

EDWARDS LIFESCIENCES CORP

FORM	10	-K
(Annual F	_	

Filed 02/16/18 for the Period Ending 12/31/17

Address	ONE EDWARDS WAY
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Telephone	9492502500
CIK	0001099800
Symbol	EW
SIC Code	3842 - Orthopedic, Prosthetic, and Surgical Appliances and Supplies
Industry	Advanced Medical Equipment & Technology
Sector	Healthcare
Fiscal Year	12/31

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Fiscal Year Ended December 31, 2017

OR

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

> For the Transition Period From Commission File Number 1-15525

EDWARDS LIFESCIENCES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

One Edwards Way, Irvine, California 92614 (Address of principal executive offices) (ZIP Code)

(949) 250-2500

Registrant's telephone number, including area code

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

Common Stock, par value \$1.00 per share

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined by Rule 405 of the Securities Act. Yes 🗵 No 🗖

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes 🗆 No 🗷

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (\$232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes 🗷 No 🗖

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer □

Non-accelerated filer \square (Do not check if a smaller reporting company)

Smaller reporting company □ Emerging growth company \Box

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2017 (the last trading day of the registrant's most recently completed second quarter): \$24,777,676,328 based on the closing price of the registrant's common stock on the New York Stock Exchange. This calculation does not reflect a determination that persons are affiliates for any other purpose.

The number of shares outstanding of the registrant's common stock, \$1.00 par value, as of January 31, 2018, was 210,023,708.

Documents Incorporated by Reference

Portions of the registrant's proxy statement for the 2018 Annual Meeting of Stockholders (to be filed within 120 days of December 31, 2017) are incorporated by reference into Part III, as indicated herein

36-4316614 (I.R.S. Employer

Identification No.)

Name of each exchange on which registered:

New York Stock Exchange

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PART I

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. We intend the forward-looking statements contained in this report to be covered by the safe harbor provisions of such Acts. All statements other than statements of historical fact in this report or referred to or incorporated by reference into this report are "forward-looking statements" for purposes of these sections. These statements include, among other things, any predictions of earnings, revenues, expenses or other financial items, plans or expectations with respect to development activities, clinical trials or regulatory approvals, any statements of plans, strategies and objectives of management for future operations, any statements concerning our future operations, financial conditions and prospects, and any statements of assumptions underlying any of the foregoing. These statements can sometimes be identified by the use of the forward-looking words such as "may," "believe," "will," "expect," "project," "estimate," "should," "anticipate," "plan," "goal," "continue," "seek," "pro forma," "forecast," "intend," "guidance," "optimistic," "aspire," "confident," other forms of these words or similar words or expressions or the negative thereof. Investors are cautioned not to unduly rely on such forward-looking statements. These forward-looking statements are subject to substantial risks and uncertainties that could cause our results or future business, financial condition, results of operations or performance to differ materially from our historical results or expressed or implied in any forward-looking statements contained in this report. See "Risk Factors" in Part I, Item IA below for a discussion of these risks, as well as our subsequent reports on Forms 10-Q and 8-K. These forward-looking statements or corrections and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date

Unless otherwise indicated or otherwise required by the context, the terms "we," "our," "it," "its," "Company," "Edwards," and "Edwards Lifesciences" refer to Edwards Lifesciences Corporation and its subsidiaries.

Item 1. Business

Overview

Edwards Lifesciences Corporation is the global leader in patient-focused medical innovations for structural heart disease and critical care monitoring. Driven by a passion to help patients, we partner with the world's leading clinicians and researchers and invest in research and development to transform care for those impacted by structural heart disease or require hemodynamic monitoring during surgery and in intensive care. Edwards Lifesciences has a proud history, nearly six decades long, as a leader in these areas. Since our founder, Lowell Edwards, first dreamed of using engineering to address diseases of the human heart, we have steadily built a company on the premise of imagining, building, and realizing a better future for patients.

A pioneer in the development of heart valve therapies, we are the world's leading manufacturer of heart valve systems and repair products used to replace or repair a patient's diseased or defective heart valve. Our innovative work in heart valves encompasses both surgical and transcatheter therapies for heart valve replacement and repair. In addition, our robust pipeline of future technologies is focused on the less invasive repair or replacement of the mitral and tricuspid valves of the heart, which are more complex and more challenging to treat than the aortic valve that is currently the focus of many of our commercially approved valve technologies. We are also a global leader in hemodynamic monitoring systems used to measure a patient's cardiovascular function in the hospital setting.

Cardiovascular disease is the number-one cause of death in the world, and is the top disease in terms of health care spending in nearly every country. Cardiovascular disease is progressive in that it tends to worsen over time and often affects the structure of an individual's heart.

Patients undergoing treatment for cardiovascular disease can be treated with a number of our medical technologies, which are designed to address individual patient needs with respect to disease process, comorbidities, and health status. For example, an individual with a heart valve disorder may have a faulty valve that is affecting the function of his or her heart or blood flow throughout his or her body. A clinician may elect to remove the valve and replace it with one of our bioprosthetic surgical tissue heart valves, surgically re-shape and repair the faulty valve with an Edwards Lifesciences annuloplasty ring, or implant an Edwards Lifesciences transcatheter valve or repair system via a catheter-based approach that does not require traditional open-heart surgery and can be done while the heart continues to beat. Patients in the hospital setting, including high-risk patients in

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the operating room or intensive care unit, are candidates for having their cardiac function or fluid levels monitored by our Critical Care products through multiple monitoring options, including noninvasive and minimally invasive technologies. These technologies enable proactive clinical decisions while also providing the opportunity for improving diagnoses and developing individualized therapeutic management plans for patients.

Segment and Geographical Information

We conduct operations worldwide and are managed in the following geographical regions: United States, Europe, Japan, and Rest of World. All regions sell products that are used to treat advanced cardiovascular disease. Additional segment and geographical information is incorporated herein by reference to Note 18 to the "*Consolidated Financial Statements.*" See also the risk factor "*Our business is subject to economic, political, and other risks associated with international sales and operations, including risks arising from currency exchange rate fluctuations*" in Part I, Item 1A, "*Risk Factors*," for information regarding risks involving our international operations.

Corporate Background

Edwards Lifesciences Corporation was incorporated in Delaware on September 10, 1999.

Our principal executive offices are located at One Edwards Way, Irvine, California 92614. The telephone number at that address is (949) 250-2500. We make available, free of charge on our website located at www.edwards.com, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after filing such reports with the Securities and Exchange Commission ("SEC"). The contents of our website are not incorporated by reference into this report.

Edwards Lifesciences' Product and Technology Offerings

The following discussion summarizes the main areas of products and technologies we offer to treat advanced cardiovascular disease. These are categorized into three main areas: Transcatheter Heart Valve Therapy, Surgical Heart Valve Therapy, and Critical Care. For more information on net sales from these three main areas, see "Net Sales by Product Group" in Part II, Item 7 " Management's Discussion and Analysis of Financial Condition and Results of Operations."

Transcatheter Heart Valve Therapy

We are a global leader in transcatheter heart valve replacement technologies designed for the nonsurgical replacement of heart valves. The *Edwards SAPIEN* family of valves , including *Edwards SAPIEN XT* and *Edwards SAPIEN 3* transcatheter aortic heart valves and their respective delivery systems, are used to treat heart valve disease using catheter-based approaches for certain patients for whom traditional open-heart surgery is not optimal. Delivered while the heart is beating, these valves can enable patients to experience a better quality of life sooner than patients receiving traditional surgical therapies. We began offering our transcatheter heart valves to patients commercially in Europe in 2007, in the United States in 2011, and in Japan in 2013. As of December 31, 2017, our transcatheter aortic heart valves were available in more than 65 countries. Supported by extensive customer training and service, and a growing body of compelling clinical evidence, our *SAPIEN* family of transcatheter aortic heart valves are the most widely prescribed transcatheter heart valves in the world.

Sales of our transcatheter heart valves represented 59%, 55%, and 47% of our net sales in 2017, 2016, and 2015, respectively.

Surgical Heart Valve Therapy

The core of our surgical tissue heart valve product line is the *Carpentier-Edwards PERIMOUNT* pericardial valve platform, including the line of *PERIMOUNT Magna Ease* pericardial valves for aortic and mitral surgical valve replacement. With more long-term clinical publications on durability and performance than any other surgical valve, *PERIMOUNT* valves are the most widely implanted surgical tissue heart valves in the world. Our latest innovations include the *INSPIRIS RESILIA* aortic valve, which offers *RESILIA* tissue and *VFit* technology, and the *EDWARDS INTUITY Elite Valve System*, which is designed to enable faster procedures, shorter cardiopulmonary bypass times, and smaller incisions. In addition to our replacement valves, we pioneered and are the worldwide leader in surgical heart valve repair therapies, which include annuloplasty rings and the beating-heart mitral repair system we acquired from Harpoon Medical Inc. ("Harpoon Medical") in December 2017. We are also a global leader in cardiac cannula devices and offer a variety of innovative procedure-enabling platforms to advance minimally invasive surgery.

Sales of our surgical tissue heart valve products represented 21%, 23%, and 28% of our net sales in 2017, 2016, and 2015, respectively.

Critical Care

We are a world leader in hemodynamic monitoring systems used to measure a patient's heart function and fluid status in surgical and intensive care settings. Hemodynamic monitoring enables a clinician to balance the supply and demand of oxygen in critically ill patients, and plays an important role in enhancing surgical recovery by enabling appropriate tissue and organ perfusion, and ultimately enabling the improvement of patient outcomes and survival. Edwards' complete hemodynamic portfolio helps clinicians make proactive clinical decisions for their patients, and includes the minimally invasive *FloTrac* system and the noninvasive *ClearSight* system. Our hemodynamic monitoring portfolio also comprises the *Swan-Ganz* line of pulmonary artery catheters and the *Edwards Oximetry Central Venous Catheters*. Our *EV1000* and *HemoSphere* clinical monitoring platforms display a patient's physiological status and integrate many of our sensors and catheters into the platforms. We are also the global leader in disposable pressure monitoring devices and innovative closed blood sampling systems to help protect both patients and clinicians from the risk of infection.

Sales of our core hemodynamic products represented 10%, 12%, and 13% of our net sales in 2017, 2016, and 2015, respectively.

Competition

The medical technology industry is highly competitive. We compete with many companies, including divisions of companies much larger than us and smaller companies that compete in specific product lines or certain geographies. Furthermore, new product development and technological change characterize the areas in which we compete. Our present or future products could be rendered obsolete or uneconomical as a result of technological advances by one or more of our present or future competitors or by other therapies, including drug therapies. We must continue to develop and commercialize new products and technologies to remain competitive in the cardiovascular medical technology industry. We believe that we compete primarily on the basis of clinical superiority supported by extensive data, and innovative features that enhance patient benefit, product performance, and reliability. Customer and clinical support, and data that demonstrate both improvement in a patient's quality of life and a product's cost-effectiveness are additional aspects of competition.

The cardiovascular segment of the medical technology industry is dynamic and subject to significant change due to cost-of-care considerations, regulatory reform, industry and customer consolidation, and evolving patient needs. The ability to provide products and technologies that demonstrate value and improve clinical outcomes is becoming increasingly important for medical technology manufacturers.

We believe that we are a leading global competitor in each of our product lines. In Transcatheter Heart Valve Therapy, our primary competitors include Medtronic PLC, Boston Scientific Corporation, and Abbott Laboratories. In Surgical Heart Valve Therapy, our primary competitors include Medtronic PLC, Abbott Laboratories, and LivaNova PLC. In Critical Care, we compete primarily with a variety of companies in specific product lines including ICU Medical, Inc., PULSION Medical Systems SE, a subsidiary of Getinge AB, and LiDCO Group PLC.

Sales and Marketing

We have a number of broad product lines that require a sales and marketing strategy tailored to our customers in order to deliver high-quality, cost-effective products and technologies to all of our customers worldwide. Our portfolio includes some of the most recognizable cardiovascular device product brands in treating structural heart disease today. To help broaden awareness of our products and technologies, we conduct educational symposia and provide training to our physician, hospital executive, service line leadership, and clinical-based customers.

Because of the diverse global needs of the population that we serve, our distribution system consists of several direct sales forces as well as independent distributors. We are not dependent on any single customer and no single customer accounted for 10% or more of our net sales in 2017.

Where we choose to market our products is also influenced by the existence of, or potential for, adequate reimbursement to hospitals by national healthcare systems. We rely extensively on our sales and field clinical specialist personnel who work in hospitals closely with our customers. Our customers include physicians, nurses, and other clinical personnel, but can also include decision makers such as service line leaders, material managers, biomedical staff, hospital administrators and executives, purchasing managers, and ministries of health. Also, for certain of our products and where appropriate, our



corporate sales team actively pursues approval of Edwards Lifesciences as a qualified supplier for hospital group purchasing organizations ("GPOs") that negotiate contracts with suppliers of medical products. Additionally, we have contracts with a number of United States and European national and regional buying groups, including healthcare systems and Integrated Delivery Networks.

United States. In the United States, we sell substantially all of our products through our direct sales forces. In 2017, 56% of our sales were derived from sales to customers in the United States.

International. In 2017, 44% of our sales were derived internationally through our direct sales forces and independent distributors. Of the total international sales, 54% were in Europe, 23% were in Japan, and 23% were in Rest of World. We sell our products in approximately 100 countries, and our major international markets include Canada, China, France, Germany, Italy, Japan, Spain, and the United Kingdom. A majority of the sales and marketing approach outside the United States is direct sales, although it varies depending on each country's size and state of development.

Raw Materials and Manufacturing

We operate manufacturing facilities in various geographies around the world. Our Transcatheter Heart Valve Therapy and Surgical Heart Valve Therapy products are manufactured primarily in the United States (California and Utah) and Singapore. A heart valve manufacturing facility is also currently under construction in Costa Rica. In September 2017, we announced plans to discontinue heart valve manufacturing operations in Switzerland effective in early 2018. Critical Care products are manufactured primarily in our facilities located in Puerto Rico and the Dominican Republic.

We use a diverse and broad range of raw and organic materials in the design, development, and manufacture of our products. Our non-implantable products are manufactured from man-made raw materials including resins, chemicals, electronics, and metals. Most of our Transcatheter Heart Valve Therapy and Surgical Heart Valve Therapy products are manufactured from natural tissues harvested from animal tissue, as well as man-made materials. We purchase certain materials and components used in manufacturing our products from external suppliers. In addition, we purchase certain supplies from single sources for reasons of sole source availability or constraints resulting from regulatory requirements.

We work closely with our suppliers to mitigate risk and seek continuity of supply while maintaining uncompromised quality and reliability. Alternative supplier options are generally considered, identified, and approved for materials deemed critical to our products, although we do not typically pursue immediate regulatory qualification of alternative sources due to the strength of our existing supplier relationships and the time and expense associated with the regulatory validation process.

We comply with all current global guidelines regarding risks for products intended to be implanted in humans. We follow rigorous sourcing and manufacturing procedures intended to safeguard humans from potential risks associated with diseases such as bovine spongiform encephalopathy ("BSE"). We obtain bovine tissue used in our pericardial tissue valve products only from sources within the United States and Australia, where strong control measures and surveillance programs exist. In addition, bovine tissue used in our pericardial tissue valve products is from tissue types considered by global health and regulatory organizations to have shown no risk of infectibility. Our manufacturing and sterilization processes are designed to render tissue biologically safe from all known infectious agents and viruses.

Quality Assurance

We are committed to providing to our patients quality products and have implemented modern quality systems and concepts throughout the organization. The quality system starts with the initial design concept, risk management, and product specification, and continues through the design of the product, packaging and labeling, and the manufacturing, sales, support, and servicing of the product. The quality system is intended to design quality into the products and utilizes continuous improvement concepts, including Lean/Six Sigma principles, throughout the product lifecycle.

Our operations are frequently inspected by the many regulators that oversee medical device manufacturing, including the United States Food and Drug Administration ("FDA"), our European Notified Bodies, and other regulatory entities. The medical technology industry is highly regulated and our facilities and operations are designed to comply with all applicable quality systems standards, including the International Organization for Standardization ("ISO") 13485. These standards require, among other items, quality system controls that are applied to product design, component material, suppliers, and manufacturing operations. These regulatory approvals and ISO certifications can be obtained only after a successful audit of a company's quality system has been conducted by regulatory or independent outside auditors. Periodic reexamination by an independent outside auditor is required to maintain these certifications.



Environmental, Health, and Safety

We are committed to providing a safe and healthy workplace, promoting environmental excellence in our communities, and complying with all relevant regulations and medical technology industry standards. Through our corporate and site level Environmental, Health, and Safety functions, we establish and monitor programs to reduce pollution, prevent injuries, and maintain compliance with applicable regulations. In order to measure performance, we monitor and report on a number of metrics, including regulated and non-regulated waste disposal, energy usage, water consumption, air toxic emissions, and injuries from our production activities. Each of our manufacturing sites is evaluated regularly with respect to a broad range of Environmental, Health, and Safety criteria.

Research and Development

We are engaged in ongoing research and development to deliver clinically advanced new products, to enhance the effectiveness, ease of use, safety, and reliability of our current leading products, and to expand the applications of our products as appropriate. We focus on opportunities within specific areas of structural heart disease and critical care monitoring, and we are dedicated to developing novel technologies to better enable clinicians to treat patients.

We invested \$553 million in research and development in 2017, \$442 million in 2016, and \$383 million in 2015 (16.1%, 14.9%, and 15.4% of net sales, respectively). The majority of our research and development investment has been applied to new products in our existing product lines. We have also dedicated a sizable portion of our research and development investment to developing additional advanced technologies designed to address unmet clinical needs within our areas of strategic focus. A considerable portion of our research and development investment investment includes clinical trials and the collection of evidence that provide data for use in regulatory submissions, and required post-market approval studies involving applications of our products. Our investment in clinical studies also includes outcomes and cost-effectiveness data for payers, clinicians, and healthcare systems.

In Transcatheter Heart Valve Therapy, we are developing new products to further improve and streamline transcatheter aortic heart valve replacement procedures. The *Edwards SAPIEN 3 Ultra System* features the *SAPIEN 3 Ultra* valve with a heightened outer skirt, and a delivery system that incorporates an onballoon design that is compatible with the low-profile *Axela* sheath. The *CENTERA* valve is designed to offer a low profile, repositionable self-expanding technology that is stable during valve deployment and delivered via a motorized handle.

We are also making significant investments in the development of transcatheter heart valve technologies designed to treat mitral and tricuspid valve diseases and other structural heart conditions. We are developing potential products for mitral replacement and for mitral and tricuspid repair. In January 2017, we completed the acquisition of Valtech Cardio Ltd. ("Valtech"), which included the *Cardioband* technologies for mitral and tricuspid repair. In addition, we have made investments in several companies that are independently developing less-invasive technologies to treat mitral regurgitation and left ventricular dysfunction.

Our Surgical Heart Valve Therapy development programs include innovative platforms for patients who will continue to be treated surgically, specifically more active patients with more complex combined procedures. We are also making internal and external investments in the surgical treatment of mitral valve disease, including the December 2017 acquisition of Harpoon Medical, Inc., which is developing beating-heart mitral surgical repair technologies.

In our Critical Care product line, we are pursuing the development of a variety of decision support solutions for our clinicians. This includes next-generation noninvasive and minimally invasive hemodynamic monitoring systems, and a next-generation monitor platform. We are also developing a decision support software suite with advanced algorithms for proactive hemodynamic management, including an algorithm that predicts the risk of a patient developing hypotension, and a semi-closed loop system for standardized management of patient fluid levels.

Our research and development activities are conducted primarily in facilities located in the United States and Israel. Our experienced research and development staff is focused on product design and development, quality, clinical research, and regulatory compliance. To pursue primary research efforts, we have developed alliances with several leading research institutions and universities, and also work with leading clinicians around the world in conducting scientific studies on our existing and developing products.



Proprietary Technology

Patents, trademarks, and other proprietary rights are important to the success of our business. We also rely upon trade secrets, know-how, continuing innovations, and licensing opportunities to develop and maintain our competitive position.

We own more than 3,600 issued United States patents, pending United States patent applications, issued foreign patents, and pending foreign patent applications. We also have licensed various United States and foreign patents and patent applications that relate to aspects of the technology incorporated in certain of our products, including our heart valves and annuloplasty rings. We also own or have rights in United States and foreign patents and patent applications in the field of transcatheter heart valve repair and replacement. In addition, we own or have rights in United States and foreign patents and patent applications that cover catheters, systems and methods for hemodynamic monitoring, and vascular access products, among others.

We are a party to several license agreements with unrelated third parties pursuant to which we have obtained, for varying terms, the exclusive or nonexclusive rights to certain patents held by such third parties in consideration for cross-licensing rights and/or royalty payments. We have also licensed certain patent rights to others.

We monitor the products of our competitors for possible infringement of our owned and licensed patents. Litigation has been necessary to enforce certain patent rights held by us, and we plan to continue to defend and prosecute our rights with respect to such patents.

We own certain United States registered trademarks used in our business. Many of our trademarks have also been registered for use in certain foreign countries where registration is available and where we have determined it is commercially advantageous to do so.

Government Regulation and Other Matters

Our products and facilities are subject to regulation by numerous government agencies, including the FDA, European Community Notified Bodies, and the Japanese Pharmaceuticals and Medical Devices Agency, to confirm compliance with the various laws and regulations governing the development, testing, manufacturing, labeling, marketing, and distribution of our products. We are also governed by federal, state, local, and international laws of general applicability, such as those regulating employee health and safety, and the protection of the environment. Overall, the amount and scope of domestic and foreign laws and regulations applicable to our business has increased over time.

United States Regulation. In the United States, the FDA has responsibility for regulating medical devices. The FDA regulates design, development, testing, clinical studies, manufacturing, labeling, promotion, and record keeping for medical devices, and reporting of adverse events, recalls, or other field actions by manufacturers and users to identify potential problems with marketed medical devices. Many of the devices that we develop and market are in a category for which the FDA has implemented stringent clinical investigation and pre-market clearance or approval requirements. The process of obtaining FDA clearance or approval to market a product is resource intensive, lengthy, and costly. FDA review may involve substantial delays that adversely affect the marketing and sale of our products. A number of our products are pending regulatory clearance or approval to begin commercial sales in various markets. Ultimately, the FDA may not authorize the commercial release of a medical device if it determines the device is not safe and effective or does not meet other standards for clearance. Additionally, even if a product is cleared or approved, the FDA may require testing and surveillance programs to monitor the effects of these products once commercialized.

The FDA has the authority to halt the distribution of certain medical devices, detain or seize adulterated or misbranded medical devices, order the repair, replacement, or refund of the costs of such devices, or preclude the importation of devices that are or appear violative. The FDA also conducts inspections to determine compliance with the quality system regulations concerning the manufacturing and design of devices and current medical device reporting regulations, recall regulations, clinical testing regulations, and other requirements. The FDA may withdraw product clearances or approvals due to failure to comply with regulatory standards, or the occurrence of unforeseen problems following initial approval, and require notification of health professionals and others with regard to medical devices that present unreasonable risks of substantial harm to the public health. Additionally, the failure to comply with FDA or comparable regulatory standards or the discovery of previously unknown product problems could result in fines, delays, or suspensions of regulatory clearances or approvals, seizures, injunctions, recalls, refunds, civil money penalties, or criminal prosecution. Our compliance with applicable regulatory requirements is subject to continual review. Moreover, the FDA and several other United States agencies administer controls over the export of medical devices from the United States and the import of devices into the United States, which could also subject us to sanctions for noncompliance.



We are also subject to additional laws and regulations that govern our business operations, products, and technologies, including:

- federal, state, and foreign anti-kickback laws and regulations, which generally prohibit payments to physicians or other purchasers of medical products as an inducement to purchase a product;
- the Stark law, which prohibits physicians from referring Medicare or Medicaid patients to a provider that bills these programs for the provision of
 certain designated health services if the physician (or a member of the physician's immediate family) has a financial relationship with that provider;
- federal and state laws and regulations that protect the confidentiality of certain patient health information, including patient records, and restrict the
 use and disclosure of such information, in particular, the Health Insurance Portability and Accountability Act of 1996;
- the Physician Payments Sunshine Act, which requires public disclosure of the financial relationships of United States physicians and teaching hospitals with applicable manufacturers, including medical device, pharmaceutical, and biologics companies;
- the False Claims Act, which prohibits the submission of false or otherwise improper claims for payment to a federally funded health care program, and health care fraud statutes that prohibit false statements and improper claims to any third-party payor; and
- the United States Foreign Corrupt Practices Act, which can be used to prosecute companies in the United States for arrangements with foreign government officials or other parties outside the United States.

Failure to comply with these laws and regulations could result in criminal liability, significant fines or penalties, negative publicity, and substantial costs and expenses associated with investigation and enforcement activities. To assist in our compliance efforts, we adhere to many codes of ethics and conduct regarding our sales and marketing activities in the United States and other countries in which we operate. In addition, we have in place a dedicated team to improve our internal business compliance programs and policies.

International Regulation. Internationally, the regulation of medical devices is complex. In Europe, our products are subject to extensive regulatory requirements. The regulatory regime in the European Union for medical devices became mandatory in June 1998. It requires that medical devices may only be placed on the market if they do not compromise safety and health when properly installed, maintained, and used in accordance with their intended purpose. National laws conforming to the European Union's legislation regulate our products under the medical devices regulatory system. Although the more variable national requirements under which medical devices were formerly regulated have been substantially replaced by the European Union Medical Devices Directive, individual nations can still impose unique requirements that may require supplemental submissions. The European Union medical device laws require manufacturers to declare that their products conform to the essential regulatory requirements after which the products may be placed on the market bearing the CE Mark. Manufacturers' quality systems for products in all but the lowest risk classification are also subject to certification and audit by an independent notified body. In Europe, particular emphasis is being placed on more sophisticated and faster procedures for the reporting of adverse events to the competent authorities.

In May 2017, the European Union implemented a new regulatory scheme for medical devices under the Medical Device Regulation ("MDR"). The MDR becomes fully effective in 2020 and will bring significant new requirements for many medical devices, including enhanced requirements for clinical evidence and documentation, increased focus on device identification and traceability, and additional postmarket surveillance and vigilance. Compliance with the MDR will require re-certification of many of our products to the enhanced standards.

In Japan, pre-market approval and clinical studies are required as is governmental pricing approval for medical devices. Clinical studies are subject to a stringent "Good Clinical Practices" standard. Approval time frames from the Japanese Ministry of Health, Labour and Welfare vary from simple notifications to review periods of one or more years, depending on the complexity and risk level of the device. In addition, importation of medical devices into Japan is subject to the "Good Import Practices" regulations. As with any highly regulated market, significant changes in the regulatory environment could adversely affect future sales.

In many of the other foreign countries in which we market our products, we may be subject to regulations affecting, among other things:

- product standards and specifications;
- packaging requirements;
- labeling requirements;
- product collection and disposal requirements;
- quality system requirements;
- import restrictions;
- tariffs;
- · duties; and
- tax requirements.

Many of the regulations applicable to our devices and products in these countries are similar to those of the FDA. In some regions, the level of government regulation of medical devices is increasing, which can lengthen time to market and increase registration and approval costs. In many countries, the national health or social security organizations require our products to be qualified before they can be marketed and considered eligible for reimbursement.

Health Care Initiatives. Government and private sector initiatives to limit the growth of health care costs, including price regulation and competitive pricing, coverage and payment policies, comparative effectiveness reviews, technology assessments, increasing evidentiary demands, and managed-care arrangements, are continuing in many countries where we do business, including the United States, Europe, and Japan. As a result of these changes, the marketplace has placed increased emphasis on the delivery of more cost-effective medical therapies. For example, government programs, private health care insurance, and managed-care plans have attempted to control costs by restricting coverage and limiting the level of reimbursement for procedures or treatments, and some third-party payors require their pre-approval before new or innovative devices or therapies are utilized by patients. These various initiatives have created increased price sensitivity over medical products generally and may impact demand for our products and technologies.

The delivery of our products is subject to regulation by the Department of Health and Human Services ("HHS") in the United States and comparable state and foreign agencies responsible for reimbursement and regulation of health care items and services. Foreign governments also impose regulations in connection with their health care reimbursement programs and the delivery of health care items and services. Reimbursement schedules regulate the amount the United States government will reimburse hospitals and doctors for the inpatient care of persons covered by Medicare. HHS' Centers for Medicare & Medicaid Services may also review whether and/or under what circumstances a procedure or technology is reimbursable for Medicare beneficiaries. Changes in current coverage and reimbursement levels could have an adverse effect on market demand and our pricing flexibility.

Health care cost containment efforts have also prompted domestic hospitals and other customers of medical device manufacturers to consolidate into larger purchasing groups to enhance purchasing power. The medical technology industry has also experienced some consolidation, partly in order to offer a broader range of products to large purchasers. As a result, transactions with customers are larger, more complex, and tend to involve more long-term contracts than in the past. These larger customers, due to their enhanced purchasing power, may attempt to increase the pressure on product pricing.

Health Care Legislation. In 2010, significant reforms to the health care system were adopted as law in the United States as part of the Affordable Care Act ("ACA"). The law included provisions that, among other things, created programs to encourage a shift to value-based care, required all individuals to have health insurance (with limited exceptions), and imposed increased taxes. The law requires the medical technology industry to pay a 2.3% excise tax on United States sales of most medical devices. The excise tax, which increased our operating expenses, was suspended for calendar years 2016 through 2019. Most recently, in December 2017, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act (the "2017 Tax Act"), was enacted and includes several healthcare provisions, including the repeal of the individual insurance mandate. We do not anticipate that the repeal of the mandate will materially affect our business.

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In 2015, the Medicare Access and CHIP Reauthorization Act of 2015 ("MACRA") was signed into law incentivizing participation in alternative payment models that incentivize high value care. The long term impact of the provisions in MACRA and the ensuing regulations remains uncertain to us as these programs continue to evolve. However, we continue to believe that our portfolio is positioned well as the United States healthcare system shifts to value-based care.

In late 2016, legislation was signed into law that, among other things, increases funding for medical research and eases the development and approval of breakthrough treatments. Known as the 21 st Century Cures Act, the law also provides new funding for the National Institutes of Health and the FDA. Although it will take some time to be fully implemented, the 21 st Century Cures Act could help accelerate the discovery, development, and delivery of medical advancements to ensure more timely access to new treatments and cures for patients in need.

These laws or any future legislation, including deficit reduction legislation, could impact medical procedure volumes, reimbursement for our products, and demand for our products or the prices at which we sell our products.

Seasonality

Our quarterly net sales are influenced by many factors, including new product introductions, acquisitions, regulatory approvals, patient and physician holiday schedules, and other factors. Net sales in the third quarter are typically lower than other quarters of the year due to the seasonality of the United States and European markets, where summer vacation schedules normally result in fewer medical procedures.

Employees

As of December 31, 2017, we had approximately 12,200 employees worldwide, the majority of whom were located in the United States, Singapore, the Dominican Republic, and Puerto Rico. Other major concentrations of employees are located in Europe and Japan. We emphasize competitive compensation, benefits, equity participation, and a positive and attractive work environment in our efforts to attract and retain qualified personnel, and employ a rigorous talent management system. None of our North American employees are represented by a labor union. In various countries outside of North America, we interact with trade unions and work councils that represent a limited number of employees.

Item 1A. Risk Factors

Our business and assets are subject to varying degrees of risk and uncertainty. An investor should carefully consider the risks described below, as well as other information contained in this Annual Report on Form 10-K and in our other filings with the SEC. Additional risks not presently known to us or that we currently deem immaterial may also adversely affect our business. If any of these events or circumstances occurs, our business, financial condition, results of operations, or prospects could be materially harmed. In that case, the value of our securities could decline and an investor could lose part or all of his or her investment. In addition, forward-looking statements within the meaning of the federal securities laws that are contained in this Annual Report on Form 10-K or in our other filings or statements may be subject to the risks described below as well as other risks and uncertainties. Please read the cautionary notice regarding forward-looking statements in Part 1 above.

Business and Operating Risks

If we do not introduce new products in a timely manner, our products may become obsolete and our operating results may suffer.

The cardiovascular products industry is characterized by technological changes, frequent new product introductions, and evolving industry standards. Without the timely introduction of new and improved products, our products could become technologically obsolete or more susceptible to competition and our revenue and operating results would suffer. Even if we are able to develop new or improved products, our ability to market them could be limited by the need for regulatory clearance, restrictions imposed on approved indications, entrenched patterns of clinical practice, uncertainty over third-party reimbursement, or other factors. We devote significant financial and other resources to our research and development activities; however, the research and development process is prolonged and entails considerable uncertainty. Accordingly, products we are currently developing may not complete the development process or obtain the regulatory or other approvals required to market such products in a timely manner or at all.

Technical innovations often require substantial time and investment before we can determine their commercial viability. We may not have the financial resources necessary to fund all of these projects. In addition, even if we are able to successfully develop new or improved products, they may not produce revenue in excess of the costs of development, and they may be rendered obsolete or less competitive by changing customer preferences or the introduction by our competitors of products with newer technologies or features or other factors.

We may experience supply interruptions that could harm our ability to manufacture products.

We use a broad range of raw and organic materials and other items from third party vendors in the design and manufacture of our products. Our Surgical and Transcatheter Heart Valve Therapy products are manufactured from treated natural animal tissue and man-made materials. Our non-implantable products are manufacture of our products from external suppliers, chemicals, electronics, and metals. We purchase certain of the materials and components used in the manufacture of our products from external suppliers, and we purchase certain supplies from single sources for reasons of quality assurance, cost-effectiveness, availability, or constraints resulting from regulatory requirements. We also contract with third parties for important services related to infrastructure and information technology. General economic conditions could adversely affect the financial viability of our suppliers, resulting in their inability to provide materials and components used in the manufacture of our products. While we work closely with suppliers to monitor their financial viability, assure continuity of supply, and maintain high quality and reliability, these efforts may not be successful. In addition, due to the rigorous regulations and requirements of the FDA and foreign regulatory authorities regarding the manufacture of our products (including the need for approval of any change in supply arrangements), we may have difficulty establishing additional or replacement sources on a timely basis or at all if the need arises. Certain suppliers may also elect to no longer service medical technology companies due to the high amount of requirements and regulation. Although alternative supplier relationships and the time and expense associated with the regulatory validation process. A change in suppliers could require significant effort or investment in circumstances where the items supplied are integral to product performance or incorporate unique technology, and the loss of any existing supply contract could have a material adverse effect

Regulatory agencies in the United States or other international geographies from time to time have limited or banned the use of certain materials used in the manufacture of our products. In these circumstances, transition periods typically provide time to arrange for alternative materials. In addition, the SEC enacted disclosure rules regarding products that may contain certain minerals that originate from conflict areas in and around the Democratic Republic of Congo. If we find that certain minerals that are necessary to the functionality or production of our products directly or indirectly finance or benefit armed groups, we may need to source components from alternative suppliers. If we are unable to identify alternative materials or suppliers and secure approval for their use in a timely manner, our business could be harmed.

Some of our suppliers are located outside the United States. As a result, trade or regulatory embargoes imposed by foreign countries or the United States could result in delays or shortages that could harm our business.

The manufacture of many of our products is highly complex and subject to strict quality controls. If we or one of our suppliers or logistics partners encounters manufacturing, logistics, or quality problems, including as a result of natural disasters, our business could suffer.

The manufacture of many of our products is highly complex and subject to strict quality controls, due in part to rigorous regulatory requirements. In addition, quality is extremely important due to the serious and costly consequences of a product failure. Problems can arise during the manufacturing process for a number of reasons, including equipment malfunction, failure to follow protocols and procedures, raw material problems, software problems, or human error. Although closely managed, disruptions can occur during implementation of new equipment and systems to replace aging equipment, as well as during production line transfers and expansions. As we expand into new markets, we may face unanticipated surges in demand which could strain our production capacity. If these problems arise or if we otherwise fail to meet our internal quality standards or those of the FDA or other applicable regulatory body, which include detailed record-keeping requirements, our reputation could be damaged, we could become subject to a safety alert or a recall, we could incur product liability and other costs, product approvals could be delayed, and our business could otherwise be adversely affected.

In addition, our manufacturing and warehousing facilities, as well as those of our suppliers and logistics partners, could be materially damaged by earthquakes, hurricanes, volcanoes, fires, and other natural disasters or catastrophic circumstances. While we believe that our exposure to significant losses from a catastrophic disaster could be partially mitigated by our ability to manufacture, store, and distribute some of our products at other facilities, the losses could have a material adverse effect on our business for an indeterminate period of time before this transition is complete and operates without significant disruption.



We may be required, from time to time, to recognize charges in connection with the write-down of our assets or dispositions of business operations or for other reasons.

From time to time, we identify operations and products that are underperforming or not a fit with our longer term business strategy. We may seek to dispose of these underperforming operations or products. We may also seek to dispose of other operations or products for strategic or other business reasons. If we cannot dispose of an operation or product on acceptable terms, we may voluntarily cease operations related to that product. Any of these events could result in charges, which could be substantial and which could adversely affect our results of operations.

We may not successfully identify and complete acquisitions or strategic alliances on favorable terms or achieve anticipated synergies relating to any acquisitions or alliances, and such acquisitions could result in unforeseen operating difficulties and expenditures, require significant management resources, and require significant charges or write-downs.

We regularly explore potential acquisitions of complementary businesses, technologies, services, or products, as well as potential strategic alliances. We may be unable to find suitable acquisition candidates or appropriate partners with which to form alliances. Even if we identify appropriate acquisition or alliance candidates, we may be unable to complete the acquisitions or alliances on favorable terms, if at all. In addition, the process of integrating an acquired business, technology, service, or product into our existing operations could result in unforeseen difficulties and expenditures. Integration of an acquired company often requires significant expenditures as well as significant management resources that otherwise would be available for ongoing development of our other businesses. Moreover, we may not realize the anticipated financial or other benefits of an acquisition or alliance.

We may be required to take charges or write-downs in connection with acquisitions. In particular, acquisitions of businesses engaged in the development of new products may give rise to in-process research and development ("IPR&D") assets. To the extent that the value of these assets declines, we may be required to write down the value of the assets. Also, in connection with certain asset acquisitions, we may be required to take an immediate charge related to acquired IPR&D. Either of these situations could result in substantial charges, which could adversely affect our results of operations.

Future acquisitions could also involve the issuance of equity securities, the incurrence of debt, contingent liabilities, or amortization of expenses related to other intangible assets, any of which could adversely impact our financial condition or results of operations. In addition, equity or debt financing required for such acquisitions may not be available.

We face intense competition, and if we do not compete effectively, our business will be harmed.

The cardiovascular medical technology industry is highly competitive. We compete with many companies, some of which are larger, better brand or name recognition, and broader product offerings. Our customers consider many factors when selecting a product, including product reliability, breadth of product line, clinical outcomes, product availability, price, availability and rate of reimbursement, and services provided by the manufacturer. In addition, our ability to compete will depend in large part on our ability to develop and acquire new products and technologies, anticipate technology advances, and keep pace with other developers of cardiovascular therapies and technologies. Our sales, technical, and other key personnel play an integral role in the development, marketing, and selling of new and existing products. If we are unable to recruit, hire, develop, and retain a talented, competitive workforce, our ability to compete may be adversely affected. Our competitive position can also be adversely affected by product problems, physician advisories, and safety alerts, reflecting the importance of quality in the medical technology industry. Our position can shift as a result of any of these factors. In addition, given the trend toward value-based healthcare, if we are not able to continue to demonstrate the full value of our products to healthcare providers and payors, our competitive position could be adversely affected. See " *Competition* " under " *Business* " included herein.

Unsuccessful clinical trials or procedures relating to products under development could have a material adverse effect on our prospects.

The regulatory approval process for new products and new indications for existing products requires extensive clinical trials and procedures, including early clinical feasibility and regulatory studies. Unfavorable or inconsistent clinical data from current or future clinical trials or procedures conducted by us, our competitors, or third parties, or perceptions regarding this clinical data, could adversely affect our ability to obtain necessary approvals and the market's view of our future prospects. Such clinical trials and procedures are inherently uncertain and there can be no assurance that these trials or procedures will be completed in a timely or cost-effective manner or result in a commercially viable product or expanded indication. Failure to successfully complete these trials or procedures in a timely and cost-effective manner could have a material adverse effect on our prospects. Clinical trials or procedures significant setbacks even after earlier trials have shown promising



results. Further, preliminary results from clinical trials or procedures may be contradicted by subsequent clinical analysis. In addition, results from our clinical trials or procedures may not be supported by actual long-term studies or clinical experience. If preliminary clinical results are later contradicted, or if initial results cannot be supported by actual long-term studies or clinical experience, our business could be adversely affected. Clinical trials or procedures may be delayed, suspended, or terminated by us, the FDA, or other regulatory authorities at any time if it is believed that the trial participants face unacceptable health risks or any other reasons.

The success of many of our products depends upon strong relationships with certain key physicians.

The development, marketing, and sale of many of our products requires us to maintain working relationships with physicians upon whom we rely to provide considerable knowledge and experience. These physicians may assist us as researchers, marketing consultants, product trainers and consultants, inventors, and as public speakers. If new laws, regulations, or other developments limit our ability to maintain strong relationships with these professionals or to continue to receive their advice and input, the development and marketing of our products could suffer, which could have a material adverse effect on our business, financial condition, and results of operations.

Market and Other External Risks

General economic and political conditions could have a material adverse effect on our business.

External factors can affect our profitability and financial condition. Such external factors include general domestic and global economic conditions, such as interest rates, tax rates, and factors affecting global economic stability, and the political environment regarding health care in general. The strength and timing of the current economic recovery remains uncertain, and we cannot predict to what extent the global economic conditions may negatively impact our business. For example, negative conditions in the credit and capital markets could impair our ability to access the financial markets for working capital or other funds, and could negatively impact our ability to borrow. An increase in interest rates could result in an increase in our borrowing costs and could otherwise restrict our ability to access the capital markets. Such conditions could result in decreased liquidity and impairments in the carrying value of our investments, and could adversely affect our results of operations and financial condition. These and other conditions could also adversely affect our customers, and may impact their ability or decision to purchase our products or make payments on a timely basis.

Various laws, including the Affordable Care Act, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act ("the 2017 Tax Act"), the Medicare Access and CHIP Reauthorization Act of 2015, and the 21st Century Cures Act, or any future legislation, including deficit reduction legislation, could impact medical procedure volumes, reimbursement for our products, and demand for our products or the prices at which we sell our products. For more information about these laws as they relate to our business, see the section entitled "*Health Care Legislation*" in Part I, Item 1, "*Business*."

In addition, the 2017 Tax Act has resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits, and limitations on the deductibility of interest expense and executive compensation. The 2017 Tax Act also transitions international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income. These changes are effective beginning in 2018.

The 2017 Tax Act also includes the Transition Toll Tax, which is a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings. The Transition Toll Tax will be paid over an eight-year period, starting in 2018, and will not accrue interest. Our preliminary estimate of the Transition Toll Tax and the remeasurement of our deferred tax assets and liabilities is subject to the finalization of management's analysis related to certain matters, such as developing interpretations of the provisions of the 2017 Tax Act, changes to certain estimates and amounts related to the earnings and profits of certain subsidiaries, and the filing of our tax returns. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates, which could have a material adverse effect on our business, results of operations or financial conditions. The final determination of the Transition Toll Tax and the remeasurement of our deferred tax assets and liabilities will be completed as additional information becomes available, but no later than one year from the enactment of the 2017 Tax Act.



Our business is subject to economic, political, and other risks associated with international sales and operations, including risks arising from currency exchange rate fluctuations.

Because we sell our products in a number of countries, our business is subject to the risks of doing business internationally, including risks associated with anti-corruption and anti-bribery laws. Our net sales originating outside the United States, as a percentage of total net sales, were 44% in 2017. We anticipate that sales from international operations will continue to represent a substantial portion of our total sales. In addition, many of our manufacturing facilities and suppliers are located outside of the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- changes in local medical reimbursement policies and programs;
- changes in foreign regulatory requirements;
- changes in a specific country's or region's political or economic conditions, including changing circumstances in emerging regions, that may reduce the number of procedures that use our products;
- trade protection measures, quotas, embargoes, import or export licensing requirements, and duties, tariffs, or surcharges;
- potentially negative impact of tax laws, including transfer pricing liabilities and tax costs associated with the repatriation of cash;
- difficulty in staffing and managing global operations;
- cultural, exchange rate, or other local factors affecting financial terms with customers;
- local economic and financial conditions, including sovereign defaults and decline in sovereign credit ratings, affecting the collectability of receivables, including receivables from sovereign entities;
- an outbreak of any life-threatening communicable disease;
- economic and political instability and local economic and political conditions;
- · differing labor regulations; and
- differing protection of intellectual property.

Substantially all of our sales outside of the United States are denominated in local currencies, principally in Europe (and primarily denominated in the Euro) and in Japan. The United States dollar value of our international sales varies with currency exchange rate fluctuations. Decreases in the value of the United States dollar to the Euro or the Japanese yen, as well as other currencies, have the effect of increasing our reported revenues even when the volume of international sales has remained constant. Increases in the value of the United States dollar relative to the Euro or the Japanese yen, as well as other currencies, have the opposite effect. Significant increases or decreases in the value of the United States dollar could have a material effect on our revenues, cost of sales, and results of operations. We have a hedging program for certain currencies that attempts to manage currency exchange rate risks to an acceptable level based on management's judgment of the appropriate trade-off between risk, opportunity, and cost; however, this hedging program does not completely eliminate the effects of currency exchange rate fluctuations.

The United States Foreign Corrupt Practices Act, the United Kingdom Bribery Act, and similar laws in other jurisdictions contain prohibitions against bribery and other illegal payments, and make it an offense to fail to have procedures in place that prevent such payments. Recent years have seen an increasing number of investigations and other enforcement activities under these laws. Although we have compliance programs in place with respect to these laws, which may be used as a defense to prove we had adequate procedures, no assurance can be given that a violation will not be found, and if found, the resulting penalties could adversely affect us and our business. The stock market can be volatile and fluctuations in our quarterly sales and operating results as well as other factors could cause our financial guidance to vary from actual results and our stock price to decline.

From time to time, the stock market experiences extreme price and volume fluctuations. This volatility can have a significant effect on the market prices of securities for reasons unrelated to underlying performance. These broad market fluctuations may materially adversely affect our stock price, regardless of our operating results. In addition, the market price of our common stock could fluctuate substantially in response to any of the other risk factors set out above and below, as well as a number of other factors, including the performance of comparable companies or the medical technology industry, or changes in financial estimates and recommendations of securities analysts.

Our sales and operating results may vary significantly from quarter to quarter. A high proportion of our costs are fixed, due in part to significant selling, research and development, and manufacturing costs. Thus, small declines in revenue could disproportionately affect our operating results in a quarter, and the price of our common stock could fall. Other factors that could affect our quarterly sales and operating results include:

- announcements of innovations, new products, strategic developments, or business combinations by us or our competitors;
- demand for and clinical acceptance of products;
- the timing and execution of customer contracts, particularly large contracts that would materially affect our operating results in a given quarter;
- the timing of sales of products and of the introduction of new products;
- the timing of marketing, training, and other expenses related to the introduction of new products;
- the timing of regulatory approvals;
- changes in foreign currency exchange rates;
- delays or problems in introducing new products, such as slower than anticipated adoption of transcatheter heart valves;
- changes in our pricing policies or the pricing policies of our competitors;
- the timing of approvals of governmental reimbursement rates or changes in reimbursement rates for our products;
- increased expenses, whether related to sales and marketing, raw materials or supplies, product development, or administration;
- changes in the level of economic activity in the United States or other regions in which we do business;
- changes to accounting standards;
- · costs related to acquisitions of technologies or businesses; and
- our ability to expand our operations and the amount and timing of expansion-related expenditures.

The quarterly and full-year financial guidance we provide to investors and analysts with insight to our view of our future performance is based on assumptions about our sales and operating results. Due to the nature of our business and the numerous factors that can impact our sales and operating performance, including those described above, our financial guidance may vary from actual results. If we fail to meet any financial guidance that we provide, or if we find it necessary to revise such guidance during the year, the price of our common stock could decline.

Consolidation in the health care industry could have an adverse effect on our sales and results of operations.

The health care industry has been consolidating, and organizations such as GPOs, independent delivery networks, and large single accounts, such as the United States Veterans Administration, continue to consolidate purchasing decisions for many of our health care provider customers. As a result, transactions with customers are larger and more complex, and tend to involve more long-term contracts. The purchasing power of these larger customers has increased, and may continue to increase, causing downward pressure on product pricing. If we are not one of the providers selected by one of these organizations, we may be precluded from making sales to its members or participants. Even if we are one of the selected providers, we may be at a disadvantage relative to other selected providers that are able to offer volume discounts based on purchases of a broader range of medical equipment and supplies. Further, we may be required to commit to pricing that has a material adverse effect on our revenues, profit margins, business, financial condition, and results of operations. We expect that market demand, governmental regulation, third-party reimbursement policies, and societal pressures will continue to change the worldwide health care industry, resulting in further business consolidations and alliances, which may exert further downward pressure on the prices of our products and could adversely impact our business, financial condition, and results of operations.

If third-party payors decline to reimburse our customers for our products or impose other cost containment measures to reduce reimbursement levels, our ability to profitably sell our products will be harmed.

We sell our products and technologies to hospitals and other health care providers, all of which receive reimbursement for the health care services provided to patients from third-party payors, such as government programs (both domestic and international), private insurance plans, and managed care programs. The ability of customers to obtain appropriate reimbursement for their products from private and governmental third-party payors is critical to the success of medical technology companies. The availability of reimbursement affects which products customers purchase and the prices they are willing to pay. Reimbursement varies from country to country and can significantly impact acceptance of new products.

Third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for medical products and services. There can be no assurance that levels of reimbursement, if any, will not be decreased in the future, or that future legislation, regulation, or reimbursement policies of third-party payors will not otherwise adversely affect the demand for and price levels of our products. The introduction of cost containment incentives, combined with closer scrutiny of health care expenditures by both private health insurers and employers, has resulted in increased discounts and contractual adjustments to hospital charges for services performed. Hospitals or physicians may respond to such cost-containment pressures by substituting lower cost products or other therapies.

Initiatives to limit the growth of health care costs, including price regulation, are underway in several countries around the world. In many countries, customers are reimbursed for our products under a government operated insurance system. Under such a system, the government periodically reviews reimbursement levels and may limit patient access. If a government were to decide to reduce reimbursement levels, our product pricing could be adversely affected.

Third-party payors may deny reimbursement if they determine that a device used in a procedure was not used in accordance with cost-effective treatment methods as determined by such third-party payors, or was used for an unapproved indication. Third-party payors may also deny reimbursement for experimental procedures and devices. We believe that many of our existing products are cost-effective, even though the one-time cost may be significant, because they are intended to improve quality of life and reduce overall health care costs over a long period of time. We cannot be certain that these third-party payors will recognize these cost savings instead of merely focusing on the lower initial costs associated with competing therapies. If our products are not considered cost-effective by third-party payors, our customers may not be reimbursed for them, resulting in lower sales of our products.

Legal, Compliance, and Regulatory Risks

We may incur losses from product liability or other claims that could adversely affect our operating results.

Our business exposes us to potential product liability risks that are inherent in the design, manufacture, and marketing of medical technologies. Our products are often used in surgical and intensive care settings with seriously ill patients. In addition, many of the devices we manufacture and sell are designed to be implanted in the human body for long periods of time. Component failures, manufacturing and assembly flaws, design defects, or inadequate disclosure of product-related risks or product-related information could result in an unsafe condition or injury to, or death of, patients. Such problems could result in product liability, medical malpractice or other lawsuits and claims, safety alerts, or product recalls in the future, which, regardless of their ultimate outcome, could have a material adverse effect on our business, reputation, and ability to attract and retain customers. Product liability claims may be brought from time to time either by individuals or by groups seeking to



represent a class. We may incur charges related to such matters in excess of any established reserves and such charges, including the establishment of any such reserves, could have a material adverse impact on our net income and net cash flows.

Our inability to protect our intellectual property or failure to maintain the confidentiality and integrity of data or other sensitive company information, by cyberattack or other event, could have a material adverse effect on our business.

Our success and competitive position are dependent in part upon our proprietary intellectual property. We rely on a combination of patents and trade secrets to protect our proprietary intellectual property, and we expect to continue to do so. Although we seek to protect our proprietary rights through a variety of means, we cannot guarantee that the protective steps we have taken are adequate to protect these rights. Patents issued to or licensed by us in the past or in the future may be challenged and held invalid. In addition, as our patents expire, we may be unsuccessful in extending their protection through patent term extensions. The expiration of, or the failure to maintain or extend our patents, could have a material adverse effect on us.

We also rely on confidentiality agreements with certain employees, consultants, and other third parties to protect, in part, trade secrets and other proprietary information. These agreements could be breached, and we may not have adequate remedies for such a breach. In addition, others could independently develop substantially equivalent proprietary information or gain access to our trade secrets or proprietary information.

Our intellectual property, other proprietary technology, and other sensitive company information is dependent on sophisticated information technology systems and is potentially vulnerable to cyber-attacks, loss, damage, destruction from system malfunction, computer viruses, loss of data privacy, or misappropriation or misuse of it by those with permitted access, and other events. While we have invested to protect our intellectual property and other information, and continue to work diligently to upgrade and enhance our systems to keep pace with continuing changes in information processing technology, there can be no assurance that our precautionary measures will prevent breakdowns, breaches, cyber-attacks, or other events. Such events could have a material adverse effect on our reputation, financial condition, or results of operations.

We spend significant resources to enforce our intellectual property rights, sometimes resulting in litigation. Intellectual property litigation is complex and can be expensive and time-consuming. However, our efforts in this regard may not be successful. We may not be able to detect infringement. In addition, competitors may design around our technology or develop competing technologies. Patent litigation can result in substantial cost and diversion of effort. Intellectual property protection may also be unavailable or limited in some foreign countries, enabling our competitors to capture increased market position. The invalidation of key intellectual property rights or an unsuccessful outcome in lawsuits filed to protect our intellectual property could have a material adverse effect on our financial condition, results of operations, or prospects.

Third parties may claim we are infringing their intellectual property, and we could suffer significant litigation or licensing expenses or be prevented from selling products.

During recent years, we and our competitors have been involved in substantial litigation regarding patent and other intellectual property rights in the medical technology industry. From time to time, we have been and may in the future be forced to defend against claims and legal actions alleging infringement of the intellectual property rights of others, and such intellectual property litigation is typically costly and time-consuming. Adverse determinations in any such litigation could result in significant liabilities to third parties or injunctions that bar the sale of our products, or could require us to seek licenses from third parties and, if such licenses are not available on commercially reasonable terms, prevent us from manufacturing, selling, or using certain products, any one of which could have a material adverse effect on us. In addition, some licenses may be non-exclusive, which could provide our competitors access to the same technologies.

Third parties could also obtain patents that may require us to either redesign products or, if possible, negotiate licenses from such third parties. Such licenses may materially increase our expenses. If we are unable to redesign products or obtain a license, we might have to exit a particular product offering.

We and our customers are subject to rigorous governmental regulations and we may incur significant expenses to comply with these regulations and develop products that are compatible with these regulations. In addition, failure to comply with these regulations could subject us to substantial sanctions which could adversely affect our business, results of operations, and financial condition.

The medical technologies we manufacture and market are subject to rigorous regulation by the FDA and numerous other federal, state, and foreign governmental authorities, including regulations that cover the composition, labeling, testing, clinical study, design, sourcing, manufacturing, packaging, marketing, advertising, promotion, and distribution of our products.



We are required to register with the FDA as a device manufacturer. As a result, we are subject to periodic inspection by the FDA for compliance with the FDA's Quality System Regulation ("QSR") requirements, which require manufacturers of medical devices to adhere to certain regulations, including testing, design, quality control, and documentation procedures. The FDA may also inspect our compliance with requirements related to adverse event reporting, recalls or corrections (field actions), the conduct of clinical studies, and other requirements. In the European Union, we are required to maintain certain CE Mark and ISO certifications in order to sell our products, and are subject to periodic inspections by notified bodies to obtain and maintain these certifications. If we or our suppliers fail to adhere to QSR, CE Mark, ISO, or similar requirements, this could delay or interrupt product production or sales and/or lead to fines, difficulties in obtaining regulatory clearances, recalls, or other consequences, which in turn could have a material adverse effect on our financial condition and results of operations or prospects.

Medical devices must receive FDA clearance or approval before they can be commercially marketed in the United States. In addition, the FDA may require testing and surveillance programs to monitor the effects of approved products that have been commercialized, and can prevent or limit further marketing of a product based upon the results of post-marketing programs. In addition, the federal Medical Device Reporting regulations require us to provide information to the FDA whenever there is evidence that reasonably suggests that a device may have caused or contributed to a death or serious injury or, if a malfunction were to occur, would be likely to cause or contribute to a death or serious injury. Federal regulations also require us to report certain recalls or corrective actions to the FDA. Furthermore, most major markets for medical devices outside the United States require clearance, approval, or compliance with certain standards before a product can be commercially marketed. The process of obtaining regulatory clearances or approvals to market a medical device, particularly from the FDA and certain foreign governmental authorities, can be costly and time-consuming, and clearances or approvals may not be granted for products or product improvements on a timely basis, if at all. Delays in receipt of, or failure to obtain, clearances or approvals for product sort improvements could result in delayed realization of product revenues or in substantial additional costs, which could have a material adverse effect on our business or results of operations or prospects. At any time after approval of a product for commercial sale, the FDA may conduct periodic inspections to determine compliance with QSR requirements, and/or current Medical Device Reporting regulations, or other regulatory requirements. Noncompliance with applicable requirements may subject us or responsible individuals to sanctions including civil money penalties, product seizure, injunction, or criminal prosecution. In addition, the FDA may withhold or

Regulatory agencies in the United States or other international geographies from time to time limit or ban the use of certain materials used in the manufacture of our products, require collection and disposal of products at the end of their lifecycle, and require disclosure of the origin of certain raw materials in our products. Noncompliance with applicable requirements could have a material adverse effect on our business.

The United States Physician Payment Sunshine Act, and similar laws in other jurisdictions, also impose reporting and disclosure requirements on device, pharmaceutical, and biologics companies for certain financial relationships with United States health care providers and teaching hospitals. Failure to submit required information or submitting incorrect information may result in significant civil monetary penalties.

We are also subject to various United States and international laws pertaining to health care pricing, anti-corruption, and fraud and abuse, including prohibitions on kickbacks and the submission of false claims laws and restrictions on relationships with physicians and other referral sources. These laws are broad in scope and are subject to evolving interpretation, which could require us to incur substantial costs to monitor compliance or to alter our practices if we are found not to be in compliance. Violations of these laws may be punishable by criminal or civil sanctions against us and our officers and employees, including substantial fines, imprisonment, and exclusion from participation in governmental health care programs.

Despite our implementation of robust compliance processes, we may be subject, from time to time, to inspections, investigations, and other enforcement actions by governmental authorities. If we are found not to be in compliance with applicable laws or regulations, the applicable governmental authority can impose fines, delay, suspend, or revoke regulatory clearances or approvals, institute proceedings to detain or seize our products, issue a recall, impose marketing or operating restrictions, enjoin future violations and assess civil penalties against us or our officers or employees, and institute criminal prosecution. Moreover, governmental authorities can ban or request the recall, repair, replacement, or refund of the cost of any device or product we manufacture or distribute. Any of the foregoing actions could result in decreased sales as a result of negative publicity and product liability claims, and could have a material adverse effect on our financial condition, results of operations, and prospects. In addition to the sanctions for noncompliance described above, commencement of an enforcement proceeding, inspection, or investigation could divert substantial management attention from the operation of our business and have an adverse effect on our business, results of operations, and financial condition.



Our industry is experiencing greater scrutiny and regulation by governmental authorities, which may lead to greater governmental regulation in the future.

In recent years, the medical technology industry has been subject to increased regulatory scrutiny, including by the FDA, numerous other federal, state, and foreign governmental authorities, as well as members of Congress. This has included increased regulation, enforcement, inspections, and governmental investigations of the medical technology industry and disclosure of financial relationships with health care professionals. We anticipate that the government will continue to scrutinize our industry closely, and that additional regulation by governmental authorities, both foreign and domestic, may increase compliance costs, exposure to litigation, and other adverse effects to our operations.

We are subject to risks arising from concerns and/or regulatory actions relating to "mad cow disease."

Certain of our products, including pericardial tissue valves, are manufactured using bovine tissue. Concerns relating to the potential transmission of BSE, commonly known as "mad cow disease," from cows to humans may result in reduced acceptance of products containing bovine materials. Certain medical device regulatory agencies have considered whether to continue to permit the sale of medical devices that incorporate bovine material. We obtain bovine tissue only from closely controlled sources within the United States and Australia. The bovine tissue used in our pericardial tissue valves is from tissue types considered by global health and regulatory organizations to have shown no risk of infectibility for the suspected BSE infectious agent. We have not experienced any significant adverse impact on our sales as a result of concerns regarding BSE, but no assurance can be given that such an impact may not occur in the future.

Use of our products in unapproved circumstances could expose us to liabilities.

The marketing approval from the FDA and other regulators of certain of our products are, or are expected to be, limited to specific indications. We are prohibited from marketing or promoting any unapproved use of our products. Physicians, however, can use these products in ways or circumstances other than those strictly within the scope of the regulatory approval. Although the product training we provide to physicians and other health care professionals is limited to approved uses or for clinical trials, no assurance can be given that claims might not be asserted against us if our products are used in ways or for procedures that are not approved.

Our operations are subject to environmental, health, and safety regulations that could result in substantial costs.

Our operations are subject to environmental, health, and safety laws, and regulations concerning, among other things, the generation, handling, transportation, and disposal of hazardous substances or wastes, the cleanup of hazardous substance releases, and emissions or discharges into the air or water. We have incurred and may incur in the future expenditures in connection with environmental, health and safety laws, and regulations. New laws and regulations, violations of these laws or regulations, stricter enforcement of existing requirements, or the discovery of previously unknown contamination could require us to incur costs or could become the basis for new or increased liabilities that could be material.

Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties

The locations and uses of our major properties are as follows:

North America		
Irvine, California	(1)	Corporate Headquarters, Research and Development, Regulatory and Clinical Affairs, Manufacturing, Marketing, Administration
Draper, Utah	(1)	Manufacturing, Administration
Haina, Dominican Republic	(2)	Manufacturing
Añasco, Puerto Rico	(2)	Manufacturing
Central America		
Cartago, Costa Rica	(2)	Manufacturing
Europe		
Horw, Switzerland	(2)	Manufacturing, Administration
Nyon, Switzerland	(1)	Administration, Marketing
Prague, Czech Republic	(2)	Administration
Asia		
Tokyo, Japan	(2)	Administration, Marketing, Distribution
Shanghai, China	(2)	Administration, Marketing
Singapore (1),(2)	Manufacturing, Distribution, Administration

(1) Owned property.

(2) Leased property.

The Dominican Republic lease expires in 2022; the Puerto Rico property has two leases that expire in 2018; the Costa Rica lease expires in 2021; the Horw, Switzerland lease expires in 2018; the Prague, Czech Republic lease expires in 2019; the Tokyo, Japan lease expires in 2018; the Shanghai, China lease expires in 2018; and Singapore has one land lease that expires in 2036 and one that expires in 2041. We believe our properties have been well maintained, are in good operating condition, and are adequate for current needs. We plan to renew all leases that expire in 2018, other than the Horw, Switzerland lease, which will be terminated due to the planned closure of our manufacturing plant at that location.

Item 3. Legal Proceedings

For a description of our material pending legal proceedings, please see Note 17 to the "Consolidated Financial Statements" of this Annual Report on Form 10-K, which is incorporated 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

Market Price

The principal market for our common stock is the New York Stock Exchange (the "NYSE"). The table below sets forth, for the calendar quarters indicated, the high and low prices of our common stock, as reported by the NYSE.

	 20	17		2016			
	High		Low		High		Low
Calendar Quarter Ended:							
March 31	\$ 100.48	\$	86.55	\$	89.93	\$	72.20
June 30	120.74		92.44		112.00		86.73
September 30	121.45		107.35		121.73		98.02
December 31	119.04		100.20		121.75		81.12

Number of Stockholders

On January 31, 2018, there were 10,576 stockholders of record of our common stock.

Dividends

We have never paid any cash dividends on our capital stock and have no current plans to pay any cash dividends. Our current policy is to retain any future earnings for use in our business.

Issuer Purchases of Equity Securities

Period	Total Number of Shares (or Units) Purchased (a)	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (in millions) (b), (c)
October 1, 2017 through October 31, 2017	96,909	\$ 103.32	96,777	\$ 520.1
November 1, 2017 through November 30, 2017	1,959,603	110.53	1,958,816	278.9
December 1, 2017 through December 31, 2017	213,740	114.85	213,740	1,278.9
Total	2,270,252	110.63	2,269,333	

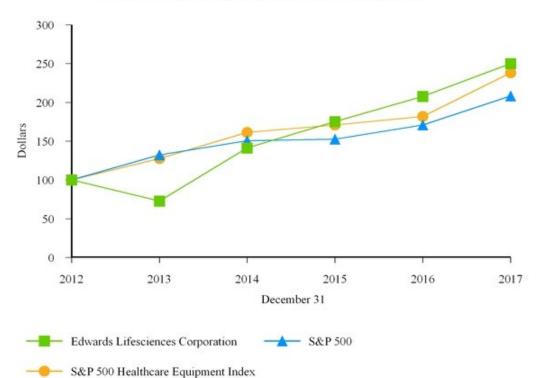
(a) The difference between the total number of shares (or units) purchased and the total number of shares (or units) purchased as part of publicly announced plans or programs is due to shares withheld by us to satisfy tax withholding obligations in connection with the vesting of restricted stock units issued to employees.

(b) On November 10, 2016, the Board of Directors approved a stock repurchase program authorizing us to purchase on the open market, including pursuant to a Rule 10b5-1 plan and in privately negotiated transactions, up to \$1.0 billion of our common stock. On November 15, 2017, the Board of Directors approved a new stock repurchase program providing for an additional \$1.0 billion of repurchases of our common stock.

(c) In November 2017, we paid \$150.0 million under our accelerated share repurchase ("ASR") agreement and received an initial delivery of 1.1 million shares of our common stock, representing approximately 80 percent of the total contract value. In December 2017, the ASR agreement concluded and we received an additional 0.2 million shares. Shares purchased pursuant to the ASR agreement are presented in the table above in the periods in which they were received.

Performance Graph

The following graph compares the performance of our common stock with that of the S&P 500 Index and the S&P 500 Healthcare Equipment Index. The cumulative total return listed below assumes an initial investment of \$100 at the market close on December 30, 2012 and reinvestment of dividends.



COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN

	Total Cumulative Return													
		2013		2014		2015		2016	2017					
Edwards Lifesciences	\$	72.93	\$	141.27	\$	175.18	\$	207.83	\$	249.99				
S&P 500		132.39		150.51		152.59		170.84		208.14				
S&P 500 Healthcare Equipment Index		127.69		161.24		170.88		181.96		238.17				

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Item 6. Selected Financial Data

					As of or fo	or the `	Years Ended De	cembe	er 31,			
			2017	2016			2015		2014		2013	
		(in millions, except per share data)										
OPERATING RESULTS	Net sales	\$	3,435.3	\$	2,963.7	\$	2,493.7	\$	2,322.9	\$	2,045.5	
	Gross profit		2,560.0		2,166.3		1,876.5		1,697.3		1,528.9	
	Net income(a)		583.6		569.5		494.9		811.1		389.1	
COMMON STOCK												
INFORMATION	Net income per common share(a):											
	Basic	\$	2.77	\$	2.67	\$	2.30	\$	3.81	\$	1.74	
	Diluted		2.70		2.61		2.25		3.74		1.71	
	Cash dividends declared per common share		_		_		_		_		_	
BALANCE SHEET DATA	Total assets	\$	5,695.8	\$	4,510.0	\$	4,056.3	\$	3,519.0	\$	2,704.8	
	Long-term debt(b)		438.4		822.3		596.9		594.1		588.0	

(a) The above results include special charges of \$59.9 million during 2017 and \$34.5 million during 2016. In addition, in 2017, the above results reflect a \$262.0 million tax expense related to the implementation of U.S. tax law changes. Also, the above results include a \$112.5 million (\$70.3 million, net of tax) litigation payment received in 2017 and \$750.0 million (\$487.9 million, net of tax) received in 2014 under a litigation settlement. See Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 3, Note 4 and Note 16 to the "Consolidated Financial Statements" for additional information.

(b) In October 2013, we issued \$600.0 million of 2.875% fixed-rate unsecured senior notes due October 15, 2018 (the "Notes"). At December 31, 2017, the Notes were classified as short-term obligations as these obligations were due within one year. Amounts outstanding under our Five-Year Credit Agreement ("Credit Agreement") have been classified as long-term obligations in accordance with the terms of the Credit Agreement.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis presents the factors that had a material effect on our results of operations during the three years ended December 31, 2017. Also discussed is our financial position as of December 31, 2017. You should read this discussion in conjunction with the historical consolidated financial statements and related notes included elsewhere in this Form 10-K.

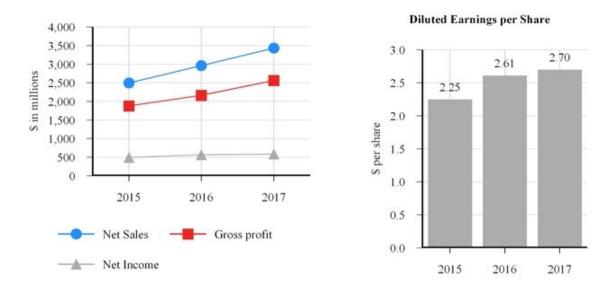
Overview

We are the global leader in patient-focused medical innovations for structural heart disease and critical care monitoring. Driven by a passion to help patients, we partner with the world's leading clinicians and researchers and invest in research and development to transform care for those impacted by structural heart disease or require hemodynamic monitoring during surgery and in intensive care. We conduct operations worldwide and are managed in the following geographical regions: United States, Europe, Japan, and Rest of World. Our products are categorized into the following main areas: Transcatheter Heart Valve Therapy ("THVT"), Surgical Heart Valve Therapy ("SHVT"), and Critical Care.



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Financial Highlights



Our sales growth was led by our THVT products, primarily due to increased sales of the *Edwards SAPIEN 3* transcatheter heart valve in the United States, Japan, and Europe. Our gross profit margin in 2017 was positively impacted by an improved product mix, led by THVT products. Our gross profit margin in 2016 was negatively impacted relative to 2015 by foreign currency exchange rate fluctuations, partially offset by an improved product mix, led by THVT products. The increase in our net income in 2017 was primarily driven by our increased sales and a gain from our successful litigation related to the theft of trade secrets, partially offset by increased tax expenses due to the implementation of U.S. tax law changes. Our net income in 2016 increased compared to 2015 primarily due to increased sales, partially offset by an in-process research and development ("IPR&D") charge for technology we acquired for use in our transcatheter heart valve programs.

Healthcare Environment, Opportunities, and Challenges

The medical technology industry is highly competitive and continues to evolve. Our success is measured both by the development of innovative products and the value we bring to our stakeholders. We are committed to developing new technologies and providing innovative patient care, and we are committed to defending our intellectual property in support of those developments. In 2017, we invested 16.1% of our net sales in research and development. The following is a summary of important developments during 2017:

- we acquired Valtech, a privately held company based in Israel and the developer of the Cardioband system for transcatheter repair of the mitral and tricuspid valves;
- we received FDA approval for the *HemoSphere* advanced monitoring platform. This technology provides clinicians with clarity on a patient's hemodynamics, or the factors that manage blood flow, to help them make proactive, timely clinical decisions;
- we received FDA approval for aortic and mitral valve-in-valve procedures using the Edwards SAPIEN 3 transcatheter heart valve;
- we received FDA approval for our INSPIRIS RESILIA aortic valve, the first in a new class of resilient heart valves;
- we acquired Harpoon Medical, Inc., a privately held medical technology company pioneering beating-heart repair for degenerative mitral regurgitation; and
- we received CE mark for *Harpoon*, our newly acquired beating heart mitral valve repair system.

We are dedicated to generating robust clinical, economic, and quality of life evidence increasingly expected by patients, clinicians, and payors in the current healthcare environment, with the goal of encouraging the adoption of innovative new medical therapies that demonstrate superior outcomes.

Results of Operations

Net Sales by Major Regions

(dollars in millions)

	 Years Ended December 31,						Ch	ange		Percent Change			
	2017		2016		2015		2017		2016	2017	2016		
United States	\$ 1,907.6	\$	1,615.7	\$	1,262.9	\$	291.9	\$	352.8	18.1%	27.9%		
Europe	 831.0		749.0		717.3		82.0		31.7	10.9%	4.4%		
Japan	350.3		309.3		246.2		41.0		63.1	13.3%	25.6%		
Rest of World	346.4		289.7		267.3		56.7		22.4	19.5%	8.4%		
International	1,527.7		1,348.0		1,230.8		179.7		117.2	13.3%	9.5%		
Total net sales	\$ 3,435.3	\$	2,963.7	\$	2,493.7	\$	471.6	\$	470.0	15.9%	18.8%		

International net sales include the impact of foreign currency exchange rate fluctuations. The impact of foreign currency exchange rate fluctuations on net sales is not necessarily indicative of the impact on net income due to the corresponding effect of foreign currency exchange rate fluctuations on international manufacturing and operating costs, and our hedging activities. For more information, see "Quantitative and Qualitative Disclosures About Market Risk."

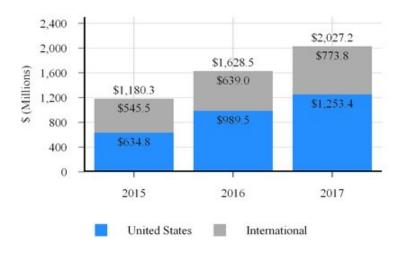
Net Sales by Product Group

(dollars in millions)

	 Year Ended December 31,						Ch	ange		Percent Change			
	2017		2016		2015		2017		2016	2017	2016		
Transcatheter Heart Valve Therapy	\$ 2,027.2	\$	1,628.5	\$	1,180.3	\$	398.7	\$	448.2	24.5%	38.0 %		
Surgical Heart Valve Therapy	807.1		774.9		785.0		32.2		(10.1)	4.2%	(1.3)%		
Critical Care	601.0		560.3		528.4		40.7		31.9	7.3%	6.0 %		
Total net sales	\$ 3,435.3	\$	2,963.7	\$	2,493.7	\$	471.6	\$	470.0	15.9%	18.8 %		

Transcatheter Heart Valve Therapy

For the years ended December 31, 2017, 2016, and 2015:



2017 Compared with 2016

The increase in net sales of THVT products in the United States was due primarily to:

• the Edwards SAPIEN 3 valve, driven by strong therapy adoption.

The increase in international net sales of THVT products was due primarily to:

• the Edwards SAPIEN 3 valve, primarily increased sales in Japan, driven by its launch in March 2016, and Europe, driven by strong therapy adoption;

partially offset by:

• lower sales of the Edwards SAPIEN XT valve as customers converted to Edwards SAPIEN 3.

2016 Compared with 2015

The increase in net sales of THVT products in the United States was due primarily to:

• increased sales of the Edwards SAPIEN 3 valve, driven by its launch in July 2015;

partially offset by:

lower sales of the Edwards SAPIEN XT valve as customers converted to Edwards SAPIEN 3.

The increase in **international** net sales of THVT products was due primarily to increased sales of the *Edwards SAPIEN 3* valve, driven primarily by its launch in Europe in January 2014 and in Japan in March 2016.

In June 2017, we received FDA approval for aortic and mitral valve-in-valve procedures using the *Edwards SAPIEN 3* transcatheter heart valve for patients at high risk for a subsequent open-heart surgery to replace their bioprosthetic valve. In February 2018, we received CE Mark for our self-expanding CENTERA valve for severe, symptomatic aortic stenosis patients at high risk of open-heart surgery.

Surgical Heart Valve Therapy



For the years ended December 31, 2017, 2016, and 2015:

2017 Compared with 2016

The increase in net sales of SHVT products was due primarily to:

- surgical aortic tissue valves in Europe and the United States, primarily increased sales of the EDWARDS INTUITY Elite Valve System, and growth in
 our core products, partially offset by the continuing shift from our surgical aortic tissue valves to transcatheter aortic valves; and
- mitral tissue valves, due to increased sales in Rest of World, primarily China.

2016 Compared with 2015

The decrease in net sales of SHVT products was due primarily to:

- lower sales of aortic tissue valves in the United States, as sales of Edwards SAPIEN 3 increased; and
- lower international sales of mitral tissue valves, primarily in Europe and Rest of World, primarily due to supply constraints;

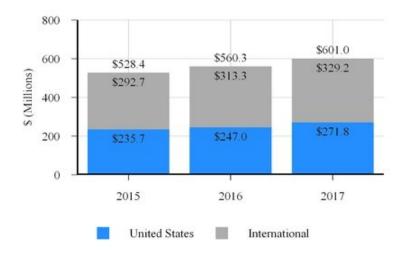
partially offset by:

- higher sales of aortic tissue valves in Europe, Japan, and Rest of World; and
- foreign currency exchange rate fluctuations, which increased net sales by \$2.2 million, due primarily to the strengthening of the Japanese yen against the United States dollar, partially offset by the weakening of various currencies against the United States dollar.

In July 2017, we received FDA approval for our *INSPIRIS RESILLA* aortic valve, the first in a new class of resilient heart valves. In December 2017, we received CE Mark for *Harpoon*, our newly acquired beating heart mitral valve repair system.

Critical Care





2017 Compared with 2016

The increase in net sales of Critical Care products was due primarily to enhanced surgical recovery products and core hemodynamic products, primarily in the United States and Rest of World.

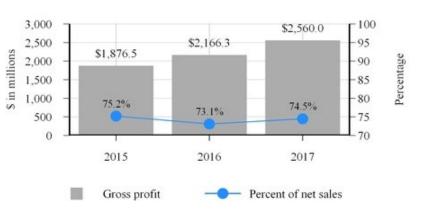
2016 Compared with 2015

The increase in net sales of Critical Care products was due primarily to:

- higher sales of enhanced surgical recovery products in the United States, Europe, and Rest of World;
- · higher sales of core hemodynamic products, primarily in Rest of World;
- · higher sales of hardware in the United States; and
- foreign currency exchange rate fluctuations, which increased net sales by \$5.0 million due primarily to the strengthening of the Japanese yen against the United States dollar, partially offset by the weakening of various currencies against the United States dollar.

In April 2017, we received FDA clearance for our *HemoSphere* advanced monitoring platform. This technology provides clinicians with clarity on a patient's hemodynamics, or the factors that manage blood flow, to help them make proactive, timely clinical decisions.

Gross Profit



For the years ended December 31, 2017, 2016, and 2015:

The increase in gross profit as a percentage of net sales in 2017 compared to 2016 was driven by:

• a 1.3 percentage point increase in the United States and a 0.3 percentage point increase in international markets due to an improved product mix, driven by THVT products;

partially offset by:

expenses associated with flooding from Hurricane Maria in Puerto Rico and the planned closure of our manufacturing plant in Switzerland.

The decrease in gross profit as a percentage of net sales in 2016 compared to 2015 was driven by:

- a 4.3 percentage point decrease due to the impact of foreign currency exchange rate fluctuations, including the settlement of foreign currency hedging contracts; and
- investments in manufacturing capacity;

partially offset by:

 a 1.6 percentage point increase in the United States, and a 0.5 percentage point increase in international markets, due to an improved product mix, driven by THVT products.

Selling, General, and Administrative ("SG&A") Expenses

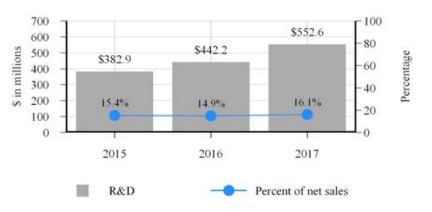


The increase in SG&A expenses in 2017 compared to 2016 was due primarily to higher sales and marketing expenses in the United States and Europe, mainly to support the THVT program, and higher personnel-related costs. The decrease in SG&A expenses as a percentage of net sales in 2017 was due primarily to leverage from our higher THVT sales in the United States and Japan.

The increase in SG&A expenses in 2016 compared to 2015 resulted primarily from higher sales and marketing expenses in the United States and Europe, mainly to support our THVT program, and higher personnel-related costs. These increases were partially offset by the suspension of the medical device excise tax in the United States for 2016 through 2019. The decrease in SG&A expenses as a percentage of net sales in 2016 was due primarily to higher sales in the United States and Japan.

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Research and Development ("R&D") Expenses



For the years ended December 31, 2017, 2016, and 2015:

The increase in R&D expenses in 2017 compared to 2016 was due primarily to mitral, aortic, and tricuspid THVT product development efforts, including development expenses associated with the *Cardioband* Reconstruction System.

The increase in R&D expenses in 2016 compared to 2015 was due primarily to mitral and aortic THVT product development efforts. The suspension of the United States medical device excise tax provided additional flexibility to accelerate investments in structural heart initiatives.

Intellectual Property Litigation (Income) Expenses, net

In November 2017, we recorded a \$112.5 million litigation gain related to the theft of trade secrets. We incurred external legal costs related to intellectual property litigation of \$39.2 million , \$32.6 million and \$7.0 million during 2017 , 2016 and 2015 , respectively.

Change in Fair Value of Contingent Consideration Liabilities, net

The change in fair value of contingent consideration liabilities resulted in income of \$9.9 million, net, for the year ended December 31, 2017, and expense of \$1.1 million and \$0.2 million for the years ended December 31, 2016 and 2015, respectively. The contingent consideration liability related to one of our previous business acquisitions was reduced by \$19.9 million during the three months ended September 30, 2017 due to delays in product development, which reduced the probability of milestone achievement. This gain was partially offset by a \$10.0 million expense in 2017 due to changes in the fair value of the liabilities resulting primarily from adjustments to discount rates and accretion of the discount rates due to the passage of time. For further information, see Note 10 to the " *Consolidated Financial Statements*."

Special Charges

For information on special charges, see Note 4 to the " Consolidated Financial Statements. "

Interest Expense

Interest expense was \$23.2 million , \$19.2 million , and \$17.2 million in 2017 , 2016 , and 2015 , respectively. The increase in interest expense for 2017 as compared to 2016 resulted primarily from a higher average debt balance, partially offset by lower average interest rates. The increase in interest expense for 2016 as compared to 2015 resulted primarily from higher average interest rates.



Interest Income

Interest income was \$20.3 million, \$10.8 million, and \$7.9 million in 2017, 2016, and 2015, respectively. The increase in interest income for 2017 and 2016 resulted primarily from higher average interest rates.

Other Expense, net

(in millions)

	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
:	2017		2016		2015
\$	5.4	\$	0.5	\$	4.8
	2.7		(0.2)		(0.1)
	—		5.0		
	0.1		(0.4)		(0.7)
\$	8.2	\$	4.9	\$	4.0
	\$	2017 \$ 5.4 2.7 0.1	2017 \$ 5.4 \$ 2.7 	2017 2016 \$ 5.4 \$ 0.5 2.7 (0.2) 5.0 0.1 (0.4) (0.4)	2017 2016 \$ 5.4 \$ 0.5 \$ 2.7 (0.2) 5.0 0.1 (0.4)

The net foreign exchange losses relate primarily to the foreign currency fluctuations in our global trade and intercompany receivable and payable balances, offset by the gains and losses on derivative instruments intended as an economic hedge of those exposures.

The loss (gain) on investments primarily represents our net share of gains and losses in investments accounted for under the equity method and realized gains and losses on our available-for-sale money market and cost method investments.

In March 2016, we contributed \$5.0 million to the Edwards Lifesciences Foundation, a related-party not-for-profit organization intended to provide philanthropic support to health- and community-focused charitable organizations. The contribution was irrevocable and was recorded as an expense at the time of payment.

Provision for Income Taxes

Our effective income tax rates for 2017, 2016, and 2015 were impacted as follows (in millions):

	 Years Ended December 31,								
	2017		2016		2015				
Income tax expense at U.S. federal statutory rate	\$ 362.2	\$	258.3	\$	217.8				
Foreign income taxed at different rates	(106.9)		(88.6)		(105.8)				
State and local taxes, net of federal tax benefit	11.5		9.7		3.1				
Tax credits, federal and state	(25.8)		(21.3)		(15.7)				
(Release) build of reserve for prior years' uncertain tax positions	(7.7)		4.6		3.3				
U.S. tax on foreign earnings, net of credits	(30.3)		5.1		20.5				
Deductible employee share-based compensation	(48.2)		_		—				
Nondeductible employee share-based compensation	3.9		3.6		2.3				
Effects of mandatory deemed repatriation	297.4		_		—				
Effects of U.S. tax rate changes	(3.3)		_		_				
Other	(1.5)		(3.0)		2.0				
Income tax provision	\$ 451.3	\$	168.4	\$	127.5				

On December 22, 2017, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act ("the 2017 Act"), was signed into law. The 2017 Act reduces the U.S. federal corporate tax rate from 35 percent to 21 percent for tax years beginning after December 31, 2017, requires companies to pay a one-time mandatory deemed repatriation tax on the cumulative earnings of certain foreign subsidiaries that were previously tax deferred, accelerates federal tax depreciation and creates new taxes on certain foreign earnings in future years.

On December 22, 2017, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Act. In accordance with SAB 118, we have estimated provisional amounts for \$3.3 million of tax benefits in connection with the remeasurement of certain tax assets and liabilities, and \$327.4 million of current tax expense (discussed below) recorded in connection with the one-time mandatory deemed repatriation tax on cumulative earnings of certain foreign subsidiaries. Additionally, as a result of a revenue procedure issued by the Internal Revenue Service ("IRS") on February 13, 2018, approximately \$32.3 million of tax benefits associated with a tax reform related restructuring may need to be adjusted.

The changes included in the 2017 Act are broad and complex. The final transition impacts of the 2017 Act may differ from the above estimate, possibly materially, due to, among other things, changes in interpretations of the 2017 Act, any further legislative or regulatory actions that arise because of the 2017 Act, any changes in accounting standards for income taxes or related interpretations in response to the 2017 Act, or any updates or changes to the estimates we have utilized to calculate the transition impacts. Any subsequent adjustment to these amounts will be recorded to current tax expense in the quarter of 2018 when the analysis is complete. We did not identify items for which a reasonable estimate of the income tax effects of the 2017 Act could not be determined as of December 31, 2017.

As mentioned above, the 2017 Act requires a mandatory deemed repatriation of post-1986 cumulative undistributed foreign earnings and profits. The rate applied for the mandatory deemed repatriation varies depending on whether the earnings and profits are held in liquid or non-liquid assets. A proportional deduction on the deemed repatriation results in a repatriation toll charge of effectively 15.5% for liquid assets and 8% for non-liquid assets. At the election of the taxpayer, the repatriation tax can be paid in installments over eight years. We provisionally intend to elect to pay the repatriation tax in installments over eight years. The deemed repatriation results in a provisional \$327.4 million tax obligation which, when offset by the correlative effects of uncertain tax positions of \$30.0 million , results in a provisional net increase in tax expense of \$297.4 million .

Factors impacting our effective tax rate in 2017 included the one-time impact of the mandatory taxation of previously unrepatriated earnings, partially offset by the revaluation of tax-related balance sheet items due to U.S. tax rate changes. In addition, the effective tax rate for 2017 was favorably impacted by the adoption of the new accounting standard for the tax benefit of employee shared-based compensation (see Note 2).

Uncertain Tax Positions

As of December 31, 2017 and 2016, the gross uncertain tax positions were \$225.6 million and \$245.5 million, respectively. We estimate that these liabilities would be reduced by \$94.0 million and \$44.9 million, respectively, from offsetting tax benefits associated with the correlative effects of potential transfer pricing adjustments, state income taxes, and timing adjustments. The net amounts of \$131.6 million and \$200.6 million, respectively, if not required, would favorably affect our effective tax rate.

A reconciliation of the beginning and ending amount of uncertain tax positions, excluding interest, penalties, and foreign exchange, is as follows (in millions):

	 Years Ended December 31,					
	2017		2016		2015	
Uncertain gross tax positions, January 1	\$ 245.5	\$	216.1	\$	192.3	
Current year tax positions	77.7		29.0		29.6	
Increase prior year tax positions	63.7		2.7		2.2	
Decrease prior year tax positions	(65.0)		(0.9)		(7.4)	
Settlements	(95.3)		(0.3)		(0.4)	
Lapse of statutes of limitations	(1.0)		(1.1)		(0.2)	
Uncertain gross tax positions, December 31	\$ 225.6	\$	245.5	\$	216.1	

We recognize interest and penalties, if any, related to uncertain tax positions in the provision for income taxes. As of December 31, 2017, we had accrued \$7.4 million (net of \$2.9 million tax benefit) of interest related to uncertain tax positions, and as of December 31, 2016, we had accrued \$14.7 million (net of \$10.8 million tax benefit) of interest related to uncertain tax



positions. During 2017, 2016, and 2015, we recognized interest expense (benefit), net of tax benefit, of \$(7.3) million, \$4.0 million, and \$3.9 million, respectively, in "*Provision for Income Taxes*" on the consolidated statements of operations.

We strive to resolve open matters with each tax authority at the examination level and could reach agreement with a tax authority at any time. While we have accrued for matters we believe are more likely than not to require settlement, the final outcome with a tax authority may result in a tax liability that is more or less than that reflected in the consolidated financial statements. Furthermore, we may later decide to challenge any assessments, if made, and may exercise our right to appeal. The uncertain tax positions are reviewed quarterly and adjusted as events occur that affect potential liabilities for additional taxes, such as lapsing of applicable statutes of limitations, proposed assessments by tax authorities, negotiations between tax authorities, identification of new issues, and issuance of new legislation, regulations, or case law. We believe that adequate amounts of tax and related penalty and interest have been provided in income tax expense for any adjustments that may result from our uncertain tax positions.

At December 31, 2017, all material state, local, and foreign income tax matters have been concluded for years through 2008. The IRS has substantially completed its fieldwork for the 2009 through 2012 tax years. However, the audits have been in suspense pending a final determination with respect to the application for an Advance Pricing Agreement ("APA") discussed below. As a result of the partial agreement discussed below, the IRS will now be able to finalize their audits of the 2009 through 2011 tax years. The IRS began its examination of the 2014 tax year during the fourth quarter of 2016.

We had been pursuing an APA between the Switzerland and United States governments for the years 2009 through 2013 covering transfer pricing matters with the possibility of a roll-forward of the results to subsequent years. During December 2017, the U.S. and Swiss Competent Authorities agreed on the terms of several of the transactions covered by the APA, including a rollforward of some of the results through 2020. The remaining terms of transactions not covered by the final bilateral agreement will be reviewed by the IRS as part of the traditional exam process for the tax years beyond 2011. These transfer pricing matters are significant to our consolidated financial statements as the disputed amounts are material, and the final outcome is uncertain. We continue to believe our positions are supportable. As a result of the bilateral agreement, a reclassification of \$73.7 million was made from the long-term liability for uncertain tax positions to current taxes payable, and a \$15.2 million tax benefit was recorded during the quarter.

During 2014, we filed with the IRS a request for a pre-filing agreement associated with a tax return filing position on a portion of the litigation settlement payment received in May 2014. During the first quarter of 2015, the IRS accepted our request into the pre-filing agreement program. The closing agreement for this matter was finalized during the fourth quarter of 2016. There remained a disputed issue and we were accepted into the Fast-Track Appeals process in July 2017. We met with the Fast-Track Appeals team in October 2017 and were unable to reach an agreement. We intend to revert to the regular Appeals process on this issue. We made an advance payment of tax in December 2015 to prevent the further accrual of interest on any potential deficiency.

We believe that adequate amounts of tax and related penalty and interest have been provided in income tax expense for any adjustments that may result from our uncertain tax positions. Based upon the information currently available and numerous possible outcomes, we cannot reasonably estimate what, if any, changes in our existing uncertain tax positions may occur in the next 12 months and thus have recorded the gross uncertain tax positions as a long-term liability. However, if the appeals process related to the pre-filing agreement or transfer pricing matters is finalized in the next 12 months, it is reasonably possible that these events could result in a significant change in our uncertain tax positions within the next 12 months.

We have received tax incentives in certain non-U.S. tax jurisdictions, the primary benefit of which will expire in 2024. The tax reductions as compared to the local statutory rates were \$81.0 million (\$0.39 per diluted share), \$78.7 million (\$0.32 per diluted share), and \$60.4 million (\$0.25 per diluted share) for the years ended December 31, 2017, 2016, and 2015, respectively.

Our Dominican Republic branch receives tax incentives, including an exemption from paying Dominican Republic income taxes, under a Free Trade Zone law. Effective November 9, 2012, the Dominican Republic enacted a law which, among other tax provisions, would apply a 10% withholding tax on dividends or branch remittances from a Free Trade Zone company to its shareholder(s). The Dominican Republic withholding tax provision was, however, contingent upon certain future events. On October 5, 2016, the Dominican Republic Ministry of Finance published a notification confirming that the 10% withholding tax on branch remittances would be due and payable by Dominican Republic Free Trade Zone companies for dividends and remittances paid on or after October 5, 2016. The impact of this withholding tax has been reflected in our income tax provision.

Liquidity and Capital Resources

Our sources of cash liquidity include cash and cash equivalents, short-term investments, amounts available under credit facilities, and cash from operations. We believe that these sources are sufficient to fund the current requirements of working capital, capital expenditures, and other financial commitments for the next twelve months from the financial statement issuance date. However, we periodically consider various financing alternatives and may, from time to time, seek to take advantage of favorable interest rate environments or other market conditions.

On December 22, 2017, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act (the 2017 Act), was signed into law. The legislation includes extensive changes to the international tax regime. The 2017 Act requires a deemed repatriation of post-1986 undistributed foreign earnings and profits. The deemed repatriation resulted in a provisional \$327.4 million tax obligation. The one-time transition tax liability will be payable in eight annual installments, as outlined in the contractual obligations table below. See Note 16 to the "*Consolidated Financial Statements*" for additional information about the one-time transition tax.

As of December 31, 2017, cash and cash equivalents and short-term investments held in the United States and outside the United States were \$142.3 million and \$1.2 billion, respectively. Prior to the 2017 Act, we asserted that the accumulated earnings of most of our foreign subsidiaries would be permanently invested. However, as a result of the 2017 Act, substantially all of the \$1.2 billion of cash, cash equivalents and short-term investments held outside the United States will be available for use in the United States without incurring additional United States federal income taxes. As we evaluate the impact of U.S. tax legislation and the future cash needs of our global operations, we may revise the amount of foreign earnings considered to be permanently reinvested outside the United States.

On December 1, 2017, we acquired all the outstanding shares of Harpoon Medical, Inc. for an aggregate cash purchase price of \$119.5 million. In addition, we agreed to pay up to an additional \$150.0 million in pre-specified milestone-driven payments over the next 10 years. For further information, see Note 7 to the " Consolidated Financial Statements."

On November 26, 2016, we entered into an agreement and plan of merger to acquire Valtech for approximately \$340.0 million, subject to certain adjustments, in stock and cash to be paid at closing, with the potential for up to \$350.0 million in additional pre-specified milestone-driven payments over the next 10 years. Our acquisition of Valtech closed on January 23, 2017, and we issued an aggregate of approximately 2.8 million shares of our common stock, and paid approximately \$86.2 million in cash to holders of Valtech securities. Prior to the close of the transaction, Valtech spun off its early-stage transseptal mitral valve replacement technology program. We have an option to acquire that program and its associated intellectual property for approximately \$200.0 million , subject to certain adjustments, plus an additional \$50.0 million if a certain European regulatory approval is obtained within 10 years of the acquisition closing date. For further information, see Note 7 to the " *Consolidated Financial Statements*. "

On July 3, 2015, we entered into an agreement and plan of merger to acquire CardiAQ for an aggregate cash purchase price of \$350.0 million, subject to certain adjustments, plus an additional \$50.0 million if a certain European regulatory approval is obtained within 48 months of the acquisition closing date. For further information, see Note 7 to the " *Consolidated Financial Statements*. "

We have a Five-Year Credit Agreement ("Credit Agreement") which provides up to an aggregate of \$750.0 million in borrowings in multiple currencies. We may increase the amount available under the Credit Agreement, subject to agreement of the lenders, by up to an additional \$250.0 million in the aggregate. As of December 31, 2017, borrowings of \$438.4 million were outstanding under the Credit Agreement, and have been classified as long-term obligations in accordance with the terms of the Credit Agreement.

In October 2013, we issued \$600.0 million of 2.875% fixed-rate unsecured senior notes due October 15, 2018. We plan to issue new notes in 2018 to partially replace the maturing senior notes. We expect that we will be able to pay the remaining principal and any accrued interest on the senior notes by one or a combination of the following: refinancing such indebtedness, using available cash resources, or using amounts available under our Credit Agreement. As of December 31, 2017, the total carrying value of our unsecured senior notes was \$598.0 million, which has been classified as short-term debt. For further information on our debt, see Note 9 to the "*Consolidated Financial Statements*."

We periodically repurchase shares of our common stock under share repurchase programs authorized by the Board of Directors. We consider several factors in determining when to execute share repurchases, including, among other things, expected dilution from stock plans, cash capacity, and the market price of our common stock. During 2017, under the Board authorized repurchase programs, we repurchased a total of 7.6 million shares at an aggregate cost of \$752.1 million, including



amounts purchased under accelerated share repurchase agreements. As of December 31, 2017, we had remaining authority to purchase \$1.3 billion of our common stock. For further information, see Note 13 to the "*Consolidated Financial Statements*."

Consolidated Cash Flows - For the twelve months ended December 31, 2017, 2016, and 2015



Net cash flows provided by **operating activities** of \$1.0 billion for 2017 increased \$296.3 million from 2016 due primarily to improved operating performance and receipt of a litigation payment, partially offset by higher working capital needs associated with growth in the business and the timing of tax payments.

Net cash flows provided by operating activities of \$704.4 million for 2016 increased \$154.7 million from 2015 due primarily to (1) improved operating performance and (2) lower supplier payments in 2016 compared to 2015, partially offset by (1) the impact of excess tax benefits from stock plans, primarily due to our increased stock price, and (2) an increase in accounts receivable due to increased sales, primarily in the United States.

Net cash used in **investing activities** of \$647.2 million in 2017 consisted primarily of net purchases of investments of \$235.7 million, capital expenditures of \$168.1 million, a \$100.0 million net cash payment associated with the acquisition of Harpoon Medical, Inc., and an \$81.9 million net cash payment associated with the acquisition of Valtech.

Net cash used in investing activities of \$211.7 million in 2016 consisted primarily of capital expenditures of \$176.1 million and \$41.3 million for the acquisition of intangible assets.

Net cash used in investing activities of \$316.1 million in 2015 consisted primarily of a \$320.1 million net payment associated with the acquisition of CardiAQ, and capital expenditures of \$102.7 million, partially offset by net proceeds from investments of \$119.6 million.

Net cash used in **financing activities** of \$473.2 million in 2017 consisted primarily of purchases of treasury stock of \$763.3 million, partially offset by (1) net proceeds from the issuance of debt of \$176.3 million and (2) proceeds from stock plans of \$113.8 million.

Net cash used in financing activities of \$268.5 million in 2016 consisted primarily of purchases of treasury stock of \$662.3 million , partially offset by (1) net proceeds from the issuance of debt of \$222.1 million, (2) proceeds from stock plans of \$103.3 million , and (3) the excess tax benefit from stock plans of \$64.3 million .

Net cash used in financing activities of \$158.6 million in 2015 consisted primarily of purchases of treasury stock of \$280.1 million, partially offset by (1) proceeds from stock plans of \$87.2 million, and (2) the excess tax benefit from stock plans of \$41.3 million.

A summary of all of our contractual obligations and commercial commitments as of December 31, 2017 were as follows (in millions):

	Payments Due by Period													
Contractual Obligations		Total		Less Than 1 Year	1-3 Years		4-5 Years			After 5 Years				
Debt	\$	1,038.4	\$	600.0	\$	438.4	\$	—	\$	—				
Operating leases		72.3		24.0		26.6		8.2		13.5				
Interest on debt		15.8		15.4		0.4		—						
Transition tax on unremitted foreign earnings and profits (a)		327.1		33.9		51.0		51.0		191.2				
Pension obligations (b)		5.1		5.1		—		—						
Capital commitment obligations (c)		0.6		0.3		0.3		—		—				
Purchase and other commitments		37.1		22.2		14.9		—						
Total contractual cash obligations (d), (e)	\$	1,496.4	\$	700.9	\$	531.6	\$	59.2	\$	204.7				

(a) As of December 31, 2017, we had recorded \$327.1 million of income tax liabilities related to the one-time transition tax that resulted from the enactment of the the 2017 Act, which will be payable in eight annual installments. The first installment is classified as a current income tax payable on our consolidated balance sheet. The remaining installment amounts will be equal to 8% of the total liability, payable in fiscal years 2019 through 2023, 15% in fiscal year 2024, 20% in fiscal year 2025, and 25% in fiscal year 2026. See Note 16 to the " *Consolidated Financial Statements* " for additional information about the one-time transition tax.

- (b) The amount included in "Less Than 1 Year" reflects anticipated contributions to our various pension plans. Anticipated contributions beyond one year are not determinable. The total accrued benefit liability for our pension plans recognized as of December 31, 2017 was \$43.7 million. This amount is impacted by, among other items, pension expense funding levels, changes in plan demographics and assumptions, and investment returns on plan assets. Therefore, we are unable to make a reasonably reliable estimate of the amount and period in which the liability might be paid, and did not include this amount in the contractual obligations table. See Note 12 to the " *Consolidated Financial Statements*" for further information.
- (c) Capital commitment obligations consist primarily of cash that we are obligated to pay to our limited partnership and limited liability corporation investees. These investees make equity investments in various development stage biopharmaceutical and medical device companies, and it is not certain if and/or when these payments will be made.
- (d) As of December 31, 2017, the gross liability for uncertain tax positions, including interest, was \$235.9 million. We had been pursuing an APA between the Switzerland and United States governments for the years 2009 through 2013, with the possibility of a roll-forward of the results to subsequent years. During December 2017, U.S. and Swiss Competent Authorities agreed on the terms of several of the transactions covered by the APA, including a roll-forward of some of the results through 2020. The remaining terms of transactions not covered by the final bilateral agreement will be reviewed by the IRS as part of the traditional exam process for the tax years beyond 2011. These transfer pricing matters are significant to our consolidated financial statements, and the final outcome of the negotiations is uncertain. Management believes that adequate amounts of tax and related penalty and interest have been provided in income tax expense for any adjustments that may result for our uncertain tax positions. We are unable to make a reasonably reliable estimate of the amount and period in which the liability might be paid, and did not include this amount in the contractual obligations table.
- (e) We acquire assets still in development, enter into research and development arrangements, acquire businesses, and sponsor certain clinical trials that often require milestone, royalty, or other future payments to third-parties, contingent upon the occurrence of certain future events. In situations where we have no ability to influence the achievement of the milestone or otherwise avoid the payment, we have included those payments in the table above. However, we have excluded from the table contingent milestone payments and other contingent liabilities for which we cannot reasonably predict future payments or for which we can avoid making payment by unilaterally deciding to stop development of a product or cease progress of a clinical trial. We estimate that these contingent payments could be up to approximately \$680.0 million if all milestones or other contingent obligations were met. This amount includes certain milestone-based contingent obligations that may be paid through a combination of cash and issuance of common stock.

Critical Accounting Policies and Estimates

Our results of operations and financial position are determined based upon the application of our accounting policies, as discussed in the notes to the " *Consolidated Financial Statements*." Certain of our accounting policies represent a selection among acceptable alternatives under GAAP. In evaluating our transactions, management assesses all relevant GAAP and chooses the accounting policy that most accurately reflects the nature of the transactions.

The application of accounting policies requires the use of judgment and estimates. These matters that are subject to judgments and estimation are inherently uncertain, and different amounts could be reported using different assumptions and estimates. Management uses its best estimates and judgments in determining the appropriate amount to reflect in the consolidated financial statements, using historical experience and all available information. We also use outside experts where appropriate. We apply estimation methodologies consistently from year to year.

We believe the following are the critical accounting policies which could have the most significant effect on our reported results and require subjective or complex judgments by management.

Revenue Recognition

When we recognize revenue from the sale of our products, we record an estimate of various sales returns and allowances which reduces product sales and accounts receivable. These adjustments include estimates for rebates, returns, and other sales allowances. These provisions are estimated based upon historical payment experience, historical relationship to revenues, estimated customer inventory levels, and current contract sales terms with direct and indirect customers. Product returns are not significant because returns are generally not allowed unless the product is damaged at time of receipt. If the historical data and inventory estimates used to calculate these provisions do not approximate future activity, our financial position, results of operations, and cash flows could be impacted.

In addition, we may allow customers to return previously purchased products for next-generation product offerings. For these transactions, we defer recognition of revenue on the sale of the earlier generation product based upon an estimate of the amount to be returned when the next-generation products are shipped to the customer. Uncertain timing of next-generation product approvals, variability in product launch strategies, product recalls, and variation in product utilization all affect the estimates related to sales returns and could cause actual returns to differ from these estimates.

Our sales adjustment related to distributor rebates given to our United States distributors represents the difference between our sales price to the distributor (at our distributor "list price") and the negotiated price to be paid by the end-customer. We validate the distributor rebate accrual quarterly through either a review of the inventory reports obtained from our distributors or an estimate of the distributor's inventory. This distributor inventory information is used to verify the estimated liability for future distributor rebate claims based on historical rebates and contract rates. We periodically monitor current pricing trends and distributor inventory levels to ensure the credit for future distributor rebates is fairly stated.

Excess and Obsolete Inventory

The valuation of our inventory requires us to estimate excess, obsolete, and expired inventory. We base our provisions for excess, obsolete, and expired inventory on our estimates of forecasted net sales. A significant change in the timing or level of demand for our products as compared to forecasted amounts may result in recording additional allowances for excess, obsolete, and expired inventory in the future. In addition, our industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of next-generation product approvals, variability in product launch strategies, product recalls, increasing levels of consigned inventory, and variation in product utilization all affect our estimates related to excess, obsolete, and expired inventory.

Intangible Assets and Long-lived Assets

We acquire intangible assets in connection with business combinations and asset purchases. The acquired intangible assets are recorded at fair value, which is determined based on a discounted cash flow analysis. The determination of fair value requires significant estimates, including, but not limited to, the amount and timing of projected future cash flows, the discount rate used to discount those cash flows, the assessment of the asset's life cycle, including the timing and expected costs to complete in-process projects, and the consideration of legal, technical, regulatory, economic, and competitive risks.

IPR&D acquired in business combinations is reviewed for impairment annually, or whenever an event occurs or circumstances change that would indicate the carrying amount may be impaired. Additionally, management reviews the



carrying amounts of other intangible and long-lived assets whenever events or circumstances indicate that the carrying amounts of an asset may not be recoverable. The impairment reviews require significant estimates about fair value, including estimation of future cash flows, selection of an appropriate discount rate, and estimates of long-term growth rates.

Contingent Consideration

We record contingent consideration resulting from a business combination at its fair value on the acquisition date. We determine the fair value of the contingent consideration based primarily on the following factors:

- timing and probability of success of clinical events or regulatory approvals;
- timing and probability of success of meeting commercial milestones; and
- discount rates.

On a quarterly basis, we revalue these obligations and record changes in their fair value as an adjustment to earnings. Changes to contingent consideration obligations can result from adjustments to discount rates, accretion of the discount rates due to the passage of time, changes in our estimates of the likelihood or timing of achieving development or commercial milestones, changes in the probability of certain clinical events, or changes in the assumed probability associated with regulatory approval.

The assumptions related to determining the value of contingent consideration include a significant amount of judgment, and any changes in the underlying estimates could have a material impact on the amount of contingent consideration expense recorded in any given period.

Income Taxes

The determination of our provision for income taxes requires significant judgment, the use of estimates, and the interpretation and application of complex tax laws. Realization of certain deferred tax assets, primarily net operating loss and other carryforwards, is dependent upon generating sufficient taxable income in the appropriate jurisdiction prior to the expiration of the carryforward periods. Failure to achieve forecasted taxable income in the applicable taxing jurisdictions could affect the ultimate realization of deferred tax assets and could result in an increase in our effective tax rate on future earnings.

Due to the complexity of the new provisions of Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act ("the 2017 Act"), we are still evaluating whether we will recognize the U.S. tax effects of global intangible low-taxed income ("GILTI") as a component of income tax expense in the period the tax arises (the "period cost method") or account for GILTI in the measurement of deferred taxes (the "deferred method"). We have not yet elected a method and will only do so after our completion of the analysis of the GILTI provisions.

We are subject to income taxes in the United States and numerous foreign jurisdictions. Our income tax returns are periodically audited by domestic and foreign tax authorities. These audits include questions regarding our tax filing positions, including the timing and amount of deductions and the allocation of income amongst various tax jurisdictions. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. Significant judgment is required in evaluating our uncertain tax positions, including estimating the ultimate resolution to intercompany pricing controversies between countries when there are numerous possible outcomes. We review these tax uncertainties quarterly and adjust the liability as events occur that affect potential liabilities for additional taxes, such as the progress of tax audits, lapsing of applicable statutes of limitations, negotiations between tax authorities, identification of new issues, and issuance of new legislation, regulations, or case law.

For additional details on our income taxes, see Note 2 and Note 16 to the " Consolidated Financial Statements".

Stock-based Compensation

We measure and recognize compensation expense for all stock-based awards based on estimated fair values. Stock-based awards consist of stock options, service-based restricted stock units, market-based restricted stock units, performance-based restricted stock units, and employee stock purchase subscriptions. The fair value of each option award and employee stock purchase subscription is estimated on the date of grant using the Black-Scholes option valuation model. The fair value of market-based restricted stock units is determined using a Monte Carlo simulation model, which uses multiple input variables to determine the probability of satisfying the market condition requirements. The Black-Scholes and Monte Carlo models require various highly judgmental assumptions, including stock price volatility, risk-free interest rate, and expected option term. For

performance-based restricted stock units, expense is recognized if and when we conclude that it is probable that the performance condition will be achieved, which requires judgment. Stock-based compensation expense is recorded net of estimated forfeitures. Judgment is required in estimating the stock awards that will ultimately be forfeited. If actual results differ significantly from these estimates, stock-based compensation expense and our results of operations would be impacted.

New Accounting Standards

Information regarding new accounting standards is included in Note 2 to the " Consolidated Financial Statements."

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our business and financial results are affected by fluctuations in world financial markets, including changes in currency exchange rates and interest rates. We manage these risks through a combination of normal operating and financing activities and derivative financial instruments. We do not use derivative financial instruments for trading or speculative purposes.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our long-term debt. Our investment strategy is focused on preserving capital and supporting our liquidity requirements, while earning a reasonable market return. We invest in a variety of fixed-rate debt securities, primarily time deposits, commercial paper, U.S. and foreign government and agency securities, asset-backed securities, corporate debt securities, and municipal debt securities. The market value of our investments may decline if current market interest rates rise. As of December 31, 2017, we had \$1.1 billion of investments in fixed-rate debt securities which had an average remaining term to maturity of approximately 0.9 years. Taking into consideration the average maturity of our fixed-rate debt securities, a hypothetical 0.5% to 1.0% absolute increase in interest rates at December 31, 2017 would have resulted in a \$4.9 million to \$9.7 million decrease in the fair value of these investments. Such a decrease would only result in a realized loss if we choose or are forced to sell the investments before the scheduled maturity, which we currently do not anticipate.

We are also exposed to interest rate risk on our debt obligations. As of December 31, 2017, we had \$600.0 million of Notes outstanding that carry a fixed rate, and also had available a \$750.0 million Credit Agreement that carries a variable interest rate based on the London interbank offered rate ("LIBOR"). As of December 31, 2017, borrowings of \$438.4 million were outstanding under the Credit Agreement. To diversify our interest rate risk, we entered into interest rate swaps with an aggregate notional amount of \$300.0 million. The critical terms of the swaps matched the critical terms of \$300.0 million of the aggregate principal amount of the Notes, effectively converting that portion of the fixed-rate issue to a floating variable rate based on a 6-month LIBOR benchmark. In December 2017, the interest rate swap was settled. Based on our December 31, 2017 variable debt levels, a hypothetical 1.0% absolute increase in our floating market interest rates would increase our interest expense by approximately \$4.4 million, most of which would be offset by increased returns on our short-term investments. The impact on net interest would be immaterial to our financial condition and results of operations. As of December 31, 2017, a hypothetical 1.0% absolute increase in market interest rates would decrease the fair value of the fixed-rate debt by approximately \$4.6 million. This hypothetical change in interest rates would not impact the interest rates would decrease the fair value of the fixed-rate debt by approximately \$4.6 million. This hypothetical change in interest rates would not impact the interest rate edebt.

For more information related to outstanding debt obligations, see Note 9 to the " Consolidated Financial Statements."

Currency Risk

We are exposed to foreign currency risks that arise from normal business operations. These risks include the translation of local currency balances and results of our non-United States subsidiaries into United States dollars, currency gains and losses related to intercompany and third-party transactions denominated in currencies other than a location's functional currency, and currency gains and losses associated with intercompany loans. Our principal currency exposures relate to the Euro and the Japanese yen. Our objective is to minimize the volatility of our exposure to these risks through a combination of normal operating and financing activities and the use of derivative financial instruments in the form of foreign currency forward exchange contracts and foreign currency options contracts. The total notional amount of our derivative financial instruments entered into for foreign currency management purposes at December 31, 2017 was \$979.8 million . A hypothetical 10% increase/decrease in the value of the United States dollar against all hedged currencies would increase/decrease the fair value of these derivative contracts by \$66.1 million. Any gains or losses on the fair value of derivative contracts would generally be offset by gains and losses on the underlying transactions, so the net impact would not be significant to our financial condition or results of operations.

For more information related to outstanding foreign exchange contracts, see Note 2 and Note 11 to the "Consolidated Financial Statements."

Credit Risk

Derivative financial instruments involve credit risk in the event the financial institution counterparty should default. It is our policy to execute such instruments with major financial institutions that we believe to be creditworthy. At December 31, 2017, all derivative financial instruments were with bank counterparties assigned investment grade ratings by national rating agencies. We further diversify our derivative financial instruments among counterparties to minimize exposure to any one of these entities. We have not experienced a counterparty default and do not anticipate any non-performance by our current derivative counterparties.

Concentrations of Risk

We invest excess cash in a variety of fixed-rate debt securities, and diversify the investments between financial institutions. Our investment policy limits the amount of credit exposure to any one issuer.

In the normal course of business, we provide credit to customers in the health care industry, perform credit evaluations of these customers, and maintain allowances for potential credit losses, which have historically been adequate compared to actual losses. In 2017, we had no customers that represented 10% or more of our total net sales or accounts receivable, net.

Investment Risk

We are exposed to investment risks related to changes in the underlying financial condition and credit capacity of certain of our investments. As of December 31, 2017, we had \$1.1 billion of investments in fixed-rate debt securities of various companies, of which \$552.2 million were long-term. In addition, we had \$14.8 million of investments in equity instruments of public and private companies. Should these companies experience a decline in financial condition or credit capacity, or fail to meet certain development milestones, a decline in the investments' values may occur, resulting in unrealized or realized losses.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Edwards Lifesciences Corporation:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Edwards Lifesciences Corporation and its subsidiaries as of December 31, 2017 and December 31, 2016, and the related consolidated statements of operations, comprehensive income, cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2017, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and December 31, 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit 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.

Definition and Limitations of Internal Control over Financial Reporting

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 Irvine, California February 16, 2018

We have served as the Company's auditor since 1999.

CONSOLIDATED BALANCE SHEETS

(in millions, except par value)

		31,		
		2017		2016
ASSETS				
Current assets				
Cash and cash equivalents	\$	818.3	\$	930.1
Short-term investments (Note 6)		519.2		341.0
Accounts receivable, net (Note 5)		421.6		365.5
Other receivables		40.6		49.1
Inventories (Note 5)		554.9		396.6
Prepaid expenses		60.6		45.9
Other current assets		116.9		111.8
Total current assets		2,532.1		2,240.0
Long-term investments (Note 6)		567.0		532.1
Property, plant, and equipment, net (Note 5)		679.7		580.0
Goodwill (Note 8)		1,126.5		626.1
Other intangible assets, net (Note 8)		468.0		204.8
Deferred income taxes		213.6		203.8
Other assets		108.9		123.2
Total assets	\$	5,695.8	\$	4,510.0
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities				
Accounts payable	\$	116.6	\$	97.1
Accrued and other liabilities (Note 5)		636.6		435.4
Short-term debt (Note 9)		598.0		_
Contingent consideration liabilities (Notes 7 and 10)		51.7		
Total current liabilities		1,402.9		532.5
Long-term debt (Note 9)		438.4		822.3
Contingent consideration liabilities (Notes 7 and 10)		192.6		31.6
Taxes payable (Note 16)		394.0		159.5
Uncertain tax positions (Note 16)		164.6		229.8
Other long-term liabilities		147.1		115.3
Commitments and contingencies (Notes 9 and 17)				
Stockholders' equity (Note 13)				
Preferred stock, \$.01 par value, authorized 50.0 shares, no shares outstanding		_		_
Common stock, \$1.00 par value, 350.0 shares authorized, 212.0 and 242.6 shares issued, and 209.7 and 211.6 shares outstanding, respectively		212.0		242.6
Additional paid-in capital		1,166.9		1,167.8
Retained earnings		1,962.1		3,906.3
Accumulated other comprehensive loss		(132.7)		(198.4)
Treasury stock, at cost, 2.3 and 31.0 shares, respectively		(252.1)		(2,499.3)
Total stockholders' equity		2,956.2		2,619.0
Total liabilities and stockholders' equity	\$	5,695.8	\$	4,510.0

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions, except per share information)

	Years Ended December 31,										
		2017		2016		2015					
Net sales	\$	3,435.3	\$	2,963.7	\$	2,493.7					
Cost of sales		875.3		797.4		617.2					
Gross profit		2,560.0		2,166.3		1,876.5					
Selling, general, and administrative expenses		984.7		904.7		850.7					
Research and development expenses		552.6		442.2		382.9					
Intellectual property litigation (income) expenses, net (Note 3)		(73.3)		32.6		7.0					
Change in fair value of contingent consideration liabilities		(9.9)		1.1		0.2					
Special charges, net (Note 4)		59.9		34.5							
Interest expense		23.2		19.2		17.2					
Interest income		(20.3)		(10.8)		(7.9)					
Other expense, net (Note 15)		8.2		4.9		4.0					
Income before provision for income taxes		1,034.9		737.9		622.4					
Provision for income taxes (Note 16)		451.3		168.4		127.5					
Net income	\$	583.6	\$	569.5	\$	494.9					
Share information (Note 2):											
Earnings per share:											
Basic	\$	2.77	\$	2.67	\$	2.30					
Diluted	\$	2.70	\$	2.61	\$	2.25					
Weighted-average number of common shares outstanding:											
Basic		210.9		213.0		215.5					
Diluted		215.9		217.8		220.3					

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)

		Years E	nded December 3	1,	
	2017		2016		2015
Net income	\$ 583.6	\$	569.5	\$	494.9
Other comprehensive income (loss), net of tax (Note 14):					
Foreign currency translation adjustments	97.5		(16.1)		(65.1)
Unrealized (loss) gain on cash flow hedges	(30.6)		4.9		(20.5)
Defined benefit pension plans-net actuarial gain (loss) and other	3.5		(6.2)		5.4
Unrealized (loss) gain on available-for-sale investments	(7.8)		0.5		(2.6)
Reclassification of net realized investment loss to earnings	3.1		1.1		1.1
Other comprehensive income (loss), net of tax	 65.7		(15.8)		(81.7)
Comprehensive income	\$ 649.3	\$	553.7	\$	413.2

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)

	Years	Years Ended December 31,				
	2017	2016	2015			
Cash flows from operating activities						
Net income	\$ 583.6 \$	569.5 \$	494.9			
Adjustments to reconcile net income to cash provided by operating activities:						
Depreciation and amortization	81.9	71.2	65.8			
Stock-based compensation (Notes 2 and 13)	61.6	56.9	49.9			
Excess tax benefit from stock plans (Notes 2 and 13)	—	(64.3)	(41.3			
Impairment charges (Note 4)	31.0	—	_			
Change in fair value of contingent consideration liabilities, net (Note 10)	(9.9)	1.1	0.2			
Deferred income taxes	17.8	(37.4)	(95.0			
Purchased in-process research and development	6.7	34.5	_			
Other	(6.2)	7.9	11.0			
Changes in operating assets and liabilities:						
Accounts and other receivables, net	(3.9)	(56.7)	(38.3)			
Inventories	(124.0)	(65.6)	(67.7)			
Accounts payable and accrued liabilities	85.2	74.0	29.4			
Income taxes	278.4	105.1	134.5			
Prepaid expenses and other current assets	(9.9)	(12.6)	(0.2)			
Other	8.4	20.8	6.5			
Net cash provided by operating activities	1,000.7	704.4	549.7			
Cash flows from investing activities						
Capital expenditures	(168.1)	(176.1)	(102.7			
Deposit of cash in escrow	(25.0)	(1, 11)	(
Purchases of held-to-maturity investments (Note 6)	(804.9)	(594.7)	(928.5			
Proceeds from held-to-maturity investments (Note 6)	654.7	852.5	1,260.1			
Purchases of available-for-sale investments (Note 6)	(529.8)	(470.4)	(380.3			
Proceeds from available-for-sale investments (Note 6)	448.7	232.6	179.6			
Investments in unconsolidated affiliates (Note 6)		(7.6)	(5.1			
Proceeds from unconsolidated affiliates (Note 6)	8.3	1.9	3.0			
Investments in trading securities, net	(12.7)	(9.8)	(9.2			
Acquisitions (Notes 7 and 8)	(12.7)	().0)	(331.6)			
Issuances of notes receivable	(192.9)	_	(551.0			
Investments in intangible assets and in-process research and development		(41.2)	(2.9)			
Other	(7.4)	(41.3)	(3.8)			
	0.8	(211.7)	2.4			
Net cash used in investing activities	(647.2)	(211.7)	(316.1)			
Cash flows from financing activities	004.7	252.5	21.4			
Proceeds from issuance of debt	994.7	253.5	31.4			
Payments on debt and capital lease obligations	(818.4)	(31.4)	(29.5)			
Purchases of treasury stock	(763.3)	(662.3)	(280.1			
Proceeds from stock plans	113.8	103.3	87.2			
Excess tax benefit from stock plans (Notes 2 and 13)		64.3	41.3			
Other		4.1	(8.9)			
Net cash used in financing activities	(473.2)	(268.5)	(158.6			
Effect of currency exchange rate changes on cash and cash equivalents	7.9	(12.5)	(10.4			
Net (decrease) increase in cash and cash equivalents	(111.8)	211.7	64.6			
Cash and cash equivalents at beginning of year	930.1	718.4	653.8			

Cash and cash equivalents at end of year	\$	818.3	\$ 930.1	\$ 718.4
Supplemental disclosures:			 	
Cash paid during the year for:				
Interest	\$	19.9	\$ 16.1	\$ 14.1
Income taxes	\$	143.7	\$ 99.9	\$ 86.9
Non-cash investing and financing transactions:				
Fair value of shares issued in connection with business combinations (Note 7)	\$	266.5	\$ —	\$ _
Capital expenditures accruals	\$	21.6	\$ 22.7	\$ 15.1
Retirement of treasury stock (Note 13)	\$	2,746.2	\$ _	\$ _
The accompanying notes are an integral part of these	consolidated financial	statements.		

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in millions)

	Comm	Treas	sury								
	Shares	Par Value	Shares		Amount	dditional I-in Capital		Retained Earnings	ccumulated Other omprehensive Loss	To	tal Stockholders' Equity
BALANCE AT DECEMBER 31, 2014	128.9	\$ 128.9	21.1	\$	(1,556.9)	\$ 878.4	\$	2,841.9	\$ (100.9)	\$	2,191.4
Net income								494.9			494.9
Other comprehensive loss, net of tax									(81.7)		(81.7)
Common stock issued under equity plans, including tax benefits	2.0	2.0				126.7					128.7
Stock-based compensation expense						49.9					49.9
Purchases of treasury stock			2.6		(280.1)						(280.1)
Stock issued to effect stock split	108.2	108.2				 (108.2)					
BALANCE AT DECEMBER 31, 2015	239.1	239.1	23.7		(1,837.0)	946.8		3,336.8	(182.6)		2,503.1
Net income								569.5			569.5
Other comprehensive loss, net of tax									(15.8)		(15.8)
Common stock issued under equity plans, including tax benefits	3.5	3.5				164.1					167.6
Stock-based compensation expense						56.9					56.9
Purchases of treasury stock			7.3	_	(662.3)		_				(662.3)
BALANCE AT DECEMBER 31, 2016	242.6	242.6	31.0		(2,499.3)	1,167.8		3,906.3	(198.4)		2,619.0
Impact to retained earnings from adoption of ASU 2016-09								9.3			9.3
BALANCE AT JANUARY 1, 2017	242.6	242.6	31.0		(2,499.3)	1,167.8		3,915.6	(198.4)		2,628.3
Net income								583.6			583.6
Other comprehensive income, net of tax									65.7		65.7
Common stock issued under equity plans, including tax benefits	3.0	3.0				110.8					113.8
Stock-based compensation expense						61.6					61.6
Shares issued to acquire business			(2.8)		264.3	2.2					266.5
Purchases of treasury stock			7.7		(763.3)						(763.3)
Retirement of treasury stock	(33.6)	(33.6)	(33.6)	_	2,746.2	 (175.5)		(2,537.1)			_
BALANCE AT DECEMBER 31, 2017	212.0	\$ 212.0	2.3	\$	(252.1)	\$ 1,166.9	\$	1,962.1	\$ (132.7)	\$	2,956.2

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

Edwards Lifesciences Corporation ("Edwards Lifesciences" or the "Company") conducts operations worldwide and is managed in the following geographical regions: United States, Europe, Japan, and Rest of World. Edwards Lifesciences is focused on technologies that treat structural heart disease and critically ill patients. The products and technologies provided by Edwards Lifesciences are categorized into the following main areas: Transcatheter Heart Valve Therapy, Surgical Heart Valve Therapy, and Critical Care.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Edwards Lifesciences and its majority-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. The Company reviews its investments in other entities to determine whether the Company is the primary beneficiary of a variable interest entity ("VIE"). The Company would be the primary beneficiary of the VIE, and would be required to consolidate the VIE, if it has the power to direct the significant activities of the entity and the obligation to absorb losses or receive benefits from the entity that may be significant to the VIE. Based on the Company's analysis, it determined it is not the primary beneficiary of any VIEs; however, future events may require VIEs to be consolidated if the Company becomes the primary beneficiary.

Use of Estimates

The consolidated financial statements of Edwards Lifesciences have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") which have been applied consistently in all material respects. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results could differ from those estimates.

Foreign Currency Translation

When the local currency of the Company's foreign entities is the functional currency, all assets and liabilities are translated into United States dollars at the rate of exchange in effect at the balance sheet date. Income and expense items are translated at the weighted-average exchange rate prevailing during the period. The effects of foreign currency translation adjustments for these entities are deferred and reported in stockholders' equity as a component of "*Accumulated Other Comprehensive Loss*." The effects of foreign currency transactions denominated in a currency other than an entity's functional currency are included in "*Other Expense, net.*"

Revenue Recognition

The Company recognizes revenue when it is realized or realizable and earned. Revenue is considered realized or realizable and earned upon delivery of the product, provided that an agreement of sale exists, the sales price is fixed or determinable, and collection is reasonably assured. In the case of certain products where the Company maintains consigned inventory at customer locations, revenue is recognized at the time the customer uses the inventory.

The Company's principal sales terms provide for title and risk of loss transferring upon delivery to the customer, limited right of return, and no unusual provisions or conditions. When the Company recognizes revenue from the sale of its products, an estimate of various sales returns and allowances is recorded which reduces product sales and accounts receivable. These adjustments include estimates for rebates, returns, and other sales allowances. These provisions are estimated and recorded at the time of sale based upon historical payment experience, historical relationship to revenues, estimated customer inventory levels, and current contract sales terms with direct and indirect customers. Other than in limited circumstances, product returns are not significant because returns are generally not allowed unless the product is damaged at time of receipt. In addition, the Company may allow customers to return previously purchased products for next-generation product offerings. For these transactions, the Company defers recognition of revenue on the sale of the earlier generation product based upon an estimate of the amount of product to be returned when the next-generation products are shipped to the customer.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

The Company's sales adjustment related to distributor rebates given to the Company's United States distributors represents the difference between the Company's sales price to the distributor (at the Company's distributor "list price") and the negotiated price to be paid by the end-customer. This distributor rebate is recorded by the Company as a reduction to sales and a reduction to the distributor's accounts receivable at the time of sale to a distributor. The Company validates the distributor rebate accrual quarterly through either a review of the inventory reports obtained from its distributors or an estimate of its distributor's inventory. This distributor inventory information is used to verify the estimated liability for future distributor rebate claims based on historical rebates and contract rates. The Company periodically monitors current pricing trends and distributor inventory levels to ensure the credit for future distributor rebates is fairly stated.

The Company also offers volume rebates to certain group purchasing organizations ("GPOs") and customers based upon target sales levels. For volume rebates offered to GPOs, the rebates are recorded as a reduction to sales and an obligation to the GPOs, as the Company expects to pay in cash. For volume rebates offered to customers, the rebates are recorded as a reduction to sales and accounts receivable, as the Company expects a net payment from the customer. The provision for volume rebates is estimated based on customers' contracted rebate programs and historical experience of rebates paid. The Company periodically monitors its customer rebate programs to ensure that the allowance and liability for accrued rebates is fairly stated.

Shipping and Handling Costs

Shipping costs, which are costs incurred to physically move product from the Company's premises or third party distribution centers, including storage, to the customer's premises, are included in " *Selling, General, and Administrative Expenses*." Handling costs, which are costs incurred to store at the Company's premises, move, and prepare products for shipment, are included in " *Cost of Sales*." For the years ended December 31, 2017, 2016, and 2015, shipping costs of \$72.6 million, \$64.1 million, and \$58.8 million, respectively, were included in " *Selling, General, and Administrative Expenses*."

Cash Equivalents

The Company considers highly liquid investments with original maturities of three months or less to be cash equivalents. These investments are valued at cost, which approximates fair value.

Investments

The Company invests its excess cash in fixed-rate debt securities, including time deposits, commercial paper, U.S. government and agency securities, assetbacked securities, corporate debt securities, and municipal debt securities. Investments with maturities of one year or less are classified as short-term, and investments with maturities greater than one year are classified as long-term. Investments that the Company has the ability and intent to hold until maturity are classified as held-to-maturity and carried at amortized cost. Investments that are classified as available-for-sale are carried at fair value with unrealized gains and losses included in "*Accumulated Other Comprehensive Loss*." The Company determines the appropriate classification of its investments in fixed-rate debt securities at the time of purchase and reevaluates such designation at each balance sheet date.

The Company also has long-term equity investments in companies that are in various stages of development. These investments are designated as availablefor-sale. Other investments in unconsolidated affiliates are accounted for under the cost or the equity method of accounting, as appropriate. The Company accounts for investments in limited partnerships or limited liability corporations, whereby the Company owns a minimum of 5% of the investee's outstanding voting stock, under the equity method of accounting. These investments are recorded at the amount of the Company's investment and adjusted each period for the Company's share of the investee's income or loss, and dividends paid. As investments accounted for under the cost method do not have readily determinable fair values, the Company only estimates fair value if there are identified events or changes in circumstances that could have a significant adverse effect on the investment's fair value.

Realized gains and losses on investments that are sold are determined using the specific identification method, or the first-in, first-out method, depending on the investment type, and recorded to " *Other Expense, net* ." Income relating to investments in fixed-rate debt securities is recorded to " *Interest Income.* "



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

The Company periodically reviews its investments for impairment. When the fair value of an investment declines below cost, management uses the following criteria to determine if such a decline should be considered other-than-temporary and result in a recognized loss:

- the duration and extent to which the market value has been less than cost;
- the financial condition and near term prospects of the investee/issuer;
- the reasons for the decline in market value;
- the Company's ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value; and
- the investee's performance against product development milestones.

Allowance for Doubtful Accounts

The Company records allowances for doubtful accounts based on customer-specific analysis and general matters such as current assessments of past due balances and economic conditions. When evaluating its allowances for doubtful accounts related to receivables from customers in certain European countries that have historically paid beyond the stated terms, the Company's analysis considers a number of factors including evidence of the customer's ability to comply with credit terms, economic conditions, and procedures implemented by the Company to collect the historical receivables. Additional allowances for doubtful accounts may be required if there is deterioration in past due balances, if economic conditions are less favorable than the Company has anticipated, or for customer-specific circumstances, such as financial difficulty. The allowance for doubtful accounts related to both short-term and long-term receivables was \$13.7 million and \$12.8 million at December 31, 2017 and 2016, respectively.

Inventories

Inventories are stated at the lower of cost (first-in, first-out method) or market value. Market value for raw materials is based on replacement costs, and for other inventory classifications is based on net realizable value.

A write-down for excess or slow moving inventory is recorded for inventory which is obsolete, nearing its expiration date (generally triggered at six months prior to expiration), is damaged, or slow moving (generally defined as quantities in excess of a two -year supply). The allowance for excess and slow moving inventory was \$27.6 million and \$29.1 million at December 31, 2017 and 2016, respectively.

The Company allocates to inventory general and administrative costs that are related to the production process. These costs include insurance, manufacturing accounting personnel, human resources personnel, and information technology. During the years ended December 31, 2017, 2016, and 2015, the Company allocated \$39.3 million, \$37.2 million, and \$30.6 million, respectively, of general and administrative costs to inventory. General and administrative costs included in inventory at December 31, 2017 and 2016 were \$16.0 million and \$13.0 million, respectively.

At December 31, 2017 and 2016, \$88.4 million and \$64.2 million, respectively, of the Company's finished goods inventories were held on consignment.

Property, Plant, and Equipment

Property, plant, and equipment are recorded at cost. Depreciation is principally calculated for financial reporting purposes on the straight-line method over the estimated useful lives of the related assets, which range from 10 to 40 years for buildings and improvements, from 3 to 15 years for machinery and equipment, and from 3 to 7 years for software. Leasehold improvements are amortized over the life of the related facility leases or the asset, whichever is shorter. Straight-line and accelerated methods of depreciation are used for income tax purposes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Depreciation expense for property, plant, and equipment was \$74.1 million, \$63.6 million, and \$58.7 million for the years ended December 31, 2017, 2016, and 2015, respectively.

Impairment of Goodwill and Long-lived Assets

Goodwill is reviewed for impairment annually in the fourth quarter of each fiscal year or whenever an event occurs or circumstances change that would indicate that the carrying amount may be impaired. The Company identifies its reporting units and determines the carrying value of each reporting unit by assigning the assets and liabilities, including existing goodwill, to those reporting units. The fair value of the reporting unit is estimated based on the Company's market capitalization and a market revenue multiple. If the carrying value of the reporting unit exceeds its estimated fair value, then the Company measures the amount of the impairment loss by comparing the implied fair value of goodwill to its carrying value. In 2017, 2016, and 2015, the Company did not record any impairment loss as the fair value of each reporting unit significantly exceeded its respective carrying value.

Indefinite-lived intangible assets relate to in-process research and development ("IPR&D") acquired in business combinations. The estimated fair values of IPR&D projects acquired in a business combination which have not reached technological feasibility are capitalized and accounted for as indefinite-lived intangible assets subject to impairment testing until completion or abandonment of the projects. Upon successful completion of the project, the capitalized amount is amortized over its estimated useful life. If the project is abandoned, all remaining capitalized amounts are written off immediately. Indefinite-lived intangible assets are reviewed for impairment annually, or whenever an event occurs or circumstances change that would indicate the carrying amount may be impaired. An impairment loss is recognized when the asset's carrying value exceeds its fair value. IPR&D projects acquired in an asset acquisition are expensed unless the project has an alternative future use. In 2017, 2016, and 2015, the Company did not record any impairment loss related to its IPR&D assets.

Management reviews the carrying amounts of other finite-lived intangible assets and long-lived tangible assets whenever events or circumstances indicate that the carrying amounts of an asset may not be recoverable. Impairment indicators include, among other conditions, cash flow deficits, historic or anticipated declines in revenue or operating profit, and adverse legal or regulatory developments. If it is determined that such indicators are present and the review indicates that the assets will not be fully recoverable, based on undiscounted estimated cash flows over the remaining amortization periods, their carrying values are reduced to estimated fair market value. Estimated fair market value is determined primarily using the anticipated cash flows discounted at a rate commensurate with the risk involved. For the purposes of identifying and measuring impairment, long-lived assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities.

Income Taxes

Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. The Company evaluates quarterly the realizability of its deferred tax assets by assessing its valuation allowance and adjusting the amount, if necessary. The factors used to assess the likelihood of realization are both historical experience and the Company's forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. Failure to achieve forecasted taxable income in the applicable taxing jurisdictions could affect the ultimate realization of deferred tax assets and could result in an increase in the Company's effective tax rate on future earnings.

Due to the complexity of the new provisions of Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act, the Company is still evaluating whether it will recognize the U.S. tax effects of global intangible low-taxed income ("GILTI") as a component of income tax expense in the period the tax arises (the "period cost method") or account for GILTI in the measurement of deferred taxes (the "deferred method"). The Company has not yet elected a method and will only do so after its completion of the analysis of the GILTI provisions.

The Company is subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating the Company's uncertain tax positions and determining its provision for income taxes. The Company recognizes the financial statement benefit of a tax position only after determining that a position would more likely than not be

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

sustained based upon its technical merit if challenged by the relevant taxing authority and taken by management to the court of last resort. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the consolidated financial statements is the largest benefit that has a greater than 50% likelihood of being realized upon settlement with the relevant tax authority. The Company recognizes interest and penalties related to income tax matters in income tax expense.

Research and Development Costs

Research and development costs are charged to expense when incurred.

Earnings per Share

Basic earnings per share is computed by dividing net income by the weighted-average common shares outstanding during a period. Diluted earnings per share is computed based on the weighted-average common shares outstanding plus the effect of dilutive potential common shares outstanding during the period calculated using the treasury stock method. Dilutive potential common shares include employee equity share options, nonvested shares, and similar equity instruments granted by the Company. Potential common share equivalents have been excluded where their inclusion would be anti-dilutive.

The table below presents the computation of basic and diluted earnings per share (in millions, except for per share information):

		Years I	Ended December 3	1,	
	2017		2016		2015
Basic:					
Net income	\$ 583.6	\$	569.5	\$	494.9
Weighted-average shares outstanding	 210.9		213.0		215.5
Basic earnings per share	\$ 2.77	\$	2.67	\$	2.30
Diluted:					
Net income	\$ 583.6	\$	569.5	\$	494.9
Weighted-average shares outstanding	 210.9		213.0		215.5
Dilutive effect of stock plans	5.0		4.8		4.8
Dilutive weighted-average shares outstanding	 215.9		217.8		220.3
Diluted earnings per share	\$ 2.70	\$	2.61	\$	2.25

Stock options, restricted stock units, and market-based restricted stock units to purchase approximately 1.9 million, 0.9 million, and 1.4 million shares for the years ended December 31, 2017, 2016, and 2015, respectively, were outstanding, but were not included in the computation of diluted earnings per share because the effect would have been anti-dilutive.

Stock-based Compensation

The Company measures and recognizes compensation expense for all stock-based awards based on estimated fair values. Stock-based awards consist of stock options, restricted stock units (service-based, market-based, and performance-based), and employee stock purchase subscriptions. Stock-based compensation expense is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period (vesting period) on a straight-line basis. For performance-based restricted stock units, the Company recognizes stock-based compensation expense if and when the Company concludes that it is probable that the performance condition will be achieved, net of estimated forfeitures. The Company reassesses the probability of vesting at each quarter end and adjusts the stock-based compensation expense based on its probability assessment. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Upon exercise of stock options or vesting of restricted stock units, the Company issues common stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Total stock-based compensation expense was as follows (in millions):

	 Years Ended December 31,										
	2017		2016		2015						
Cost of sales	\$ 9.2	\$	8.4	\$	6.8						
Selling, general, and administrative expenses	40.7		38.0		34.3						
Research and development expenses	11.7		10.5		8.8						
Total stock-based compensation expense	\$ 61.6	\$	56.9	\$	49.9						

Upon retirement, all unvested stock options and performance-based restricted stock units are immediately forfeited. In addition, upon retirement, a participant will immediately vest in 25% of service-based restricted stock units for each full year of employment with the Company measured from the grant date. All remaining unvested service-based restricted stock units are immediately forfeited. For market-based restricted stock units, upon retirement and in certain other specified cases, a participant will receive a pro-rated portion of the shares that would ultimately be issued based on attainment of the performance goals as determined on the vesting date. The pro-rated portion is based on the participant's whole months of service with the Company during the performance period prior to the date of termination.

Derivatives

The Company uses derivative financial instruments to manage interest rate and foreign currency risks. It is the Company's policy not to enter into derivative financial instruments for speculative purposes.

Derivative financial instruments involve credit risk in the event the counterparty should default. It is the Company's policy to execute such instruments with global financial institutions that the Company believes to be creditworthy. The Company diversifies its derivative financial instruments among counterparties to minimize exposure to any one of these entities. The Company also uses International Swap Dealers Association master-netting agreements. The master-netting agreements provide for the net settlement of all contracts through a single payment in a single currency in the event of default, as defined by the agreements.

The Company uses interest rate swaps to convert a portion of its fixed-rate debt into variable-rate debt. These interest rate swaps are designated as fair value hedges and meet the shortcut method requirements under the accounting standards for derivatives and hedging. Accordingly, changes in the fair values of the interest rate swaps are considered to exactly offset changes in the fair value of the underlying long-term debt.

The Company uses foreign currency forward exchange contracts to manage foreign currency risks. These contracts are denominated in currencies of major industrial countries, principally the Euro and the Japanese yen. The Company uses foreign currency forward exchange contracts to offset the changes due to currency rate movements in the amount of future cash flows associated with intercompany transactions and certain local currency expenses expected to occur within the next 13 months. These foreign currency forward exchange contracts are designated as cash flow hedges. The Company also uses foreign currency forward exchange contracts are designated as cash flow hedges. The Company also uses foreign currency forward exchange in foreign currency exchange rates. These foreign currency forward exchange contracts are designated as net investment in certain foreign subsidiaries resulting from changes in foreign currency exchange rates. These foreign currency forward exchange contracts are designated as net investment hedges. Certain of the Company's locations have assets and liabilities denominated in currencies other than their functional currencies resulting principally from intercompany and local currency transactions. The Company uses foreign currency forward exchange contracts that are not designated as hedging instruments to offset the transaction gains and losses associated with certain of these assets and liabilities.

All derivative financial instruments are recognized at fair value in the consolidated balance sheets. For each derivative instrument that is designated and effective as a fair value hedge, the gain or loss on the derivative is recognized immediately to earnings, and offsets the loss or gain on the underlying hedged item. The gain or loss on fair value hedges is classified in net interest expense, as they hedge the interest rate risk associated with the Company's fixed-rate debt. The Company reports in "*Accumulated Other Comprehensive Loss* " the effective portion of the gain or loss on derivative financial instruments that are designated, and that qualify, as cash flow hedges. The Company reclassifies these gains and losses into earnings in the same period in which the underlying hedged transactions affect earnings. The effective portions of net investment hedges are reported

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

in "*Accumulated Other Comprehensive Loss*" as a part of the cumulative translation adjustment, and would be reclassified into earnings if the underlying net investment is sold or substantially liquidated. The ineffective portions of cash flow hedges and net investment hedges, if applicable, are recorded in current period earnings. During 2017, 2016, and 2015, the Company did not record any gains or losses due to hedge ineffectiveness. The gains and losses on derivative financial instruments for which the Company does not elect hedge accounting treatment are recognized in the consolidated statements of operations in each period based upon the change in the fair value of the derivative financial instrument. Cash flows from net investment hedges are reported as investing activities in the consolidated statements of cash flows, and cash flows from all other derivative financial instruments are reported as operating activities.

Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board ("FASB") issued an amendment to the guidance on stock compensation. The amendment simplified several aspects of the accounting for share-based payment award transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance was effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The Company adopted this standard effective January 1, 2017. The impact of the standard was as follows:

- the Company recorded excess tax benefits of \$53.4 million as a reduction to the provision for income taxes for the year ended December 31, 2017.
 Previously, this amount would have been recorded to additional paid-in capital;
- the new standard eliminates the requirement that excess tax benefits be realized through a reduction in income taxes payable before a company can
 recognize them. As a result, on January 1, 2017, the Company recorded, on a modified-retrospective basis, a cumulative-effect adjustment of \$9.3
 million in retained earnings for excess tax benefits not previously recognized;
- in the diluted earnings per share calculation, when applying the treasury stock method for shares that could be repurchased, the assumed proceeds no longer include the amount of excess tax benefit. This did not have a material impact on the Company's diluted net earnings per share calculation;
- the new standard requires that excess tax benefits be reported as operating activities in the consolidated statements of cash flows. Previously, these cash flows were included in financing activities. The Company elected to apply this change on a prospective basis;
- the new standard requires that employee taxes paid when an employer withholds shares for tax-withholding purposes be reported as financing activities in the consolidated statements of cash flows. This had no impact since the Company has historically presented these amounts as a financing activity; and
- the Company elected not to change its policy on accounting for forfeitures, and continued to estimate forfeitures expected to occur to determine the
 amount of compensation cost to be recognized each period.

In January 2017, the FASB issued an amendment to the guidance on intangible assets. The amendment simplified how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount. Instead, under this amendment, an entity performs its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The guidance was effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption was permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this guidance did not impact the Company's consolidated financial statements.

New Accounting Standards Not Yet Adopted

In February 2018, the FASB issued an amendment to the guidance on comprehensive income. The amendment permits a company to reclassify the income tax effects of the Tax Cuts and Jobs Act ("the 2017 Act") on items within accumulated other comprehensive income to retained earnings. The amendment also requires certain new disclosures about these stranded tax

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

effects. The guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted for reporting periods for which financial statements have not yet been issued. The new guidance can be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the 2017 Act is recognized. The Company is currently evaluating the impact this guidance will have on its consolidated financial statements.

In August 2017, the FASB issued an amendment to the guidance on derivatives and hedging. The amendment expands

and refines hedge accounting for both nonfinancial and financial risk components and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. The guidance eliminates the requirement to separately measure and report hedge ineffectiveness and generally requires the entire change in the fair value of a hedging instrument to be presented in the same income statement line as the hedged item. The guidance also eases certain documentation and assessment requirements and modifies the accounting for components excluded from the assessment of hedge effectiveness. The guidance is effective for periods beginning after December 15, 2018, including interim periods within those annual periods. Early adoption is permitted in any interim or annual period. The Company does not expect the adoption of this guidance will have a material impact on its consolidated financial statements.

In March 2017, the FASB issued an amendment on the guidance on retirement benefits. The amendment requires that an employer disaggregate the service cost component from the other components of net benefit cost. The amendment also provides explicit guidance on how to present the service cost component and the other components of net benefit cost in the income statement and allows only the service cost component of net benefit cost to be eligible for capitalization. The guidance is effective for periods beginning after December 15, 2017, including interim periods within those annual periods. The guidance related to the presentation of the service cost component of net benefit cost in the income statement must be applied retrospectively, and the guidance related to the capitalization of the service cost component of net benefit cost must be applied prospectively. The Company does not expect the adoption of this guidance will have a material impact on its consolidated financial statements.

In January 2017, the FASB issued an amendment to the guidance on business combinations. The amendment clarifies the definition of a business and provides a screen to determine when an integrated set of assets and activities is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. The guidance is effective for annual periods beginning after December 15, 2017, including interim periods within those periods.

In October 2016, the FASB issued an amendment to the guidance on income taxes. The amendment eliminates the deferral of the tax effects of intra-entity asset transfers other than inventory. As a result, the income tax consequences from the intra-entity transfer of an asset other than inventory and associated changes to deferred taxes will be recognized when the transfer occurs. The guidance is effective for annual reporting periods beginning after December 15, 2017, including interim

reporting periods within those annual reporting periods. The Company will adopt this new standard using the modified retrospective method. Based on currently enacted tax rates, upon adoption, the Company anticipates that \$49.1 million will be reclassified from long-term taxes payable to deferred tax liabilities.

In August 2016, the FASB issued an amendment to the guidance on the statement of cash flows. The standard addresses eight specific cash flow issues, and is intended to reduce the diversity in practice around how certain transactions are classified within the statement of cash flows. The guidance is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years with early adoption permitted. This guidance will impact how the Company classifies contingent consideration payments made after a business combination. Contingent consideration payments that are not made soon after the acquisition date will be classified as a financing activity up to the amount of the contingent consideration liability recognized at the acquisition date, with any excess classified as an operating activity. The Company does not expect the adoption of the other provisions of this guidance will have a material impact on its consolidated financial statements.

In February 2016, the FASB issued an amendment to the guidance on leases. The amendment improves transparency and comparability among companies by recognizing lease assets and lease liabilities on the balance sheet and by disclosing key information about leasing arrangements. The guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is currently evaluating the impact this guidance will have on its consolidated financial statements, but currently believes the adoption of this guidance will have a material impact to its

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

consolidated balance sheet due to the recognition of new right-of-use assets and lease liabilities, particularly related to its real estate leases. The Company is unable to quantify the impact at this time as the ultimate impact of adopting this new guidance will depend on the total amount of our lease commitments as of the adoption date.

In May 2014, the FASB issued an update to the accounting guidance on revenue recognition. The new guidance provides a comprehensive, principles-based approach to revenue recognition, and supersedes most previous revenue recognition guidance. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires improved disclosures on the nature, amount, timing, and uncertainty of revenue that is recognized. In August 2015, the FASB issued an update to the guidance to defer the effective date by one year, such that the new standard will be effective for annual reporting periods beginning after December 15, 2017 and interim periods therein. The new guidance can be applied retrospectively to each prior reporting period presented, or retrospectively with the cumulative effect of the change recognized at the date of the initial application. The Company will apply the new guidance effective January 1, 2018 using the modified retrospective method to contracts that are not completed as of January 1, 2018. In the fourth quarter of 2017, the Company completed its assessment of the new guidance and the adoption of this guidance, including the cumulative effect of any adjustment to the opening balance of retained earnings, will not have a material impact to its consolidated financial statements.

3. INTELLECTUAL PROPERTY LITIGATION (INCOME) EXPENSES, NET

In November 2017, the Company recorded a \$112.5 million litigation gain related to the theft of trade secrets. The Company incurred external legal costs related to intellectual property litigation of \$39.2 million , \$32.6 million and \$7.0 million during 2017 , 2016 and 2015 , respectively.

4. SPECIAL CHARGES

Charitable Foundation Contribution

In December 2017, the Company contributed \$25.0 million to the Edwards Lifesciences Foundation, a related-party not-for-profit organization whose mission is to support health- and community-focused charitable organizations. The contribution was irrevocable and was recorded as an expense at the time of payment.

Gain on Step Acquisition

In December 2017, the Company acquired Harpoon Medical, Inc. As a result of the acquisition, the Company remeasured at fair value its previously held ownership in Harpoon Medical, Inc. and recognized a gain of \$6.5 million . See Note 7 for further information.

Realignment Expenses

In September 2017, the Company recorded a \$10.2 million charge related primarily to severance expenses (impacting 232 employees) and other costs associated with the planned closure of its manufacturing plant in Switzerland. As of December 31, 2017, the Company's remaining severance obligations of \$9.6 million are expected to be substantially paid by September 30, 2018.

Impairment of Long-lived Assets

In June 2017, the Company recorded a \$31.2 million charge related to the other-than-temporary impairment of one of its cost method investments and an associated long-term asset related to the Company's option to acquire this investee. The Company concluded that the impairment of these assets was other-than-temporary based upon a recent review of the investee's clinical data and trial results, which did not support continuation of the product development effort, and the financial condition and near-term prospects of the investee.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. SPECIAL CHARGES (Continued)

Acquisition of IPR&D

In May 2016, the Company entered into two separate agreements to acquire technologies for use in its transcatheter heart valve programs. In connection with these agreements, the Company recorded an IPR&D charge totaling \$34.5 million. The acquired technologies are in the early stages of development and have no alternative uses. Additional design developments, bench testing, pre-clinical studies, and human clinical studies must be successfully completed prior to selling any product using these technologies.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. COMPOSITION OF CERTAIN FINANCIAL STATEMENT CAPTIONS

Components of selected captions in the consolidated balance sheets are as follows:

	As of December 31,				
	2017	2016			
	 (in millions))			
Accounts receivable, net					
Trade accounts receivable	\$ 430.1 \$	374.5			
Allowance for doubtful accounts	 (8.5)	(9.0)			
	\$ 421.6 \$	365.5			
Inventories					
Raw materials	\$ 101.4 \$	60.6			
Work in process	121.1	102.4			
Finished products	332.4	233.6			
	\$ 554.9 \$	396.6			
Property, plant, and equipment, net	 				
Land	\$ 39.1 \$	30.1			
Buildings and leasehold improvements	436.8	367.2			
Machinery and equipment	393.4	346.5			
Equipment with customers	41.0	37.4			
Software	93.4	100.6			
Construction in progress	88.2	79.6			
	1,091.9	961.4			
Accumulated depreciation	(412.2)	(381.4)			
	\$ 679.7 \$	580.0			
Accrued and other liabilities	 				
Employee compensation and withholdings	\$ 249.4 \$	216.1			
Taxes payable	97.8	5.9			
Accrued rebates	53.9	36.1			
Property, payroll, and other taxes	41.9	35.3			
Research and development accruals	39.2	40.0			
Fair value of derivatives	24.8	3.3			
Litigation and insurance reserves (Note 17)	15.0	14.6			
Accrued marketing expenses	14.9	12.6			
Accrued professional services	8.5	4.0			
Accrued realignment reserves	8.2	0.1			
Accrued relocation costs	8.7	7.0			
Other accrued liabilities	74.3	60.4			
	\$ 636.6 \$	435.4			

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. INVESTMENTS

Debt Securities

Investments in debt securities at the end of each period were as follows (in millions):

			Decemb	, 2017		December 31, 2016										
<u>Held-to-maturity</u>		Cost	l	Gross Unrealized Gains	I	Gross Unrealized Losses	Fa	nir Value		Cost		Gross Unrealized Gains	I	Gross Unrealized Losses	Fa	ir Value
Bank time deposits	\$	382.9	\$		\$	_	\$	382.9	\$	217.0	\$	_	\$		\$	217.0
Commercial paper		1.4		_		_		1.4		_						_
U.S. government and agency securities		3.9						3.9		16.1				(0.1)		16.0
Asset-backed securities						_				0.3						0.3
Corporate debt securities		_		—		_		_		3.0		_		_		3.0
Municipal securities				_		_		_		1.9		—		—		1.9
	\$	388.2	\$	_	\$	_	\$	388.2	\$	238.3	\$		\$	(0.1)	\$	238.2
	_											;	_			;
Available-for-sale																
Bank time deposits	\$	0.5	\$	_	\$	_	\$	0.5	\$		\$		\$		\$	
Commercial paper		40.3		—		—		40.3		35.4		—		—		35.4
U.S. government and agency securities		69.4				(0.7)		68.7		143.4				(0.7)		142.7
Foreign government bonds		3.0		—		_		3.0						_		
Asset-backed securities		121.2		—		(0.4)		120.8		86.0				(0.2)		85.8
Corporate debt securities		446.5		0.8		(1.8)		445.5		333.6		0.4		(1.5)		332.5
Municipal securities		4.4		_		_		4.4		4.6		_		(0.1)		4.5
	\$	685.3	\$	0.8	\$	(2.9)	\$	683.2	\$	603.0	\$	0.4	\$	(2.5)	\$	600.9

The cost and fair value of investments in debt securities, by contractual maturity, as of December 31, 2017 were as follows:

	 Held-to-Maturity				Available-for-Sale				
	Cost		Fair Value		Cost		Fair Value		
			(in mi	llions)					
Due in 1 year or less	\$ 384.4	\$	384.4	\$	134.8	\$	134.8		
Due after 1 year through 5 years					436.1		434.4		
Instruments not due at a single maturity date	3.8		3.8		114.4		114.0		
	\$ 388.2	\$	388.2	\$	685.3	\$	683.2		

Actual maturities may differ from the contractual maturities due to call or prepayment rights.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. INVESTMENTS (Continued)

The following tables present gross unrealized losses and fair values for those investments that were in an unrealized loss position as of December 31, 2017 and 2016, aggregated by investment category and the length of time that individual securities have been in a continuous loss position (in millions):

						As of Decer	nber	31, 2017						
	Less than 12 Months				12 Months or Greater					Total				
	Fa	ir Value	U	Gross nrealized Losses	Gross Unrealized Fair Value Losses		nrealized	Fair Value			Gross nrealized Losses			
Commercial paper	\$	2.4	\$		\$	_	\$		\$	2.4	\$	_		
U.S. government and agency														
securities		31.5		(0.2)		37.1		(0.5)		68.6		(0.7)		
Foreign government bonds		3.0		—		—		—		3.0		—		
Asset-backed securities		90.8		(0.3)		23.2		(0.1)		114.0		(0.4)		
Corporate debt securities		253.3		(1.2)		59.2		(0.6)		312.5		(1.8)		
Municipal securities		4.3		—		—		—		4.3		—		
	\$	385.3	\$	(1.7)	\$	119.5	\$	(1.2)	\$	504.8	\$	(2.9)		

	As of December 31, 2016													
		Less than	12 M	onths	12 Months or Greater					Total				
	Fa	ir Value	Uı	Gross nrealized Losses	Gross Unrealized Fair Value Losses		Fa	ir Value	Un	Gross realized Losses				
U.S. government and agency securities	\$	127.5	\$	(0.7)	\$		\$	_	\$	127.5	\$	(0.7)		
Foreign government bonds				—				—		—		—		
Asset-backed securities		50.1		(0.2)		1.2		—		51.3		(0.2)		
Corporate debt securities		204.5		(1.5)		11.9		_		216.4		(1.5)		
Municipal securities		4.5		(0.1)				_		4.5		(0.1)		
	\$	386.6	\$	(2.5)	\$	13.1	\$	_	\$	399.7	\$	(2.5)		

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. INVESTMENTS (Continued)

Investments in Unconsolidated Affiliates

The Company has a number of equity investments in privately and publicly held companies. Investments in these unconsolidated affiliates are recorded in " Long-term Investments" on the consolidated balance sheets, and are as follows:

	Dece	mber 31,
	2017	2016
	(in r	nillions)
Available-for-sale investments		
Cost	\$	\$
Unrealized gains	_	0.1
Fair value of available-for-sale investments		0.1
Equity method investments		
Cost	9.2	9.5
Equity in losses	(5.1)	(3.9)
Carrying value of equity method investments	4.1	5.6
Cost method investments		
Carrying value of cost method investments	10.7	28.2
Total investments in unconsolidated affiliates	\$ 14.8	\$ 33.9

See Note 4 for information regarding the Company's impairment of one of its cost method investments. In addition, the Company exercised its option to acquire Harpoon Medical, Inc., one of its cost method investees. See Note 7 for further information.

During 2017, 2016, and 2015, the gross realized gains or losses from sales of available-for-sale investments were not material.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. ACQUISITIONS

Harpoon Medical, Inc.

On December 1, 2017, the Company acquired all the outstanding shares of Harpoon Medical, Inc. for an aggregate cash purchase price of \$119.5 million , which includes \$16.0 million paid previously for a cost method investment and an exclusive option to acquire Harpoon Medical, Inc., and is net of \$8.0 million received from the sale of the Company's previous ownership interest. The Company remeasured its previously held ownership in Harpoon Medical, Inc., which had a carrying value at the date of acquisition of \$1.5 million and represented approximately 6% of the fully-diluted outstanding shares of Harpoon Medical, Inc., and recognized a gain of \$6.5 million in "*Special Charges, net*." In addition, the Company agreed to pay up to an additional \$150.0 million in pre-specified milestone-driven payments over the next 10 years. The Company recognized in "*Contingent Consideration Liabilities*" a \$59.7 million liability for the estimated fair value of the contingent milestone payments will be remeasured each quarter, with changes in the fair value recognized within operating expenses on the consolidated statements of operations. For further information on the fair value of the contingent milestone payments, see Note 10.

In connection with the acquisition, the Company placed \$10.0 million of the purchase price into escrow to satisfy any claims for indemnification made in accordance with the merger agreement. Any funds remaining 12 months after the acquisition date will be disbursed to Harpoon Medical, Inc.'s former shareholders. Acquisition-related costs of \$0.4 million were recorded in "*Selling, General, and Administrative Expenses*" during the year ended December 31, 2017.

Harpoon Medical, Inc. is a medical technology company pioneering beating-heart repair for degenerative mitral regurgitation. The Company plans to add this technology to its portfolio of mitral and tricuspid repair products. The acquisition was accounted for as a business combination. Tangible and intangible assets acquired were recorded based on their estimated fair values at the acquisition date. The excess of the purchase price over the fair value of net assets acquired was recorded to goodwill. The following table summarizes the fair values of the assets acquired and liabilities assumed (in millions):

Current assets	\$ 3.6
Property and equipment, net	0.3
Goodwill	142.1
IPR&D	53.1
Other assets	0.1
Current liabilities assumed	(0.8)
Deferred income taxes	(12.7)
Total purchase price	 185.7
Less: cash acquired	(3.5)
Total purchase price, net of cash acquired	\$ 182.2

Goodwill includes expected synergies and other benefits the Company believes will result from the acquisition. Goodwill was assigned to the Company's United States segment and is not deductible for tax purposes. IPR&D has been capitalized at fair value as an intangible asset with an indefinite life and will be assessed for impairment in subsequent periods. The fair value of the IPR&D was determined using the income approach. This approach determines fair value based on cash flow projections which are discounted to present value using a risk-adjusted rate of return. The discount rates used to determine the fair value of the IPR&D ranged from 18.0% to 19.0%. Completion of successful design developments, bench testing, pre-clinical studies and human clinical studies are required prior to selling any product. The risks and uncertainties associated with completing development within a reasonable period of time include those related to the design, development, and manufacturability of the product, the success of pre-clinical and clinical studies, and the timing of regulatory approvals. The valuation assumed \$41.4 million of additional research and development expenditures would be incurred prior to the date of product introduction. In the valuation, net cash inflows were modeled to commence in Europe in 2018, and in the United States and Japan in 2022. Upon completion of development, the underlying research and development asset will be amortized over its estimated useful life.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. ACQUISITIONS (Continued)

The results of operations for Harpoon Medical, Inc. have been included in the accompanying consolidated financial statements from the date of acquisition. Pro forma results have not been presented as the results of Harpoon Medical, Inc. are not material in relation to the consolidated financial statements of the Company.

Valtech Cardio Ltd.

On November 26, 2016, the Company entered into an agreement and plan of merger to acquire Valtech Cardio Ltd. ("Valtech") for approximately \$340.0 million, subject to certain adjustments, with the potential for up to an additional \$350.0 million in pre-specified milestone-driven payments over the next 10 years. The transaction closed on January 23, 2017, and the consideration paid included the issuance of approximately 2.8 million shares of the Company's common stock (fair value of \$266.5 million) and cash of \$86.2 million. The Company recognized in "*Contingent Consideration Liabilities*" a \$162.9 million liability for the estimated fair value of the contingent milestone payments. The fair value of the contingent milestone payments will be remeasured each quarter, with changes in the fair value recognized within operating expenses on the consolidated statements of operations. For further information on the fair value of the contingent milestone payments, see Note 10.

In connection with the acquisition, the Company placed \$27.6 million of the purchase price into escrow to satisfy any claims for indemnification made in accordance with the merger agreement. Any funds remaining 15 months after the acquisition date will be disbursed to Valtech's former shareholders. Acquisition-related costs of \$0.6 million and \$4.1 million were recorded in "*Selling, General, and Administrative Expenses*" during the years ended December 31, 2017 and 2016, respectively. Prior to the close of the transaction, Valtech spun off its early-stage transseptal mitral valve replacement technology program. Concurrent with the closing, the Company entered into an agreement for an exclusive option to acquire that program and its associated intellectual property for approximately \$200.0 million , subject to certain adjustments, plus an additional \$50.0 million if a certain European regulatory approval is obtained within 10 years of the acquisition closing date. The option expires two years after the closing date of the transaction, but can be extended by up to one year depending on the results of certain clinical trials.

Valtech is a developer of a transcatheter mitral and tricuspid valve repair system. The Company plans to add this technology to its portfolio of mitral and tricuspid repair products. The acquisition was accounted for as a business combination. Tangible and intangible assets acquired were recorded based on their estimated fair values at the acquisition date. The excess of the purchase price over the fair value of net assets acquired was recorded to goodwill. The following table summarizes the fair values of the assets acquired and liabilities assumed (in millions):

Current assets	\$ 22.7
Property and equipment, net	1.2
Goodwill	316.5
Developed technology	109.2
IPR&D	87.9
Other assets	0.8
Current liabilities assumed	(5.1)
Deferred income taxes	(17.6)
Total purchase price	515.6
Less: cash acquired	(4.3)
Total purchase price, net of cash acquired	\$ 511.3

Goodwill includes expected synergies and other benefits the Company believes will result from the acquisition. Goodwill was assigned to the Company's Rest of World segment and is not deductible for tax purposes. IPR&D has been capitalized at fair value as an intangible asset with an indefinite life and will be assessed for impairment in subsequent periods. The fair value of the IPR&D was determined using the income approach. This approach determines fair value based on cash flow projections which are discounted to present value using a risk-adjusted rate of return. The discount rates used to determine the fair value of the IPR&D ranged from 18.0% to 20.0%. Completion of successful design developments, bench testing, pre-clinical studies

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. ACQUISITIONS (Continued)

and human clinical studies are required prior to selling any product. The risks and uncertainties associated with completing development within a reasonable period of time include those related to the design, development, and manufacturability of the product, the success of pre-clinical and clinical studies, and the timing of regulatory approvals. The valuation assumed \$87.3 million of additional research and development expenditures would be incurred prior to the date of product introduction, and the Company does not currently anticipate significant changes to forecasted research and development expenditures associated with the Valtech program. In the valuation, net cash inflows were modeled to commence in 2019. Upon completion of development, the underlying research and development asset will be amortized over its estimated useful life. Developed technology assets are being amortized over a weighted-average useful life of 11 years.

The results of operations for Valtech have been included in the accompanying consolidated financial statements from the date of acquisition. Pro forma results have not been presented as the results of Valtech are not material in relation to the consolidated financial statements of the Company.

CardiAQ Valve Technologies, Inc.

On July 3, 2015, the Company entered into an agreement and plan of merger to acquire CardiAQ Valve Technologies, Inc. ("CardiAQ") for an aggregate cash purchase price of \$350.0 million, subject to certain adjustments. The transaction closed on August 26, 2015, and the cash purchase price after the adjustments was \$348.0 million. In addition, the Company agreed to pay an additional \$50.0 million if a certain European regulatory approval is obtained within 48 months of the acquisition closing date. The Company recognized in " *Contingent Consideration Liabilities* " a \$30.3 million liability for the estimated fair value of this contingent milestone payment. For further information on the fair value of the contingent milestone payment, see Note 10.

IPR&D acquired as part of this acquisition was capitalized at fair value, which was determined using the income approach. This approach determines fair value based on cash flow projections which are discounted to present value using a risk-adjusted rate of return. Completion of successful design developments, bench testing, pre-clinical studies and human clinical studies are required prior to selling any product. The risks and uncertainties associated with completing development within a reasonable period of time include those related to the design, development, and manufacturability of the product, the success of pre-clinical and clinical studies, and the timing of regulatory approvals. The valuation assumed \$97.7 million of additional research and development expenditures would be incurred prior to the date of product introduction and that net cash inflows would commence in late 2018. As a result of certain design enhancements to increase the product's commercial life and applicability to a broader group of patients, the Company expects an increase to the amount of research and development expenditures that will be incurred prior to the date of product introduction and that net cash inflows will commence in 2020. Upon completion of development, the underlying research and development intangible asset will be amortized over its estimated useful life.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. GOODWILL AND OTHER INTANGIBLE ASSETS

In December 2017, the Company acquired Harpoon Medical, Inc. This transaction resulted in an increase to goodwill of \$142.1 million and IPR&D of \$53.1 million . In January 2017, the Company acquired Valtech. This transaction resulted in an increase to goodwill of \$316.5 million , developed technology of \$109.2 million and IPR&D of \$87.9 million . For further information, see Note 7.

The changes in the carrying amount of goodwill, by segment, during the years ended December 31, 2017 and 2016 were as follows:

	United States	Europe	Rest of World		Total	
		(in m	nillions)			
Goodwill at December 31, 2015	\$ 567.2	\$ 61.1	\$	\$	628.3	
Goodwill acquired during the year			—			
Currency translation adjustment		(2.2)	—		(2.2)	
Goodwill at December 31, 2016	567.2	 58.9			626.1	
Goodwill acquired during the year	142.1	_	316.5		458.6	
Currency translation adjustment		8.3	33.5		41.8	
Goodwill at December 31, 2017	\$ 709.3	\$ 67.2	\$ 350.0	\$	1,126.5	

Other intangible assets consist of the following (in millions):

						Decen	ıber	31,					
				2017				2016					
	Weighted- Average Useful Life (in years)	 Cost		Accumulated Amortization		Net Carrying Value		Cost		Accumulated Amortization		Net Carrying Value	
Amortizable intangible assets													
Patents	7.4	\$ 186.1	\$	(180.4)	\$	5.7	\$	187.6	\$	(177.0)	\$	10.6	
Developed technology	11.5	190.8		(43.8)		147.0		43.0		(39.6)		3.4	
Other	15.9	3.7		(3.7)				9.8		(9.0)		0.8	
	11.4	380.6		(227.9)		152.7		240.4		(225.6)		14.8	
Unamortizable intangible assets													
IPR&D		315.3		_		315.3		190.0				190.0	
		\$ 695.9	\$	(227.9)	\$	468.0	\$	430.4	\$	(225.6)	\$	204.8	

Goodwill and IPR&D resulting from purchase business combinations are not subject to amortization. Other acquired intangible assets with finite lives are amortized over their expected useful lives on a straight-line basis, or if reliably determinable, based on the pattern in which the economic benefit of the asset is expected to be used. The Company expenses costs incurred to renew or extend the term of acquired intangible assets.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. GOODWILL AND OTHER INTANGIBLE ASSETS (Continued)

Amortization expense related to other intangible assets for the years ended December 31, 2017, 2016, and 2015 was \$7.8 million, \$7.6 million, and \$7.1 million, respectively. Estimated amortization expense for each of the years ending December 31 is as follows (in millions):

2018	\$ 4.7
2019	8.0
2020	12.2
2021	20.9
2022	17.5

9. DEBT, CREDIT FACILITIES, AND LEASE OBLIGATIONS

In October 2013, the Company issued \$600.0 million of fixed-rate unsecured senior notes (the "Notes") due October 15, 2018. Interest is payable semiannually in arrears, with payment due in April and October. The Company may redeem the Notes, in whole or in part, at any time and from time to time at specified redemption prices. In addition, upon the occurrence of certain change of control triggering events, the Company may be required to repurchase all or a portion of the Notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest. The Notes also include covenants that limit the Company's ability to incur secured indebtedness, enter into sale and leaseback transactions, and consolidate, merge, or transfer all or substantially all of its assets. The following is a summary of the Notes as of December 31, 2017 and 2016 :

			Decem	ber 3	1,	
		201	7		6	
	A	mount	Effective Interest Rate		Amount	Effective Interest Rate
	(in 1	millions)	(in millions)			
Fixed-rate 2.875% notes	\$	600.0	2.983%	\$	600.0	2.983%
Unamortized discount		(0.5)			(1.2)	
Unamortized debt issuance costs		(0.8)			(1.9)	
Hedge accounting fair value adjustments (see Note 11)		(0.7)			0.4	
Total carrying amount	\$	598.0		\$	597.3	

As of December 31, 2017 and 2016, the fair value of the Notes, based on Level 2 inputs, was \$604.3 million and \$609.6 million, respectively. Issuance costs of \$5.4 million, as well as the issuance discount on the Notes, are being amortized to interest expense over the term of the Notes.

The Company has a Five -Year Credit Agreement ("the Credit Agreement") which matures on July 18, 2019. The Credit Agreement provides up to an aggregate of \$750.0 million in borrowings in multiple currencies. The Company may increase the amount available under the Credit Agreement, subject to agreement of the lenders, by up to an additional \$250.0 million in the aggregate. Borrowings generally bear interest at the London interbank offered rate ("LIBOR") plus a spread ranging from 1.0% to 1.5%, depending on the leverage ratio, as defined in the Credit Agreement. The Company also pays a facility fee ranging from 0.125% to 0.25%, depending on the leverage ratio, on the entire credit commitment available, whether or not drawn. The facility fee is expensed as incurred. During 2017, the spread over LIBOR was 1.0% and the facility fee was 0.125%. Issuance costs of \$3.0 million are being amortized to interest expense over the term of the Credit Agreement. As of December 31, 2017, borrowings of \$438.4 million were outstanding under the Credit Agreement. All amounts outstanding under the Credit Agreement have been classified as long-term obligations in accordance with the terms of the Credit Agreement. The Credit Agreement is unsecured and contains various financial and other covenants, including a maximum leverage ratio and a minimum interest coverage ratio, as defined in the Credit Agreement. The Company was in compliance with all covenants at December 31, 2017.

The weighted-average interest rate under all debt obligations was 2.2% and 3.1% at December 31, 2017 and 2016, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. DEBT, CREDIT FACILITIES AND LEASE OBLIGATIONS (Continued)

Certain facilities and equipment are leased under operating leases expiring at various dates. Most of the operating leases contain renewal options. Total expense for all operating leases was \$27.3 million , \$22.9 million , and \$22.5 million for the years 2017 , 2016 , and 2015 , respectively.

Future minimum lease payments (including interest) under non-cancelable operating leases and aggregate debt maturities at December 31, 2017 were as follows (in millions):

	perating Leases	Aggregate Debt Maturities
2018	\$ 24.0	\$ 600.0
2019	15.8	438.4
2020	10.8	
2021	5.5	_
2022	2.7	
Thereafter	13.5	_
Total obligations and commitments	\$ 72.3	\$ 1,038.4

10. FAIR VALUE MEASUREMENTS

The consolidated financial statements include financial instruments for which the fair market value of such instruments may differ from amounts reflected on a historical cost basis. Financial instruments of the Company consist of cash deposits, accounts and other receivables, investments, accounts payable, certain accrued liabilities, and borrowings under a revolving credit agreement. The carrying value of these financial instruments generally approximates fair value due to their short-term nature. Financial instruments also include long-term notes payable. See Note 9 for further information on the fair value of the Notes.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The Company prioritizes the inputs used to determine fair values in one of the following three categories:

Level 1-Quoted market prices in active markets for identical assets or liabilities.

Level 2-Inputs, other than quoted prices in active markets, that are observable, either directly or indirectly.

Level 3—Unobservable inputs that are not corroborated by market data.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement in its entirety.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. FAIR VALUE MEASUREMENTS (Continued)

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table summarizes the Company's financial instruments which are measured at fair value on a recurring basis as of December 31, 2017 and 2016 (in millions):

December 31, 2017	Level 1	 Level 2	 Level 3	Total
Assets				
Cash equivalents	\$ 52.2	\$ 22.8	\$ 	\$ 75.0
Available-for-sale investments:				
Bank time deposits	—	0.5		0.5
Corporate debt securities		445.5	_	445.5
Asset-backed securities	—	120.8		120.8
U.S. government and agency securities	20.6	48.1	—	68.7
Foreign government bonds	—	3.0		3.0
Commercial paper	_	40.3		40.3
Municipal securities	_	4.4		4.4
Investments held for deferred compensation plans	63.7			63.7
Derivatives	_	4.9		4.9
	\$ 136.5	\$ 690.3	\$ 	\$ 826.8
Liabilities				
Derivatives	\$ _	\$ 24.8	\$ _	\$ 24.8
Deferred compensation plans	64.1	_		64.1
Contingent consideration liabilities		_	244.3	244.3
	\$ 64.1	\$ 24.8	\$ 244.3	\$ 333.2
<u>December 31, 2016</u>				
Assets				
Cash equivalents	\$ 44.1	\$ —	\$ —	\$ 44.1
Available-for-sale investments:				
Corporate debt securities	_	332.5		332.5
Asset-backed securities	—	85.8	_	85.8
U.S. government and agency securities	100.7	42.0		142.7
Commercial paper	—	35.4	—	35.4
Municipal securities	—	4.5	—	4.5
Equity investments in unconsolidated affiliates	0.1	—	—	0.1
Investments held for deferred compensation plans	46.0	—	—	46.0
Derivatives	—	35.2	—	35.2
	\$ 190.9	\$ 535.4	\$ _	\$ 726.3
Liabilities				
Derivatives	\$ 	\$ 3.3	\$ _	\$ 3.3
Deferred compensation plans	46.7	_	_	46.7
Contingent consideration liabilities	 		31.6	31.6
	\$ 46.7	\$ 3.3	\$ 31.6	\$ 81.6

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. FAIR VALUE MEASUREMENTS (Continued)

The following table summarizes the changes in fair value of the contingent consideration obligation for the year ended December 31, 2017 (in millions):

Balance at December 31, 2016	\$ 31.6
Additions	222.6
Changes in fair value	(9.9)
Balance at December 31, 2017	\$ 244.3

Cash Equivalents and Available-for-sale Investments

The Company estimates the fair values of its money market funds based on quoted prices in active markets for identical assets. The Company estimates the fair values of its time deposits, commercial paper, U.S. and foreign government and agency securities, municipal securities, asset-backed securities, and corporate debt securities by taking into consideration valuations obtained from third-party pricing services. The pricing services use industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include reported trades and broker-dealer quotes on the same or similar securities, benchmark yields, credit spreads, prepayment and default projections based on historical data, and other observable inputs. The Company independently reviews and validates the pricing received from the third-party pricing service by comparing the prices to prices reported by a secondary pricing source. The Company's validation procedures have not resulted in an adjustment to the pricing received from the pricing service.

Investments in unconsolidated affiliates are long-term equity investments in companies that are in various stages of development. Certain of the Company's investments in unconsolidated affiliates are designated as available-for-sale. These investments are carried at fair market value based on quoted market prices.

Deferred Compensation Plans

The Company holds investments in trading securities related to its deferred compensation plans. The investments are in a variety of stock, bond, and money market mutual funds. The fair values of these investments and the corresponding liabilities are based on quoted market prices.

Derivative Instruments

The Company uses derivative financial instruments in the form of foreign currency forward exchange contracts and foreign currency option contracts to manage foreign currency exposures, and interest rate swap agreements to manage its interest rate exposures. All derivatives contracts are recognized on the balance sheet at their fair value. The fair value of foreign currency derivative financial instruments was estimated based on quoted market foreign exchange rates and market discount rates. The fair value of the interest rate swap agreements was determined based on a discounted cash flow analysis reflecting the contractual terms of the agreements and the 6 -month LIBOR forward interest rate curve. Judgment was employed in interpreting market data to develop estimates of fair value; accordingly, the estimates presented herein are not necessarily indicative of the amounts that the Company could realize in a current market exchange. The use of different market assumptions or valuation methodologies could have a material effect on the estimated fair value amounts.

Contingent Consideration Liabilities

Certain of the Company's acquisitions involve contingent consideration arrangements. Payment of additional consideration is contingent upon the acquired company reaching certain performance milestones, such as attaining specified revenue levels, achieving product development targets, or obtaining regulatory approvals. These contingent consideration liabilities are measured at estimated fair value using either a probability weighted discounted cash flow analysis or a Monte Carlo simulation model, both of which consider significant unobservable inputs. These inputs include (1) the discount rate used to present value the projected cash flows (ranging from 1.3% to 3.4%), (2) the probability of milestone achievement (ranging from 25.0% to 100.0%), (3) the projected payment dates (ranging from 2018 to 2025), and (4) the volatility of future revenue

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. FAIR VALUE MEASUREMENTS (Continued)

(ranging from 45.0% to 50.0%). The use of different assumptions could have a material effect on the estimated fair value amounts.

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The Company uses derivative financial instruments to manage its currency exchange rate risk and its interest rate risk as summarized below. Notional amounts are stated in United States dollar equivalents at spot exchange rates at the respective dates. The Company does not enter into these arrangements for trading or speculation purposes.

		Notiona	l Amount	
	Decem	ber 31, 2017	Decem	ber 31, 2016
		(in m	illions)	
Foreign currency forward exchange contracts	\$	979.8	\$	949.7
Interest rate swap agreements				300.0

The following table presents the location and fair value amounts of derivative instruments reported in the consolidated balance sheets (in millions):

		Fair Value December 31, 2017 Dece		Value	
	Balance Sheet Location			Decen	nber 31, 2016
Derivatives designated as hedging instruments					
Assets					
Foreign currency contracts	Other current assets	\$	4.9	\$	28.6
Interest rate swap agreements	Other assets	\$	_	\$	0.4
Liabilities					
Foreign currency contracts	Accrued and other liabilities	\$	24.8	\$	3.3
Derivatives not designated as hedging instruments					
Assets					
Foreign currency contracts	Other current assets	\$		\$	6.2

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

The following table presents the effect of master-netting agreements and rights of offset on the consolidated balance sheets (in millions):

			Gross Amounts	Net Amounts	Gi	ross Amounts Not O Balan		
<u>December 31, 2017</u>	A	Gross Amounts	Offset in the Consolidated Balance Sheet	Presented in the Consolidated Balance Sheet		Financial Instruments	Cash Collateral Received	Net Amount
Derivative Assets								
Foreign currency contracts	\$	4.9	\$ 	\$ 4.9	\$	(3.7)	\$ 	\$ 1.2
Interest rate swap agreements	\$		\$ —	\$ —	\$	—	\$ —	\$
Derivative Liabilities								
Foreign currency contracts	\$	24.8	\$ 	\$ 24.8	\$	(3.7)	\$ 	\$ 21.1
December 31, 2016								
Derivative Assets								
Foreign currency contracts	\$	34.8	\$ 	\$ 34.8	\$	(3.3)	\$ —	\$ 31.5
Interest rate swap agreements	\$	0.4	\$ 	\$ 0.4	\$		\$ 	\$ 0.4
Derivative Liabilities								
Foreign currency contracts	\$	3.3	\$ 	\$ 3.3	\$	(3.3)	\$ 	\$ —

The following tables present the effect of derivative instruments on the consolidated statements of operations and consolidated statements of comprehensive income:

		Amount of Gain or (Loss) Recognized in OCI on Derivative (Effective Portion)			Location of Gain or (Loss) Reclassified		ount of Gain or m Accumulated		
	2	2017		2016	from Accumulated OCI into Income	2017		2016	
		(in mi	llions)				(in mi	llions)	
Cash flow hedges									
Foreign currency contracts	\$	(43.5)	\$	16.1	Cost of sales	\$	7.6	\$	8.4
					Selling, general, and administrative expenses	\$	(1.1)	\$	(0.4)
Net investment hedges									
Foreign currency contracts	\$	—	\$	(4.1)					
Foreign currency denominated debt	\$	(35.5)	\$	—					

As of December 31, 2017, the Company had €370.0 million of outstanding long-term debt designated as a net investment hedge.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

	Location of Gain or (Loss) Recognized in	(Loss)	int of Gain or Recognized in on Derivative (a)	
	Income on Derivative	 2017	2016	2015
		(iı	n millions)	
Fair value hedges				
Interest rate swap agreements	Interest expense	\$ (1.1) \$	(1.2) \$	1.2

(a) The gains and losses on the interest rate swap agreements were fully offset by the changes in the fair value of the fixed-rate debt being hedged. In December 2017, the interest rate swap was settled at a loss of \$0.7 million, which will be amortized to interest expense over the remaining life of the debt.

	Location of Gain or (Loss) Recognized in	(Loss)	nt of Gain or Recognized in on Derivative	
	Income on Derivative	 2017	2016	2015
		(in	millions)	
Derivatives not designated as hedging instruments				
Foreign currency contracts	Other expense, net	\$ (11.5) \$	8.6 \$	6.6

The Company expects that during 2018 it will reclassify to earnings a \$2.4 million loss currently recorded in "Accumulated Other Comprehensive Loss ."

For the years ended December 31, 2017, 2016, and 2015, the Company did not record any gains or losses due to hedge ineffectiveness.

12. EMPLOYEE BENEFIT PLANS

Defined Benefit Plans

Edwards Lifesciences maintains defined benefit pension plans in Japan and certain European countries. At the end of 2017, due to changes in local legislation, the Company was able to redesign its defined benefit plan in Nyon, Switzerland into a defined contribution plan. Information regarding the Company's defined benefit pension plans is as follows:

	 Years Ended December 31,			
	 2017		2016	
	(in millions)			
Change in projected benefit obligation:				
Beginning of year	\$ 128.7	\$	118.1	
Service cost	7.9		6.8	
Interest cost	1.0		1.2	
Participant contributions	2.2		1.9	
Actuarial (gain) loss	(7.4)		6.5	
Benefits paid	(3.1)		(3.7)	
Plan amendment	_		1.9	
Settlements and curtailment gain	(22.2)		_	
Special termination benefits	0.6		_	
Currency exchange rate changes and other	7.2		(4.0)	
End of year	\$ 114.9	\$	128.7	

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

	 Years Ended December 31,			
	 2017		2016	
	(in mi	llions)		
Change in fair value of plan assets:				
Beginning of year	\$ 78.6	\$	75.1	
Actual return on plan assets	4.3		1.4	
Employer contributions	6.5		6.3	
Participant contributions	2.2		1.9	
Settlements	(20.7)		—	
Benefits paid	(3.1)		(3.7)	
Currency exchange rate changes and other	3.4		(2.4)	
End of year	\$ 71.2	\$	78.6	
Funded Status				
Projected benefit obligation	\$ (114.9)	\$	(128.7)	
Plan assets at fair value	 71.2		78.6	
Underfunded status	\$ (43.7)	\$	(50.1)	
Net amounts recognized on the consolidated balance sheet:				
Other long-term liabilities	\$ 43.7	\$	50.1	
Accumulated other comprehensive loss, net of tax:				
Net actuarial loss	\$ (17.1)	\$	(18.0)	
Net prior service cost	(0.9)		(4.6)	
Deferred income tax benefit	3.9		5.0	
Total	\$ (14.1)	\$	(17.6)	

The accumulated benefit obligation ("ABO") for all defined benefit pension plans was \$105.6 million and \$116.9 million as of December 31, 2017 and 2016, respectively. The projected benefit obligation and ABO were in excess of plan assets for all pension plans as of December 31, 2017 and 2016.

The components of net periodic benefit cost are as follows (in millions):

	Years Ended December 31,						
	2017	,		2016		2015	
Service cost, net	\$	7.9	\$	6.8	\$	7.0	
Interest cost		1.0		1.2		1.5	
Expected return on plan assets		(2.0)		(1.3)		(1.5)	
Settlements and curtailment gain		(6.3)				0.6	
Special termination benefits		0.6					
Amortization of actuarial loss		0.9		0.7		1.0	
Amortization of prior service cost (credit)		0.2		(0.7)		(0.4)	
Net periodic pension benefit cost	\$	2.3	\$	6.7	\$	8.2	

The net actuarial loss and prior service credit that will be amortized from "*Accumulated Other Comprehensive Loss* " into net periodic benefits cost in 2018 are expected to be \$0.8 million and \$(0.1) million, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

Expected long-term returns for each of the plans' strategic asset classes were developed through consultation with investment advisors. Several factors were considered, including survey of investment managers' expectations, current market data, minimum guaranteed returns in certain insurance contracts, and historical market returns over long periods. Using policy target allocation percentages and the asset class expected returns, a weighted-average expected return was calculated.

To select the discount rates for the defined benefit pension plans, the Company uses a modeling process that involves matching the expected duration of its benefit plans to a yield curve constructed from a portfolio of AA-rated fixed-income debt instruments, or their equivalent. For each country, the Company uses the implied yield of this hypothetical portfolio at the appropriate duration as a discount rate benchmark.

The weighted-average assumptions used to determine the benefit obligations are as follows:

	December	31,
	2017	2016
Discount rate	0.9%	0.7%
Rate of compensation increase	2.6%	2.5%
Social securities increase	1.5%	1.4%
Pension increase	1.8%	1.8%

The weighted-average assumptions used to determine the net periodic benefit cost are as follows:

	Years ended December 31,					
	2017	2016	2015			
Discount rate	0.7%	1.0%	1.4%			
Expected return on plan assets	2.4%	1.6%	1.9%			
Rate of compensation increase	2.5%	2.7%	3.0%			
Social securities increase	1.4%	1.6%	1.6%			
Pension increase	0.3%	2.0%	2.0%			

Plan Assets

The Company's investment strategy for plan assets is to seek a competitive rate of return relative to an appropriate level of risk and to earn performance rates of return in accordance with the benchmarks adopted for each asset class. Risk management practices include diversification across asset classes and investment styles, and periodic rebalancing toward asset allocation targets.

The Administrative and Investment Committee decides on the defined benefit plan provider in each location and that provider decides the target allocation for the Company's defined benefit plan at that location. The target asset allocation selected reflects a risk/return profile the Company feels is appropriate relative to the plans' liability structure and return goals. In certain plans, asset allocations may be governed by local requirements. Target weighted-average asset allocations at December 31, 2017, by asset category, are as follows:

30.4%
39.2%
6.0%
24.4%
100.0%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

The fair values of the Company's defined benefit plan assets at December 31, 2017 and 2016, by asset category, are as follows (in millions):

December 31, 2017	Level 1	Level 2	Level 3	Total
Asset Category			 	
Cash	\$ 1.3	\$ 	\$ 	\$ 1.3
Equity securities:				
United States equities	4.5	—	—	4.5
International equities	17.2	—		17.2
Debt securities:				
United States government bonds	3.3	—	—	3.3
International government bonds	24.6	_	—	24.6
Real estate	—	4.3		4.3
Mortgages	—	3.4		3.4
Insurance contracts	—	—	2.7	2.7
Total plan assets measured at fair value	50.9	 7.7	2.7	61.3
Alternative investments measured at net asset value (a)				9.9
Total plan assets				\$ 71.2
<u>December 31, 2016</u>				
Asset Category				
Cash	\$ 4.3	\$ —	\$ 	\$ 4.3
Equity securities:				
United States equities	3.5	—		3.5
International equities	6.9	—	_	6.9
Debt securities:				
United States government bonds	0.9	—	—	0.9
International government bonds	4.5	—	_	4.5
Insurance contracts	_	—	58.5	58.5
Total plan assets	\$ 20.1	\$ 	\$ 58.5	\$ 78.6

(a) Certain investments that were measured at net asset value per share have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total plan assets.

The following table summarizes the changes in fair value of the Company's defined benefit plan assets that have been classified as Level 3 for the years ended December 31, 2017 and 2016 (in millions):

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

	nsurance Contracts
Balance at December 31, 2015	\$ 56.8
Actual return on plan assets:	
Relating to assets still held at December 31, 2016	1.7
Purchases, sales and settlements	1.8
Currency exchange rate impact	(1.8)
Balance at December 31, 2016	58.5
Actual return on plan assets:	
Relating to assets still held at December 31, 2017	(0.9)
Relating to assets sold during 2017	0.1
Purchases, sales and settlements	(15.5)
Transfers in and/or out of Level 3	(42.6)
Currency exchange rate impact	3.1
Balance at December 31, 2017	\$ 2.7

Equity and debt securities are valued at fair value based on quoted market prices reported on the active markets on which the individual securities are traded. Real estate investments are valued by discounting to present value the cash flows expected to be generated by the specific properties. Investments in mortgages are valued at cost, which is deemed to approximate its fair value. The insurance contracts are valued at the cash surrender value of the contracts, which is deemed to approximate its fair value. Alternative investments include hedge funds, private equity funds and other miscellaneous investments, and are valued using the net asset value provided by the fund administrator as a practical expedient. The net asset value is based on the fair value of the underlying assets owned by the fund divided by the number of shares outstanding.

The following benefit payments, which reflect expected future service, as appropriate, at December 31, 2017, are expected to be paid (in millions):

2018	\$ 3.6
2019	3.0
2020	3.7
2021	3.5
2022	4.1
2023-2025	25.9

As of December 31, 2017, expected employer contributions for 2018 are \$5.1 million.

Defined Contribution Plans

The Company's employees in the United States and Puerto Rico are eligible to participate in a qualified defined contribution plan. In the United States, participants may contribute up to 25% of their eligible compensation (subject to tax code limitation) to the plan. Edwards Lifesciences matches the first 3% of the participant's annual eligible compensation contributed to the plan on a dollar-for-dollar basis. Edwards Lifesciences matches the next 2% of the participant's annual eligible compensation to the plan on a 50% basis. In Puerto Rico, participants may contribute up to 25% of their annual compensation (subject to tax code limitation) to the plan. Edwards Lifesciences matches the first 4% of participant's annual eligible compensation contributed to the plan on a 50% basis. The Company also provides a 2% profit sharing contribution calculated on eligible earnings for each employee. Matching contributions relating to Edwards Lifesciences employees were \$19.9 million , \$17.3 million in 2017 , 2016 , and 2015 , respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

The Company also has nonqualified deferred compensation plans for a select group of employees. The plans provide eligible participants the opportunity to defer eligible compensation to future dates specified by the participant with a return based on investment alternatives selected by the participant. The amount accrued under these nonqualified plans was \$64.1 million and \$46.7 million at December 31, 2017 and 2016, respectively.

13. COMMON STOCK

Treasury Stock

In November 2016, the Board of Directors approved a stock repurchase program authorizing the Company to purchase up to \$1.0 billion of the Company's common stock. In November 2017, the Board of Directors approved a new stock repurchase program providing for an additional \$1.0 billion of repurchases of our common stock. The repurchase programs do not have an expiration date. Stock repurchased under these programs may be used to offset obligations under the Company's employee stock-based benefit programs and stock-based business acquisitions, and will reduce the total shares outstanding.

During 2017, 2016, and 2015, the Company repurchased 7.7 million, 7.3 million, and 2.6 million shares, respectively, at an aggregate cost of \$763.3 million, \$662.3 million, and \$280.1 million, respectively, including shares purchased under the accelerated share repurchase ("ASR") agreements described below and shares acquired to satisfy tax withholding obligations in connection with the vesting of restricted stock units issued to employees. The timing and size of any future stock repurchases are subject to a variety of factors, including expected dilution from stock plans, cash capacity, and the market price of our common stock.

On July 13, 2017, the Company's Board of Directors approved the retirement of the Company's treasury stock. In August 2017, the Company retired 33.6 million shares of treasury stock. Upon retirement, treasury stock decreased by \$2.7 billion, with a corresponding reduction in common stock at par value, additional paid-in capital, and retained earnings of \$33.6 million, \$175.5 million and \$2.5 billion, respectively. The shares were returned to the status of authorized but unissued.

Accelerated Share Repurchase

In November 2017, Edwards entered into an ASR agreement to repurchase \$150.0 million of the Company's common stock based on the volume-weighted average price ("VWAP") of the Company's common stock during the term of the agreement, less a discount. Upon entering into the agreement, Edwards received an initial delivery of 1.1 million shares. The initial shares were valued at \$109.86 per share based on the closing price of the Company's common stock on the date of the agreement, and represented approximately 80% of the total contract value. In December 2017, the ASR agreement concluded at a VWAP less discount per share price of \$114.85, and the Company received an additional 0.2 million shares under that agreement.

In February 2016, Edwards entered into ASR agreements to repurchase \$325.0 million of the Company's common stock based on the VWAP of the Company's common stock during the term of the agreements, less a discount. Upon entering into the agreements, Edwards received an initial delivery of 3.2 million shares. The initial shares were valued at \$83.60 per share based on the closing price of the Company's common stock on the date of the agreements, and represented approximately 82% of the total contract value. In April 2016, one of the ASR agreements concluded at a VWAP less discount per share price of \$84.39 , and the Company received an additional 0.3 million shares under that agreement. In October 2016, the remaining ASR agreement concluded at a VWAP less discount per share price of \$101.82 , and the Company received an additional 44,000 shares under that agreement.

The ASR agreements were accounted for as two separate transactions: (a) the value of the initial delivery of shares was recorded as shares of common stock acquired in a treasury stock transaction on the acquisition date and (b) the remaining amount of the purchase price paid was recorded as a forward contract indexed to the Company's own common stock and was recorded in "*Additional Paid-in Capital* " on the consolidated balance sheets. The initial delivery of shares resulted in an immediate reduction of the outstanding shares used to calculate the weighted-average common shares outstanding for basic and diluted earnings per share. The Company determined that the forward contract indexed to the Company's common stock met all the applicable criteria for equity classification and, therefore, was not accounted for as a derivative instrument.



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

Employee and Director Stock Plans

The Edwards Lifesciences Corporation Long-term Stock Incentive Compensation Program (the "Program") provides for the grant of incentive and nonqualified stock options, restricted stock, and restricted stock units for eligible employees and contractors of the Company. Under the Program, these grants are awarded at a price equal to the fair market value at the date of grant based upon the closing price on that date. Options to purchase shares of the Company's common stock granted under the Program generally vest over predetermined periods of between three to four years and expire seven years after the date of grant. Service-based restricted stock units of the Company's common stock granted under the Program generally vest over predetermined periods ranging from three to five years after the date of grant. Market-based restricted stock units of the Company's common stock granted under the Program vest over three years based on a combination of certain service and market conditions. The actual number of shares issued will be determined based on the Company's total stockholder return relative to a selected industry peer group. Performance-based restricted stock units vest based on a combination of certain service conditions and upon achievement of specified milestones. On May 11, 2017, an amendment and restatement of the Program was approved by the Company's stockholders. Under the amended Program, the number of shares of common stock available for issuance under the Program was 109.2 million shares. No more than 11.2 million shares reserved for issuance may be granted in the form of restricted stock or restricted stock units.

The Company also maintains the Nonemployee Directors Stock Incentive Compensation Program (the "Nonemployee Directors Program"). Under the Nonemployee Directors Program, upon a director's initial election to the Board, the director receives an initial grant of stock options or restricted stock units equal to a fair market value on grant date of \$0.2 million, not to exceed 20,000 shares. These grants vest over three years from the date of grant, subject to the director's continued service. In addition, annually each nonemployee director may receive up to 40,000 stock options or 16,000 restricted stock units of the Company's common stock, or a combination thereof, provided that in no event may the total value of the combined annual award exceed \$0.2 million. These grants generally vest over one year from the date of grant. Under the Nonemployee Directors Program, an aggregate of 2.8 million shares of the Company's common stock has been authorized for issuance.

The Company has an employee stock purchase plan for United States employees and a plan for international employees (collectively "ESPP"). Under the ESPP, eligible employees may purchase shares of the Company's common stock at 85% of the lower of the fair market value of Edwards Lifesciences common stock on the effective date of subscription or the date of purchase. Under the ESPP, employees can authorize the Company to withhold up to 12% of their compensation for common stock purchases, subject to certain limitations. The ESPP is available to all active employees of the Company paid from the United States payroll and to eligible employees of the Company outside the United States, to the extent permitted by local law. The ESPP for United States employees is qualified under Section 423 of the Internal Revenue Code. The number of shares of common stock authorized for issuance under the ESPP was 15.3 million shares.

The fair value of each option award and employee stock purchase subscription is estimated on the date of grant using the Black-Scholes option valuation model that uses the assumptions noted in the following tables. The risk-free interest rate is estimated using the U.S. Treasury yield curve and is based on the expected term of the award. Expected volatility is estimated based on a blend of the weighted-average of the historical volatility of Edwards Lifesciences' stock and the implied volatility from traded options on Edwards Lifesciences' stock. The expected term of awards granted is estimated from the vesting period of the award, as well as historical exercise behavior, and represents the period of time that awards granted are expected to be outstanding. The Company uses historical data to estimate forfeitures and has estimated an annual forfeiture rate of 6.9%.

The Black-Scholes option pricing model was used with the following weighted-average assumptions for options granted during the following periods:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

Option Awards

	201	7	2016	2015
Average risk-free interest rate		1.8%	1.1%	1.4%
Expected dividend yield		None	None	None
Expected volatility		33%	33%	30%
Expected life (years)		4.6	4.5	4.6
Fair value, per share	\$	33.74	\$ 31.00	\$ 18.13

The Black-Scholes option pricing model was used with the following weighted-average assumptions for ESPP subscriptions granted during the following periods:

ESPP

	 2017	2016	2015
Average risk-free interest rate	0.5%	0.3%	0.2%
Expected dividend yield	None	None	None
Expected volatility	33%	29%	28%
Expected life (years)	0.6	0.6	0.6
Fair value, per share	\$ 25.69 \$	22.09	\$ 15.59

The fair value of market-based restricted stock units was determined using a Monte Carlo simulation model, which uses multiple input variables to determine the probability of satisfying the market condition requirements. The weighted-average assumptions used to determine the fair value of the market-based restricted stock units during the years ended December 31, 2017, 2016, and 2015 included a risk-free interest rate of 1.7%, 1.0%, and 1.0%, respectively, and an expected volatility rate of 30.2%, 30.0%, and 31.0%, respectively.

Stock option activity during the year ended December 31, 2017 under the Program and the Nonemployee Directors Program was as follows (in millions, except years and per-share amounts):

	Shares	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate ntrinsic Value
Outstanding as of December 31, 2016	10.0	\$ 49.85		
Options granted	1.0	110.24		
Options exercised	(2.1)	36.65		
Options forfeited	(0.2)	71.15		
Outstanding as of December 31, 2017	8.7	59.86	3.4 years	\$ 462.1
Exercisable as of December 31, 2017	6.0	47.22	2.7 years	393.0
Vested and expected to vest as of December 31, 2017	8.3	58.51	3.4 years	451.9

The following table summarizes nonvested restricted stock unit activity during the year ended December 31, 2017 under the Program and the Nonemployee Directors Program (in millions, except per-share amounts):

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

	Shares	Weighted- Average Grant-Date Fair Value
Nonvested as of December 31, 2016	1.4	\$ 63.59
Granted (a)	0.4	104.94
Vested	(0.5)	45.58
Forfeited	(0.1)	70.05
Nonvested as of December 31, 2017	1.2	85.23

(a) Includes 60,342 shares of market-based restricted stock units granted during 2017, which represents the targeted number of shares to be issued, and 113,965 shares related to a previous year's grant of market-based restricted stock units since the payout percentage achieved at the end of the performance period was in excess of target. As described above, the actual number of shares ultimately issued is determined based on the Company's total stockholder return relative to a selected industry peer group.

The intrinsic value of stock options exercised and restricted stock units vested during the years ended December 31, 2017, 2016, and 2015 were \$205.2 million, \$237.6 million, and \$164.4 million, respectively. The intrinsic value of stock options is calculated as the amount by which the market price of the Company's common stock exceeds the exercise price of the option. During the years ended December 31, 2017, 2016, and 2015, the Company received cash from exercises of stock options of \$77.6 million, \$73.1 million, and \$63.6 million, respectively, and tax benefits from exercises of stock options and vesting of restricted stock units of \$66.9 million, \$78.5 million, and \$53.7 million, respectively. The total grant-date fair value of stock options vested during the years ended December 31, 2017, 2016, and 2015 were \$26.3 million, \$24.1 million, and \$23.1 million, respectively.

As of December 31, 2017, the total remaining unrecognized compensation expense related to nonvested stock options, restricted stock units, and employee stock purchase subscriptions amounted to \$99.2 million, which will be amortized over the weighted-average remaining requisite service period of 30 months.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. ACCUMULATED OTHER COMPREHENSIVE LOSS

Presented below is a summary of activity for each component of " Accumulated Other Comprehensive Loss " for the years ended December 31, 2017, 2016, and 2015.

	Foreign Currency Translation Adjustments		Unrealized Gain (Loss) on Cash Flow Hedges		nrealized (Loss) Gain on Available-for-sale Investments	Unrealized Pension Costs (a)		Total Accumulated Other Comprehensive Loss
December 21, 2014	\$ (116.4) \$	32.3	\$	(in millions)	\$ (16.8)	\$	(100.0)
December 31, 2014 Other comprehensive (loss) income before	\$ (116.4)	52.5	Э		\$ (10.8)	Э	(100.9)
reclassifications	(64.0)	35.3		(2.6)	5.4		(25.9)
Amounts reclassified from accumulated other comprehensive loss	_		(68.0)		1.1	1.2		(65.7)
Deferred income tax (expense) benefit	(1.1)	12.2		_	(1.2)		9.9
December 31, 2015	(181.5)	11.8		(1.5)	(11.4)		(182.6)
Other comprehensive (loss) income before reclassifications	(17.6)	16.1		0.7	(7.7)		(8.5)
Amounts reclassified from accumulated other comprehensive loss			(8.0)		1.1			(6.9)
Deferred income tax benefit (expense)	1.5		(3.2)		(0.2)	1.5		(0.4)
December 31, 2016	(197.6)	16.7		0.1	(17.6)		(198.4)
Other comprehensive income (loss) before reclassifications	84.1		(43.5)		(8.3)	9.7		42.0
Amounts reclassified from accumulated other comprehensive loss	_		(6.5)		3.1	(5.1)		(8.5)
Deferred income tax benefit (expense)	13.4		19.4		0.5	(1.1)		32.2
December 31, 2017	\$ (100.1) \$	(13.9)	\$	(4.6)	\$ (14.1)	\$	(132.7)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. ACCUMULATED OTHER COMPREHENSIVE LOSS (Continued)

(a) For the years ended December 31, 2017, 2016, and 2015, the change in unrealized pension costs consisted of the following (in millions):

	Pre-Tax Amount	Tax (Expense) Benefit		Net of Tax Amount
<u>2017</u>			_	
Prior service credit arising during period	\$ 3.5	\$ (0.4)	\$	3.1
Amortization of prior service cost	0.2	—		0.2
Net prior service credit arising during period	3.7	(0.4)		3.3
Net actuarial gain arising during period	0.9	(0.7)		0.2
Unrealized pension costs, net	\$ 4.6	\$ (1.1)	\$	3.5
<u>2016</u>			_	
Prior service cost arising during period	\$ (9.0)	\$ 1.0	\$	(8.0)
Amortization of prior service credit	 (0.7)			(0.7)
Net prior service cost arising during period	(9.7)	1.0		(8.7)
Net actuarial gain arising during period	2.0	0.5		2.5
Unrealized pension credits, net	\$ (7.7)	\$ 1.5	\$	(6.2)
2015				
Prior service credit arising during period	\$ 2.9	\$ (0.3)	\$	2.6
Amortization of prior service credit	(0.4)	0.1		(0.3)
Net prior service credit arising during period	2.5	(0.2)		2.3
Net actuarial gain arising during period	4.1	(1.0)		3.1
Unrealized pension costs, net	\$ 6.6	\$ (1.2)	\$	5.4

The following table provides information about amounts reclassified from " Accumulated Other Comprehensive Loss " (in millions):

Years Ended December 31,														
	2017		2017		2017		2017		2017		2017		2016	Affected Line on Consolidated Statements of Operations
\$	6.5	\$	8.0	Cost of sales										
	(2.8)		(3.4)	Provision for income taxes										
\$	3.7	\$	4.6	Net of tax										
\$	\$ (3.1)		(1.1)	Other expense, net										
	0.1			Provision for income taxes										
\$	(3.0)	\$	(1.1)	Net of tax										
\$	5.1	\$		(a)										
	(0.4)		—	Provision for income taxes										
\$	4.7	\$		Net of tax										
	\$ \$ \$ \$ \$	2017 \$ 6.5 (2.8) (2.8) \$ 3.7 \$ (3.1) 0.1 (3.0) \$ 5.1 (0.4)	2017 \$ 6.5 (2.8) \$ 3.7 \$ (3.1) \$ 0.1 \$ (3.0) \$ 5.1 (0.4)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $										

(a) This item is included in the components of net periodic benefit costs. See Note 12 for additional information.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. OTHER EXPENSE, NET

	Years Ended December 31,						
	2017		2016			2015	
			(in	n millions)			
Foreign exchange losses, net	\$	5.4	\$	0.5	\$	4.8	
Loss (gain) on investments		2.7		(0.2)		(0.1)	
Charitable foundation contribution				5.0			
Other		0.1		(0.4)		(0.7)	
Total other expense, net	\$	8.2	\$	4.9	\$	4.0	

16. INCOME TAXES

The Company's income before provision for income taxes was generated from United States and international operations as follows (in millions):

	Years Ended December 31,								
	2017			2016		2015			
United States	\$	491.5	\$	378.2	\$	182.8			
International, including Puerto Rico		543.4		359.7		439.6			
	\$	1,034.9	\$	737.9	\$	622.4			

The provision for income taxes consists of the following (in millions):

	 Y	lears H	Ended December 3	1,	
	2017		2016		2015
Current					
United States:					
Federal	\$ 330.8	\$	153.4	\$	102.4
State and local	32.8		12.1		7.4
International, including Puerto Rico	60.6		27.4		33.5
Current income tax expense	\$ 424.2	\$	192.9	\$	143.3
Deferred					
United States:					
Federal	\$ 39.3	\$	(19.6)	\$	(12.5)
State and local	(3.8)		(4.3)		(2.6)
International, including Puerto Rico	(8.4)		(0.6)		(0.7)
Deferred income tax expense (benefit)	 27.1		(24.5)		(15.8)
Total income tax provision	\$ 451.3	\$	168.4	\$	127.5
		-			

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

The components of deferred tax assets and liabilities are as follows (in millions):

		Decen	nber 31,	
	2	017		2016
Deferred tax assets				
Compensation and benefits	\$	53.9	\$	100.8
Benefits from uncertain tax positions		66.1		56.7
Net tax credit carryforwards		78.8		45.6
Net operating loss carryforwards		47.3		30.2
Accrued liabilities		29.2		29.4
Inventories		6.8		11.5
Cash flow and net investment hedges		13.3		—
State income taxes		5.8		2.4
Investments		1.6		2.6
Other intangible assets		—		4.2
Other		1.7		3.1
Total deferred tax assets		304.5		286.5
Deferred tax liabilities				
Property, plant, and equipment		(20.0)		(28.2)
Cash flow hedges		_		(1.2)
Deferred tax on foreign earnings		(3.1)		(6.0)
Inventories		(4.2)		(4.1)
Other intangible assets		(49.5)		(4.2)
Other		(0.1)		(0.2)
Total deferred tax liabilities		(76.9)		(43.9)
Valuation allowance		(41.6)		(47.7)
Net deferred tax assets	\$	186.0	\$	194.9

During 2017, net deferred tax assets decreased \$8.9 million, including items that were recorded to stockholders' equity and which did not impact the Company's income tax provision.

The valuation allowance of \$41.6 million as of December 31, 2017 reduces certain deferred tax assets to amounts that are more likely than not to be realized. This allowance primarily relates to the net operating loss carryforwards of certain United States and non-United States subsidiaries and certain non-United States credit carryforwards.

Net operating loss and capital loss carryforwards and the related carryforward periods at December 31, 2017 are summarized as follows (in millions):

	Ca	rryforward Amount	Tax Benefit Amount	Valuation Allowance	Net Tax Benefit	Carryforward Period Ends
United States federal net operating losses	\$	19.6	\$ 4.1	\$ 	\$ 4.1	2033-2036
United States state net operating losses		24.7	1.6	(1.5)	0.1	2018-2035
Non-United States net operating losses		69.3	15.5	(15.3)	0.2	2018-2026
Non-United States net operating losses		134.2	26.1	(9.0)	17.1	Indefinite
United States capital losses		33.7	12.7	—	12.7	2022
Total	\$	281.5	\$ 60.0	\$ (25.8)	\$ 34.2	

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

Certain tax attributes are subject to an annual limitation as a result of the acquisition of Harpoon Medical, Inc. (see Note 7), which constitutes a change of ownership as defined under Internal Revenue Code Section 382.

The gross tax credit carryforwards and the related carryforward periods at December 31, 2017 are summarized as follows (in millions):

	Ca	rryforward Amount	Valuation Allowance	Net Tax Benefit	Carryforward Period Ends
California research expenditure tax credits	\$	90.2	\$ _	\$ 90.2	Indefinite
Federal research expenditure tax credits		0.2		0.2	Indefinite
Puerto Rico purchases credit		16.1	(16.1)	_	Indefinite
Total	\$	106.5	\$ (16.1)	\$ 90.4	

The Company has \$90.2 million of California research expenditure tax credits it expects to use in future periods. The credits may be carried forward indefinitely. Based upon anticipated future taxable income, the Company expects that it is more likely than not that all California research expenditure tax credits will be utilized, although the utilization of the full benefit is expected to occur over a number of years and into the distant future. Accordingly, no valuation allowance has been provided.

The Company adopted the new accounting standard for employee share-based compensation effective January 1, 2017 (see Note 2). The new standard eliminates the requirement that excess tax benefits be realized through a reduction in income taxes payable before a company can recognize them. Upon adoption, the Company recorded a cumulative-effect benefit of \$9.3 million in retained earnings for excess tax benefits not previously recognized.

On December 22, 2017, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act ("the 2017 Act"), was signed into law. The 2017 Act reduces the U.S. federal corporate tax rate from 35 percent to 21 percent for tax years beginning after December 31, 2017, requires companies to pay a one-time mandatory deemed repatriation tax on the cumulative earnings of certain foreign subsidiaries that were previously tax deferred, accelerates federal tax depreciation and creates new taxes on certain foreign earnings in future years.

On December 22, 2017, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of generally accepted accounting principles in the United States of America in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Act. In accordance with SAB 118, the Company has estimated provisional amounts for \$3.3 million of tax benefits in connection with the remeasurement of certain tax assets and liabilities, and \$327.4 million of current tax expense (discussed below) recorded in connection with the one-time mandatory deemed repatriation tax on cumulative earnings of certain foreign subsidiaries. Additionally, as a result of a revenue procedure issued by the Internal Revenue Service ("IRS") on February 13, 2018, approximately \$32.3 million of tax benefits associated with a tax reform related restructuring may need to be adjusted.

The changes included in the 2017 Act are broad and complex. The final transition impacts of the 2017 Act may differ from the above estimate, possibly materially, due to, among other things, changes in interpretations of the 2017 Act, any further legislative or regulatory actions that arise because of the 2017 Act, any changes in accounting standards for income taxes or related interpretations in response to the 2017 Act, or any updates or changes to the estimates the Company has utilized to calculate the transition impacts. Any subsequent adjustment to these amounts will be recorded to current tax expense in the quarter of 2018 when the analysis is complete. The Company did not identify items for which a reasonable estimate of the income tax effects of the 2017 Act could not be determined as of December 31, 2017.

As mentioned above, the 2017 Act requires a mandatory deemed repatriation of post-1986 cumulative undistributed foreign earnings and profits. The rate applied varies depending on whether the earnings and profits are held in liquid or non-liquid assets. A proportional deduction on the deemed repatriation results in a repatriation toll charge of effectively 15.5% for liquid assets and 8% for non-liquid assets. At the election of the taxpayer, the repatriation tax can be paid in installments over eight years . The Company provisionally intends to elect to pay the repatriation tax in installments over eight years. The deemed repatriation which, when offset by the correlative effects of uncertain tax positions of \$30.0 million , results in a provisional net increase in tax expense of \$297.4 million .

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

Prior to the 2017 Act, the Company asserted that accumulated earnings of most of its foreign subsidiaries would be indefinitely reinvested. However, as a result of the 2017 Act, all of the accumulated earnings of its foreign subsidiaries were subjected to United States federal income tax. In light of the 2017 Act, the Company's analysis is incomplete at this time with respect to its investment intentions for its accumulated foreign earnings. During the period prescribed by SAB 118, the Company will evaluate, among other factors, the profitability of its United States and foreign operations and the need for cash within and outside the United States, legal entity capitalization requirements, cash controls imposed in foreign jurisdictions, withholding taxes and the availability to offset with foreign tax credits, cash requirements for capital improvements, acquisitions, market expansion, and stock repurchase programs in determining its investment assertion on its accumulated foreign earnings.

The Company has received tax incentives in certain non-U.S. tax jurisdictions, the primary benefit of which will expire in 2024. The tax reductions as compared to the local statutory rates were \$81.0 million (\$0.39 per diluted share), \$78.7 million (\$0.32 per diluted share), and \$60.4 million (\$0.25 per diluted share) for the years ended December 31, 2017, 2016, and 2015, respectively.

A reconciliation of the United States federal statutory income tax rate to the Company's effective income tax rate is as follows (in millions):

	 Y	ears Ended December 3	1,	
	2017	2016		2015
Income tax expense at U.S. federal statutory rate	\$ 362.2	\$ 258.3	\$	217.8
Foreign income taxed at different rates	(106.9)	(88.6)		(105.8)
State and local taxes, net of federal tax benefit	11.5	9.7		3.1
Tax credits, federal and state	(25.8)	(21.3)		(15.7)
(Release) build of reserve for prior years' uncertain tax positions	(7.7)	4.6		3.3
U.S. tax on foreign earnings, net of credits	(30.3)	5.1		20.5
Deductible employee share-based compensation	(48.2)			
Nondeductible employee share-based compensation	3.9	3.6		2.3
Effects of mandatory deemed repatriation	297.4			
Effects of U.S. tax rate changes	(3.3)	—		
Other	(1.5)	(3.0)		2.0
Income tax provision	\$ 451.3	\$ 168.4	\$	127.5

Factors impacting the Company's effective tax rate in 2017 included the one-time impact of the mandatory taxation of previously unrepatriated earnings, partially offset by the revaluation of tax-related balance sheet items due to U.S. tax rate changes required by the 2017 Act. In addition, the effective tax rate for 2017 was favorably impacted by the adoption of the new accounting standard for the tax benefit of employee shared-based compensation (see Note 2).

Uncertain Tax Positions

As of December 31, 2017 and 2016, the gross uncertain tax positions were \$225.6 million and \$245.5 million, respectively. The Company estimates that these liabilities would be reduced by \$94.0 million and \$44.9 million, respectively, from offsetting tax benefits associated with the correlative effects of potential transfer pricing adjustments, state income taxes, and timing adjustments. The net amounts of \$131.6 million and \$200.6 million, respectively, if not required, would favorably affect the Company's effective tax rate.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

A reconciliation of the beginning and ending amount of uncertain tax positions, excluding interest, penalties, and foreign exchange, is as follows (in millions):

	December 31,							
		2017		2016		2015		
Uncertain gross tax positions, January 1	\$	245.5	\$	216.1	\$	192.3		
Current year tax positions		77.7		29.0		29.6		
Increase prior year tax positions		63.7		2.7		2.2		
Decrease prior year tax positions		(65.0)		(0.9)		(7.4)		
Settlements		(95.3)		(0.3)		(0.4)		
Lapse of statutes of limitations		(1.0)		(1.1)		(0.2)		
Uncertain gross tax positions, December 31	\$	225.6	\$	245.5	\$	216.1		

The Company recognizes interest and penalties, if any, related to uncertain tax positions in the provision for income taxes. As of December 31, 2017, the Company had accrued \$7.4 million (net of \$2.9 million tax benefit) of interest related to uncertain tax positions, and as of December 31, 2016, the Company had accrued \$14.7 million (net of \$10.8 million tax benefit) of interest related to uncertain tax positions. During 2017, 2016, and 2015, the Company recognized interest expense (benefit), net of tax benefit, of \$(7.3) million, \$4.0 million, and \$3.9 million, respectively, in "*Provision for Income Taxes*" on the consolidated statements of operations.

The Company strives to resolve open matters with each tax authority at the examination level and could reach agreement with a tax authority at any time. While the Company has accrued for matters it believes are more likely than not to require settlement, the final outcome with a tax authority may result in a tax liability that is more or less than that reflected in the consolidated financial statements. Furthermore, the Company may later decide to challenge any assessments, if made, and may exercise its right to appeal. The uncertain tax positions are reviewed quarterly and adjusted as events occur that affect potential liabilities for additional taxes, such as lapsing of applicable statutes of limitations, proposed assessments by tax authorities, negotiations between tax authorities, identification of new issues, and issuance of new legislation, regulations, or case law. Management believes that adequate amounts of tax and related penalty and interest have been provided in income tax expense for any adjustments that may result from these uncertain tax positions.

At December 31, 2017, all material state, local, and foreign income tax matters have been concluded for years through 2008. The IRS has substantially completed its fieldwork for the 2009 through 2012 tax years. However, the audits have been in suspense pending a final determination with respect to the application for an Advance Pricing Agreement ("APA") discussed below. As a result of the partial agreement discussed below, the IRS will now be able to finalize their audits of the 2009 through 2011 tax years. The IRS began its examination of the 2014 tax year during the fourth quarter of 2016.

The Company had been pursuing an APA between the Switzerland and United States governments for the years 2009 through 2013 covering transfer pricing matters with the possibility of a roll-forward of the results to subsequent years. During December 2017, the U.S. and Swiss Competent Authorities agreed on the terms of several of the transactions covered by the APA, including a rollforward of some of the results through 2020. The remaining terms of transactions not covered by the final bilateral agreement will be reviewed by the IRS as part of the traditional exam process for the tax years beyond 2011. These transfer pricing matters are significant to the Company's consolidated financial statements as the disputed amounts are material, and the final outcome is uncertain. The Company continues to believe its positions are supportable. As a result of the bilateral agreement, a reclassification of \$73.7 million was made from the long-term liability for uncertain tax positions to current taxes payable, and a \$15.2 million tax benefit was recorded during the quarter.

During 2014, the Company filed with the IRS a request for a pre-filing agreement associated with a tax return filing position on a portion of the litigation settlement payment received in May 2014. During the first quarter of 2015, the IRS accepted the Company's request into the pre-filing agreement program. The closing agreement for this matter was finalized during the fourth quarter of 2016. There remained a disputed issue and the Company was accepted into the Fast-Track Appeals process in July 2017. The Company met with the Fast-Track Appeals team in October 2017 and was unable to reach an

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

agreement. The Company intends to revert to the regular Appeals process on this issue. The Company made an advance payment of tax in December 2015 to prevent the further accrual of interest on any potential deficiency.

The Company believes that adequate amounts of tax and related penalty and interest have been provided in income tax expense for any adjustments that may result from its uncertain tax positions. Based upon the information currently available and numerous possible outcomes, the Company cannot reasonably estimate what, if any, changes in its existing uncertain tax positions may occur in the next 12 months and thus have recorded the gross uncertain tax positions as a long-term liability. However, if the appeals process related to the pre-filing agreement or transfer pricing matters is finalized in the next 12 months, it is reasonably possible that these events could result in a significant change in the Company's uncertain tax positions within the next 12 months.

17. LEGAL PROCEEDINGS

On October 30, 2015, Boston Scientific Scimed, Inc., a subsidiary of Boston Scientific Corporation ("Boston Scientific"), filed a lawsuit in the district court in Düsseldorf, Germany against Edwards Lifesciences and its German subsidiary, Edwards Lifesciences Services GmbH, alleging that Edwards Lifesciences' *SAPIEN 3* heart valve infringes certain claims of a Boston Scientific German national patent arising from EP 2 749 254 B1 (the "'254 patent") related to paravalvular sealing technology. On February 26, 2016, Boston Scientific added the German national patent arising from EP 2 926 766 (the "'766 patent") to the infringement allegations. On April 8, 2016, Boston Scientific filed a similar patent infringement action in district court in Paris, France relating to these patents. The complaints seek unspecified money damages and injunctive relief. The Company intends to defend itself vigorously in these matters. The French suit has been stayed pending the outcome of validity proceedings on the '766 and '254 patents. On March 9, 2017, the German district court ruled that the *SAPIEN 3* heart valve infringes the '254 and '766 patents, and that Boston Scientific is entitled to enforce an injunction against *SAPIEN 3* sales in Germany upon payment of a €90.0 million bond for each patent, but has not yet elected to do so. Edwards Lifesciences has appealed this infringement decision. In addition, Edwards Lifesciences filed oppositions at the European Patent Office ("EPO") challenging the validity of the '254 and '766 patents. On October 19, 2017, the EPO required Boston Scientific to amend the '254 patent.

On November 2, 2015, Edwards Lifesciences LLC, a U.S. subsidiary of Edwards Lifesciences, filed a lawsuit against Sadra Medical, Inc. and Boston Scientific Scimed, Inc., two subsidiaries of Boston Scientific, in the United Kingdom in the High Court of Justice, Chancery Division, Patents Court to declare invalid and revoke the U.K. national patent corresponding to the '254 patent. Edwards Lifesciences later added Boston Scientific's UK national patent corresponding to the '264 patent. Edwards Lifesciences later added Boston Scientific's UK national patent corresponding to the '766 patent to this invalidity lawsuit. The Boston Scientific subsidiaries filed counterclaims against Edwards Lifesciences and three of its European subsidiaries alleging that the *SAPIEN 3* heart valve infringes certain claims of the same patents and seeking unspecified monetary damages and injunctive relief. On March 3, 2017, the U.K. Patents Court ruled that Boston Scientific's '254 patent is invalid, and that its '766 patent is valid and infringed. The court also ruled that Boston Scientific is entitled to an injunction against *SAPIEN 3* sales in the United Kingdom, but stayed the injunction pending appeal. Both sides have appealed this decision and U.K. Patents Court Proceedings for damages are ongoing.

On June 16, 2017, Edwards Lifesciences filed a lawsuit against Boston Scientific Scimed, Inc. in Germany in the district court in Munich, seeking a court order that Edwards Lifesciences is a co-owner of the '254 patent based on rights it has acquired. On July 31, 2017, Edwards Lifesciences filed a similar lawsuit with regard to the '766 patent. Proceedings are ongoing.

On November 23, 2015, Edwards Lifesciences PVT, Inc., a U.S. subsidiary of Edwards Lifesciences, filed a lawsuit in the district court in Düsseldorf, Germany for patent infringement against Boston Scientific and a German subsidiary, Boston Scientific Medizintechnik GmbH, alleging that the Lotus heart valve infringes certain claims of Edwards Lifesciences' German national patents EP 1 441 672 B1 (the "'672 patent") and 2 255 753 B1 (the "'753 patent") related to prosthetic valve and delivery system technology. Edwards Lifesciences later added its German national patent EP 2 399 550 (the "'550 patent") to this suit. The complaint sought unspecified monetary damages and injunctive relief. On March 9, 2016, the German district court ruled that the Lotus heart valve infringes the '550 patent, but does not infringe the '672 patent. The court also ruled that Edwards Lifesciences is entitled to enforce an injunction against the sales of the Lotus valve in Germany upon the payment of a €10.0 million bond, but has not yet elected to do so. Both sides have appealed this decision. The court did not rule on the '753

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. LEGAL PROCEEDINGS (Continued)

patent due to an opposition filed at the EPO by Boston Scientific. On March 28, 2017, the EPO rendered an initial decision to revoke the '753 patent. Edwards Lifesciences has appealed the EPO's initial decision.

O n April 19, 2016, Boston Scientific filed a lawsuit against Edwards Lifesciences in the Federal District Court in the District of Delaware alleging that the *SAPIEN 3* heart valve infringes certain claims of Boston Scientific's U.S. Patent 8,992,608 (the "'608 patent") related to paravalvular sealing technology and seeking unspecified monetary damages and injunctive relief. On June 9, 2016, Edwards Lifesciences LLC and Edwards Lifesciences PVT, Inc. filed counterclaims alleging that Boston Scientific's Lotus heart valve infringes Edwards Lifesciences' U.S. Patents 9,168,133; 9,339,383; and 7,510,575 related to prosthetic valve technology. Trial is scheduled for July 2018. On October 12, 2016, Edwards Lifesciences filed an Inter Partes Review ("IPR") request with the U.S. Patent and Trademark Office (the "USPTO") challenging the validity of Boston Scientific's '608 patent. On March 29, 2017, the USPTO decided to institute the IPR.

Also on April 19, 2016, Boston Scientific filed a lawsuit against Edwards Lifesciences in the Federal District Court in the Central District of California alleging that five of its transcatheter heart valve delivery systems and a valve crimper infringe certain claims of eight Boston Scientific U.S. patents. The complaints seek unspecified monetary damages and injunctive relief. Trial is scheduled for May 2018. The Company intends to defend itself vigorously in these matters and has filed IPRs challenging the validity of the Boston Scientific patents in the suit. The lawsuit has been stayed pending the outcome of these IPR proceedings. The USPTO has instituted three of the requested IPRs.

On October 23, 2016, Edwards Lifesciences PVT, Inc. and Edwards Lifesciences (Canada) Inc., a Canadian subsidiary of Edwards Lifesciences, filed a lawsuit against Boston Scientific and its Canadian subsidiary, Boston Scientific Ltd., as well as LivaNova PLC and LivaNova Canada Corp., its contract manufacturers, in the Federal Court in Toronto, Canada, alleging that Boston Scientific's manufacture of the Lotus valve through its contract manufacturers infringes two of Edwards Lifesciences' patents covering transcatheter heart valve technology. On February 17, 2017, Edwards added Neovasc, Inc. and Neovasc Medical Inc., additional contract manufacturers of Boston Scientific, to this lawsuit. On January 11, 2017, Edwards Lifesciences PVT, Inc. and Edwards Lifesciences SA(AG), a Swiss subsidiary of Edwards Lifesciences, filed a lawsuit against Boston Scientific Ltd and Boston Scientific Group PLC, two Irish subsidiaries of Boston Scientific, in the High Court in Dublin, Ireland alleging that the Boston Scientific's manufacture of the Lotus and Lotus Edge valves infringes the '550 patent.

Because the ultimate outcome of the above matters involve judgments, estimates and inherent uncertainties, and cannot be predicted with certainty, charges related to such matters could have a material adverse impact on Edwards Lifesciences' financial position, results of operations, and liquidity.

In addition, Edwards Lifesciences is or may be a party to, or may otherwise be responsible for, pending or threatened lawsuits related primarily to products and services currently or formerly manufactured or performed, as applicable, by Edwards Lifesciences (the "Other Lawsuits"). The Other Lawsuits raise difficult and complex factual and legal issues and are subject to many uncertainties, including, but not limited to, the facts and circumstances of each particular case or claim, the jurisdiction in which each suit is brought, and differences in applicable law. Management does not believe that any charge relating to the Other Lawsuits would have a material adverse effect on Edwards Lifesciences' overall financial position, results of operations, or liquidity. However, the resolution of one or more of the Other Lawsuits in any reporting period, could have a material adverse impact on Edwards Lifesciences' net income or cash flows for that period. The Company is not able to estimate the amount or range of any loss for legal contingencies for which there is no reserve or additional loss for matters already reserved.

Edwards Lifesciences is subject to various environmental laws and regulations both within and outside of the United States. The operations of Edwards Lifesciences, like those of other medical technology companies, involve the use of substances regulated under environmental laws, primarily in manufacturing and sterilization processes. While it is difficult to quantify the potential impact of continuing compliance with environmental protection laws, management believes that such compliance will not have a material impact on Edwards Lifesciences' financial position, results of operations, or liquidity.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. SEGMENT INFORMATION

Edwards Lifesciences conducts operations worldwide and is managed in the following geographical regions: United States, Europe, Japan, and Rest of World. All regions sell products that are used to treat advanced cardiovascular disease.

The Company's geographic segments are reported based on the financial information provided to the Chief Operating Decision Maker (the Chief Executive Officer). The Company evaluates the performance of its geographic segments based on net sales and income before provision for income taxes ("pre-tax income"). The accounting policies of the segments are substantially the same as those described in Note 2. Segment net sales and segment pre-tax income are based on internally derived standard foreign exchange rates, which may differ from year to year, and do not include inter-segment profits. Because of the interdependence of the reportable segments, the operating profit as presented may not be representative of the geographical distribution that would occur if the segments were not interdependent. Net sales by geographic area are based on the location of the customer.

Certain items are maintained at the corporate level and are not allocated to the segments. The non-allocated items include net interest expense, global marketing expenses, corporate research and development expenses, manufacturing variances, corporate headquarters costs, special gains and charges, stock-based compensation, foreign currency hedging activities, certain litigation costs, and most of the Company's amortization expense. Although most of the Company's depreciation expense is included in segment pre-tax income, due to the Company's methodology for cost build-up, it is impractical to determine the amount of depreciation expense included in each segment, and, therefore, a portion is maintained at the corporate level. The Company neither discretely allocates assets to its operating segments, nor evaluates the operating segments using discrete asset information.

The table below presents information about Edwards Lifesciences' reportable segments (in millions):

		Years l	Ended December 3	1,	
	2017		2016		2015
Segment Net Sales					
United States	\$ 1,907.6	\$	1,615.7	\$	1,262.8
Europe	800.7		745.9		842.9
Japan	356.5		279.6		297.2
Rest of World	357.3		303.6		315.1
Total segment net sales	\$ 3,422.1	\$	2,944.8	\$	2,718.0
Segment Pre-tax Income					
United States	\$ 1,242.3	\$	1,050.2	\$	747.8
Europe	384.5		360.9		409.1
Japan	201.1		139.6		139.4
Rest of World	92.8		73.0		82.2
Total segment pre-tax income	\$ 1,920.7	\$	1,623.7	\$	1,378.5

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. SEGMENT INFORMATION (Continued)

The table below presents reconciliations of segment net sales to consolidated net sales and segment pre-tax income to consolidated pre-tax income (in millions):

		Years I	Ended December 3	1,	
	2017		2016		2015
Net Sales Reconciliation					
Segment net sales	\$ 3,422.1	\$	2,944.8	\$	2,718.0
Foreign currency	13.2		18.9		(224.3)
Consolidated net sales	\$ 3,435.3	\$	2,963.7	\$	2,493.7
Pre-tax Income Reconciliation					
Segment pre-tax income	\$ 1,920.7	\$	1,623.7	\$	1,378.5
Unallocated amounts:					
Corporate items	(895.6)		(826.1)		(711.3)
Special charges, net	(59.9)		(34.5)		
Intellectual property income (expenses), net	73.3		(32.6)		(7.0)
Interest expense, net	(2.9)		(8.4)		(9.3)
Foreign currency	(0.7)		15.8		(28.5)
Consolidated pre-tax income	\$ 1,034.9	\$	737.9	\$	622.4

Enterprise-Wide Information

Enterprise-wide information is based on actual foreign exchange rates used in the Company's consolidated financial statements.

	As of or for the Years Ended December 31,							
	2017		2016		2015			
			(in millions)					
Net Sales by Geographic Area								
United States	\$ 1,907.6	\$	1,615.7	\$	1,262.9			
Europe	831.0		749.0		717.3			
Japan	350.3		309.3		246.2			
Rest of World	346.4		289.7		267.3			
	\$ 3,435.3	\$	2,963.7	\$	2,493.7			
Net Sales by Major Product Area								
Transcatheter Heart Valve Therapy	\$ 2,027.2	\$	1,628.5	\$	1,180.3			
Surgical Heart Valve Therapy	807.1		774.9		785.0			
Critical Care	601.0		560.3		528.4			
	\$ 3,435.3	\$	2,963.7	\$	2,493.7			
Long-lived Tangible Assets by Geographic Area								
United States	\$ 608.7	\$	555.5	\$	473.6			
Europe	28.4		27.9		36.0			
Japan	7.6		8.0		8.1			
Rest of World	139.7		108.6		96.0			
	\$ 784.4	\$	700.0	\$	613.7			

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. QUARTERLY FINANCIAL RESULTS AND MARKET FOR THE COMPANY'S STOCK (UNAUDITED)

Years Ended December 31,	 First Quarter	Second Quarter		Third Quarter		Fourth Quarter	Total Year
		(in r	nillion	s, except per share	data)		
2017							
Net sales	\$ 883.5	\$ 841.8	\$	821.5	\$	888.5	\$ 3,435.3
Gross profit	667.9	630.7		608.2		653.2	2,560.0
Net income (loss) (a)	230.2	186.1		170.1		(2.8)	583.6
Earnings (loss) per common share (a):							
Basic	1.09	0.88		0.81		(0.01)	2.77
Diluted	1.06	0.86		0.79		(0.01)	2.70
Market price:							
High	\$ 100.48	\$ 120.74	\$	121.45	\$	119.04	\$ 121.45
Low	86.55	92.44		107.35		100.20	86.55
2016							
Net sales	\$ 697.3	\$ 759.3	\$	739.4	\$	767.7	\$ 2,963.7
Gross profit	517.0	556.8		538.0		554.5	2,166.3
Net income	143.0	126.6		141.4		158.5	569.5
Earnings per common share:							
Basic	0.67	0.60		0.66		0.74	2.67
Diluted	0.66	0.58		0.65		0.73	2.61
Market price:							
High	\$ 89.93	\$ 112.00	\$	121.73	\$	121.75	\$ 121.75
Low	72.20	86.73		98.02		81.12	72.20

(a) The fourth quarter of 2017 includes a \$262.0 million tax expense related to the implementation of U.S. tax law changes and receipt of a \$112.5 million (\$70.3 million, net of tax) litigation payment.

20. VALUATION AND QUALIFYING ACCOUNTS

		 Add	lition	5		
	 Balance at Beginning of Period	Charged to Costs and Expenses		Charged to Other Accounts	Deductions From Reserves	Balance at End of Period
				(in millions)		
Year ended December 31, 2017						
Allowance for doubtful accounts (a)	\$ 12.8	\$ 2.9	\$	—	\$ (2.0)	\$ 13.7
Tax valuation allowance (b)	47.7	(8.9)		2.8		41.6
Year ended December 31, 2016						
Allowance for doubtful accounts (a)	\$ 13.1	\$ 1.5	\$	_	\$ (1.8)	\$ 12.8
Tax valuation allowance (b)	45.2	1.2		1.3	—	47.7
Year ended December 31, 2015						
Allowance for doubtful accounts (a)	\$ 11.3	\$ 3.8	\$		\$ (2.0)	\$ 13.1
Tax valuation allowance (b)	47.7	4.8		—	(7.3)	45.2

(a) The deductions related to allowances for doubtful accounts represent accounts receivable which are written off.

(b) The tax valuation allowances are provided for other-than-temporary impairments and unrealized losses related to certain investments that may not be recognized due to the uncertainty of the ready marketability of certain impaired investments, and net operating loss and credit carryforwards that may not be recognized due to insufficient taxable income.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. The Company's management, including the Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of December 31, 2017.

Based on their evaluation, the Chief Executive Officer and Chief Financial Officer have concluded as of December 31, 2017 that the Company's disclosure controls and procedures are designed at a reasonable assurance level and are effective in providing reasonable assurance that the information required to be disclosed by the Company in the reports it files or submits under the Securities Exchange Act of 1934, as amended, 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 the Company's management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting. The Company's management, including the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Under the supervision and with the participation of the Company's management, including the Chief Executive Officer and Chief Financial Officer, the Company conducted an evaluation of the effectiveness of its 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 (COSO). Based on that evaluation, the Company's management concluded that its internal control over financial reporting was effective as of December 31, 2017 . The effectiveness of the Company's internal control over financial reporting as of December 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control Over Financial Reporting. There have been no changes in the Company's internal control over financial reporting that occurred during the Company's fourth fiscal quarter of 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Certain information required by this Item will be set forth under the headings "Corporate Governance Policies and Practices," "Executive Compensation and Other Information—Executive Officers," and "Other Matters and Business—Additional Information" and "—Section 16(a) Beneficial Ownership Reporting Compliance" in the definitive proxy materials to be filed in connection with the Company's 2018 Annual Meeting of Stockholders (the "Proxy Statement") (which Proxy Statement will be filed with the SEC within 120 days of December 31, 2017). The information required by this Item to be contained in the Proxy Statement is incorporated herein by reference. The Company has adopted a code of ethics that applies to all directors and employees, including the Company's principal executive officer, principal financial officer and controller or persons performing similar functions. The code of ethics (business practice standards) is posted on the Company's website, which is found at www.edwards.com under "Investors." To the extent required by applicable rules of the SEC and the New York Stock Exchange, the Company intends to disclose on its website any amendments to, or waivers from, any provision of its code of ethics that apply to the Company's directors and executive officers, including the principal executive officer, principal financial officer or controller or persons performing similar functions.

Item 11. Executive Compensation

The information contained under the heading "Executive Compensation and Other Information" in the Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information contained under the headings "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in the Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information contained under the heading "Other Matters and Business—Related Party Transactions" and under the heading "Corporate Governance Policies and Practices—Director Independence" in the Proxy Statement is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information contained under the heading "Audit Matters—Fees Paid to Principal Accountants" in the Proxy Statement is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this report:

- 1. Consolidated Financial Statements. See "Index to Consolidated Financial Statements" in Part II, Item 8 herein.
- 2. Financial Statement Schedules. Other schedules are not applicable and have not been included herein.
- 3. Exhibits.

Ex	hit	oit	N	0

Exhibit No.

- 3.1 <u>Amended and Restated Certificate of Incorporation of Edwards Lifesciences Corporation dated May 16, 2013 (incorporated by reference to Exhibit 3.1 in Edwards Lifesciences' report on Form 8-K dated May 17, 2013)</u>
- 3.2 Bylaws of Edwards Lifesciences Corporation amended and restated as of February 25, 2016 (incorporated by reference to Exhibit 3.1 in Edwards Lifesciences' report on Form 8-K dated March 2, 2016)
- 4.1 Specimen form of certificate representing Edwards Lifesciences Corporation common stock (incorporated by reference to Exhibit 4.1 in Edwards Lifesciences' Registration Statement on Form 10 (File No. 001-15525) filed on March 15, 2000)
- 4.2 Indenture, dated as of September 6, 2013, between Edwards Lifesciences Corporation and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.5 in Edwards Lifesciences' Registration Statement on Form S-3 (File No. 333-191022) filed on September 6, 2013) (the "Indenture")
- 4.3 First Supplemental Indenture, dated as of October 3, 2013, to the Indenture (incorporated by reference to Exhibit 4.1 in Edwards Lifesciences' report on Form 8-K, filed on October 3, 2013) ("First Supplemental Indenture")
- 4.4 Form of Global Note for the 2.875% Senior Notes due 2018 (incorporated by reference to Exhibit A in the First Supplemental Indenture filed as Exhibit 4.1 in Edwards Lifesciences' report on Form 8-K, filed on October 3, 2013)
- 10.1 Five Year Credit Agreement, dated as of July 18, 2014, among Edwards Lifesciences Corporation and certain of its subsidiaries, as Borrowers; the lenders signatory thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and Issuing Bank; JPMorgan Chase Bank, N.A. and Wells Fargo Bank, National Association, as Co-Syndication Agents; and Deutsche Bank Securities Inc., HSBC Bank USA, National Association, PNC Bank, National Association, The Bank of Tokyo-Mitsubishi UFJ, Ltd., and U.S. Bank National Association, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 8-K, filed on July 24, 2014)
- 10.2 Amendment No. 1 to Five Year Credit Agreement dated May 5, 2017 (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2017)
- **#10.3** Settlement Agreement, dated May 19, 2014, between Edwards Lifesciences Corporation and Medtronic, Inc. (incorporated by reference to Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2014)
- *10.4 Edwards Lifesciences Corporation Form of Employment Agreement (incorporated by reference to Exhibit 10.8 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2003)
- *10.5 Edwards Lifesciences Corporation Amended and Restated Employment Agreement for Michael A. Mussallem dated March 30, 2009 (incorporated by reference to Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2009)
- *10.6 Edwards Lifesciences Corporation Amended and Restated Chief Executive Officer Change-in-Control Severance Agreement, dated October 9, 2012 (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended September 30, 2012)
- *10.7 Edwards Lifesciences Corporation Form of Change-in-Control Severance Agreement (incorporated by reference to Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended September 30, 2012)
- *10.8 Edwards Lifesciences Corporation 2015 Edwards Incentive Plan (incorporated by reference to Appendix A in Edwards Lifesciences' Definitive Proxy Statement filed on March 30, 2015)
- *10.9 Edwards Lifesciences Corporation Long-Term Stock Incentive Compensation Program, as amended and restated as of February 23, 2017 (the "Long-Term Stock Program") (incorporated by reference to Appendix A in Edwards Lifesciences' Definitive Proxy Statement filed on March 30, 2017)

Exhibit No.	Exhibit No.
*10.10	Edwards Lifesciences Corporation Form of Participant Stock Option Statement and related Long-Term Stock Program Global Nonqualified Stock
	Option Award Agreement for awards granted prior to May 2015 (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on
	Form 10-Q for the quarterly period ended March 31, 2011)
*10.11	Edwards Lifesciences Corporation Form of Participant Restricted Stock Unit Statement and related Long-Term Stock Program Global Restricted
	Stock Unit Award Agreement for awards granted prior to May 2015 (incorporated by reference to Exhibit 10.2 in Edwards Lifesciences' report on
	Form 10-Q for the quarterly period ended March 31, 2011)
*10.12	Edwards Lifesciences Corporation Form of Performance-Based Restricted Stock Unit Statement and related Long-Term Stock Program Global
	Performance-Based Restricted Stock Unit Award Agreement for awards granted prior to May 2015 (incorporated by reference to Exhibit 10.1 in
*10.12	Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2012)
*10.13	Edwards Lifesciences Corporation Form of Long-Term Stock Program Global Nonqualified Stock Option Award Agreement for awards granted beginning May 2015 (incorporated by reference to Exhibit 10.3 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended
	June 30, 2015)
*10.14	Edwards Lifesciences Corporation Form of Long-Term Stock Program Global Restricted Stock Unit Award Agreement for awards granted
10.14	beginning May 2015 (incorporated by reference to Exhibit 10.4 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended
	June 30, 2015)
*10.15	Edwards Lifesciences Corporation Form of Performance-Based Restricted Stock Unit Statement and related Long-Term Stock Program Global
	Performance-Based Restricted Stock Unit Award Agreement for awards granted beginning May 2015 (incorporated by reference to Exhibit 10.5
	in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2015)
*10.16	Edwards Lifesciences Corporation Nonemployee Directors Stock Incentive Program, as amended and restated as of February 25, 2016
	(incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2016)
*10.17	Edwards Lifesciences Corporation Form of Participant Stock Option Statement and related Nonemployee Directors Stock Incentive Program
	Nonqualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the guarterly period ended June 30, 2013)
*10.18	Edwards Lifesciences Corporation Form of Nonemployee Directors Stock Incentive Program Restricted Stock Units Agreement (incorporated by
10.18	reference to Exhibit 10.4 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2011)
*10.19	Edwards Lifesciences Corporation Form of Nonemployee Directors Stock Incentive Program Restricted Stock Agreement (incorporated by
10.17	reference to Exhibit 10.5 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2011)
*10.20	Edwards Lifesciences Corporation Severance Pay Plan, restated effective January 1, 2013 (incorporated by reference to Exhibit 10.1 in Edwards
	Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2013)
*10.21	Amendment No. 1 to the Edwards Lifesciences Corporation Severance Pay Plan, dated February 24, 2017 (incorporated by reference to Exhibit
	10.5 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2017)
*10.22	Amendment No. 2 to the Edwards Lifesciences Corporation Severance Pay Plan, dated April 26, 2017 (incorporated by reference to Exhibit 10.2
	in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2017)
*10.23	Edwards Lifesciences Corporation Executive Deferred Compensation Plan, as amended and restated effective November 9, 2011 (incorporated
*10.04	by reference to Exhibit 10.7 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December 31, 2011)
*10.24	Edwards Lifesciences Technology SARL Retirement Savings Plan (formerly known as the Edwards Lifesciences Corporation of Puerto Rico Savings and Investment Plan), as amended and restated January 1, 2011 (incorporated by reference to Exhibit 10.17 in Edwards Lifesciences'
	report on Form 10-K for the fiscal year ended December 31, 2012)
*10.25	Amendment No. 1 to the Edwards Lifesciences Technology SARL Retirement Savings Plan (formerly known as the Edwards Lifesciences
10.20	Corporation of Puerto Rico Savings and Investment Plan), dated June 25, 2013 (incorporated by reference to Exhibit 10.3 in Edwards
	Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2017)

*10.26 Amendment No. 2 to the Edwards Lifesciences Technology SARL Retirement Savings Plan (formerly known as the Edwards Lifesciences Corporation of Puerto Rico Savings and Investment Plan), dated February 24, 2017 (incorporated by reference to Exhibit 10.4 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2017)

Exhibit No.	Exhibit No.
*10.27	Amendment No. 3 to the Edwards Lifesciences Technology SARL Retirement Savings Plan (formerly known as the Edwards Lifesciences
	Corporation of Puerto Rico Savings and Investment Plan), dated February 14, 2018
*10.28	Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, restated effective January 1, 2016 (incorporated by reference to
	Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2016)
*10.29	Amendment No. 1 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated May 2, 2016 (incorporated by reference
	to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended June 30, 2016)
*10.30	Amendment No. 2 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated December 19, 2016 (incorporated by
	reference to Exhibit 10.24 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December 31, 2016
*10.31	Amendment No. 3 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated February 24, 2017 (incorporated by
	reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2017)
*10.32	Amendment No. 4 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated February 24, 2017 (incorporated by
	reference to Exhibit 10.2 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2017)
*10.33	Amendment No. 5 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated October 27, 2017
*10.34	Amendment No. 6 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated December 19, 2017
*10.35	Amendment No. 7 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated December 19, 2017
*10.36	Edwards Lifesciences Corporation 2001 Employee Stock Purchase Plan for United States Employees, as amended and restated February 23, 2017
	(incorporated by reference to Appendix B in Edwards Lifesciences' Definitive Proxy Statement filed on March 30, 2017)
*10.37	Edwards Lifesciences Corporation 2001 Employee Stock Purchase Plan for International Employees, as amended and restated February 20, 2014
	(incorporated by reference to Appendix B in Edwards Lifesciences' Definitive Proxy Statement filed on March 28, 2014)
*10.38	Edwards Lifesciences Corporation Officer Perquisite Program Guidelines, as of February 20, 2013 (incorporated by reference to Exhibit 10.25 in
	Edwards Lifesciences' report on Form 10-K for the fiscal year ended December 31, 2012)
*10.39	Edwards Lifesciences Corporation Form of Indemnification Agreement (incorporated by reference to Exhibit 10.20 in Edwards Lifesciences'
	report on Form 10-K for the fiscal year ended December 31, 2011)
12.1	Ratio of Earnings to Fixed Charges
21.1	Subsidiaries of Edwards Lifesciences Corporation
23	Consent of Independent Registered Public Accounting Firm
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

101 The following financial statements from Edwards Lifesciences' Annual Report on Form 10-K for the year ended December 31, 2017, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Stockholders' Equity and (vi) Notes to Consolidated Financial Statements.

* Represents management contract or compensatory plan

Item 16. Form 10-K Summary

None.

[#] Pursuant to a request for confidential treatment, confidential portions of this exhibit have been redacted and have been filed separately with the Securities and Exchange Commission

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.

	EDWARDS LIFESCIEN	EDWARDS LIFESCIENCES CORPORATION		
February 16, 2018	By:	/s/ MICHAEL A. MUSSALLEM		
		Michael A. Mussallem		
		Chairman of the Board and		
		Chief Executive Officer		

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/ MICHAEL A. MUSSALLEM	Chairman of the Board and Chief Executive Officer	February 16, 2018
Michael A. Mussallem	(Principal Executive Officer)	
/s/ SCOTT B. ULLEM	Corporate Vice President, Chief Financial Officer	February 16, 2018
Scott B. Ullem	(Principal Financial Officer)	
/s/ ROBERT W.A. SELLERS	Vice President, Corporate Controller	February 16, 2018
Robert W.A. Sellers	(Principal Accounting Officer)	
/s/ JOHN T. CARDIS	Director	February 16, 2018
John T. Cardis		2
/s/ KIERAN T. GALLAHUE	Director	February 16, 2018
Kieran T. Gallahue		
/s/ LESLIE S. HEISZ	Director	February 16, 2018
Leslie S. Heisz		
/s/ WILLIAM J. LINK, PH.D.	Director	February 16, 2018
William J. Link, Ph.D.		
/s/ STEVEN R. LORANGER	Director	February 16, 2018
Steven R. Loranger		
/s/ MARTHA H. MARSH	Director	February 16, 2018
Martha H. Marsh		
/s/ WESLEY W. VON SCHACK	Director	February 16, 2018
Wesley W. von Schack		
/s/ NICHOLAS J. VALERIANI Nicholas J. Valeriani	Director	February 16, 2018

AMENDMENT NO. 3 TO THE EDWARDS LIFESCIENCES TECHNOLOGY SARL RETIREMENT SAVINGS PLAN

The Edwards Lifesciences Technology Sarl Retirement Savings Plan (the "Plan") effective January 1, 2011, as amended by Amendment No. 1 executed on June 25, 2013, and Amendment No. 2 executed on February 24, 2017, is hereby further amended as described below, pursuant to the authority set forth in Section 10.1 of the Plan, by the Edwards Lifesciences Corporation Administrative and Investment Committee (the "Committee"):

1. Effective January 1, 2017, Article VI, Section 6.6(e) is hereby amended in its entirety and replaced with the following:

(e) Company Common Stock Fund Trading Restrictions.

(i) Purchases and sales of an interest in the Company Common Stock Fund other than pursuant to a Participant's periodic salary reduction investment election are subject to the limitations imposed by the Company's insider trading policy. Those Participants who are deemed to be Section 16(b) officers may have additional restrictions on trading within the Company Common Stock Fund.

(ii) Effective January 1, 2018, Participants are not permitted to elect to invest more than 50% of their ongoing periodic salary deferral investment election (including corresponding Employer Matching Contribution), Discretionary Profit Sharing Contributions and Transition Contributions in the Company Common Stock Fund. The percentage of such election in excess of 50% shall be redirected and invested in the Plan's default investment option based on such Participant's age as of the date of the election.

(iii) Effective January 1, 2018, a Participant will not be permitted to invest in the Company Common Stock Fund following a trade of an investment option offered in the Plan if at the time of the proposed investment in the Company Common Stock Fund the value of such Participant's investment in the Company Common Stock Fund exceeds 50% of the value of his Plan Accounts."

2. Effective September 20, 2017, Article VII, Section 7.9 is hereby amended by inserting the following as a new paragraph (c) and renaming the current paragraph (c) as paragraph (d) as follows:

(c) Hurricane Maria Relief Measures adopted pursuant to the Puerto Rico Treasury Department Administrative Determination No. 17-29

(i) Applicable Rules: The *Eligible Individual* shall complete an application for a distribution due to an extreme economic hardship in the form of a total lump sum or partial payment in cash no later than June 10, 2018 to cover *Eligible Expenses*. The maximum amount that may be requested for *Eligible Expenses* shall be \$100,000. The first Ten Thousand Dollars (\$10,000) distributed as *an Eligible Distribution* shall be exempt from the payment of Puerto Rico income taxes. Any amount that exceeds Ten Thousand Dollars (\$10,000) shall be subject to a tax rate of Ten Percent (10%), which amount shall be withheld at source upon payment of the *Eligible Distribution* to the *Eligible Individual*.

More than one (1) *Eligible Distribution* may be requested by an *Eligible Individual* during the *Eligibility Period* not to exceed One Hundred Thousand Dollars (\$100,000) in total. In addition to completing the application, the *Eligible Individual* must submit, by personal delivery, mail or electronically, to the Company a sworn statement that includes the following information:

- 1. Name and mailing address of the *Eligible Individual*;
- 2. Physical address of the principal residence of the *Eligible Individual* as of the date of the request for an *Eligible Distribution*
- 3. A certification that the:

;

- *Eligible Individual* is a resident of Puerto Rico and will continue to be a resident of Puerto Rico in 2017 and 2018;
- Eligible Distribution requested does not exceed the limit of \$100,000, and,
- *Eligible Distribution* will be used to cover
 - Losses resulting from Hurricane Maria;
 - Extraordinary expenses incurred to cover basic needs after Hurricane Maria; or
 - To compensate for unearned income after Hurricane Maria
- *Eligible Individual* has not received *Eligible Distributions* from other retirement plans qualified under section 1081.01 of the Puerto Rico Internal Revenue Code of 2011, as amended (the "PR Code"). The date and amount of any *Eligible Distribution* previously received must be included;
- *Eligible Individual* has not received *Eligible Distributions* exempt from income tax withholding. The date and amount of any *Eligible Distributions* exempt from income tax withholding must be included; and
- *Eligible Individual* assumes responsibility for the payment of any tax on the *Eligible Distribution* in the event the payment is disqualified.

The Twelve (12) month suspension period on employee contributions generally applicable after a hardship withdrawal shall not apply. Therefore, an *Eligible Individual* may receive an *Eligible Distribution* from the Plan without having to reduce or halt contributions into the Plan.

(ii) <u>Definitions:</u>

<u>"Eligible Individual"</u> means a Participant who is considered a resident of Puerto Rico during the taxable years 2017 and 2018, as defined in PR Code Section 1010.01(a)(30).

<u>"Eligible Expenses"</u> mean all expenses incurred by a Participant or his or her spouse, descendants (e.g., children) or ascendants (e.g., parents) to cover the (a) losses or damages caused by Hurricane Maria in Puerto Rico, and, (b) extraordinary and unforeseeable expenses to cover basic needs after Hurricane Maria. Eligible Expenses include, but are not limited to, expenses incurred during the recovery period after Hurricane Maria for the repair of damages to a residence or motor vehicle, medical expenses, replacement or repair of personal property, purchase of food and fuel, purchase and/or repair of power generators or lodging and food expenses resulting from the total or partial destruction of the principal residence caused by Hurricane Maria. A detailed list of the expenses or losses incurred because of Hurricane Maria is not required.

<u>"Eligible Distributions"</u> mean payments or cash distributions made from the Plan during the period between September 20, 2017 to June 30, 2018 that have been requested by an *Eligible Individual* to cover *Eligible Expenses*. Annuities or periodic payments shall not qualify as E *ligible Distributions*.

" <u>Eligibility Period</u>" means the period between September 20, 2017 to June 30, 2018. Distributions must have occurred within the Eligibility Period to qualify as an Eligible Distribution. Distributions paid after the Eligibility Period will not qualify as an Eligible Distribution even if the process commenced before the end of such Eligible Period. Notwithstanding the foregoing, Eligible Expenses may be incurred after the Eligibility Period ends.

(d) Any application for a distribution under this Section will be deemed to be a consent by the Participant to the distribution.

IN WITNESS WHEREOF, the Committee has caused this Amendment No. 3 to be executed by an authorized representative on the 14th day of February of 2018.

EDWARDS LIFESCIENCES CORPORATION

ADMINISTRATIVE AND INVESTMENT COMMITTEE

Christine Z. McCauley, Chairperson

By: <u>/s/ Christine Z. McCauley</u>

Amendment No. 5 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan (Effective January 1, 2016)

The Edwards Lifesciences Corporation 401(k) Savings and Investment Plan as amended and restated as of January 1, 2016 ("Plan") is amended effective August 10, 2017, unless specified otherwise:

1. Article II is amended by the addition of a new defined term as Section 2.20 and all defined terms starting at the original Section 2.20 shall be renumbered. The new Section 2.20 shall read as follows:

"2.20 "Encore Employee" means an Employee who has been formally designated as such by the Employer regardless of the number of hours scheduled to work."

2. Article III is amended by the addition of a new Section 3.6 which reads as follows:

"3.6 <u>Encore Employees</u>. Encore Employees who due to their scheduled work hours become Part-Time Employees shall not be eligible for any contribution other than the right to elect to make a Pay Deferral Contribution."

IN WITNESS WHEREOF, a duly authorized officer of the Company and a member of the Administrative and Investment Committee has caused this Plan to be executed on the 27th day of October, 2017.

EDWARDS LIFESCIENCES CORPORATION ADMINISTRATIVE AND INVESTMENT COMMITTEE

By: <u>/s/ Christine Z. McCauley</u> Christine Z. McCauley, Chairperson Administrative and Investment Committee

Amendment No. 6 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan (Restated effective January 1, 2016)

The Restated Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, effective January 1, 2016, as amended by Amendment No. 1 executed on May 2, 2016, Amendment No. 2 executed on December 19, 2016, Amendment No. 3 executed on February 24, 2017, Amendment No. 4 executed on February 24, 2017, and Amendment No. 5 executed on October 27, 2017 (the "Plan") is hereby further amended effective December 2, 2017 as follows:

1. Article II, Section 2.44 is hereby amended in its entirety as follows:

2.44 "Year of Vesting Service" or "Vesting Service" means the period credited to an Employee for purposes of determining the extent to which the Employee is vested in his Employer Matching Account under the vesting schedule set forth in Section 7.2. Under the Plan, an Employee is credited with a Year of Vesting Service if the Employee completes at least 1,000 Hours of Service during any Plan Year. An Employee's period of service with a corporation that becomes a Commonly Controlled Entity of an Employer shall be taken into account for purposes of this Section if the Employee is employed on the date the corporation becomes a Commonly Controlled Entity. An individual who became an Employee on December 2, 2017 who immediately prior to such date was a co-employee of Harpoon Medical, Inc. and Omni Resource, Inc. shall have their service with these organizations taken into account for purposes of this Section 2.44. Credit shall be given at the rate of 45 Hours of Service for each week during such period (but not to exceed 1,000 Hours of Service for any twelve month period). If an Employee is credited with at least one Year of Vesting Service, he shall never lose such service regardless of when he returns to employment as an Employee. Notwithstanding the foregoing, an individual (i) who immediately prior to the Effective Date was employed by Baxter or a Commonly Controlled Entity of Baxter and (ii) who becomes an Eligible Employee on the Effective Date shall be credited with the number of Years of Vesting Services such individual earned while employed with Baxter or a Commonly Controlled Entity of Baxter.

2. Article III, Section 3.1 is hereby amended in its entirety as follows:

3.1 Participation. Each Prior Plan Participant shall become a Participant on the Effective Date. Each other Eligible Employee shall become a Participant as of the Entry Date coincident with or immediately following the Participant's satisfaction of the applicable eligibility service requirement as described in the next two sentences. An Employee who is not a Part-Time Employee shall satisfy the eligibility service requirement on the thirty-first (31 st) day of employment. An Employee who is a Part-Time Employee shall satisfy the eligibility service requirement at the end of the first twelvemonth period beginning on the date of the Employee's employment, or beginning on any subsequent January 1, during which the Employee completes 1,000 or more Hours of Service during such twelve-month period. Notwithstanding anything to the contrary, an individual who became an Employee on December 2, 2017, who immediately prior to such date was a co-employee of Harpoon Medical, Inc. and Omni Resource, Inc. shall be eligible to become a participant on such date.

IN WITNESS WHEREOF, the Edwards Lifesciences Corporation Administrative and Investment Committee has caused this Amendment No. 6 to be executed by an authorized representative.

EDWARDS LIFESCIENCES CORPORATION ADMINISTRATIVE AND INVESTMENT COMMITTEE

By: <u>/s/ Christine Z. McCauley</u> Christine Z. McCauley, Chairperson

Date: December 19, 2017

Amendment No. 7 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan (Restated effective January 1, 2016)

The Restated Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, effective January 1, 2016 (the "Plan"), as amended by Amendment No. 1 executed on May 2, 2016, Amendment No. 2 executed on December 19, 2016, Amendment No. 3 executed on February 24, 2017, Amendment No. 4 executed on February 24, 2017, Amendment No. 5 executed on October 27, 2017, and Amendment No. 6 executed on December 19, 2017, is hereby further amended effective January 1, 2018 as follows:

- 1. Article VI, Section 6.4(c)(v) is hereby amended in its entirety as follows:
 - "(v) Company Common Stock Fund Trading Restrictions.

(A) Purchases and sales of an interest in the Company Common Stock Fund other than pursuant to a Participant's periodic salary reduction investment election are subject to the limitations imposed by the Company's insider trading policy. Those Participants who are deemed to be Section 16(b) officers may have additional restrictions on trading within the Company Common Stock Fund.

(B) Participants are not permitted to elect to invest more than 50% of their ongoing periodic salary deferral investment election (including corresponding Employer Matching Contribution), Discretionary Profit Sharing Contributions and Transition Contributions in the Company Common Stock Fund. The percentage of such election in excess of 50% shall be redirected and invested in the Plan's default investment option based on such Participant's age as of the date of the election.

(C) Effective January 1, 2018, a Participant will not be permitted to invest in the Company Common Stock Fund following a trade of an investment option offered in the Plan if at the time of the proposed investment in the Company Common Stock Fund the value of such Participant's investment in the Company Common Stock Fund exceeds 50% of the value of Participant's Plan Accounts."

IN WITNESS WHEREOF, the Edwards Lifesciences Corporation Administrative and Investment Committee has caused this Amendment No. 7 to be executed by an authorized representative.

EDWARDS LIFESCIENCES CORPORATION ADMINISTRATIVE AND INVESTMENT COMMITTEE

By: /s/ Christine Z. McCauley_

Christine Z. McCauley, Chairperson Date: December 19, 2017

EDWARDS LIFESCIENCES CORPORATION COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES

	Years Ended December 31,								
		2017		2016		2015		2014	2013
		(Dollars in million			s)				
Earnings:									
Income before provision for income taxes	\$	1,034.9	\$	737.9	\$	622.4	\$	1,144.0	\$ 511.2
Add:									
Fixed charges		32.3		26.8		24.7		24.8	18.4
Distributed income of equity investees		0.3		1.4		2.2		2.1	
Earnings, as adjusted	\$	1,067.5	\$	766.1	\$	649.3	\$	1,170.9	\$ 529.6
Fixed charges :									
Interest expense	\$	21.5	\$	17.5	\$	15.5	\$	15.5	\$ 8.9
Amortized premiums, discounts and capitalized expenses related to indebtedness		1.7		1.7		1.7		1.7	0.9
Interest portion of rental expense (a)		9.1		7.6		7.5		7.6	8.6
Fixed charges	\$	32.3	\$	26.8	\$	24.7	\$	24.8	\$ 18.4
Ratio of earnings to fixed charges		33.0		28.6		26.3		47.1	 28.7

(a) One-third of all rental expense is deemed to be interest, which we believe to be a conservative estimate of an interest factor in our leases.

The following entities are wholly-owned entities of Edwards Lifesciences Corporation:

Legal Entity	State of Incorporation/ Formation	Country of Incorporation/ Formation
Edwards Lifesciences Asset Management Corporation	Delaware	U.S.
Edwards Lifesciences CardiAQ LLC	Delaware	U.S.
Edwards Lifesciences Corporation of Puerto Rico	Delaware	U.S.
Edwards Lifesciences Financing LLC	Delaware	U.S.
Edwards Lifesciences Holding, Inc.	Delaware	U.S.
Edwards Lifesciences Innovation Holding LLC	Delaware	U.S.
Edwards Lifesciences International Assignments Inc.	Delaware	U.S.
Edwards Lifesciences International Holdings LLC	Delaware	U.S.
Edwards Lifesciences LLC	Delaware	U.S.
Edwards Lifesciences NY Inc.	Delaware	U.S.
Edwards Lifesciences Research Holding LLC	Delaware	U.S.
Edwards Lifesciences (U.S.) Inc.	Delaware	U.S.
Edwards Lifesciences World Trade Corporation	Delaware	U.S.
Harpoon Medical, Inc.	Delaware	U.S.
Edwards Lifesciences PVT, Inc.	Delaware	U.S.
Red Hill Holding LLC	Delaware	U.S.
Red Hill Insurance Corporation	D.C.	U.S.
Valtech Cardio Inc.	Delaware	U.S.
Edwards Lifesciences Austria GmbH		Austria
Edwards Lifesciences Pty. Limited		Australia
Percutaneous Cardiovascular Solutions, Pty Ltd.		Australia
Edwards Lifesciences S.P.R.L.		Belgium
Edwards Lifesciences Comercio de Produtos Medico-Cirurgicos Ltda.		Brazil
Edwards Lifesciences (Canada) Inc.		Canada
Edwards (Shanghai) Medical Products Co., Ltd.		China
Edwards Lifesciences Colombia S.A.S.		Colombia
Edwards Lifesciences Czech Republic s.r.o.		Czech Republic
Edwards Lifesciences Costa Rica, S.R.L.		Costa Rica
Edwards Lifesciences A/S		Denmark
Edwards Lifesciences SAS		France
Edwards Lifesciences Services GmbH		Germany
Valtech Cardio GmbH		Germany
Edwards Lifesciences Hellas, EPE		Greece
Edwards Lifesciences (India) Private Limited		India
Edwards Lifesciences Ireland, Limited		Ireland
Edwards Lifesciences (Israel) Ltd.		Israel
Edwards Lifesciences Sales (Israel) Ltd.		Israel
Valtech Cardio, Ltd.		Israel
Edwards Lifesciences Italia SpA		Italy
Edwards Lifesciences (Japan) Limited		Japan

Legal Entity	State of Incorporation/ Formation	Country of Incorporation/ Formation
Edwards Lifesciences Korea Co., Ltd.	Formation	Korea
Edwards Lifesciences (Malaysia) Sdn. Bhd.		Malaysia
Edwards Lifesciences Mexico, S.A. de C.V.		Mexico
Edwards Lifesciences (New Zealand) Limited		New Zealand
BMEYE B.V.		The Netherlands
Edwards Lifesciences B.V.		The Netherlands
Edwards Lifesciences Holding B.V.		The Netherlands
EL Research C.V.		The Netherlands
Edwards Lifesciences Poland Sp.z o.o		Poland
Edwards Lifesciences (Portugal) Comércio e Distribuicao de Dispositivos Medicos, Lda.		Portugal
Edwards Lifesciences Export (Puerto Rico) Corporation		Puerto Rico
Edwards Lifesciences (Asia) Pte. Ltd.		Singapore
Edwards Lifesciences (Singapore) Pte Ltd.		Singapore
Edwards Lifesciences (Proprietary) Ltd.		South Africa
Edwards Lifesciences S.L.		Spain
Edwards Lifesciences Nordic AB		Sweden
Edwards Lifesciences AG		Switzerland
Edwards Lifesciences Technology S.A.R.L.		Switzerland
Edwards Lifesciences IPRM AG		Switzerland
Mitral Valve Technologies S.A.R.L.		Switzerland
Edwards Lifesciences (Taiwan) Corporation		Taiwan
Edwards Lifesciences (Thailand) Ltd.		Thailand
Edwards Lifesciences Turkey Health Technologies Limited Sirketi		Turkey
Edwards Lifesciences Limited		United Kingdom
Whitland Research Limited		United Kingdom

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-33054, 333-33056, 333-40434, 333-52332, 333-52334, 333-52346, 333-60670, 333-98219, 333-105961, 333-127260, 333-150810, 333-154242, 333-168462, 333-183106, 333-192229, 333-195853, 333-204180, 333-211333, and 333-217909) and Form S-3 (No. 333-213358) of Edwards Lifesciences Corporation of our report dated February 16, 2018 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP Irvine, California February 16, 2018

EDWARDS LIFESCIENCES CORPORATION CERTIFICATIONS PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002 CERTIFICATION

I, Michael A. Mussallem, certify that:

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

By: /s/ MICHAEL A. MUSSALLEM

Michael A. Mussallem Chairman of the Board and Chief Executive Officer

February 16, 2018

EDWARDS LIFESCIENCES CORPORATION CERTIFICATIONS PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002 CERTIFICATION

I, Scott B. Ullem, certify that:

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

By: /s/

/s/ SCOTT B. ULLEM

Scott B. Ullem Corporate Vice President, Chief Financial Officer

February 16, 2018

EDWARDS LIFESCIENCES CORPORATION CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Edwards Lifesciences Corporation (the "Company") on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Michael A. Mussallem, Chairman of the Board and Chief Executive Officer of the Company, and Scott B. Ullem, Corporate Vice President, Chief Financial Officer, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ MICHAEL A. MUSSALLEM

Michael A. Mussallem Chairman of the Board and Chief Executive Officer

/s/ SCOTT B. ULLEM

Scott B. Ullem Corporate Vice President, Chief Financial Officer

February 16, 2018

February 16, 2018