafter. Beginning in 2014, New Hire Options generally vest 12/48 upon completion of one year service and 1/48 per month thereafter. Option vesting terms are determined by the Board of Directors and, in the future, may vary from past practices.

2000 Non-Employee Directors’ Stock Option Plan

In March 2000, the Board of Directors adopted the 2000 Non-Employee Directors’ Stock Option Plan (the “Directors’ Plan”). In October 2009, the automatic evergreen increase provisions were eliminated so that no further automatic increases will be made to the number of shares reserved for issuance under the Directors’ Plan. In addition, the common stock authorized for issuance under the Directors’ Plan was reduced to 150,000. Options are granted at an exercise price not less than the fair market value of the stock on the date of grant and have a term not to exceed 10 years. Prior to 2016, initial stock option grants to new non-employee directors vest over a three-year period with 12/36 of the shares vesting after one year from the date of grant and 1/36 of the shares vesting monthly thereafter. Annual stock option grants vest one year from the date of the grant. Since 2016, new non-employee directors receive pro-rated stock option grants that vest on the same term as the annual stock option grants. As of December 31, 2016, approximately 48,000 shares were reserved for future issuance under the Directors’ Plan.

2000 Employee Stock Purchase Plan

In March 2000, the Board of Directors adopted the 2000 Employee Stock Purchase Plan (the “ESPP”). Employees are generally eligible to participate in the ESPP if they are customarily employed by the Company for more than 20 hours per week and more than 5 months in a calendar year and are not 5% stockholders of the Company. Under the ESPP, eligible employees may select a rate of payroll deduction up to 15% of their eligible compensation subject to certain maximum purchase limitations. The duration for each offering period is 24 months and is divided into four purchase periods of approximately six months in length. Offerings are concurrent. The purchase price of the shares under the offering is the lesser of 85% of the fair market value of the shares on the offering date or 85% of the fair market value of the shares on the purchase date. A two-year look-back feature in the ESPP causes the offering period to reset if the fair value of the Company’s common stock on the first or last day of the purchase period is less than that on the original offering date. ESPP purchases by employees are settled with newly-issued common stock from the ESPP’s previously authorized and available pool of shares.

The Company issued 0.1 million, 0.1 million and 0.1 million shares under the ESPP, representing approximately $32.5 million, $31.2 million, and $29.4 million in employee contributions for the years ended December 31, 2016, 2015, and 2014, respectively. As of December 31, 2016, there were approximately 0.1 million shares reserved for future issuance under the ESPP.

Restricted Stock Units

Beginning in 2014, equity awards granted to employees and non-employee directors include a mix of stock options and RSUs. The RSUs to employees vest in one-fourth increments annually over a four-year period. Prior to 2016, initial RSUs granted to new non-employee directors are vested in one-third increments over a three-year period.

Annual RSU grants to non-employee directors vest one year from the date of grant. Since 2016, new non-employee directors receive pro-rated RSU grants that vest on the same term as the annual RSU grants. The number of shares issued on the date the RSUs vest is net of the minimum statutory tax withholdings, which are paid in cash to the appropriate taxing authorities on behalf of the Company’s employees.

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Stock Option Information

Option activity during fiscal 2016 under all the stock plans was as follows (in millions, except per share amounts):

	Stock Options Outstanding	
	Number Outstanding	Weighted Average Exercise Price Per Share
Balance at December 31, 2015	4.2	$ 421.00
Options granted	0.3	$ 616.97
Options exercised	(1.3)	$ 410.98
Options forfeited/expired	(0.1)	$ 494.64
Balance at December 31, 2016	3.1	$ 445.09

The aggregate intrinsic value of stock options exercised under our stock plans determined as of the date of option exercise was $273.3 million, $196.5 million, and $146.2 million during the years ended December 31, 2016, 2015, and 2014, respectively. Cash received from option exercises and employee stock purchase plans for the years ended December 31, 2016, 2015, and 2014 was $580.9 million, $361.1 million, and $283.6 million, respectively. The income tax benefit realized from stock options exercised was $82.9 million for the year ended December 31, 2016.

The following table summarizes significant ranges of outstanding and exercisable options as of December 31, 2016 (number of shares and aggregate intrinsic value in millions):

	Options Outstanding				Options Exercisable			
Range of Exercise Prices	Number of Shares	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price Per Share	Aggregate Intrinsic Value (1)	Number of Shares	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price Per Share	Aggregate Intrinsic Value (1)
$95.89 - $341.19	0.8	3.0	$ 279.22		0.8		$ 279.22	
$343.83 - $459.14	0.8	6.8	$ 416.51		0.6		$ 410.32	
$466.70 - $517.31	0.7	6.3	$ 508.52		0.6		$ 509.04	
$518.29 - $614.78	0.6	7.4	$ 550.88		0.4		$ 557.95	
$618.96 - $718.04	0.2	9.6	$ 685.31		—		$ 692.54	
Total	3.1	6.0	$ 445.09	$ 593.3	2.4	5.2	$ 417.93	$ 516.4

(1) The aggregate intrinsic value represents the total pre-tax intrinsic value, based on the Company’s closing stock price of $634.17 at December 31, 2016, which would have been received by the option holders had all in-the-money option holders exercised their options as of that date.

As of December 31, 2016, a total of 3.0 million shares of stock options vested and expected to vest had a weighted average remaining contractual life of 5.9 years, an aggregate intrinsic value of $587.5 million, and a weighted average exercise price of $442.48.

Restricted Stock Units Information

RSU activity for the year ended December 31, 2016, was as follows (in millions, except per share amounts):

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at December 31, 2015	0.4	$ 485.55
Granted	0.3	$ 553.76
Vested	(0.1)	$ 481.84
Forfeited	—	$ 509.75
Unvested balance at December 31, 2016	0.6	$ 524.17

As of December 31, 2016, 0.5 million shares of RSUs were expected to vest with an aggregate intrinsic value of $336.2 million. During the year ended December 31, 2016, approximately 35,000 RSUs were forfeited. The aggregate

vesting date fair value of RSUs vested was $65.3 million, $29.5 million and $0 million during the years ended December 31, 2016, 2015, and 2014, respectively.

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Share-Based Compensation Expense

The following table summarizes share-based compensation expense (in millions):

	Years Ended December 31,		
	2016	2015	2014
Cost of sales—products	$25.2	$22.8	$19.1
Cost of sales—services	12.4	12.9	13.5
Total cost of sales	37.6	35.7	32.6
Selling, general and administrative	97.4	94.7	99.0
Research and development	43.0	37.7	37.5
Share-based compensation expense before income taxes	178.0	168.1	169.1
Income tax effect	56.1	51.8	53.5
Share-based compensation expense after income taxes	$121.9	$116.3	$115.6

The Black-Scholes option pricing model is used to estimate the fair value of stock options granted under the Company's share-based compensation plans and rights to acquire stock granted under the Company's employee stock purchase plan. The weighted average estimated fair values of stock options, the rights to acquire stock granted, and RSUs, as well as the weighted average assumptions used in calculating the fair values of stock options and rights to acquire stock under the ESPP that were granted during the years ended December 31, 2016, 2015, and 2014, were as follows:

	Years Ended December 31,		
STOCK OPTION PLANS	2016	2015	2014
Risk free interest rate	1.1 %	1.6 %	1.5 %
Expected term (years)	4.2	4.3	4.3
Volatility	26 %	28 %	31 %
Fair value at grant date	$141.18	$131.47	$122.39
EMPLOYEE STOCK PURCHASE PLAN			
Risk free interest rate	0.6 %	0.4 %	0.2 %
Expected term (years)	1.2	1.2	1.2
Volatility	30 %	31 %	33 %
Fair value at grant date	$172.71	$146.72	$124.60
RESTRICTED STOCK UNITS			
Fair value at grant date	$553.76	$511.92	$441.36

As share-based compensation expense recognized in the Consolidated Statements of Income during the years ended December 31, 2016, 2015, and 2014, is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Share-based compensation accounting requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimated.

As of December 31, 2016, there were a total of $80.3 million, $200.3 million, and $9.0 million, of total unrecognized compensation expense related to unvested stock options, restricted stock units, and employee stock purchases, respectively. The unrecognized compensation expense is expected to be recognized over a weighted average period of 2.2 years for unvested stock options, 2.6 years for unvested restricted stock units, and 1.0 year for rights granted to acquire stock under the ESPP.

Excess tax benefits are realized tax deductions for exercised options and vested RSUs in excess of the deferred tax assets attributable to share-based compensation expense for such equity awards. Excess tax benefits of $44.1 million, $34.3 million, and $24.0 million for the years ended December 31, 2016, 2015, and 2014, respectively, have been classified as a financing cash inflow.

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NOTE 10. INCOME TAXES

Income before provision for income taxes for the years ended December 31, 2016, 2015, and 2014, consisted of the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
U.S.	$653.0	$425.1	$353.0
Foreign	327.8	333.4	196.0
Total income before provision for income taxes	$980.8	$758.5	$549.0

The provision for income taxes for the years ended December 31, 2016, 2015, and 2014 consisted of the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
Current			
Federal	$207.0	$148.7	$150.5
State	13.4	8.4	7.0
Foreign	5.4	7.6	7.5
	$225.8	$164.7	$165.0
Deferred			
Federal	$18.3	$7.5	$(30.9)
State	0.6	0.5	(0.6)
Foreign	0.2	(3.0)	(3.3)
	$19.1	$5.0	$(34.8)
Total income tax expense	$244.9	$169.7	$130.2

Income tax expense differs from amounts computed by applying the statutory federal income rate of 35% for the years ended December 31, 2016, 2015, and 2014 as a result of the following (in millions):

	Years Ended December 31,		
	2016	2015	2014
Federal tax at statutory rate	$343.3	$265.5	$192.2
Increase (reduction) in tax resulting from:			
State taxes, net of federal benefits	14.0	8.9	6.4
Foreign rate differential	(86.2)	(67.4)	(47.4)
Research and development credit	(7.8)	(6.4)	(5.0)
Share-based compensation not benefited	3.6	6.9	7.7
Domestic production activities deduction	(8.0)	(5.3)	(4.6)
Reversal of unrecognized tax benefits	(15.8)	(6.4)	(20.3)
Reversal of share-based compensation from intercompany charges	—	(25.0)	—
Other	1.8	(1.1)	1.2
Total income tax expense	$244.9	$169.7	$130.2

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Deferred income taxes reflect tax carry forwards and the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows (in millions):

	December 31,	
	2016	2015
Deferred tax assets:		
Share-based compensation expense	$122.2	$140.5
Expenses deducted in later years for tax purposes	47.4	47.1
Research and other credits	15.6	13.5
Other	9.8	7.5
Gross deferred tax assets	$195.0	$208.6
Valuation allowance	(17.2)	(15.2)
Deferred tax assets	$177.8	$193.4
Deferred tax liabilities:		
Fixed assets	$(25.2)	$(24.0)
Intangible assets	(2.3)	(2.0)
Other	(0.2)	(0.5)
Deferred tax liabilities	$(27.7)	$(26.5)
Net deferred tax assets	$150.1	$166.9

The Company has not provided U.S. income taxes and foreign withholding taxes on the undistributed earnings of its foreign subsidiaries as of December 31, 2016, because the Company intends to indefinitely reinvest such earnings outside the U.S. If these foreign earnings were to be repatriated in the future, the related U.S. tax liability may be reduced by any foreign income taxes previously paid on these earnings. As of December 31, 2016, the cumulative amount of earnings upon which U.S. income taxes have not been provided was approximately $1,454.2 million. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable at this time. The Company has a tax holiday in effect for its business operations in Switzerland which will continue until the end of year 2017 to the extent certain terms and conditions continue to be met. This tax holiday provides for a lower rate of taxation in Switzerland based on various thresholds of investment and employment in such jurisdiction. As of December 31, 2016, the Company remained in compliance with the terms of the holiday. At the end of the tax holiday, Swiss taxable income may be taxed at a higher rate depending on the applicable federal and cantonal rules. Tax benefit from the Swiss tax holiday for the year ended December 31, 2016, was approximately $10.0 million, or $0.25 per diluted share.

As of December 31, 2016, and 2015, the Company had valuation allowances of $17.2 million and $15.2 million, respectively, primarily related to California deferred tax assets generated by California R&D credit forwards which have no expiration period. The Company recorded a valuation allowance against its California deferred tax assets as it is more likely than not these deferred tax assets will not be realized as a result of the computation of California taxes under the single sales factor.

The Company recorded a net increase of its gross unrecognized tax benefits of approximately $13.6 million during the year ended December 31, 2016. The net increase was primarily due to increases related to 2016 uncertain tax positions, partially offset by the reversal of gross unrecognized tax benefits in connection with the expiration of certain statutes of limitation in various jurisdictions. The Company had gross unrecognized tax benefits of approximately $106.0 million, $92.4 million, and $75.5 million as of December 31, 2016, 2015, and 2014, respectively, which if recognized, would result in a reduction of the Company's effective tax rate. The Company included interest expense accrued on unrecognized tax benefits as a component of its income tax expense. As of December 31, 2016, 2015, and 2014, gross interest related to unrecognized tax benefits accrued was approximately $3.7 million, $2.9 million, and $2.5 million, respectively. The Company classified a majority of its net unrecognized tax benefits and related interest in Other accrued liabilities on the Consolidated Balance Sheets.

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A reconciliation of the beginning and ending amounts of gross unrecognized income tax benefits for the years ended December 31, 2016, 2015, and 2014 are as follows (in millions):

	Years Ended December 31,		
	2016	2015	2014
Beginning balance	$92.4	$75.5	$74.0
Increases related to tax positions taken during the current year	29.9	28.9	22.3
Increases related to tax positions taken during a prior year	—	0.3	—
Decreases related to tax positions taken during a prior year	(0.5)	—	—
Decreases related to settlements with tax authorities	—	(11.4)	(19.1)
Decreases related to expiration of statute of limitations	(15.8)	(0.9)	(1.7)
Ending balance	$106.0	$92.4	$75.5

The Company files federal, state and foreign income tax returns in many U.S. and OUS jurisdictions. Years before 2013 are closed for the significant jurisdictions. Certain of the Company’s unrecognized tax benefits could change due to activities of various tax authorities, including potential assessment of additional tax, possible settlement of audits, or through normal expiration of various statutes of limitations, which could affect the Company’s effective tax rate in the period in which they change. While it is reasonably possible that a benefit could be recorded, due to the uncertainty related to the timing and potential outcome of audits, the Company cannot estimate the range of reasonably possible change in unrecognized tax benefits that may occur in the next 12 months.

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

NOTE 11. NET INCOME PER SHARE

The following table presents the computation of basic and diluted net income per share (in millions, except per share amounts):

	Years Ended December 31,		
	2016	2015	2014
Net income	$735.9	$588.8	$418.8
Basic:			
Weighted-average shares outstanding	38.3	37.1	36.9
Basic net income per share	$19.21	$15.87	$11.35
Diluted:			
Weighted-average shares outstanding used in basic calculation	38.3	37.1	36.9
Add: Dilutive potential shares	1.0	0.8	0.8
Weighted-average shares used in computing diluted net income per share	39.3	37.9	37.7
Diluted net income per share	$18.73	$15.54	$11.11

Share-based compensation awards of approximately 0.2 million, 1.7 million, and 2.4 million shares for the years ended December 31, 2016, 2015, and 2014, respectively, were outstanding, but were not included in the computation of diluted net income per share because the effect of including such shares would have been antidilutive in the periods presented.

NOTE 12. EMPLOYEE BENEFIT PLANS

The Company sponsors various retirement plans for its eligible U.S. and non-U.S. employees. For employees in the U.S., the Company maintains the Intuitive Surgical, Inc. 401(k) Plan (the “Plan”). As allowed under Section 401(k) of the Internal Revenue Code, the Plan provides tax-deferred salary contributions for eligible U.S. employees. The Plan allows employees to contribute up to 75% of their annual compensation to the Plan on a pre-tax and after-tax basis.

Employee contributions are limited to a maximum annual amount as set periodically by the Internal Revenue Code. Beginning in 2015, the Company began matching contributions made to the Plan by the employees. The Company matches 200% of employee contributions up to $1,500 per calendar year per person. All matching employer contributions vest immediately.

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SELECTED QUARTERLY DATA
(UNAUDITED, IN MILLIONS, EXCEPT PER SHARE AMOUNTS)

	Three Months Ended			
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Revenue	$756.9	$ 682.9	$670.1	$594.5
Gross profit [3]	$527.2	$ 487.0	$470.9	$405.0
Net income [1][2][3]	$204.0	$ 211.0	$184.5	$136.4
Net income per common share				
Basic	$5.26	$ 5.45	$4.82	$3.62
Diluted	$5.13	$ 5.31	$4.71	$3.54
(1) Includes discrete tax benefits as follows:				
Audit settlement and expiration of the statutes of limitations in multiple jurisdictions	$—	$ 15.8	$—	$—
(2) Includes pre-tax litigation charges	$5.5	$ —	$4.4	$2.2
(3) Includes pre-tax medical device excise tax refund benefit	$—	$ 7.1	$—	$—

	Three Months Ended			
	December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Revenue	$676.5	$ 589.7	$586.1	$532.1
Gross profit	$458.8	$ 395.8	$386.5	$336.8
Net income [1][2]	$190.0	$ 167.3	$134.5	$97.0
Net income per common share				
Basic	$5.09	$ 4.49	$3.64	$2.64
Diluted	$4.99	$ 4.40	$3.56	$2.57
(1) Includes discrete tax benefits as follows:				
Audit settlement and expiration of the statutes of limitations in multiple jurisdictions	$—	$ —	$7.8	$—
Reversal of the share-based compensation intercompany charges as a result of U.S. Tax Court opinion	$—	$ 29.3	$—	$—
Reinstatement of the 2015 federal R&D tax credit	$6.4	$ —	$—	$—
(2) Includes pre-tax litigation charges (recoveries)	$(0.6)	$ —	$6.6	$7.2

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS
(IN MILLIONS)

	Balance at Beginning of Year	Additions	Deductions [1]	Balance at End of Year
Allowance for doubtful accounts and loan credit losses, and sales returns				
Year ended December 31, 2016	$ 9.4	$ 24.6	$ (23.2)	$ 10.8
Year ended December 31, 2015	$ 5.5	$ 22.3	$ (18.4)	$ 9.4
Year ended December 31, 2014	$ 5.8	$ 22.2	$ (22.5)	$ 5.5

(1) Primarily represents products returned.

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness 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 Annual Report on Form 10-K. 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.

Inherent Limitations Over Internal Controls

Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Our internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;

(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Management, including our principal executive officer and principal financial officer, does not expect that our internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods are subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework in Internal Control Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the results of our assessment under the framework in the Internal Control—Integrated Framework (2013), our management concluded that our internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of our internal control over financial reporting as of December 31, 2016, has been audited by an independent registered public accounting firm, as stated in their report, which is included under “Item 8. Financial Statements and Supplementary Data” of this Annual Report.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2016, that have materially affected, or are reasonably likely to materially affect, our internal control

over financial statements.

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ITEM 9B. OTHER INFORMATION
None.

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PART III

Certain information required by Part III is omitted from this report on Form 10-K and is incorporated herein by reference to our definitive Proxy Statement for our next Annual Meeting of Stockholders (the “Proxy Statement”), which we intend to file pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, within 120 days after December 31, 2016.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item concerning our directors and corporate governance is incorporated by reference to the information set forth in the section titled “Directors and Corporate Governance” in our Proxy Statement. Information required by this item concerning our executive officers is incorporated by reference to the information set forth in the section entitled “Executive Officers of the Company” in our Proxy Statement. Information regarding our Section 16 reporting compliance and code of business conduct and ethics is incorporated by reference to the information set forth in the section entitled “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” in our Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item regarding executive compensation is incorporated by reference to the information set forth in the sections titled “Executive Compensation” and “Compensation for Directors” in our Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item regarding security ownership of certain beneficial owners and management is incorporated by reference to the information set forth in the section titled “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” in our Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this item regarding certain relationships and related transactions and director independence is incorporated by reference to the information set forth in the sections titled “Certain Relationships and Related Transactions” and “Directors and Corporate Governance” in our Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item regarding principal accountant fees and services is incorporated by reference to the information set forth in the section titled “Principal Accountant Fees and Services” in our Proxy Statement.

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PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULE

(a) The following documents are filed as part of this Annual Report on Form 10-K

1) Financial Statements—See Index to Consolidated Financial Statements at Item 8 of this report on Form 10-K.

2) The following financial statement schedule of Intuitive Surgical, Inc. is filed as part of this report and should be read in conjunction with the financial statements of Intuitive Surgical, Inc.:

Schedule II: Valuation and Qualifying Accounts.

All other schedules have been omitted because they are not applicable, not required under the instructions, or the information requested is set forth in the consolidated financial statements or related notes thereto.

3) Exhibits

The exhibits filed as part of this report are listed under "Exhibits" at subsection (b) of this Item 15.

(b) Exhibits

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EXHIBIT INDEX

3.1(1)	Amended and Restated Certificate of Incorporation of the Company.
3.2(1)	Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company.
3.3(2)	Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company.
3.4(3)	Amended and Restated Bylaws of the Company.
4.1(4)	Specimen Stock Certificate.
10.1(4)	2000 Equity Incentive Plan. *
10.2(4)	2000 Non-Employee Directors' Stock Option Plan. *
10.3(4)	2000 Employee Stock Purchase Plan. *
10.4(5)	Form of Indemnity Agreement. *
10.5(6)	2009 Employment Commencement Incentive Plan, as amended and restated. *
10.6(7)	2010 Incentive Award Plan, as amended and restated. *
10.7(8)	Severance Plan. *
10.8(9)	Form of Intuitive Surgical, Inc. 2000 Equity Incentive Plan Stock Option Agreement (Incentive and Nonstatutory Stock Options). *
10.9(10)	Form of Intuitive Surgical, Inc. 2009 Employment Commencement Incentive Plan Stock Option Grant Notice. *
10.10(10)	Form of Intuitive Surgical, Inc. 2009 Employment Commencement Incentive Plan Restricted Stock Unit Grant Notice. *
10.11(10)	Form of Intuitive Surgical, Inc. 2010 Incentive Award Plan Stock Option Grant Notice. *
10.12(10)	Form of Intuitive Surgical, Inc. 2010 Incentive Award Plan Restricted Stock Unit Grant Notice. *
10.13	Master Confirmation and Supplemental Confirmation between Intuitive Surgical, Inc. and Goldman, Sachs & Co., dated January 24, 2017.
21.1	Intuitive Surgical, Inc. Subsidiaries.
23.1	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Principal Executive Officer.
31.2	Certification of Principal Financial Officer.

32.1	Certification of Chief Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Intuitive Surgical, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016, formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income, (iii) Consolidated Statement of Stockholders' Equity, (iv) Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements, tagged at Level I through IV.

(1) Incorporated by reference to exhibits filed with the Company's 2008 Annual Report on Form 10-K filed on February 6, 2009 (File No. 000-30713).

(2) Incorporated by reference to Exhibit A filed with the Company's Definitive Proxy Statement on Schedule 14A filed on March 1, 2012 (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 December 13, 2016 (File No. 000-30713).

(4) Incorporated by reference to exhibits filed with the Company's Registration Statement on Form S-1 filed on March 22, 2000 (File No. 333-33016).

(5) Incorporated by reference to Exhibit 10.1 filed with the Company's Current Report on Form 8-K filed on August 3, 2015 (File No. 000-30713).

(6) Incorporated by reference to Exhibit 4.2 filed with the Company's Registration Statement on Form S-8 filed on May 1, 2015 (File No. 333-203793).

(7) Incorporated by reference to Exhibit 4.1 filed with the Company's Registration Statement on Form S-8 filed on May 1, 2015 (File No. 333-203793).

(8) Incorporated by reference to Exhibit 10.1 filed with the Company's Current Report on Form 8-K filed on December 2, 2008 (File No. 000-30713).

(9) Incorporated by reference to Exhibit 10.2 filed with the Company's Quarterly Report on Form 10-Q filed on July 23, 2009 (File No. 000-30713).

(10) Incorporated by reference to exhibits filed with the Company's 2015 Annual Report on Form 10-K filed on February 2, 2016 (File No. 000-30713).

* Management contract or compensatory plan or arrangement.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

INTUITIVE SURGICAL, INC.

By: /S/ GARY S. GUTHART
Gary S. Guthart, Ph.D.
President and Chief Executive Officer

Date: February 3, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ GARY S. GUTHART Gary S. Guthart, Ph.D.	President, Chief Executive Officer, and Director (Principal Executive Officer)	February 3, 2017
/S/ MARSHALL L. MOHR Marshall L. Mohr	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 3, 2017
/S/ JAMIE E. SAMATH Jamie E. Samath	Vice President, Corporate Controller (Principal Accounting Officer)	February 3, 2017
/S/ LONNIE M. SMITH Lonnie M. Smith	Chairman of the Board of Directors	February 3, 2017
/S/ CRAIG H. BARRATT Craig H. Barratt, Ph.D.	Director	February 3, 2017
/S/ MICHAEL A. FRIEDMAN Michael A. Friedman, M.D.	Director	February 3, 2017
/S/ AMAL M. JOHNSON Amal M. Johnson	Director	February 3, 2017
/S/ KEITH R. LEONARD JR. Keith R. Leonard Jr.	Director	February 3, 2017
/S/ ALAN J. LEVY Alan J. Levy, Ph.D.	Director	February 3, 2017
/S/ MARK J. RUBASH Mark J. Rubash	Director	February 3, 2017
George Stalk Jr.	Director	