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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, 2018

OR

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

For the Transition Period From to

Commission File Number 1-15525

EDWARDS LIFESCIENCES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**36-4316614**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

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:	**Name of each exchange on which registered:**
Common Stock, par value $1.00 per share	New York Stock Exchange

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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, a 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.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

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

The aggregate market value of the registrant's common stock held by non-affiliates as of June 29, 2018 (the last trading day of the registrant's most recently completed second quarter): $27,160,261,560 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, 2019, was 207,766,329.

Documents Incorporated by Reference

Portions of the registrant's proxy statement for the 2019 Annual Meeting of Stockholders (to be filed within 120 days of December 31, 2018) are incorporated by reference into Part III, as indicated herein.

EDWARDS LIFESCIENCES CORPORATION
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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 experiences or those expressed or implied in any forward-looking statements contained in this report. See "Risk Factors" in Part I, Item 1A below for a discussion of these risks, as well as our subsequent reports on Forms 10-Q and
8-K. These forward-looking statements speak only as of the date on which they are made and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of the statement. If we do update or correct one or more of these statements, investors and others should not conclude that we will make additional updates or corrections.

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 who require hemodynamic monitoring during surgery or in intensive care. Edwards Lifesciences has a proud six-decade history 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 or surgically re-shape and repair the faulty valve with an Edwards Lifesciences annuloplasty ring. Alternatively, a clinician may 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 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.

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. Through the end of 2018, our products and technologies were categorized into three main areas: Transcatheter Heart Valve Therapy (including Transcatheter Aortic Valve Replacement and Transcatheter Mitral and Tricuspid Therapies), 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*." Beginning in 2019, we will report our sales in four main areas: Transcatheter Aortic Valve Replacement, Surgical Structural Heart, Critical Care, and Transcatheter Mitral and Tricuspid Therapies ("TMTT"). Going forward, TMTT will be reported as a separate product category to allow greater visibility into our performance in transcatheter mitral and tricuspid therapies.

Transcatheter Aortic Valve Replacement (formerly 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,* the *Edwards SAPIEN 3,* and the *Edwards SAPIEN 3 Ultra* transcatheter aortic heart valves, and the *CENTERA* transcatheter aortic heart valve, 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. 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 aortic valve replacement products represented 61%, 59%, and 55% of our net sales in 2018, 2017, and 2016, respectively.

Surgical Structural Heart (formerly 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 are the worldwide leader in surgical heart valve repair therapies, which include annuloplasty rings. We are also a global leader in cardiac cannula devices and offer a variety of procedure-enabling innovations that advance minimally invasive surgery.

Sales of our surgical tissue heart valve products represented 18%, 21%, and 23% of our net sales in 2018, 2017, and 2016, 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, which can improve 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. In addition to our sensors and platforms, we have added *Acumen Hypotension Prediction Index*, an advanced algorithm that indicates the likelihood of a patient developing hypotension. 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%, 10%, and 12% of our net sales in 2018, 2017, and 2016, respectively.

Transcatheter Mitral and Tricuspid Therapies

We are making significant investments in the development of transcatheter heart valve repair and replacement technologies designed to treat mitral and tricuspid valve diseases. While most of these technologies are in early clinical phases, the *Cardioband* systems for mitral and tricuspid valve reconstruction are commercially available in Europe. *Cardioband* enables clinicians to restore a patient's mitral or tricuspid valve to a more functional state by reducing the annulus and lowering regurgitation.

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 Aortic Valve Replacement, our primary competitors include Medtronic PLC and Boston Scientific Corporation. In Surgical Structural Heart, 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. In Transcatheter Mitral and Tricuspid Therapies, our primary competitor is Abbott Laboratories, although there are a considerable number of large and small companies with development efforts in these fields.

Sales and Marketing

We have a number of product lines that require sales and marketing strategies tailored 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 provide awareness of our products and technologies, we conduct educational symposia and best practices training for our physician, hospital executive, service line leadership, nursing, 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 2018.

Where we choose to market our products is also influenced by the existence of, or potential for, adequate reimbursement to hospitals and other providers by national healthcare systems. We rely extensively on our sales and field clinical specialist personnel who work closely with our customers in hospitals. Field clinical specialists routinely attend procedures where Edwards' products are being used in order to provide guidance on the use of our devices, thereby enabling physicians and staff to reach expert proficiency and deliver positive patient outcomes. 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 product lines 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 2018, 55% of our net sales were derived from sales to customers in the United States.

International. In 2018, 45% of our net sales were derived internationally through our direct sales forces and independent distributors. Of the total international sales, 53% were in Europe, 24% 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. We manufacture our Transcatheter Aortic Valve Replacement and Structural Surgical Heart products primarily in the United States (California and Utah) and Singapore. Heart valve manufacturing facilities are also currently under construction in Costa Rica and Ireland. We manufacture our Critical Care products primarily in our facilities located in Puerto Rico and the Dominican Republic. We manufacture our *Cardioband* Transcatheter Mitral and Tricuspid Reconstruction Systems in Israel, with plans to transfer production to other Edwards' manufacturing locations.

We use a diverse and broad range of raw and organic materials in the design, development, and manufacture of our products. We manufacture our non-implantable products from fabricated raw materials including resins, chemicals, electronics, and metals. Most of our replacement heart valves are manufactured from natural tissues harvested from animal tissue, as well as fabricated 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 incorporating animal tissue 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.

A considerable portion of our research and development 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 Aortic Valve Replacement, we are developing new products to further improve and streamline transcatheter aortic heart valve replacement procedures, and developing pulmonic platforms to expand therapies for congenital heart disease patients.

Our Surgical Structural Heart development programs include innovative platforms for patients who are best treated surgically, specifically active patients and patients with more complex combined procedures.

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 a semi-closed loop system for standardized management of patient fluid levels.

In Transcatheter Mitral and Tricuspid Therapies, we are making significant investments in the development of technologies designed to treat mitral and tricuspid valve diseases and other structural heart conditions. In addition to our internally developed programs, we have made investments in several companies that are independently developing minimally-invasive technologies to treat structural heart diseases.

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 3,900 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 non-exclusive 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, and will result in substantial additional expense.

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 ("CMS") 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. Currently, CMS is reviewing the National Coverage Determination for Transcatheter Aortic Valve Replacement that has been in place since 2012. An updated final policy is expected to be issued in 2019.

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.

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, 2018, we had approximately 12,800 employees worldwide, the majority of whom were located in the United States, Singapore, the Dominican Republic, and Puerto Rico. 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 I above.

Business and Operating Risks

If we do not introduce new and differentiated products in a timely manner, our products may become more susceptible to competition or technologically 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 differentiated products, our products could become more susceptible to competition or technologically obsolete and our revenue and operating results would suffer. Even if we are able to develop new or differentiated 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 differentiated 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 Structural Heart, Transcatheter Aortic Valve Replacement, and Transcatheter Mitral and Tricuspid Therapies products are manufactured from treated natural animal tissue and man-made materials. Our non-implantable products are manufactured from man-made raw materials including resins, 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 options are considered and identified, we typically do not pursue 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. 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 on us.

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 disruption of facility utilities, 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. Also, as we expand our manufacturing footprint, significant delays in construction and process validation could impact our production capacity. Further, scaling a new product for commercial production can sometimes be delayed. 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.

We manage a portfolio of research and development products. 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 developed technology and/or 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.

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, with 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 or differentiated 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 differentiated 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 enrolled or 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 may experience 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.

Failure to protect our information technology infrastructure against cyber-based attacks, network security breaches, service interruptions or data corruption could materially disrupt our operations and adversely affect our business and operating results.

The operation of our business depends on our information technology systems. We rely on our information technology systems to, among other things, effectively manage sales and marketing data, accounting and financial functions, inventory management, product development tasks, clinical data, customer service and technical support functions. Our information technology systems are vulnerable to damage or interruption from earthquakes, fires, floods and other natural disasters, terrorist attacks, power losses, computer system or data network failures, security breaches, data corruption, and cyber-based attacks. Cyber-based attacks can include computer viruses, computer denial-of-service attacks, worms, and other malicious software programs or other attacks, covert introduction of malware to computers and networks, impersonation of authorized users, and efforts to discover and exploit any design flaws, bugs, security vulnerabilities, or security weaknesses, as well as intentional or unintentional acts by employees or other insiders with access privileges, intentional acts of vandalism by third parties and sabotage. In addition, federal, state, and international laws and regulations, such as the General Data Protection Regulation adopted by the European Union, can expose us to enforcement actions and investigations by regulatory authorities, and potentially result in regulatory penalties and significant legal liability, if our information technology security efforts fail. In addition, a variety of our software systems are cloud-based data management applications, hosted by third-party service providers whose security and information technology systems are subject to similar risks.

The failure of either our or our service providers' information technology could disrupt our entire operation or result in decreased sales, increased overhead costs, product shortages, loss or misuse of proprietary or confidential information, intellectual property, or sensitive or personal information, all of which could have a material adverse effect on our reputation, business, financial condition, and operating results.

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 law including tax rate changes, and factors affecting global economic stability, and the political environment regarding health care in general. 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, 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, Public Law 115-97, commonly referred to as the Tax Cuts and Jobs Act ("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%, various new international provisions, 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 became 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 that began in 2018, and will not accrue interest. In addition, subsequent U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act could have a material adverse effect on our business, results of operations or financial condition.

Our business is subject to economic, political, and other risks associated with international sales and operations.

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 45% in 2018. 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;
- currency exchange rate fluctuations;
- cultural 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.

Continued 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 government and other 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.

Government and other 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, software defects, medical procedure errors, 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 cyber-attack 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 products or product 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 delay pre-market approval of our products until the noncompliance is resolved. Product approvals by the FDA can also be withdrawn due to failure to comply with regulatory standards or the occurrence of unforeseen problems following initial approval.

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.

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 (under construction)
Europe		
Nyon, Switzerland	(1)	Administration, Marketing
Prague, Czech Republic	(2)	Administration
Shannon, Ireland	(2)	Manufacturing (under construction)
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 2023; the Costa Rica lease expires in 2021; the Prague, Czech Republic lease expires in 2026; the Shannon, Ireland lease expires in 2024; the Tokyo, Japan lease expires in 2021; the Shanghai, China lease expires in 2021; 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.

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.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the New York Stock Exchange (the "NYSE") under the symbol "EW."

Number of Stockholders

On January 31, 2019, there were 10,014 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.

Unregistered Sales of Equity Securities

On November 26, 2016, we entered into an agreement and plan of merger to acquire Valtech Cardio Ltd. Pursuant to that agreement, on May 25, 2018, we issued 252,497 shares of its common stock to certain former shareholders of Valtech Cardio Ltd. in connection with the achievement of a milestone.

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, 2018 through October 31, 2018	1,475,683	$ 150.26	1,475,683	$ 544.8
November 1, 2018 through November 30, 2018	597	147.80	—	544.8
December 1, 2018 through December 31, 2018	338,086	148.05	338,086	494.6
Total	1,814,366	149.84	1,813,769	

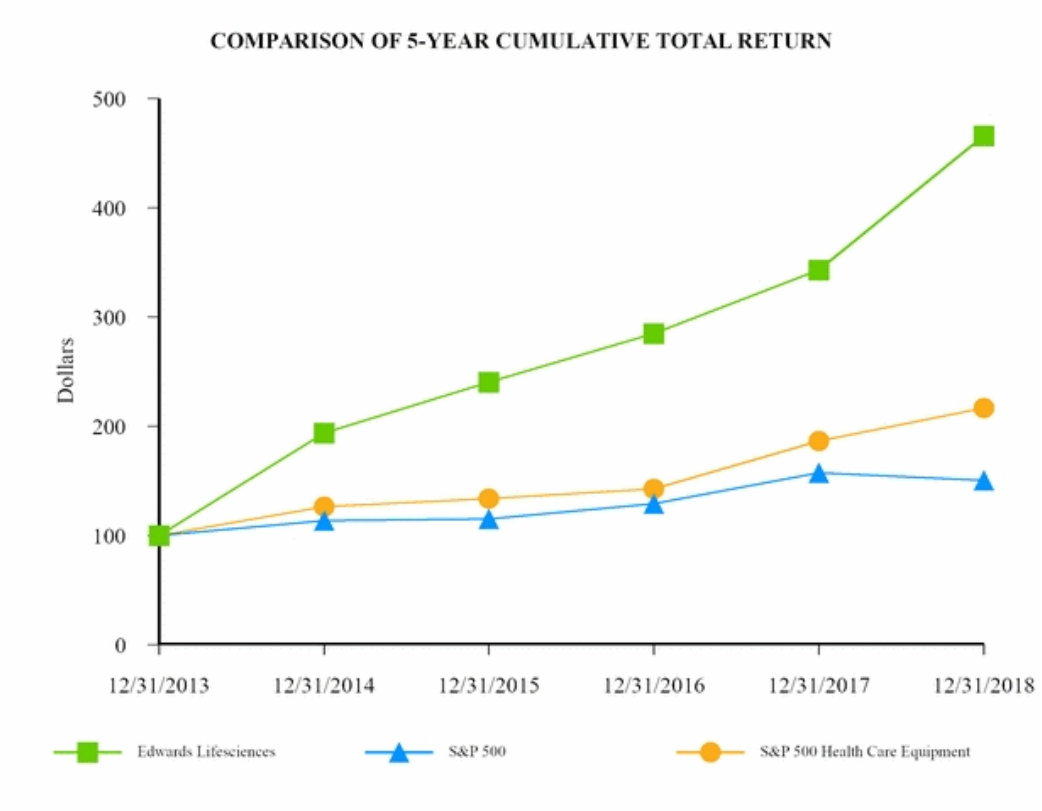
(a) The difference between the total number of shares (or units) purchased and the total number of shares (or units) purchased as part of publicly announced plans or programs is due to shares withheld by us to satisfy tax withholding obligations in connection with the vesting of restricted stock units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

(b) On November 15, 2017, 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, or in privately negotiated transactions, up to $1.0 billion of our common stock. The repurchase program does not have an expiration date.

(c) In October 2018, we paid $250.0 million under our accelerated share repurchase ("ASR") agreement and received an initial delivery of 1.4 million shares of our common stock, representing approximately 80 percent of the total contract value. In November 2018, the ASR agreement concluded and we received an additional 0.3 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 Health Care Equipment Index. The cumulative total return listed below assumes an initial investment of $100 at the market close on December 31, 2013 and reinvestment of dividends. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.



	Total Cumulative Return				
	2014	2015	2016	2017	2018
Edwards Lifesciences	**$ 193.70**	**$ 240.21**	**$ 284.98**	**$ 342.79**	**$ 465.85**
S&P 500	**113.69**	**115.26**	**129.05**	**157.22**	**150.33**
S&P 500 Health Care Equipment	**126.28**	**133.82**	**142.50**	**186.53**	**216.82**

Item 6. Selected Financial Data

		As of or for the Years Ended December 31,				
		2018	2017	2016	2015	2014
		(in millions, except per share data)				
OPERATING RESULTS	Net sales	$ 3,722.8	$ 3,435.3	$ 2,963.7	$ 2,493.7	$ 2,322.9
	Gross profit	2,783.4	2,560.0	2,166.3	1,876.5	1,697.3
	Operating income (a)	748.2	1,089.4	751.2	636.1	1,212.5
	Net income (a)	722.2	583.6	569.5	494.9	811.1
COMMON STOCK INFORMATION	Net income per common share (a):					
	Basic	$ 3.45	$ 2.77	$ 2.67	$ 2.30	$ 3.81
	Diluted	3.38	2.70	2.61	2.25	3.74
	Cash dividends declared per common share	—	—	—	—	—
BALANCE SHEET DATA	Total assets	$ 5,323.7	$ 5,666.4	$ 4,518.5	$ 4,056.3	$ 3,519.0
	Long-term debt (b)	593.8	438.4	822.3	596.9	594.1

(a) The above results include special charges of $109.1 million during 2018 and $59.9 million during 2017. Also, the above results include a $180.0 million ($137.5 million, net of tax) charge related to a litigation settlement, a $112.5 million ($70.3 million, net of tax) gain for a litigation payment received in 2017, and a $750.0 million ($487.9 million, net of tax) gain for a payment received in 2014 under a litigation settlement. In addition, in 2017, the above results reflect a $262.0 million tax expense related to the implementation of U.S. tax law changes. 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 "2013 Notes"). At December 31, 2017, the 2013 Notes were classified as short-term obligations as these obligations were due within one year. These 2013 Notes were paid in October 2018. In June 2018, we issued $600.0 million of 4.3% fixed-rate unsecured senior notes due June 15, 2028, which were classified as long-term obligations. 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, 2018. Also discussed is our financial position as of December 31, 2018. 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 who require hemodynamic monitoring during surgery or 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. Beginning in 2019, we will report our sales in four main areas: Transcatheter Aortic Valve Replacement, Surgical Structural Heart, Critical Care, and Transcatheter Mitral and Tricuspid Therapies ("TMTT"). Going forward, TMTT will be reported as a separate product category to allow greater visibility into our performance in transcatheter mitral and tricuspid therapies.

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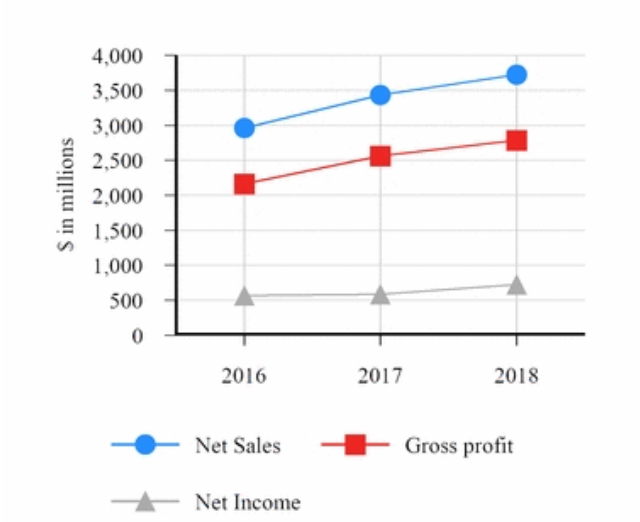
Financial Highlights



Our sales growth was led by our THVT products, primarily due to increased sales of the *Edwards SAPIEN 3* transcatheter heart valve across all regions, primarily the United States, and our Critical Care products, primarily the introduction of our *HemoSphere* advanced monitoring platform in the United States. Our 2018 SHVT net sales in the United States decreased compared to 2017, primarily related to a $82.5 million sales return reserve related to our conversion to a consignment inventory model for surgical valves. Our gross profit margin in 2018 and 2017 was positively impacted by an improved product mix, led by THVT products.

The increase in our net income in 2018 was primarily driven by the aforementioned operating performance, combined with tax benefits from a reduction in the U.S. federal corporate rate from 35% to 21% and the settlement of tax audits. This increase was partially offset by charges for a litigation settlement and impairment of intangible assets. The increase in our net income in 2017 was primarily driven by our increased sales and a gain from litigation related to the theft of trade secrets, partially offset by increased tax expenses associated with the Tax Cuts and Jobs Act.

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 2018, we invested 16.7% of our net sales in research and development. The following is a summary of important developments during 2018:

- we received CE Mark for the *SAPIEN 3 Ultra* system for transcatheter aortic valve replacement in severe, symptomatic aortic stenosis patients and we received FDA approval for the *SAPIEN 3 Ultra* system for those patients who are determined to be at intermediate or greater risk of open-heart surgery;

- we received CE Mark for our self-expanding *CENTERA* valve for severe, symptomatic aortic stenosis patients at high risk of open-heart surgery, and we initiated a pivotal trial in the United States to study *CENTERA* for severe, symptomatic aortic stenosis patients at intermediate risk of open-heart surgery;
- we received regulatory approval of our *Acumen Hypotension Prediction Index* in the United States. This technology leverages predictive analytics to alert clinicians of hypotension, or low blood pressure, before it occurs in their surgical patients;
- we received CE Mark for the *Edwards Cardioband* tricuspid valve reconstruction system for the treatment of tricuspid regurgitation;

- we received FDA approval for the *Acumen* suite of intelligent decision-support solutions for use on the *HemoSphere* advanced monitoring platform; and
- we reached an agreement with Boston Scientific Corporation ("Boston Scientific") in January 2019 to settle all outstanding patent disputes for a one-time payment to Boston Scientific of $180.0 million.

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)

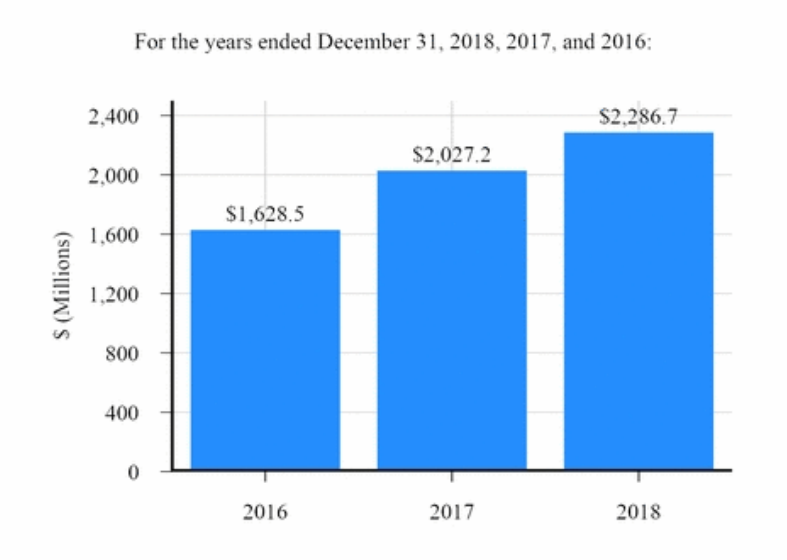
	Years Ended December 31,			Change		Percent Change	
	2018	2017	2016	2018	2017	2018	2017
United States	$ 2,055.3	$ 1,907.6	$ 1,615.7	$ 147.7	$ 291.9	7.7%	18.1%
Europe	885.1	831.0	749.0	54.1	82.0	6.5%	10.9%
Japan	396.8	350.3	309.3	46.5	41.0	13.3%	13.3%
Rest of World	385.6	346.4	289.7	39.2	56.7	11.4%	19.5%
International	1,667.5	1,527.7	1,348.0	139.8	179.7	9.2%	13.3%
Total net sales	$ 3,722.8	$ 3,435.3	$ 2,963.7	$ 287.5	$ 471.6	8.4%	15.9%

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,			Change		Percent Change	
	2018	2017	2016	2018	2017	2018	2017
Transcatheter Heart Valve Therapy	$ 2,286.7	$ 2,027.2	$ 1,628.5	$ 259.5	$ 398.7	12.8 %	24.5%
Surgical Heart Valve Therapy	761.6	807.1	774.9	(45.5)	32.2	(5.6)%	4.2%
Critical Care	674.5	601.0	560.3	73.5	40.7	12.2 %	7.3%
Total net sales	$ 3,722.8	$ 3,435.3	$ 2,963.7	$ 287.5	$ 471.6	8.4 %	15.9%

Transcatheter Heart Valve Therapy



2018 Compared with 2017

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

- higher sales of the *Edwards SAPIEN 3* valve across all regions, particularly the United States and Japan, driven by strong therapy adoption; and
- foreign currency exchange rate fluctuations, which increased net sales by $20.0 million, due primarily to the strengthening of the Euro against the United States dollar.

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, due primarily to increased sales in Japan, driven by its launch in March 2016, and Europe, driven by strong therapy adoption;

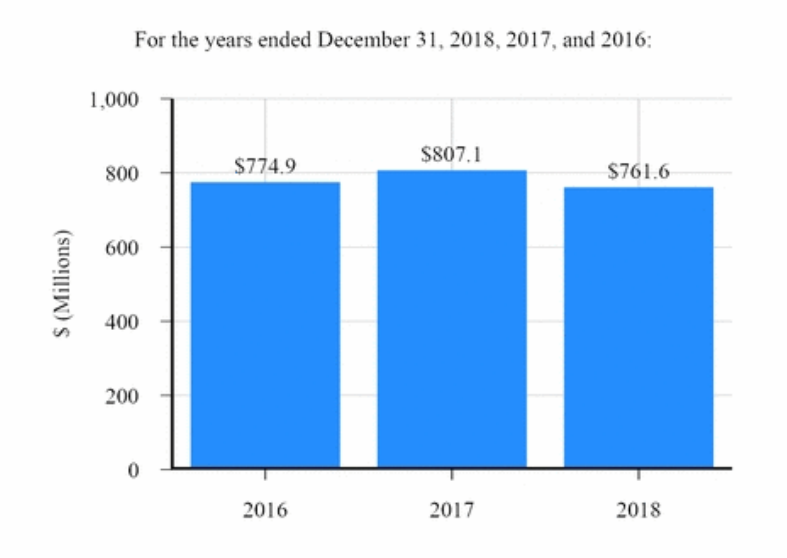
partially offset by:

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

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. Also, in April 2018, we received approval to initiate a United States pivotal trial to study *CENTERA* for severe, symptomatic aortic stenosis patients at intermediate risk of open-heart surgery, and commenced the trial in October 2018. In April 2018, we received United States Food and Drug Administration approval for a limited continued access protocol of our PARTNER 3 Trial for low-risk patients with severe aortic stenosis in the United States, which we began enrolling late in the third quarter of 2018. Also in April 2018, we received CE Mark for the *Edwards Cardioband* tricuspid valve reconstruction system for the treatment of tricuspid regurgitation. In November 2018, we received CE Mark for the *Edwards SAPIEN 3 Ultra System,* which features the *SAPIEN 3 Ultra* valve with a heightened outer skirt, and a delivery system that incorporates an on-balloon design that is compatible with the low-profile *Axela* sheath. In December 2018, we received

FDA approval for the *Edwards SAPIEN 3 Ultra System* for severe, symptomatic aortic stenosis patients who are determined to be at intermediate or greater risk of open-heart surgery.

Surgical Heart Valve Therapy



2018 Compared with 2017

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

- sales return reserves in the United States related to our conversion to a consignment inventory model for surgical valves;

partially offset by:

- increased sales of surgical aortic tissue valves in the United States and Rest of World; and
- foreign currency exchange rate fluctuations, which increased net sales by $9.2 million, due primarily to the strengthening of the Euro against the United States dollar.

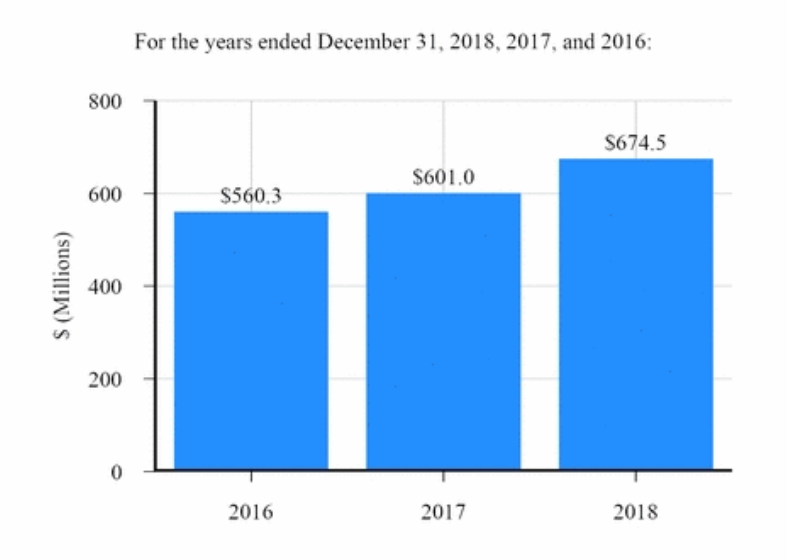
2017 Compared with 2016

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

- surgical aortic tissue valves in Europe and the United States, primarily due to 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.

In September 2018, we began launching our *INSPIRIS RESILIA* aortic valve in Japan. The *INSPIRIS RELILIA* valve is the first in a new class of resilient heart valves designed to be an option for active patients.

Critical Care



2018 Compared with 2017

The increase in net sales of Critical Care products was driven by our *HemoSphere* advanced monitoring platform, core hemodynamic products, and our enhanced recovery products, primarily in the United States. In addition, foreign currency exchange rate fluctuations increased net sales by $5.1 million, due primarily to the strengthening of the Euro against the United States dollar.

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.

During the first quarter of 2018, we received regulatory approval of our *Acumen Hypotension Prediction Index* in the United States. This technology leverages predictive analytics to alert clinicians of hypotension, or low blood pressure, before it occurs in their surgical patients. In the fourth quarter of 2018, we received FDA approval of our *Acumen Hypotension Prediction Index* for use on the *HemoSphere* platform.

Gross Profit

The increase in gross profit as a percentage of net sales in 2018 compared to 2017 was driven by:

- a 0.7 percentage point increase in the United States and a 0.2 percentage point increase in international markets due to an improved product mix, driven by THVT products;

partially offset by:

- the impact of multiple investments in our operations, including an increase in costs to improve our manufacturing processes; and
- a 0.2 percentage point decrease due to the impact of foreign currency exchange rate fluctuations, including the settlement of foreign currency hedging contracts.

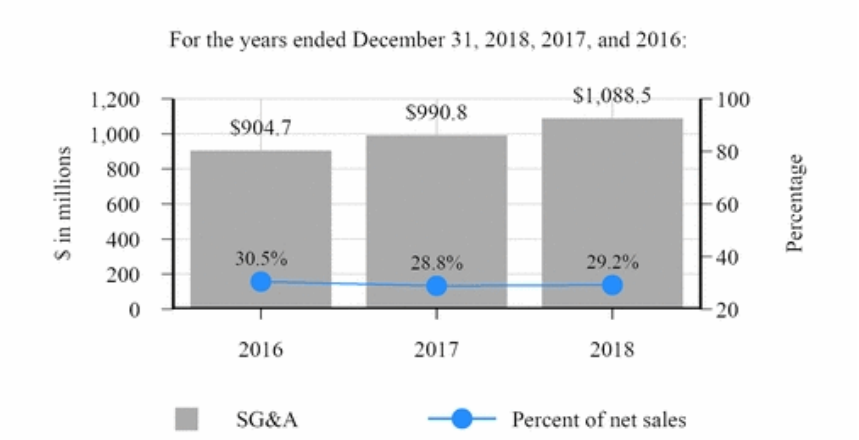
The increase in gross profit as a percentage of net sales in 2017 compared to 2016 was driven by:

- 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.

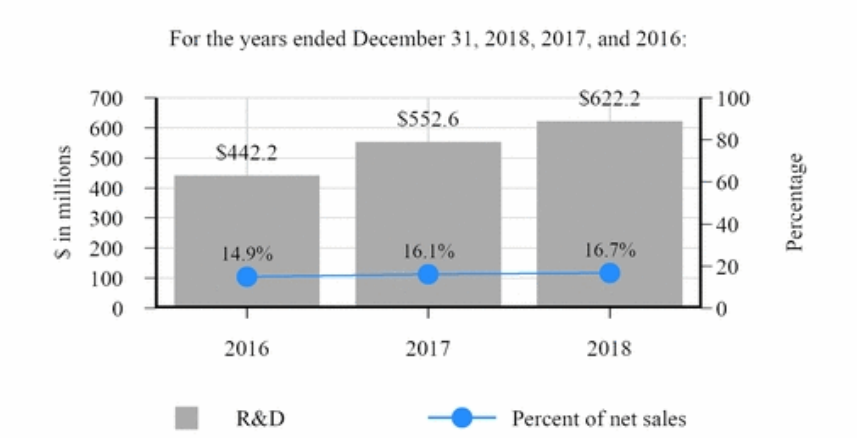
Selling, General, and Administrative ("SG&A") Expenses



The increase in SG&A expenses in 2018 compared to 2017 was due primarily to (1) higher sales and marketing expenses in the United States, Europe and Rest of World, mainly to support the THVT program, (2) higher personnel-related costs, and (3) the impact of foreign currency, which increased expenses by $10.6 million primarily due to the strengthening of the Euro against the United States dollar. The increase in SG&A expenses as a percentage of net sales in 2018 was due primarily to the previously mentioned expense increases.

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.

Research and Development ("R&D") Expenses



The increase in R&D expenses in 2018 compared to 2017 was due primarily to investments in our transcatheter structural heart programs, including spending on clinical trials.

The increase in R&D expenses in 2017 compared to 2016 was due primarily to investments in our transcatheter structural heart programs, including development expenses associated with the *Cardioband* Reconstruction System.

Intellectual Property Litigation Expenses (Income), net

We incurred intellectual property litigation expenses, including settlements and external legal costs, of $214.0 million, $39.2 million and $32.6 million during 2018, 2017 and 2016, respectively. In January 2019, we reached an agreement with Boston Scientific to settle all outstanding patent disputes for a one-time payment to Boston Scientific of $180.0 million, which was included as an expense in 2018. The settlement covers alleged past damages and no further royalties will be owed by either party. In November 2017, we recorded a $112.5 million litigation gain related to the theft of trade secrets.

Change in Fair Value of Contingent Consideration Liabilities, net

The change in fair value of contingent consideration liabilities resulted in income of $5.7 million, income of $9.9 million, and expense of $1.1 million for the years ended December 31, 2018, 2017, and 2016, respectively. The income in 2018 and 2017 was due primarily to longer product development timelines, which reduced the probability of milestone achievements. These gains were net of expenses associated with changes in the fair value of the liabilities associated with the December 2017 acquisition of Harpoon Medical Inc., the achievement by Valtech Cardio Ltd. of a regulatory milestone, adjustments to discount rates, and accretion of interest due to the passage of time. For further information, see Note 10 to the "*Consolidated Financial Statements*."

Special Charges, net

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

Interest Expense

Interest expense was $29.9 million, $23.2 million, and $19.2 million in 2018, 2017, and 2016, respectively. The increase in interest expense for 2018 as compared to 2017 resulted primarily from higher average interest rates. 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.

Interest Income

Interest income was $32.0 million, $20.3 million, and $10.8 million in 2018, 2017, and 2016, respectively. The increase in interest income for 2018 and 2017 resulted primarily from higher average interest rates.

Other (Income) Expense, net
(in millions)

	Years Ended December 31,		
	2018	2017	2016
Foreign exchange (gains) losses, net	$ (6.7)	$ 5.4	$ 0.5
Loss (gain) on investments	1.7	2.7	(0.2)
Non-service cost components of net periodic pension benefit (credit) cost	(0.1)	(6.1)	—
Charitable foundation contribution	—	—	5.0
Other	1.1	(0.6)	(0.4)
Total other (income) expense, net	$ (4.0)	$ 1.4	$ 4.9

The net foreign exchange (gains) 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.

The non-service cost components of net periodic pension benefit (credit) cost includes the costs of our defined benefit plans that are not attributed to services rendered by eligible employees during the year, such as interest costs, expected return on plan assets, and amortization of actuarial gains or losses. Certain costs associated with realignments, including settlements

and curtailments, have been included as a component of "*Special (Gains) Charges, net.*" For further information, see Notes 4 and 12 to the "*Consolidated Financial Statements.*"

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 2018, 2017, and 2016 were impacted as follows (in millions):

	Years Ended December 31,		
	2018	2017	2016
Income tax expense at U.S. federal statutory rate	$ 159.9	$ 362.2	$ 258.3
Foreign income taxed at different rates	(16.2)	(106.9)	(88.6)
State and local taxes, net of federal tax benefit	6.8	11.5	9.7
Tax credits, federal and state	(36.7)	(25.8)	(21.3)
(Release) build of reserve for prior years' uncertain tax positions	(35.5)	(7.7)	4.6
U.S. tax on foreign earnings, net of credits	(12.2)	(30.3)	5.1
Foreign-derived intangible income deduction	(6.6)	—	—
Deductible employee share-based compensation	(41.8)	(48.2)	—
Nondeductible employee share-based compensation	2.8	3.9	3.6
Impacts related to 2017 U.S. Tax Reform	15.8	294.1	—
Other	2.9	(1.5)	(3.0)
Income tax provision	$ 39.2	$ 451.3	$ 168.4

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 (1) reduced the U.S. federal corporate tax rate from 35 percent to 21 percent for tax years beginning after December 31, 2017, (2) required companies to pay a one-time mandatory deemed repatriation tax on the cumulative earnings of certain foreign subsidiaries that were previously tax deferred, and (3) created 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 ("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, as of December 31, 2017, we estimated provisional amounts for (1) $3.3 million of tax benefits in connection with the remeasurement of certain tax assets and liabilities, (2) $297.4 million of net tax expense recorded in connection with the one-time mandatory deemed repatriation tax on cumulative earnings of certain foreign subsidiaries, and (3) $32.3 million of tax benefits associated with a tax reform related restructuring. In accordance with SAB 118, during 2018 we adjusted the provisional amounts as described below.

As a result of Internal Revenue Service ("IRS") guidance issued subsequent to the 2017 Act, the $32.3 million of tax benefits associated with the tax reform related restructuring mentioned above were reversed. In addition, during 2018, we recorded a $12.8 million reduction in the repatriation tax and an additional benefit of $3.7 million in connection with the remeasurement of deferred tax assets. In accordance with SAB 118, we completed our accounting for the 2017 Act during the fourth quarter of 2018.

Our effective tax rate for 2018 is lower than our effective tax rate for 2017 primarily because of the benefit from the reduction in the U.S. federal corporate rate from 35% to 21% and tax benefits related to the settlement of tax audits. In addition, the effective rate for 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 the U.S. tax rate changes required by the 2017 Act.

Uncertain Tax Positions

As of December 31, 2018 and 2017, gross uncertain tax positions were $150.7 million and $225.6 million, respectively. We estimate that these liabilities would be reduced by $42.7 million and $94.0 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 $108.0 million and $131.6 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,		
	2018	2017	2016
Uncertain gross tax positions, January 1	$ 225.6	$ 245.5	$ 216.1
Current year tax positions	37.8	77.7	29.0
Increase in prior year tax positions	13.9	63.7	2.7
Decrease in prior year tax positions	(78.8)	(65.0)	(0.9)
Settlements	(46.5)	(95.3)	(0.3)
Lapse of statutes of limitations	(1.3)	(1.0)	(1.1)
Uncertain gross tax positions, December 31	$ 150.7	$ 225.6	$ 245.5

The table above summarizes the gross amounts of uncertain tax positions without regard to reduction in tax liabilities or additions to deferred tax assets and liabilities if such uncertain tax positions were settled.

We recognize interest and penalties, if any, related to uncertain tax positions in the provision for income taxes. As of December 31, 2018, we had accrued $4.6 million (net of $1.9 million tax benefit) of interest related to uncertain tax positions, and 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. During 2018, 2017, and 2016, we recognized interest (benefit) expense, net of tax benefit, of $(2.8) million, $(7.3) million, and $4.0 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, 2018, all material state, local, and foreign income tax matters have been concluded for years through 2008. During 2018, we signed agreements with the IRS to settle tax years 2009 through 2014 including transfer pricing matters and the tax treatment of a portion of a litigation settlement payment received in 2014. The IRS began its examination of the 2015 and 2016 tax years during the fourth quarter of 2018.

During 2018, we executed an Advance Pricing Agreement ("APA") between the United States and Switzerland governments for tax years 2009 through 2020 covering various transfer pricing matters and we have updated our transfer pricing policies accordingly. Certain intercompany transactions covering tax years 2015 through 2018 were not resolved and those related tax positions remain uncertain. These transfer pricing matters may be significant to our consolidated financial statements. In addition, we executed other APAs as follows: during 2017, an APA between the United States and Japan covering tax years 2015 through 2019, and during 2018, APAs between Japan and Singapore as well as Switzerland and Japan covering tax years 2015 through 2019.

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.

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 $144.9 million ($0.70 per diluted share), $81.0 million ($0.39 per diluted share), and $78.7 million ($0.32 per diluted share) for the years ended December 31, 2018, 2017, and 2016, 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.

The 2017 Act, which was signed into law on December 22, 2017, included extensive changes to the international tax regime. The 2017 Act required a deemed repatriation of post-1986 undistributed foreign earnings and profits. The deemed repatriation resulted in a $270.5 million tax obligation as of December 31, 2018. The one-time transition tax liability, as adjusted, is payable in seven remaining 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, 2018, cash and cash equivalents and short-term investments held in the United States and outside the United States were $659.3 million and $297.2 million, respectively. During 2018, we repatriated cash and short-term investments of $1.4 billion. We assert that $1.1 billion of our foreign earnings continue to be permanently reinvested and our intent is to repatriate $0.6 billion of our foreign earnings as of December 31, 2018.

Certain of our business acquisitions involve contingent consideration arrangements. Payment of additional consideration in the future may be required, contingent upon the acquired company reaching certain performance milestones, such as attaining specified revenue levels, or obtaining regulatory approvals. For further information, see Note 7 to the "*Consolidated Financial Statements.*"

In April 2018, we entered into a new Five-Year Credit Agreement ("the Credit Agreement") which matures on April 28, 2023, and the previous Five-Year Credit Agreement was terminated. The Credit Agreement provides up to an aggregate of$750.0 million in borrowings in multiple currencies. Subject to certain terms and conditions, we may increase the amount available under the Credit Agreement by up to an additional $250.0 million in the aggregate. As of December 31, 2018, there were no borrowings outstanding under the Credit Agreement. The Credit Agreement is unsecured and contains various financial and other covenants, including a maximum leverage ratio, as defined in the Credit Agreement. The Company was in compliance with all covenants at December 31, 2018.

In October 2013, we issued $600.0 million of 2.875% fixed-rate unsecured senior notes (the "2013 Notes") due October 15, 2018. The 2013 Notes were repaid in October 2018. In June 2018, we issued $600.0 million of 4.3% fixed-rate unsecured senior notes (the "2018 Notes") due June 15, 2028. A portion of the proceeds from the 2018 Notes were used to repay amounts outstanding under our previous Five-Year Credit Agreement, and the remainder was used to partially repay the maturing 2013 Notes and for general corporate purposes. As of December 31, 2018, the total carrying value of our 2018 Notes was $593.8 million. For further information on our debt, see Note 9 to the "*Consolidated Financial Statements.*"

We reached an agreement with Boston Scientific to settle all outstanding patent disputes for a one-time payment to Boston Scientific of $180.0 million, which was paid in January 2019.

From time to time, we 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 2018, under the Board

authorized repurchase programs, we repurchased a total of 5.4 million shares at an aggregate cost of $784.3 million, and as of December 31, 2018, we had remaining authority to purchase $0.5 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, 2018, 2017, and 2016

Net cash flows provided by **operating activities** of $926.8 million for 2018 decreased $73.9 million from 2017 due primarily to higher tax payments and a higher bonus payout in 2018 associated with 2017 performance, partially offset by improved operating performance in 2018 and higher working capital needs in 2017.

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 provided by **investing activities** of $76.7 million in 2018 consisted primarily of net proceeds from investments of $323.2 million, partially offset by capital expenditures of $238.7 million.

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 Cardio Ltd.

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 **financing activities** of $1.1 billion in 2018 consisted primarily of purchases of treasury stock of $795.5 million and net debt repayments of $437.3 million, partially offset by proceeds from stock plans of $147.0 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.

A summary of all of our contractual obligations and commercial commitments as of December 31, 2018 is 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	$ 600.0	$ —	$ —	$ —	$ 600.0
Operating leases	91.2	25.6	35.0	16.3	14.3
Interest on debt	185.5	20.0	40.1	39.6	85.8
Transition tax on unremitted foreign earnings and profits (a)	270.5	8.9	49.8	71.6	140.2
Litigation settlement obligation	180.0	180.0	—	—	—
Pension obligations (b)	1.9	1.9	—	—	—
Purchase and other commitments	34.6	12.6	19.5	0.6	1.9
Total contractual cash obligations (c), (d)	$ 1,363.7	$ 249.0	$ 144.4	$ 128.1	$ 842.2

(a) As of December 31, 2018, we had recorded $270.5 million of income tax liabilities related to the one-time transition tax that resulted from the enactment of the 2017 Act. The transition tax is due in eight annual installments, and the first annual installment was paid in 2018. The second annual installment is 8% of the total liability, net of a $16.1 million overpayment of 2017 federal income taxes. The remaining installment amounts will be equal to 8% of the total liability, payable in fiscal years 2020 through 2022, 15% in fiscal year 2023, 20% in fiscal year 2024, and 25% in fiscal year 2025. 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, 2018 was $37.0 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) As of December 31, 2018, the gross liability for uncertain tax positions, including interest, was $157.2 million and relates primarily to transfer pricing matters. During 2018, we executed an Advance Pricing Agreement ("APA") between the United States and Switzerland governments for tax years 2009 through 2020 covering various transfer pricing matters and we have updated our transfer pricing policies accordingly. Certain intercompany transactions covering tax years 2015 through 2018 were not resolved and those related tax positions remain uncertain. These transfer pricing matters may be 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.

(d) 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 $585.0 million if all milestones or other contingent obligations are 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, the amount of consideration we ultimately receive varies depending upon the return terms, sales rebates, discounts, and other incentives that we may offer, which are accounted for as variable consideration when estimating the amount of revenue to recognize. The estimate of variable consideration requires significant judgment. We include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely upon an assessment of historical payment experience, historical relationship to revenues, estimated customer inventory levels, and current contract sales terms with direct and indirect customers. Product returns are typically 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 the variable consideration do not approximate future activity, our financial position, results of operations, and cash flows could be impacted.

In addition, in limited circumstances, we may allow customers to return previously purchased products, such as 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 of product 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 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 tax credits, 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.

We have made an accounting policy election to 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.

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, 2018, we had $726.2 million of investments in fixed-rate debt securities which had an average remaining term to maturity of approximately 1.0 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, 2018 would have resulted in a $3.5 million to $7.0 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.

For more information related to outstanding debt obligations, see Note 6 to the "*Consolidated Financial Statements.*"

We are also exposed to interest rate risk on our debt obligations. As of December 31, 2018, 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, 2018, there were no borrowings outstanding under the Credit Agreement. Based on our December 31, 2018 variable debt levels, a hypothetical 1.0% absolute increase in our floating market interest rates would increase our interest expense by approximately $6.0 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, 2018, a hypothetical 1.0% absolute increase in market interest rates would decrease the fair value of the fixed-rate debt by approximately $44.7 million. This hypothetical change in interest rates would not impact the interest expense on the fixed-rate debt.

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 cross currency swap contracts. The total notional amount of our derivative financial instruments entered into for foreign currency management purposes at December 31, 2018 was $1.4 billion. 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 $61.2 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, 2018, 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 2018, 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, 2018, we had $726.2 million of investments in fixed-rate debt securities of various companies, of which $483.8 million were long-term. In addition, we had $22.5 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

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2018

Other schedules are not applicable and have not been submitted.

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 (the "Company") as of December 31, 2018 and December 31, 2017, 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, 2018, 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, 2018, 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, 2018 and December 31, 2017**,** and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 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, 2018, 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 included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 15, 2019

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

EDWARDS LIFESCIENCES CORPORATION

CONSOLIDATED BALANCE SHEETS

(in millions, except par value)

	December 31,	
	2018	2017
ASSETS		
Current assets		
Cash and cash equivalents	$ 714.1	$ 818.3
Short-term investments (Note 6)	242.4	519.2
Accounts receivable, net (Note 5)	456.9	438.7
Other receivables	80.4	40.6
Inventories (Note 5)	607.0	554.9
Prepaid expenses	54.3	60.6
Other current assets	131.8	116.9
Total current assets	2,286.9	2,549.2
Long-term investments (Note 6)	506.3	567.0
Property, plant, and equipment, net (Note 5)	867.5	679.7
Goodwill (Note 8)	1,112.2	1,126.5
Other intangible assets, net (Note 8)	343.2	468.0
Deferred income taxes	174.0	167.1
Other assets	33.6	108.9
Total assets	$ 5,323.7	$ 5,666.4
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 134.0	$ 116.6
Accrued and other liabilities (Note 5)	742.6	653.7
Short-term debt (Note 9)	—	598.0
Contingent consideration liabilities (Notes 7 and 10)	—	51.7
Total current liabilities	876.6	1,420.0
Long-term debt (Note 9)	593.8	438.4
Contingent consideration liabilities (Notes 7 and 10)	178.6	192.6
Taxes payable (Note 16)	259.4	347.5
Uncertain tax positions (Note 16)	124.9	164.6
Other long-term liabilities	150.0	147.1
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, 215.2 and 212.0 shares issued, and 207.7 and 209.7 shares outstanding, respectively	215.2	212.0
Additional paid-in capital	1,384.4	1,166.9
Retained earnings	2,694.7	1,962.1
Accumulated other comprehensive loss	(138.5)	(132.7)
Treasury stock, at cost, 7.5 and 2.3 shares, respectively	(1,015.4)	(252.1)
Total stockholders' equity	3,140.4	2,956.2
Total liabilities and stockholders' equity	$ 5,323.7	$ 5,666.4

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

EDWARDS LIFESCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions, except per share information)

	Years Ended December 31,		
	2018	**2017**	**2016**
Net sales	$ 3,722.8	$ 3,435.3	$ 2,963.7
Cost of sales	939.4	875.3	797.4
Gross profit	2,783.4	2,560.0	2,166.3
Selling, general, and administrative expenses	1,088.5	990.8	904.7
Research and development expenses	622.2	552.6	442.2
Intellectual property litigation expenses (income), net (Note 3)	214.0	(73.3)	32.6
Change in fair value of contingent consideration liabilities	(5.7)	(9.9)	1.1
Special charges, net (Note 4)	116.2	9.7	34.5
Other operating expenses	—	0.7	—
Operating income	748.2	1,089.4	751.2
Interest expense	29.9	23.2	19.2
Interest income	(32.0)	(20.3)	(10.8)
Special (gains) charges, net (Note 4)	(7.1)	50.2	—
Other (income) expense, net (Note 15)	(4.0)	1.4	4.9
Income before provision for income taxes	761.4	1,034.9	737.9
Provision for income taxes (Note 16)	39.2	451.3	168.4
Net income	$ 722.2	$ 583.6	$ 569.5
Share information (Note 2):			
Earnings per share:			
Basic	$ 3.45	$ 2.77	$ 2.67
Diluted	$ 3.38	$ 2.70	$ 2.61
Weighted-average number of common shares outstanding:			
Basic	209.2	210.9	213.0
Diluted	213.6	215.9	217.8

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

EDWARDS LIFESCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)

	Years Ended December 31,		
	2018	2017	2016
Net income	$ 722.2	$ 583.6	$ 569.5
Other comprehensive (loss) income, net of tax (Note 14):			
Foreign currency translation adjustments	(38.6)	97.5	(16.1)
Unrealized gain (loss) on cash flow hedges	40.4	(30.6)	4.9
Defined benefit pension plans	0.6	3.5	(6.2)
Unrealized (loss) gain on available-for-sale investments	(3.3)	(7.8)	0.5
Reclassification of net realized investment loss to earnings	2.9	3.1	1.1
Other comprehensive (loss) income, net of tax	2.0	65.7	(15.8)
Comprehensive income	$ 724.2	$ 649.3	$ 553.7

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

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EDWARDS LIFESCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)

	Years Ended December 31,		
	2018	**2017**	**2016**
Cash flows from operating activities			
Net income	$ 722.2	$ 583.6	$ 569.5
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	77.4	81.9	71.2
Stock-based compensation (Notes 2 and 13)	71.0	61.6	56.9
Excess tax benefit from stock plans	—	—	(64.3)
Impairment charges (Note 4)	118.8	31.0	—
Change in fair value of contingent consideration liabilities, net (Note 10)	(5.7)	(9.9)	1.1
Deferred income taxes	(27.3)	17.8	(37.4)
Purchased in-process research and development	—	6.7	34.5
Other	13.0	(6.2)	7.9
Changes in operating assets and liabilities:			
Accounts and other receivables, net	(28.7)	(27.8)	(60.4)
Inventories	(65.7)	(124.0)	(65.6)
Accounts payable and accrued liabilities	192.5	93.8	77.7
Income taxes	(157.8)	293.7	105.1
Prepaid expenses and other current assets	15.7	(9.9)	(12.6)
Other	1.4	8.4	20.8
Net cash provided by operating activities	926.8	1,000.7	704.4
Cash flows from investing activities			
Capital expenditures	(238.7)	(168.1)	(176.1)
Deposit of cash in escrow	—	(25.0)	—
Purchases of held-to-maturity investments (Note 6)	(210.0)	(804.9)	(594.7)
Proceeds from held-to-maturity investments (Note 6)	578.1	654.7	852.5
Purchases of available-for-sale investments (Note 6)	(249.3)	(529.8)	(470.4)
Proceeds from available-for-sale investments (Note 6)	223.2	448.7	232.6
Investments in unconsolidated affiliates (Note 6)	(6.6)	—	(7.6)
Proceeds from unconsolidated affiliates (Note 6)	0.4	8.3	1.9
Investments in trading securities, net	(12.6)	(12.7)	(9.8)
Payment of contingent consideration	(10.0)	—	—
Acquisitions (Notes 7 and 8)	—	(192.9)	—
Issuances of notes receivable	—	(18.9)	—
Investments in intangible assets and in-process research and development	(3.0)	(7.4)	(41.3)
Other	5.2	0.8	1.2
Net cash provided by (used in) investing activities	76.7	(647.2)	(211.7)
Cash flows from financing activities			
Proceeds from issuance of debt	688.0	994.7	253.5
Payments on debt and capital lease obligations	(1,125.3)	(818.4)	(31.4)
Purchases of treasury stock	(795.5)	(763.3)	(662.3)
Proceeds from stock plans	147.0	113.8	103.3
Payment of contingent consideration	(15.1)	—	—
Excess tax benefit from stock plans	—	—	64.3
Other	(0.3)	—	4.1
Net cash used in financing activities	(1,101.2)	(473.2)	(268.5)
Effect of currency exchange rate changes on cash and cash equivalents	(6.5)	7.9	(12.5)
Net (decrease) increase in cash and cash equivalents	(104.2)	(111.8)	211.7
Cash and cash equivalents at beginning of year	818.3	930.1	718.4
Cash and cash equivalents at end of year	$ 714.1	$ 818.3	$ 930.1

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

EDWARDS LIFESCIENCES CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in millions)

	Common Stock		Treasury Stock					
	Shares	Par Value	Shares	Amount	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
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	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
Impact to retained earnings from adoption of ASU 2016-16 and ASU 2018-02						10.4	(7.8)	2.6
BALANCE AT JANUARY 1, 2018	212.0	212.0	2.3	(252.1)	1,166.9	1,972.5	(140.5)	2,958.8
Net income						722.2		722.2
Other comprehensive loss, net of tax							2.0	2.0
Common stock issued under equity plans	3.2	3.2			143.8			147.0
Stock-based compensation expense					71.0			71.0
Shares issued in payment for contingent consideration liabilities			(0.3)	32.2	2.7			34.9
Purchases of treasury stock			5.5	(795.5)				(795.5)
BALANCE AT DECEMBER 31, 2018	215.2	$ 215.2	7.5	$ (1,015.4)	$ 1,384.4	$ 2,694.7	$ (138.5)	$ 3,140.4

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

EDWARDS LIFESCIENCES CORPORATION

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 (Income) Expense, net*."

Revenue Recognition

Revenue is recognized when control of the promised goods or services is transferred to the customer in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those products or services.

The Company generates nearly all of its revenue from direct product sales and sales of products under consignment arrangements. Revenue from direct product sales is recognized at a point in time upon delivery of the product. Revenue from sales of consigned inventory is recognized at a point in time when the product has been implanted or used by the customer. The Company periodically reviews consignment inventories to confirm the accuracy of customer reporting. The Company also generates a small portion of its revenue from service contracts, and recognizes revenue from service contracts ratably over the term of the contracts. Sales taxes and other similar taxes that the Company collects concurrent with revenue-producing activities are excluded from revenue. The Company does not typically have any significant unusual payment terms beyond 90 days in its contracts with customers. In addition, the Company receives royalty payments for the licensing of certain intellectual property and recognizes the royalty when the subsequent sale of product using the intellectual property occurs.

The amount of consideration the Company ultimately receives varies depending upon the return terms, sales rebates, discounts, and other incentives that the Company may offer, which are accounted for as variable consideration when estimating the amount of revenue to recognize. The estimate of variable consideration requires significant judgment. The Company includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

recognized will not occur when the uncertainty associated with the variable consideration is resolved. The estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely upon an assessment of historical payment experience, historical relationship to revenues, estimated customer inventory levels, and current contract sales terms with direct and indirect customers.

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 and the negotiated price to be paid by the end-customer. This distributor rebate is recorded as a reduction to sales and a reduction to the distributor's accounts receivable at the time of sale to a distributor. 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. Volume rebates offered to GPOs are recorded as a reduction to sales and an obligation to the GPOs, as the Company expects to pay in cash. Volume rebates offered to customers are recorded as a reduction to sales and accounts receivable if the Company expects a net payment from the customer, or as an obligation to the customer if the Company expects to pay in cash. The provision for volume rebates is estimated based on customers' contracted rebate programs, projected sales levels, 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.

Product returns are typically not significant because returns are generally not allowed unless the product is damaged at time of receipt. In limited circumstances, the Company may allow customers to return previously purchased products, such as 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.

A limited number of the Company’s contracts with customers contain multiple performance obligations. For these contracts, the transaction price is allocated to each performance obligation based on its relative standalone selling price charged to other customers.

The Company sells separately priced service contracts, which range from 12 months to 36 months, to owners of its hemodynamic monitors. The Company invoices the customer the total amount of consideration at the inception of the contract and recognizes revenue ratably over the term of the contract. As of December 31, 2018 and December 31, 2017, $7.6 million and $4.2 million, respectively, of deferred revenue associated with outstanding service contracts was recorded in “*Accrued and Other Liabilities*” and "*Other Long-term Liabilities.*" During 2018, the Company recognized as revenue $2.9 million that was included in the balance of deferred revenue as of December 31, 2017.

The Company applies the optional exemption of not disclosing the amount of the transaction price allocated to unsatisfied performance obligations for contracts with an original expected duration of one year or less.

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, 2018, 2017, and 2016, shipping costs of $70.6 million, $72.6 million, and $64.1 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investments

The Company invests its excess cash in fixed-rate debt securities, including time deposits, commercial paper, U.S. government and agency securities, asset-backed 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 reported at fair value or under the equity method of accounting, as appropriate. Equity investments that do not have readily determinable fair values are recorded at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. 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.

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 (Income) Expense, net*." Income relating to investments in fixed-rate debt securities is recorded to "*Interest Income.*"

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 $13.6 million and $13.7 million at December 31, 2018 and 2017, 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 $30.3 million and $27.6 million at December 31, 2018 and 2017, 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, 2018, 2017, and 2016, the Company allocated $45.0 million, $39.3 million, and $37.2 million, respectively, of general and administrative costs to inventory. General and administrative costs included in inventory at December 31, 2018 and 2017 were $18.3 million and $16.0 million, respectively.

At December 31, 2018 and 2017, $106.5 million and $88.4 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 5 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.

Depreciation expense for property, plant, and equipment was $74.9 million, $74.1 million, and $63.6 million for the years ended December 31, 2018, 2017, and 2016, 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. Goodwill is tested for impairment at the reporting unit level by first performing a qualitative assessment to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying value. If the reporting unit does not pass the qualitative assessment, then the Company performs a quantitative impairment test. The Company determined, after performing a qualitative review of each reporting unit, that it is more likely than not that the fair value of each of its reporting units substantially exceeds the respective carrying amounts. Accordingly, in 2018, 2017, and 2016, the Company did not record any impairment loss.

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.

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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.

In 2018, the Company recorded a $116.2 million charge related to the other-than-temporary impairment of certain developed technology and IPR&D assets. See Note 4 for further information. In 2017 and 2016, the Company did not record any impairment loss related to its IPR&D assets.

Income Taxes

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 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. The Company has made an accounting policy election to 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.

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.

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):

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

	Years Ended December 31,		
	2018	2017	2016
Basic:			
Net income	$ 722.2	$ 583.6	$ 569.5
Weighted-average shares outstanding	209.2	210.9	213.0
Basic earnings per share	$ 3.45	$ 2.77	$ 2.67
Diluted:			
Net income	$ 722.2	$ 583.6	$ 569.5
Weighted-average shares outstanding	209.2	210.9	213.0
Dilutive effect of stock plans	4.4	5.0	4.8
Dilutive weighted-average shares outstanding	213.6	215.9	217.8
Diluted earnings per share	$ 3.38	$ 2.70	$ 2.61

Stock options, restricted stock units, and market-based restricted stock units to purchase approximately 1.1 million, 1.9 million, and 0.9 million shares for the years ended December 31, 2018, 2017, and 2016, 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.

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

	Years Ended December 31,		
	2018	2017	2016
Cost of sales	$ 11.4	$ 9.2	$ 8.4
Selling, general, and administrative expenses	46.3	40.7	38.0
Research and development expenses	13.3	11.7	10.5
Total stock-based compensation expense	$ 71.0	$ 61.6	$ 56.9

Upon a participant's 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 foreign currency forward exchange contracts, cross currency swap contracts, and foreign currency denominated debt to manage its exposure to changes in currency exchange rates from (a) future cash flows associated with intercompany transactions and certain local currency expenses expected to occur within the next 13 months (designated as cash flow hedges), (b) its net investment in certain foreign subsidiaries (designated as net investment hedges) and (c) foreign currency denominated assets or liabilities (designated as fair value hedges). The Company also uses foreign currency forward exchange contracts that are not designated as hedging instruments to offset the transaction gains and losses associated with certain assets and liabilities denominated in currencies other than their functional currencies resulting principally from intercompany and local currency transactions.

The Company at times has used interest rate swaps to convert a portion of its fixed-rate debt into variable-rate debt. These interest rate swaps were designated as fair value hedges and met 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.

All derivative financial instruments are recognized at fair value in the consolidated balance sheets. For each derivative instrument that is designated as a fair value hedge, the gain or loss on the derivative included in the assessment of hedge effectiveness is recognized immediately to earnings, and offsets the loss or gain on the underlying hedged item. The Company reports in "*Accumulated Other Comprehensive Loss*" 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 line item and in the same period in which the underlying hedged transactions affect earnings. Changes in the fair value of net investment hedges are reported 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 portion of the change in fair value related to components excluded from the hedge effectiveness assessment are amortized into earnings over the life of the derivative. 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 February 2018, the Financial Accounting Standards Board ("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 guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. The Company early adopted this guidance as of January 1, 2018, and elected to reclassify the income tax effects of the 2017 Act from accumulated other comprehensive loss to retained earnings. Accordingly, upon adoption, the Company reclassified $7.8 million of tax benefits associated with its hedging activities from accumulated other comprehensive loss to retained earnings. Tax effects unrelated to the 2017 Act are released from accumulated other comprehensive loss using either the specific identification approach or the portfolio approach based on the nature of the underlying item.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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. The Company early adopted this guidance as of January 1, 2018. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements. Certain provisions of the guidance required modifications to existing disclosure requirements on a prospective basis. See Note 11 for disclosures relating to the Company's derivative instruments and hedging activities.

In March 2017, the FASB issued an amendment on the guidance on retirement benefits. The amendment requires that employers report the service cost component of net benefit cost in the same line item as other compensation costs arising from services rendered by the pertinent employees. The other components of net benefit cost are required to be presented in the consolidated statements of operations separately from the service cost component and outside a subtotal of income from operations. Additionally, only the service cost component of net benefit cost is eligible for capitalization. The guidance was effective for periods beginning after December 15, 2017, including interim periods within those annual periods. The Company adopted the guidance related to the presentation of the service cost component and the other components of net benefit cost in the income statement retrospectively, and the guidance related to the capitalization of the service cost component of net benefit cost was adopted prospectively. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements. The Company elected to apply the practical expedient that permits the use of previously disclosed service cost and other costs from the prior year’s employee benefit plan footnote as appropriate estimates when retrospectively changing the presentation of these costs in the consolidated statements of operations.

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 was 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 was effective for annual reporting periods beginning after December 15, 2017, including interim
reporting periods within those annual reporting periods. The Company adopted this new standard using the modified retrospective method. Upon adoption, the Company recorded a $2.6 million increase to retained earnings, a $50.3 million decrease to other assets, and a $52.9 million decrease to long-term taxes payable. In addition, the Company reclassified $46.5 million from long-term taxes payable to deferred income taxes, and also made this reclassification in the prior year's consolidated balance sheet to conform to the current year presentation.

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 was effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. This guidance impacts 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. Contingent consideration payments made soon after the acquisition date will continue to be classified as an investing activity. The Company did not make any contingent consideration payments in 2017; therefore, no retrospective adjustments were required. The adoption of the other provisions of this guidance did not have a material impact on the Company's consolidated financial statements.

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 became 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 (retrospective method), or retrospectively with the cumulative effect of the change recognized at the date of the initial application (modified retrospective method). The Company adopted the new guidance on January 1, 2018 using the modified retrospective method to contracts that were not completed as of January 1, 2018. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

New Accounting Standards Not Yet Adopted

In August 2018, the FASB issued an amendment to the accounting guidance on cloud computing service arrangements. The guidance aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The guidance also requires an entity to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement. The guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. The Company is currently evaluating the impact the guidance will have on its consolidated financial statements.

In August 2018, the FASB issued an amendment to the accounting guidance on retirement benefits. The guidance modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The guidance is effective for fiscal years ending after December 15, 2020 and must be applied retrospectively to all periods presented. The Company does not expect the adoption of this guidance will have a material impact on its consolidated financial statements.

In August 2018, the FASB issued an amendment to the accounting guidance on fair value measurements. The guidance modifies the disclosure requirements on fair value measurements, including the removal of disclosures of the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, the policy for timing of transfers between levels, and the valuation processes for Level 3 fair value measurements. The guidance also adds certain disclosure requirements related to Level 3 fair value measurements. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company does not expect the adoption of this guidance will have a material impact on its consolidated financial statements.

In June 2016, the FASB issued an amendment to the guidance on the measurement of credit losses on financial instruments. The amendment updates the guidance for measuring and recording credit losses on financial assets measured at amortized cost by replacing the “incurred loss” model with an “expected loss” model. Accordingly, these financial assets will be presented at the net amount expected to be collected. The amendment also requires that credit losses related to available-for-sale debt securities be recorded as an allowance through net income rather than reducing the carrying amount under the current, other-than-temporary-impairment model. The guidance is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted for annual periods after December 15, 2018. The Company does not expect the adoption 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. A modified retrospective transition approach is required upon adoption. Reporting entities can elect to adjust comparative periods and record the cumulative effect adjustment at the beginning of the earliest comparative period or to not adjust comparative periods and record the cumulative effect adjustment at the effective date.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

The Company will apply the new guidance at the effective date of January 1, 2019 rather than at the earliest comparative period presented in the financial statements. In addition, the Company will elect the package of practical expedients permitted under the transition guidance to not reassess (1) whether any expired or existing contracts are, or contain, leases, (2) the lease classification for expired or existing leases, and (3) initial direct costs for existing leases. The Company will also make an accounting policy election to not recognize on its consolidated balance sheet right-of-use assets and lease liabilities arising from short-term leases. In preparation for the adoption of this guidance, the Company has implemented internal controls and system solutions to enable the preparation and disclosure of financial information about its leasing arrangements.

The Company estimates that the adoption of the guidance will result in the recognition of additional right-of-use assets and lease liabilities for operating leases of approximately $55 million to $65 million as of January 1, 2019. The Company does not believe the guidance will have a material impact on its consolidated statements of operations.

3. INTELLECTUAL PROPERTY LITIGATION EXPENSES (INCOME), NET

The Company incurred intellectual property litigation expenses, including settlements and external legal costs, of $214.0 million, $39.2 million and $32.6 million during 2018, 2017 and 2016, respectively. In January 2019, the Company reached an agreement with Boston Scientific Corporation ("Boston Scientific") to settle all outstanding patent disputes for a one-time payment to Boston Scientific of $180.0 million, which was included in as an expense in 2018. The settlement covers alleged past damages and no further royalties will be owed by either party. In November 2017, the Company recorded a $112.5 million litigation gain related to the theft of trade secrets.

4. SPECIAL CHARGES

Impairment of Long-lived Assets

In December 2018, the Company recorded a $116.2 million charge related to the other-than-temporary impairment of certain developed technology and in-process research and development assets acquired as part of the acquisition of Valtech Cardio Ltd. ("Valtech"). The Company measured the amount of the impairment by calculating the amount by which the carrying values exceeded the estimated fair values, which were based on projected discounted future net cash flows. Based on recent market and clinical trial developments, the Company decided to re-evaluate the clinical development plans for the technologies acquired from Valtech, thus reducing the projected near-term discounted future net cash flows related to the acquired mitral technology. The impairment was recorded to the Company’s Rest of World segment.

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.

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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. SPECIAL CHARGES (Continued)

Realignment Expenses

In March 2018, the Company recorded a $7.1 million gain related to the curtailment of its defined benefit plan in Switzerland resulting from the closure of its manufacturing plant.

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, 2018, payments related to the realignment were substantially complete.

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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. OTHER CONSOLIDATED FINANCIAL STATEMENT DETAILS

Composition of Certain Financial Statement Captions

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

	As of December 31,	
	2018	2017
	(in millions)	
Accounts receivable, net		
Trade accounts receivable	$ 465.8	$ 447.2
Allowance for doubtful accounts	(8.9)	(8.5)
	$ 456.9	$ 438.7
Inventories		
Raw materials	$ 111.5	$ 101.4
Work in process	144.8	121.1
Finished products	350.7	332.4
	$ 607.0	$ 554.9
Property, plant, and equipment, net		
Land	$ 90.7	$ 39.1
Buildings and leasehold improvements	497.4	436.8
Machinery and equipment	432.4	393.4
Equipment with customers	41.1	41.0
Software	92.4	93.4
Construction in progress	168.8	88.2
	1,322.8	1,091.9
Accumulated depreciation	(455.3)	(412.2)
	$ 867.5	$ 679.7
Accrued and other liabilities		
Employee compensation and withholdings	$ 226.1	$ 249.4
Litigation and insurance reserves (Note 17)	196.7	15.0
Taxes payable	31.3	97.8
Accrued rebates	80.0	71.0
Property, payroll, and other taxes	39.5	41.9
Research and development accruals	48.9	39.2
Fair value of derivatives	4.4	24.8
Accrued marketing expenses	22.3	14.9
Accrued professional services	11.0	8.5
Accrued realignment reserves	0.1	8.2
Accrued relocation costs	11.3	8.7
Other accrued liabilities	71.0	74.3
	$ 742.6	$ 653.7

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. OTHER CONSOLIDATED FINANCIAL STATEMENT DETAILS (Continued)

Supplemental Cash Flow Information
(in millions)

	Years Ended December 31,		
	2018	2017	2016
Cash paid during the year for:			
Interest	$ 30.1	$ 19.9	$ 16.1
Income taxes	$ 223.7	$ 143.7	$ 99.9
Non-cash investing and financing transactions:			
Fair value of shares issued in payment for contingent consideration liabilities (Note 10)	$ 34.3	$ —	$ —
Fair value of shares issued in connection with business combinations (Note 7)	$ —	$ 266.5	$ —
Capital expenditures accruals	$ 18.7	$ 21.6	$ 22.7
Retirement of treasury stock (Note 13)	$ —	$ 2,746.2	$ —

6. INVESTMENTS

Debt Securities

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

	December 31, 2018				December 31, 2017			
Held-to-maturity	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Bank time deposits	$ 20.0	$ —	$ —	$ 20.0	$ 382.9	$ —	$ —	$ 382.9
Commercial paper	—	—	—	—	1.4	—	—	1.4
U.S. government and agency securities	—	—	—	—	3.9	—	—	3.9
	$ 20.0	$ —	$ —	$ 20.0	$ 388.2	$ —	$ —	$ 388.2
Available-for-sale								
Bank time deposits	$ —	$ —	$ —	$ —	$ 0.5	$ —	$ —	$ 0.5
Commercial paper	56.7	—	—	56.7	40.3	—	—	40.3
U.S. government and agency securities	79.7	0.2	(0.7)	79.2	69.4	—	(0.7)	68.7
Foreign government bonds	1.7	—	—	1.7	3.0	—	—	3.0
Asset-backed securities	110.6	0.1	(0.5)	110.2	121.2	—	(0.4)	120.8
Corporate debt securities	459.8	0.1	(4.3)	455.6	446.5	0.8	(1.8)	445.5
Municipal securities	2.8	—	—	2.8	4.4	—	—	4.4
	$ 711.3	$ 0.4	$ (5.5)	$ 706.2	$ 685.3	$ 0.8	$ (2.9)	$ 683.2

The cost and fair value of investments in debt securities, by contractual maturity, as of December 31, 2018 were as follows:

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. INVESTMENTS (Continued)

	Held-to-Maturity		Available-for-Sale	
	Cost	Fair Value	Cost	Fair Value
	(in millions)			
Due in 1 year or less	$ 20.0	$ 20.0	$ 223.2	$ 222.4
Due after 1 year through 5 years	—	—	385.6	381.7
Instruments not due at a single maturity date	—	—	102.5	102.1
	$ 20.0	$ 20.0	$ 711.3	$ 706.2

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

The following tables present gross unrealized losses and fair values for those investments that were in an unrealized loss position as of December 31, 2018 and 2017, aggregated by investment category and the length of time that individual securities have been in a continuous loss position (in millions):

	December 31, 2018					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government and agency securities	$ 0.7	$ (0.1)	$ 56.5	$ (0.6)	$ 57.2	$ (0.7)
Asset-backed securities	4.0	0.1	61.3	(0.6)	65.3	(0.5)
Corporate debt securities	177.4	(1.1)	203.7	(3.2)	381.1	(4.3)
	$ 182.1	$ (1.1)	$ 321.5	$ (4.4)	$ 503.6	$ (5.5)

	December 31, 2017					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government and agency securities	$ 31.5	$ (0.2)	$ 37.1	$ (0.5)	$ 68.6	$ (0.7)
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)
	$ 375.6	$ (1.7)	$ 119.5	$ (1.2)	$ 495.1	$ (2.9)

EDWARDS LIFESCIENCES CORPORATION

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:

	December 31,	
	2018	2017
	(in millions)	
Equity method investments		
Cost	$ 9.1	$ 9.2
Equity in losses	(4.7)	(5.1)
Carrying value of equity method investments	4.4	4.1
Equity securities		
Carrying value of non-marketable equity securities	18.1	10.7
Total investments in unconsolidated affiliates	$ 22.5	$ 14.8

Non-marketable equity securities consist of investments in privately held companies without readily determinable fair values, and are reported at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. During 2018, the Company recorded in "*Other (Income) Expense, net*" $1.7 million of upward adjustments based on observable price changes, and $1.9 million of downward adjustments due to impairment and observable price changes.

During 2018, 2017, and 2016, the gross realized gains or losses from sales of available-for-sale investments were not material.

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 (Gains) 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. The fair value of the contingent milestone payments are 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. Funds remaining 12 months after the acquisition date were 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. ACQUISITIONS (Continued)

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. The Company does not currently anticipate significant changes to forecasted research and development expenditures, and net cash inflows are now expected to commence in Europe in 2019. Upon completion of development, the underlying research and development asset will be amortized over its estimated useful life.

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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. ACQUISITIONS (Continued)

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. For further information on the fair value of the contingent milestone payments, see Note 10.

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 was originally scheduled to expire two years after the closing date of the transaction, but was extended by one year as provided under the agreement terms.

IPR&D acquired as part of this transaction has been 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 $87.3 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 2019. In December 2018, the Company recorded a $116.2 million impairment charge related to Valtech's intangible assets. For further information, see Note 4. The Company is currently projecting that $113.6 million of research and development expenditures will be incurred prior to the date of product introduction, and that net cash inflows will commence in 2021. Upon completion of development, the underlying research and development asset will be amortized over its estimated useful life.

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. The Company does not expect this milestone to be achieved and reversed the liability in 2018. 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 has incurred incremental research and development expenditures; however, expects an increase in the net cash inflows, commencing in 2022. Upon completion of development, the underlying research and development intangible asset will be amortized over its estimated useful life.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. GOODWILL AND OTHER INTANGIBLE ASSETS

In 2018, the Company recorded a $116.2 million impairment charge related to certain of its developed technology and IPR&D assets. See Note 4 for further information. 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, 2018 and 2017 were as follows:

	United States	Europe	Rest of World	Total
	(in millions)			
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
Currency translation adjustment	—	(3.0)	(11.3)	(14.3)
Goodwill at December 31, 2018	$ 709.3	$ 64.2	$ 338.7	$ 1,112.2

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

		December 31,					
		2018			2017		
	Weighted-Average Useful Life (in years)	Cost	Accumulated Amortization	Net Carrying Value	Cost	Accumulated Amortization	Net Carrying Value
Amortizable intangible assets							
Patents	7.4	$ 185.8	$ (181.2)	$ 4.6	$ 186.1	$ (180.4)	$ 5.7
Developed technology	12.3	119.8	(44.2)	75.6	190.8	(43.8)	147.0
	11.9	305.6	(225.4)	80.2	376.9	(224.2)	152.7
Unamortizable intangible assets							
IPR&D		263.0	—	263.0	315.3	—	315.3
		$ 568.6	$ (225.4)	$ 343.2	$ 692.2	$ (224.2)	$ 468.0

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.

Amortization expense related to other intangible assets for the years ended December 31, 2018, 2017, and 2016 was $2.5 million, $7.8 million, and $7.6 million, respectively. Estimated amortization expense for each of the years ending December 31 is as follows (in millions):

2019	$ 2.4
2020	2.9
2021	4.7
2022	7.2
2023	10.7

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. DEBT, CREDIT FACILITIES, AND LEASE OBLIGATIONS

In October 2013, the Company issued $600.0 million of fixed-rate unsecured senior notes (the "2013 Notes") due October 15, 2018. Interest was payable semi-annually in arrears, with payment due in April and October. The 2013 Notes were repaid in October 2018. In June 2018, the Company issued $600.0 million of fixed-rate unsecured senior notes (the "2018 Notes") due June 15, 2028. The proceeds from the 2018 Notes of $598.6 million, which is net of an issuance discount of $1.4 million, were used to repay amounts outstanding under the Company's Five-Year Credit Agreement and the remainder was used to partially repay the maturing 2013 Notes and for general corporate purposes. Interest is payable semi-annually in arrears, with the first payment due in December 2018.

The Company may redeem the 2018 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 2018 Notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest. The 2018 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 2018 Notes and the 2013 Notes (collectively the "Notes") as of December 31, 2018 and 2017:

	December 31,			
	2018		2017	
	Amount	Effective Interest Rate	Amount	Effective Interest Rate
	(in millions)		(in millions)	
Fixed-rate 4.300% 2018 Notes	$ 600.0	4.329%	$ —	—%
Fixed-rate 2.875% 2013 Notes	—	—%	600.0	2.983%
Total senior notes	600.0		600.0	
Unamortized discount	(1.3)		(0.5)	
Unamortized debt issuance costs	(4.9)		(0.8)	
Hedge accounting fair value adjustments (see Note 11)	—		(0.7)	
Total carrying amount	$ 593.8		$ 598.0	

As of December 31, 2018 and 2017, the fair value of the Notes, based on Level 2 inputs, was $607.0 million and $604.3 million, respectively. The debt issuance costs, as well as the discount, are being amortized to interest expense over the term of the notes.

In April 2018, the Company entered into a new Five-Year Credit Agreement ("the Credit Agreement") which matures on April 28, 2023, and the previous Five-Year Credit Agreement was terminated. 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 0.9% to 1.3%, depending on the leverage ratio, as defined in the Credit Agreement. The Company also pays a facility fee ranging from 0.1% to 0.2%, depending on the leverage ratio, on the entire credit commitment available, whether drawn or not. The facility fee is expensed as incurred. During 2018, under the new Credit Agreement, the spread over LIBOR was 0.9% and the facility fee was 0.1%, and under the previous Credit Agreement, the spread over LIBOR was 1.0% and the facility fee was 0.125%. Issuance costs of $2.4 million are being amortized to interest expense over the term of the Credit Agreement. As of December 31, 2018, there were no borrowings 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, as defined in the Credit Agreement. The Company was in compliance with all covenants at December 31, 2018.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

The weighted-average interest rate under all debt obligations was 3.4% and 2.2% at December 31, 2018 and 2017, respectively.

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 $27.0 million, $27.3 million, and $22.9 million for the years 2018, 2017, and 2016, respectively.

Future minimum lease payments (including interest) under non-cancelable operating leases and aggregate debt maturities at December 31, 2018 were as follows (in millions):

	Operating Leases	Aggregate Debt Maturities
2019	$ 25.6	$ —
2020	21.5	—
2021	13.5	—
2022	9.9	—
2023	6.4	—
Thereafter	14.3	600.0
Total obligations and commitments	$ 91.2	$ 600.0

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 notes payable. See Note 9 for further information on the fair value of the notes payable.

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.

EDWARDS LIFESCIENCES CORPORATION

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, 2018 and 2017 (in millions):

December 31, 2018	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents	$ —	$ 11.8	$ —	$ 11.8
Available-for-sale investments:				
Corporate debt securities	—	455.6	—	455.6
Asset-backed securities	—	110.2	—	110.2
U.S. government and agency securities	19.6	59.6	—	79.2
Foreign government bonds	—	1.7	—	1.7
Commercial paper	—	56.7	—	56.7
Municipal securities	—	2.8	—	2.8
Investments held for deferred compensation plans	67.6	—	—	67.6
Derivatives	—	29.9	—	29.9
	$ 87.2	$ 728.3	$ —	$ 815.5
Liabilities				
Derivatives	$ —	$ 5.2	$ —	$ 5.2
Deferred compensation plans	68.5	—	—	68.5
Contingent consideration liabilities		—	178.6	178.6
	$ 68.5	$ 5.2	$ 178.6	$ 252.3

December 31, 2017				
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

EDWARDS LIFESCIENCES CORPORATION

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, 2018 (in millions):

Balance at December 31, 2017	$	244.3
Payments (cash and issued shares)		(60.0)
Changes in fair value		(5.7)
Balance at December 31, 2018	$	178.6

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.

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 cross currency swap contracts to manage foreign currency exposures. All derivatives contracts are recognized on the balance sheet at their fair value. The fair value of foreign currency derivative financial instruments and the cross currency swap contracts was estimated based on quoted market foreign exchange rates, cross currency swap basis rates, and market discount rates. 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 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 2.4% to 4.2%), (2) the probability of milestone achievement (ranging from 0.0% to 98.9%), (3) the projected payment dates (ranging from 2021 to 2025), and (4) the volatility of future revenue (45.0%). 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

	Notional Amount	
	December 31, 2018	December 31, 2017
	(in millions)	
Foreign currency forward exchange contracts	$ 1,378.2	$ 979.8
Cross currency swap contracts	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	
	Balance Sheet Location	December 31, 2018	December 31, 2017
Derivatives designated as hedging instruments			
Assets			
Foreign currency contracts	Other current assets	$ 29.1	$ 4.9
Cross currency swap contracts	Other assets	$ 0.8	$ —
Liabilities			
Foreign currency contracts	Accrued and other liabilities	$ 4.4	$ 24.8
Foreign currency contracts	Other long-term liabilities	$ 0.8	$ —

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

				Gross Amounts Not Offset in the Consolidated Balance Sheet		
December 31, 2018	Gross Amounts	Gross Amounts Offset in the Consolidated Balance Sheet	Net Amounts Presented in the Consolidated Balance Sheet	Financial Instruments	Cash Collateral Received	Net Amount
Derivative Assets						
Foreign currency contracts	$ 29.1	$ —	$ 29.1	$ (3.6)	$ —	$ 25.5
Cross currency swap contracts	$ 0.8	$ —	$ 0.8	$ —	$ —	$ 0.8
Derivative Liabilities						
Foreign currency contracts	$ 5.2	$ —	$ 5.2	$ (3.6)	$ —	$ 1.6
December 31, 2017						
Derivative Assets						
Foreign currency contracts	$ 4.9	$ —	$ 4.9	$ (3.7)	$ —	$ 1.2
Derivative Liabilities						
Foreign currency contracts	$ 24.8	$ —	$ 24.8	$ (3.7)	$ —	$ 21.1

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

The following tables present the effect of derivative and non-derivative hedging 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 from Accumulated OCI into Income	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income	
	2018	2017		2018	2017
	(in millions)			(in millions)	
Cash flow hedges					
Foreign currency contracts	$ 35.9	$ (43.5)	Cost of sales	$ (17.3)	$ 7.6
			Selling, general, and administrative expenses	$ (2.3)	$ (1.1)

	Amount of Gain or (Loss) Recognized in OCI on Derivative (Effective Portion)		Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain or (Loss) Recognized in Income on Derivative (Amount Excluded from Effectiveness Testing)	
	2018	2017		2018	2017
Net investment hedges					
Cross currency swap contracts	$ 0.8	$ —	Interest expense	$ 3.5	$ —
Foreign currency denominated debt	$ 6.8	$ (35.5)			

In June 2018, the Company repaid and dedesignated its €370.0 million of outstanding long-term debt which had been previously designated as a net investment hedge, and concurrently entered into cross currency swap contracts, which were designated as a net investment hedge. The cross currency swaps have an expiration date of June 15, 2028. At maturity of the cross currency swap contracts, the Company will deliver the notional amount of €257.2 million and will receive $300.0 million from the counterparties. The Company will receive semi-annual interest payments from the counterparties based on a fixed interest rate until maturity of the agreements.

	Location of Gain or (Loss) Recognized in Income on Derivative	Amount of Gain or (Loss) Recognized in Income on Derivative (a)		
		2018	2017	2016
		(in millions)		
Fair value hedges				
Foreign currency contracts	Other (income) expense, net	$ 0.5	$ —	$ —
Interest rate swap agreements	Interest expense	$ —	$ (1.1)	$ (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 was amortized to interest expense over the remaining life of the debt.

	Location of Gain or (Loss) Recognized in Income on Derivative	Amount of Gain or (Loss) Recognized in Income on Derivative		
		2018	2017	2016
		(in millions)		
Derivatives not designated as hedging instruments				
Foreign currency contracts	Other (income) expense, net	$ 9.7	$ (11.5)	$ 8.6

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

The following table presents the effect of cash flow hedge accounting on the consolidated statements of operations:

	Location and Amount of Gain or (Loss) Recognized in Income on Fair Value and Cash Flow Hedging Relationships Twelve Months Ended December 31, 2018			
	Cost of sales	Selling, general, and administrative expenses	Interest expense	Other (Income) Expense, net
Total amounts of income and expense line items shown in the consolidated statements of operations in which the effects of fair value or cash flow hedges are recorded	$ (939.4)	$ (1,088.5)	$ (29.9)	$ 4.0
The effects of fair value and cash flow hedging:				
Gain (loss) on fair value hedging relationships:				
Foreign currency contracts:				
Hedged items	—	—	—	—
Derivatives designated as hedging instruments	—	—	—	—
Amount excluded from effectiveness testing recognized in earnings based on an amortization approach	—	—	—	0.5
Gain (loss) on cash flow hedging relationships:				
Foreign currency contracts:				
Amount of gain (loss) reclassified from accumulated OCI into income	$ (17.3)	$ (2.3)	$ —	$ —

The Company expects that during 2019 it will reclassify to earnings a $8.5 million gain currently recorded in "*Accumulated Other Comprehensive Loss*." For the years ended December 31, 2018, 2017, and 2016, 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. In 2018, the Company curtailed its defined benefit plan in Horw, Switzerland (see Note 4) and at the end of 2017, redesigned one of its defined benefit plans in Nyon, Switzerland into a defined contribution plan due to changes in local legislation.

	Years Ended December 31,	
	2018	2017
	(in millions)	
Change in projected benefit obligation:		
Beginning of year	$ 114.9	$ 128.7
Service cost	6.0	7.9
Interest cost	0.8	1.0
Participant contributions	1.2	2.2
Actuarial loss (gain)	0.7	(7.4)
Benefits paid	(0.3)	(3.1)
Plan amendment	(2.0)	—
Settlements and curtailment gain	(22.5)	(22.2)
Special termination benefits	—	0.6
Currency exchange rate changes and other	(1.4)	7.2
End of year	$ 97.4	$ 114.9

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

	Years Ended December 31,	
	2018	2017
	(in millions)	
Change in fair value of plan assets:		
Beginning of year	$ 71.2	$ 78.6
Actual return on plan assets	(0.8)	4.3
Employer contributions	3.9	6.5
Participant contributions	1.2	2.2
Settlements	(14.4)	(20.7)
Benefits paid	(0.3)	(3.1)
Currency exchange rate changes and other	(0.4)	3.4
End of year	$ 60.4	$ 71.2
Funded Status		
Projected benefit obligation	$ (97.4)	$ (114.9)
Plan assets at fair value	60.4	71.2
Underfunded status	$ (37.0)	$ (43.7)
Net amounts recognized on the consolidated balance sheet:		
Other long-term liabilities	$ 37.0	$ 43.7
Accumulated other comprehensive loss, net of tax:		
Net actuarial loss	$ (19.4)	$ (17.1)
Net prior service cost	2.3	(0.9)
Deferred income tax benefit	3.6	3.9
Total	$ (13.5)	$ (14.1)

The accumulated benefit obligation ("ABO") for all defined benefit pension plans was $93.5 million and $105.6 million as of December 31, 2018 and 2017, respectively. The projected benefit obligation and ABO were in excess of plan assets for all pension plans as of December 31, 2018 and 2017.

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

	Years Ended December 31,		
	2018	2017	2016
Service cost, net	$ 6.0	$ 7.9	$ 6.8
Interest cost	0.8	1.0	1.2
Expected return on plan assets	(1.3)	(2.0)	(1.3)
Settlements and curtailment gain	(7.4)	(6.3)	—
Special termination benefits	—	0.6	—
Amortization of actuarial loss	0.8	0.9	0.7
Amortization of prior service (credit) cost	(0.1)	0.2	(0.7)
Net periodic pension benefit (credit) cost	$ (1.2)	$ 2.3	$ 6.7

The net actuarial loss and prior service credit that will be amortized from "*Accumulated Other Comprehensive Loss*" into net periodic pension benefit cost in 2019 are expected to be $0.9 million and $(0.2) million, respectively.

EDWARDS LIFESCIENCES CORPORATION

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,	
	2018	2017
Discount rate	0.9%	0.9%
Rate of compensation increase	2.8%	2.6%
Social securities increase	1.8%	1.5%
Pension increase	1.8%	1.8%

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

	Years ended December 31,		
	2018	2017	2016
Discount rate	0.9%	0.7%	1.0%
Expected return on plan assets	2.3%	2.4%	1.6%
Rate of compensation increase	2.6%	2.5%	2.7%
Social securities increase	1.5%	1.4%	1.6%
Pension increase	1.8%	0.3%	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, 2018, by asset category, are as follows:

Equity securities	22.5%
Debt securities	49.7%
Real estate	6.8%
Other	21.0%
Total	100.0%

EDWARDS LIFESCIENCES CORPORATION

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, 2018 and 2017, by asset category, are as follows (in millions):

December 31, 2018	Level 1	Level 2	Level 3	Total
Asset Category				
Cash	$ 7.0	$ —	$ —	$ 7.0
Equity securities:				
United States equities	0.5	—	—	0.5
International equities	9.3	—	—	9.3
Debt securities:				
United States government bonds	6.4	—	—	6.4
International government bonds	23.2	—	—	23.2
Real estate	—	4.1	—	4.1
Mortgages	—	2.2	—	2.2
Insurance contracts	—	—	1.0	1.0
Total plan assets measured at fair value	$ 46.4	$ 6.3	$ 1.0	53.7
Alternative investments measured at net asset value (a)				6.7
Total plan assets				$ 60.4
December 31, 2017				
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	$ 50.9	$ 7.7	$ 2.7	$ 61.3
Alternative investments measured at net asset value (a)				9.9
Total plan assets				$ 71.2

(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, 2018 and 2017 (in millions):

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

	Insurance Contracts
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
Actual return on plan assets:	
Relating to assets still held at December 31, 2018	(1.6)
Currency exchange rate impact	(0.1)
Balance at December 31, 2018	$ 1.0

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, 2018, are expected to be paid (in millions):

2019	$ 3.7
2020	3.7
2021	3.6
2022	4.4
2023	5.6
2024-2026	27.9

As of December 31, 2018, expected employer contributions for 2019 are $1.9 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 4% 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 $26.6 million, $19.9 million, and $17.3 million in 2018, 2017, and 2016, respectively.

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

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. EMPLOYEE BENEFIT PLANS (Continued)

based on investment alternatives selected by the participant. The amount accrued under these nonqualified plans was $68.5 million and $64.1 million at December 31, 2018 and 2017, respectively.

13. COMMON STOCK

Treasury Stock

In November 2017, 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. The repurchase program does not have an expiration date. Stock repurchased under the program 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 2018, 2017, and 2016, the Company repurchased 5.5 million, 7.7 million, and 7.3 million shares, respectively, at an aggregate cost of $795.5 million, $763.3 million, and $662.3 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 the Company's 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

During 2018, 2017, and 2016, the Company entered into ASR agreements providing for the repurchase 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 agreements, less a discount. The following table summarizes the terms of the ASR agreements (dollars and shares in millions, except per share data):

		Initial Delivery			Final Settlement		
Agreement Date	Amount Paid	Shares Received	Price per Share (a)	Value of Shares as % of Contract Value	Settlement Date	Total Shares Received	Average Price per Share (a)
February 2016	$ 325.0	3.2	$ 83.60	82%	April 2016 (tranche 1)	1.8	$ 84.39
					October 2016 (tranche 2)	1.7	$ 101.82
November 2017	$ 150.0	1.1	$ 109.86	80%	December 2017	1.3	$ 114.85
April 2018	$ 400.0	2.5	$ 127.36	80%	July 2018	2.8	$ 142.37
October 2018	$ 250.0	1.4	$ 139.22	80%	November 2018	1.7	$ 150.54

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.

Employee and Director Stock Plans

The Edwards Lifesciences Corporation Long-term Stock Incentive Compensation Program (the "Program") provides for the grant of incentive and non-qualified stock options, restricted stock, and restricted stock units for eligible employees and

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

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. Under the 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, 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 6.5%.

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

Option Awards

	2018	2017	2016
Average risk-free interest rate	2.9%	1.8%	1.1%
Expected dividend yield	None	None	None
Expected volatility	29%	33%	33%
Expected life (years)	5.0	4.6	4.5
Fair value, per share	$ 42.51	$ 33.74	$ 31.00

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

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

ESPP

	2018	2017	2016
Average risk-free interest rate	0.9%	0.5%	0.3%
Expected dividend yield	None	None	None
Expected volatility	33%	33%	29%
Expected life (years)	0.6	0.6	0.6
Fair value, per share	$ 36.53	$ 25.69	$ 22.09

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, 2018, 2017, and 2016 included a risk-free interest rate of 2.7%, 1.7%, and 1.0%, respectively, and an expected volatility rate of 29.7%, 30.2%, and 30.0%, respectively.

Stock option activity during the year ended December 31, 2018 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 Intrinsic Value
Outstanding as of December 31, 2017	8.7	$ 59.86		
Options granted	0.9	136.77		
Options exercised	(2.3)	45.41		
Options forfeited	(0.1)	97.57		
Outstanding as of December 31, 2018	7.2	73.42	3.4 years	$ 576.3
Exercisable as of December 31, 2018	5.0	55.63	2.5 years	489.3
Vested and expected to vest as of December 31, 2018	6.9	71.60	3.3 years	564.1

The following table summarizes nonvested restricted stock unit activity during the year ended December 31, 2018 under the Program and the Nonemployee Directors Program (in millions, except per-share amounts):

	Shares	Weighted-Average Grant-Date Fair Value
Nonvested as of December 31, 2017	1.2	$ 85.23
Granted (a)	0.4	130.29
Vested	(0.5)	59.41
Forfeited	(0.1)	92.64
Nonvested as of December 31, 2018	1.0	113.86

(a) Includes 42,025 shares of market-based restricted stock units granted during 2018, which represents the targeted number of shares to be issued, and 50,120 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.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. COMMON STOCK (Continued)

The intrinsic value of stock options exercised and restricted stock units vested during the years ended December 31, 2018, 2017, and 2016 were $281.1 million, $205.2 million, and $237.6 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, 2018, 2017, and 2016, the Company received cash from exercises of stock options of $103.7 million, $77.6 million, and $73.1 million, respectively, and tax benefits from exercises of stock options and vesting of restricted stock units of $62.5 million, $66.9 million, and $78.5 million, respectively. The total grant-date fair value of stock options vested during the years ended December 31, 2018, 2017, and 2016 were $29.0 million, $26.3 million, and $24.1 million, respectively.

As of December 31, 2018, the total remaining unrecognized compensation expense related to nonvested stock options, restricted stock units, and employee stock purchase subscriptions amounted to $113.4 million, which will be amortized over the weighted-average remaining requisite service period of 31 months.

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, 2018, 2017, and 2016.

	Foreign Currency Translation Adjustments	Unrealized Gain (Loss) on Hedges	Unrealized (Loss) Gain on Available-for-sale Investments	Unrealized Pension Costs (a)	Total Accumulated Other Comprehensive Loss
			(in millions)		
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)
Impact from adoption of ASU 2016-16 and ASU 2018-02	(4.9)	(2.9)	—	—	(7.8)
January 1, 2018	(105.0)	(16.8)	(4.6)	(14.1)	(140.5)
Other comprehensive (loss) income before reclassifications	(36.7)	35.1	(3.1)	7.6	2.9
Amounts reclassified from accumulated other comprehensive loss	—	19.1	2.9	(6.7)	15.3
Deferred income tax expense	(1.9)	(13.8)	(0.2)	(0.3)	(16.2)
December 31, 2018	$ (143.6)	$ 23.6	$ (5.0)	$ (13.5)	$ (138.5)

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. ACCUMULATED OTHER COMPREHENSIVE LOSS (Continued)

(a) For the years ended December 31, 2018, 2017, and 2016, the change in unrealized pension costs consisted of the following (in millions):

	Pre-Tax Amount	Tax (Expense) Benefit	Net of Tax Amount
2018			
Prior service credit arising during period	$ 3.3	$ (0.9)	$ 2.4
Amortization of prior service credit	(0.1)	—	(0.1)
Net prior service credit arising during period	3.2	(0.9)	2.3
Net actuarial loss arising during period	(2.3)	0.6	(1.7)
Unrealized pension costs, net	$ 0.9	$ (0.3)	$ 0.6
2017			
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
2016			
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)

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

Details about Accumulated Other Comprehensive Loss Components	Years Ended December 31, 2018	Years Ended December 31, 2017	Affected Line on Consolidated Statements of Operations
Gain (loss) on hedges	$ (17.3)	$ 7.6	Cost of sales
	(2.3)	(1.1)	Selling, general, and administrative expenses
	0.5	—	Other (income) expense, net
	(19.6)	6.5	Total before tax
	4.4	(2.8)	Provision for income taxes
	$ (15.2)	$ 3.7	Net of tax
(Loss) gain on available-for-sale investments	$ (2.9)	$ (3.1)	Other (income) expense, net
	0.2	0.1	Provision for income taxes
	$ (2.7)	$ (3.0)	Net of tax
Amortization of pension adjustments	$ 7.1	$ (0.5)	Special (gains) charges, net
	(0.4)	5.6	Other (income) expense, net
	6.7	5.1	Total before tax
	(0.6)	(0.4)	Provision for income taxes
	$ 6.1	$ 4.7	Net of tax

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. OTHER (INCOME) EXPENSE, NET

	Years Ended December 31,		
	2018	2017	2016
	(in millions)		
Foreign exchange (gains) losses, net	$ (6.7)	$ 5.4	$ 0.5
Loss (gain) on investments	1.7	2.7	(0.2)
Non-service cost components of net periodic pension benefit (credit) cost	(0.1)	(6.1)	—
Charitable foundation contribution	—	—	5.0
Other	1.1	(0.6)	(0.4)
Total other (income) expense, net	$ (4.0)	$ 1.4	$ 4.9

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,		
	2018	2017	2016
United States	$ 266.1	$ 491.5	$ 378.2
International, including Puerto Rico	495.3	543.4	359.7
	$ 761.4	$ 1,034.9	$ 737.9

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

	Years Ended December 31,		
	2018	2017	2016
Current			
United States:			
Federal	$ 10.9	$ 330.8	$ 153.4
State and local	13.6	32.8	12.1
International, including Puerto Rico	35.9	60.6	27.4
Current income tax expense	$ 60.4	$ 424.2	$ 192.9
Deferred			
United States:			
Federal	$ (16.1)	$ 39.3	$ (19.6)
State and local	(22.4)	(3.8)	(4.3)
International, including Puerto Rico	17.3	(8.4)	(0.6)
Deferred income tax (benefit) expense	(21.2)	27.1	(24.5)
Total income tax provision	$ 39.2	$ 451.3	$ 168.4

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

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

	December 31,	
	2018	2017
Deferred tax assets		
Compensation and benefits	$ 71.4	$ 53.9
Benefits from uncertain tax positions	22.2	66.1
Net tax credit carryforwards	94.4	78.8
Net operating loss carryforwards	42.1	47.3
Accrued liabilities	78.8	29.2
Inventories	7.2	6.8
Cash flow and net investment hedges	—	13.3
State income taxes	0.6	5.8
Investments	1.6	1.6
Other	4.1	1.7
Total deferred tax assets	322.4	304.5
Deferred tax liabilities		
Property, plant, and equipment	(24.5)	(20.0)
Cash flow and net investment hedges	(4.5)	—
Deferred tax on foreign earnings	(0.6)	(3.1)
Inventories	(3.9)	(4.2)
Other intangible assets	(77.1)	(49.5)
Other	(0.1)	(0.1)
Total deferred tax liabilities	(110.7)	(76.9)
Valuation allowance	(46.7)	(41.6)
Net deferred tax assets	$ 165.0	$ 186.0

During 2018, net deferred tax assets decreased $21.0 million, including items that were recorded to stockholders' equity and which did not impact the Company's income tax provision.

The valuation allowance of $46.7 million as of December 31, 2018 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, 2018 are summarized as follows (in millions):

	Carryforward Amount	Tax Benefit Amount	Valuation Allowance	Net Tax Benefit	Carryforward Period Ends
United States federal net operating losses	$ 9.6	$ 2.0	$ —	$ 2.0	2033-2036
United States state net operating losses	19.1	1.2	(1.2)	—	2019-2036
Non-United States net operating losses	42.3	6.6	(4.6)	2.0	2019-2027
Non-United States net operating losses	180.0	32.3	(17.9)	14.4	Indefinite
United States capital losses	34.2	0.5	(0.5)	—	2022
Total	$ 285.2	$ 42.6	$ (24.2)	$ 18.4	

EDWARDS LIFESCIENCES CORPORATION

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, 2018 are summarized as follows (in millions):

	Carryforward Amount	Valuation Allowance	Net Tax Benefit	Carryforward Period Ends
California research expenditure tax credits	$ 106.4	$ —	$ 106.4	Indefinite
Federal research expenditure tax credits	0.2	—	0.2	Indefinite
Puerto Rico purchases credit	20.4	(20.4)	—	Indefinite
Total	$ 127.0	$ (20.4)	$ 106.6	

The Company has $106.4 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.

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 (1) reduced the U.S. federal corporate tax rate from 35 percent to 21 percent for tax years beginning after December 31, 2017, (2) required companies to pay a one-time mandatory deemed repatriation tax on the cumulative earnings of certain foreign subsidiaries that were previously tax deferred, and (3) created 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, as of December 31, 2017, the Company had estimated provisional amounts for (1) $3.3 million of tax benefits in connection with the remeasurement of certain tax assets and liabilities, (2) $297.4 million of net tax expense (discussed below) recorded in connection with the one-time mandatory deemed repatriation tax on cumulative earnings of certain foreign subsidiaries, and (3) $32.3 million of tax benefits associated with a tax reform related restructuring. In accordance with SAB 118, during 2018 the Company adjusted the provisional amounts as described below.

As a result of Internal Revenue Service ("IRS") guidance issued subsequent to the 2017 Act, the $32.3 million of tax benefits associated with the tax reform related restructuring mentioned above were reversed. In addition, during 2018, the Company recorded a $12.8 million reduction in the repatriation tax and an additional benefit of $3.7 million in connection with the remeasurement of deferred tax assets. In accordance with SAB 118, the Company completed its accounting for the 2017 Act during the fourth quarter of 2018. In addition, the Company elected to pay the repatriation tax in installments over eight years.

The Company asserts that $1.1 billion of its foreign earnings continue to be indefinitely reinvested and it intends to repatriate $0.6 billion of its foreign earnings as of December 31, 2018. The estimated net tax liability (after credits) on the indefinitely reinvested earnings if repatriated is $12.7 million.

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 $144.9 million ($0.70 per diluted share), $81.0 million ($0.39 per diluted share), and $78.7 million ($0.32 per diluted share) for the years ended December 31, 2018, 2017, and 2016, respectively.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

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

	Years Ended December 31,		
	2018	2017	2016
Income tax expense at U.S. federal statutory rate	$ 159.9	$ 362.2	$ 258.3
Foreign income taxed at different rates	(16.2)	(106.9)	(88.6)
State and local taxes, net of federal tax benefit	6.8	11.5	9.7
Tax credits, federal and state	(36.7)	(25.8)	(21.3)
(Release) build of reserve for prior years' uncertain tax positions	(35.5)	(7.7)	4.6
U.S. tax on foreign earnings, net of credits	(12.2)	(30.3)	5.1
Foreign-derived intangible income deduction	(6.6)	—	—
Deductible employee share-based compensation	(41.8)	(48.2)	—
Nondeductible employee share-based compensation	2.8	3.9	3.6
Impacts related to 2017 U.S. Tax Reform	15.8	294.1	—
Other	2.9	(1.5)	(3.0)
Income tax provision	$ 39.2	$ 451.3	$ 168.4

The Company's effective tax rate for 2018 is lower than its effective tax rate for 2017 primarily because of the benefit from the reduction in the U.S. federal corporate rate from 35% to 21% and tax benefits related to the settlement of tax audits. In addition, the effective tax rate for 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.

Uncertain Tax Positions

As of December 31, 2018 and 2017, the gross uncertain tax positions were $150.7 million and $225.6 million, respectively. The Company estimates that these liabilities would be reduced by $42.7 million and $94.0 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 $108.0 million and $131.6 million, respectively, if not required, would favorably affect the Company's 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):

	December 31,		
	2018	2017	2016
Uncertain gross tax positions, January 1	$ 225.6	$ 245.5	$ 216.1
Current year tax positions	37.8	77.7	29.0
Increase in prior year tax positions	13.9	63.7	2.7
Decrease in prior year tax positions	(78.8)	(65.0)	(0.9)
Settlements	(46.5)	(95.3)	(0.3)
Lapse of statutes of limitations	(1.3)	(1.0)	(1.1)
Uncertain gross tax positions, December 31	$ 150.7	$ 225.6	$ 245.5

The table above summarizes the gross amounts of uncertain tax positions without regard to reduction in tax liabilities or additions to deferred tax assets and liabilities if such uncertain tax positions were settled.

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. INCOME TAXES (Continued)

The Company recognizes interest and penalties, if any, related to uncertain tax positions in the provision for income taxes. As of December 31, 2018, the Company had accrued $4.6 million (net of $1.9 million tax benefit) of interest related to uncertain tax positions, and 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. During 2018, 2017, and 2016, the Company recognized interest (benefit) expense, net of tax benefit, of $(2.8) million, $(7.3) million, and $4.0 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, 2018, all material state, local, and foreign income tax matters have been concluded for years through 2008. During 2018, the Company signed agreements with the IRS to settle tax years 2009 through 2014 including transfer pricing matters and the tax treatment of a portion of a litigation settlement payment received in 2014. The IRS began its examination of the 2015 and 2016 tax years during the fourth quarter of 2018.

During 2018, the Company executed an Advance Pricing Agreement ("APA") between the United States and Switzerland governments for tax years 2009 through 2020 covering various transfer pricing matters and the Company has updated its transfer pricing policies accordingly. Certain intercompany transactions covering tax years 2015 through 2018 were not resolved and those related tax positions remain uncertain. These transfer pricing matters may be significant to the Company's consolidated financial statements. In addition, the Company executed other APAs as follows: during 2017, an APA between the United States and Japan covering tax years 2015 through 2019, and during 2018, APAs between Japan and Singapore as well as Switzerland and Japan covering tax years 2015 through 2019.

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 has recorded the gross uncertain tax positions as a long-term liability.

17. LEGAL PROCEEDINGS

On January 15, 2019, Boston Scientific Corporation and Edwards announced that the companies reached an agreement to settle all outstanding patent disputes between the companies, as well as providing that the parties will not litigate patent disputes related to current portfolios of transcatheter aortic valves, certain mitral valve repair devices, and left atrial appendage closure devices. Under the terms of the agreement, Edwards made a one-time payment to Boston Scientific of $180 million. No further royalties will be owed by either party under the agreement. The settlement covered all of the following historical matters between Boston Scientific Corporation and certain of its subsidiaries (collectively, “Boston Scientific”) and Edwards Lifesciences Corporation and certain of its subsidiaries (collectively, ‘Edwards Lifesciences”): (i) patent infringement actions in the district court in Düsseldorf, Germany against Edwards Lifesciences, filed on October 30, 2015 and February 26, 2016; (ii) patent infringement action against Edwards Lifesciences in the district court in Paris, France, filed on April 8, 2016; (iii), a patent infringement action against Boston Scientific in the United Kingdom in the High Court of Justice, Chancery Division, Patents Court, filed on November 2, 2015, and Boston Scientific’s counterclaims against Edwards Lifesciences; (iv) patent infringement action against Edwards Lifesciences in the same U.K. court, filed on July 30, 2018; (v) lawsuit against Boston Scientific in the district court in Munich, Germany, filed on June 16, 2017 and July 31, 2017 on patent co-ownership; (vi) a lawsuit in the district court in Düsseldorf, Germany for patent infringement against Boston Scientific, filed on November 23, 2015, (vii) a lawsuit against Edwards Lifesciences in the Federal District Court in the District of Delaware alleging patent infringement, filed on April 19, 2016, along with Edwards Lifesciences counterclaims, filed on June 9, 2016; (viii) a lawsuit against Edwards Lifesciences in the Federal District Court in the Central District of California alleging patent infringement, filed on April 19, 2016; (ix) a October 23, 2016 lawsuit against Boston Scientific and LivaNova PLC and LivaNova Canada

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

17. LEGAL PROCEEDINGS (Continued)

Corp., its contract manufacturers, in the Federal Court in Toronto, Canada, alleging patent infringement, and on February 17, 2017, also against Neovasc, Inc. and Neovasc Medical Inc.; (x) a January 11, 2017 lawsuit against Boston Scientific, in the High Court in Dublin, Ireland alleging patent infringement; (xi) a July 31, 2018 lawsuit in the district court in Düsseldorf, Germany against Edwards Lifesciences alleging patent infringement; and (xii) a August 22, 2018 lawsuit against Boston Scientific in the Federal District Court in the District of Delaware alleging patent infringement.

On January 28, 2019, Abbott Cardiovascular Systems, Inc. and Evalve, Inc., both subsidiaries of Abbott Laboratories (collectively "Abbott") filed a lawsuit against Edwards Lifesciences Corporation and Edwards Lifesciences, LLC, ("Edwards") in the Federal District Court in the District of Delaware alleging that the Edwards *PASCAL* heart valve repair system infringes certain claims of Abbott's U.S. Patent Nos. 7,288,097, 6,752,813, 7,563,267, 7,736,388, and 8,057,493, seeking unspecified monetary damages and preliminary and permanent injunctive relief.

On January 28, 2019, Abbott and its Abbott Medical UK Limited subsidiary filed a lawsuit in the United Kingdom in the High Court of Justice, Chancery Division, Patents Court, against Edwards Lifesciences Limited, alleging that the Edwards *PASCAL* heart valve repair system infringes certain claims of Abbott's UK national patents arising from EP 1 624 810 B1 and EP 1 408 850 B1. On January 28, 2019, Abbott Medical GmbH filed a lawsuit in the district court in Düsseldorf, Germany against Edwards Lifesciences Corporation and its German subsidiary, Edwards Lifesciences Services GmbH, alleging that the Edwards *PASCAL* heart valve repair system infringes certain claims of Abbott's German national patents arising from these same European patents. On or about January 28, 2019, Abbott and Abbott Medical AG filed a lawsuit in the Federal Patent Court in St. Gallen, Switzerland against Edwards Lifesciences AG, Edwards Lifesciences Technology Sàrl, Edwards Lifesciences IPRM AG, and Mitral Valve Technologies Sàrl, alleging a patent infringement relating to the Edwards *PASCAL* heart valve repair system. The Company intends to defend itself vigorously in these matters.

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 device 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.

EDWARDS LIFESCIENCES CORPORATION

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 operating income. The accounting policies of the segments are substantially the same as those described in Note 2. Segment net sales and segment operating 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 operating 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 Ended December 31,		
	2018	2017	2016
Segment Net Sales			
United States	$ 2,055.2	$ 1,907.6	$ 1,615.7
Europe	826.4	800.7	745.9
Japan	398.4	356.5	279.6
Rest of World	396.0	357.3	303.6
Total segment net sales	$ 3,676.0	$ 3,422.1	$ 2,944.8
Segment Operating Income			
United States	$ 1,368.1	$ 1,242.3	$ 1,050.2
Europe	394.8	378.4	360.9
Japan	237.0	201.1	139.6
Rest of World	115.6	92.8	73.0
Total segment operating income	$ 2,115.5	$ 1,914.6	$ 1,623.7

EDWARDS LIFESCIENCES CORPORATION

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 operating income to consolidated income before provision for income taxes ("pre-tax income") (in millions):

	Years Ended December 31,		
	2018	2017	2016
Net Sales Reconciliation			
Segment net sales	$ 3,676.0	$ 3,422.1	$ 2,944.8
Foreign currency	46.8	13.2	18.9
Consolidated net sales	$ 3,722.8	$ 3,435.3	$ 2,963.7
Pre-tax Income Reconciliation			
Segment operating income	$ 2,115.5	$ 1,914.6	$ 1,623.7
Unallocated amounts:			
Corporate items	(1,052.4)	(893.6)	(821.6)
Special charges, net	(116.2)	(9.7)	(34.5)
Intellectual property litigation (expenses) income, net	(214.0)	73.3	(32.6)
Foreign currency	15.3	4.8	16.2
Consolidated operating income	748.2	1,089.4	751.2
Non-operating income (expense)	13.2	(54.5)	(13.3)
Consolidated pre-tax income	$ 761.4	$ 1,034.9	$ 737.9

EDWARDS LIFESCIENCES CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. SEGMENT INFORMATION (Continued)

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,		
	2018	2017	2016
	(in millions)		
Net Sales by Geographic Area			
United States	$ 2,055.3	$ 1,907.6	$ 1,615.7
Europe	885.1	831.0	749.0
Japan	396.8	350.3	309.3
Rest of World	385.6	346.4	289.7
	$ 3,722.8	$ 3,435.3	$ 2,963.7
Net Sales by Major Product Area			
Transcatheter Heart Valve Therapy	$ 2,286.7	$ 2,027.2	$ 1,628.5
Surgical Heart Valve Therapy	761.6	807.1	774.9
Critical Care	674.5	601.0	560.3
	$ 3,722.8	$ 3,435.3	$ 2,963.7
Long-lived Tangible Assets by Geographic Area			
United States	$ 642.1	$ 608.7	$ 555.5
Europe	36.6	28.4	27.9
Japan	6.7	7.6	8.0
Rest of World	214.4	139.7	108.6
	$ 899.8	$ 784.4	$ 700.0

EDWARDS LIFESCIENCES CORPORATION

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 millions, except per share data)				
2018					
Net sales	$ 894.8	$ 943.7	$ 906.6	$ 977.7	$ 3,722.8
Gross profit	661.2	697.5	681.7	743.0	2,783.4
Net income (a)	206.6	282.7	225.9	7.0	722.2
Earnings per common share (a):					
Basic	0.98	1.35	1.08	0.03	3.45
Diluted	0.96	1.32	1.06	0.03	3.38
Market price:					
High	$ 143.22	$ 155.22	$ 175.00	$ 174.99	$ 175.00
Low	110.68	123.00	134.53	136.44	110.68
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) (b)	230.2	186.1	170.1	(2.8)	583.6
Earnings (loss) per common share (b):					
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

(a) The fourth quarter of 2018 includes a $116.2 million charge related to the other-than-temporary impairment of certain developed technology and in-process research and development assets and a $180.0 million charge related to a litigation settlement.

(b) 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

	Balance at Beginning of Period	Additions: Charged to Costs and Expenses	Additions: Charged to Other Accounts	Deductions From Reserves	Balance at End of Period
			(in millions)		
Year ended December 31, 2018					
Allowance for doubtful accounts (a)	$ 13.7	$ 2.2	$ 1.0	$ (3.3)	$ 13.6
Tax valuation allowance (b)	41.6	7.1	(1.8)	(0.2)	46.7
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

(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.

21. SUBSEQUENT EVENT

On February 11, 2019, the Company entered into an agreement and plan of merger to acquire CAS Medical Systems, Inc. ("CASMED") for an aggregate cash purchase price of $2.45 per share of common stock, or an equity value of approximately $100.0 million. CASMED is a medical technology company dedicated to non-invasive monitoring of tissue oxygenation in the brain. The Company plans to integrate the acquired technology platform into its hemodynamic monitoring platform. The acquisition will be accounted for as a business combination, and is expected to consist primarily of intangible assets. The Company is in the process of evaluating the potential impact of the business combination on its consolidated financial statements.

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, 2018.

Based on their evaluation, the Chief Executive Officer and Chief Financial Officer have concluded as of December 31, 2018 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, 2018. The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 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 2018 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 2019 Annual Meeting of Stockholders (the "Proxy Statement") (which Proxy Statement will be filed with the SEC within 120 days of December 31, 2018). 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-Corporate Governance-Corporate Responsibility-Global Integrity Program." 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.

Exhibit No.	Exhibit No.
3.1	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)
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)
4.4	Second Supplemental Indenture, dated as of June 15, 2018, to the Indenture (incorporated by reference to Exhibit 4.2 in Edwards Lifesciences' report on Form 8-K, filed on June 15, 2018) ("Second Supplemental Indenture")
4.5	Form of Global Note for the 4.300% Senior Notes due 2028 (incorporated by reference to Exhibit A in the Second Supplemental Indenture filed as Exhibit 4.2 in Edwards Lifesciences' report on Form 8-K, filed on June 15, 2018)
10.1	Five-Year Credit Agreement, dated as of April 30, 2018, among Edwards Lifesciences Corporation and certain of its subsidiaries, as Borrowers, the lenders signatory thereto, Bank of America, N.A., as Administrative Agent, JPMorgan Chase Bank, N.A., as Syndication Agent, and Morgan Stanley MUFG Loan Partners, LLC, Deutsche Bank Securities Inc., HSBC Bank USA, National Association, and Wells Fargo Bank, National Association, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 8-K, filed on April 30, 2018)
#10.2	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)
*10.3	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)
*10.4	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)
*10.5	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)
*10.6	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)
+*10.7	Edwards Lifesciences Corporation 2018 Edwards Incentive Plan
*10.8	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.
*10.9	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)
*10.10	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)
*10.11	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)
*10.12	Edwards Lifesciences Corporation Form of Long-Term Stock Program Global Restricted Stock Unit Award Agreement for awards granted 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)
*10.13	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)
*10.14	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)
*10.15	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 quarterly period ended June 30, 2013)
*10.16	Edwards Lifesciences Corporation Form of Nonemployee Directors Stock Incentive Program Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.4 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2011)
*10.17	Edwards Lifesciences Corporation Form of Nonemployee Directors Stock Incentive Program Restricted Stock Agreement (incorporated by reference to Exhibit 10.5 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2011)
*10.18	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)
*10.19	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)
*10.20	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)
*10.21	Edwards Lifesciences Corporation Executive Deferred Compensation Plan, as amended and restated effective November 9, 2011 (incorporated by reference to Exhibit 10.7 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December 31, 2011)
*10.22	Edwards Lifesciences Technology SARL Retirement Savings 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)
*10.23	Amendment No. 1 to the Edwards Lifesciences Technology SARL Retirement Savings 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)
*10.24	Amendment No. 2 to the Edwards Lifesciences Technology SARL Retirement Savings 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)
*10.25	Amendment No. 3 to the Edwards Lifesciences Technology SARL Retirement Savings Plan, dated February 14, 2018 (incorporated by reference to Exhibit 10.27 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December, 31, 2017)
+*10.26	Amendment No. 4 to the Edwards Lifesciences Technology SARL Retirement Savings Plan, dated November 14, 2018
*10.27	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)

Exhibit No.	Exhibit No.
*10.28	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)
*10.29	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
*10.30	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)
*10.31	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)
*10.32	Amendment No. 5 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated October 27, 2017 (incorporated by reference to Exhibit 10.33 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December, 31, 2017)
*10.33	Amendment No. 6 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated December 19, 2017 (incorporated by reference to Exhibit 10.34 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December, 31, 2017)
*10.34	Amendment No. 7 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated December 19, 2017 (incorporated by reference to Exhibit 10.35 in Edwards Lifesciences' report on Form 10-K for the fiscal year ended December, 31, 2017)
*10.35	Amendment No. 8 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated April 17, 2018 (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended March 31, 2018)
*10.36	Amendment No. 9 to the Edwards Lifesciences Corporation 401(k) Savings and Investment Plan, dated October 5, 2018 (incorporated by reference to Exhibit 10.1 in Edwards Lifesciences' report on Form 10-Q for the quarterly period ended September 30, 2018)
*10.37	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)
*10.38	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)
*10.39	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)
*10.40	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)
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, 2018, 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.

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

* Represents management contract or compensatory plan

+ Furnished herewith

Item 16. Form 10-K Summary

None.

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 LIFESCIENCES CORPORATION

February 15, 2019 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 Michael A. Mussallem	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	February 15, 2019
/s/ SCOTT B. ULLEM Scott B. Ullem	Corporate Vice President, Chief Financial Officer (Principal Financial Officer)	February 15, 2019
/s/ ROBERT W.A. SELLERS Robert W.A. Sellers	Vice President, Corporate Controller (Principal Accounting Officer)	February 15, 2019
/s/ KIERAN T. GALLAHUE Kieran T. Gallahue	Director	February 15, 2019
/s/ LESLIE S. HEISZ Leslie S. Heisz	Director	February 15, 2019
/s/ WILLIAM J. LINK, PH.D. William J. Link, Ph.D.	Director	February 15, 2019
/s/ STEVEN R. LORANGER Steven R. Loranger	Director	February 15, 2019
/s/ MARTHA H. MARSH Martha H. Marsh	Director	February 15, 2019
/s/ WESLEY W. VON SCHACK Wesley W. von Schack	Director	February 15, 2019
/s/ NICHOLAS J. VALERIANI Nicholas J. Valeriani	Director	February 15, 2019

Exhibit 10.7

Edwards Lifesciences

United States

2018

Edwards Incentive Plan (EIP)

PLAN OBJECTIVE

The Edwards Lifesciences Incentive Plan for 2018 ("2018 EIP" or "the Plan") is a discretionary annual cash bonus program designed to motivate eligible participants to contribute to the achievement of the financial and strategic objectives of Edwards Lifesciences LLC ("Edwards" or "the Company"), as well as to achieve individual performance goals.

ELIGIBILITY

Edwards' regular employees in the United States are eligible to participate in the 2018 EIP if they meet *all* of the following criteria:

- Date of hire is before October 1, 2018;
- Not a participant in any commission or other incentive compensation plan;
- Full-time employee, or part-time employee regularly scheduled to work at least 20 hours per week; and
- Participation has been submitted to and approved by the Plan Administrator or its designee; provided, however, participation by Edwards' executive officers may be approved only by the Plan Administrator.

Employees who are hired into a 2018 EIP bonus-eligible position between January 1 and September 30, 2018, will be eligible for target bonuses based on their actual eligible earnings for the Plan year. Employees who are promoted into a 2018 EIP bonus-eligible position during the Plan year will be eligible for target bonuses based on their actual eligible earnings for the Plan year.

ELIGIBLE EARNINGS

The term "eligible earnings" as used in this Plan is defined in Exhibit A.

PLAN YEAR

The 2018 EIP Plan year (the "Plan year") corresponds with the calendar year beginning January 1 and ending December 31, 2018 (the "Bonus Measurement Date"). The Plan year also is the bonus measurement period. This Plan is rolled out on an annual basis and expires at the end of the Plan year. The Company has full discretion to roll out a new plan or no plan in future plan years.

BONUS FUNDING

The 2018 EIP will be funded based on a percentage of Edwards' financial performance, as modified by the achievement of the Key Operating Drivers (KODs).

Financial Performance
For purposes of the initial funding of the 2018 EIP, Edwards' financial performance will be measured on the following criteria, weighted as noted:

Revenue Growth* 50%
Net Income 30%
Free Cash Flow** 20%

* Assumes constant foreign exchange and excludes special items
** Defined as cash flow from operations less capital expenditures and special items

Actual funding levels for each category will be interpolated at 1% intervals. Performance resulting in below 25% funding will result in zero payout for that category. Results from 25% to 175% will be specified in 1% increments. Under no circumstances will a category achieve higher than 175% funding. The funding for each category will be weighted accordingly and added together to achieve a total financial performance funding amount.

Key Operating Drivers (KODs)
The initial 2018 EIP bonus funding will be further modified by the achievement of Edwards Lifesciences Key Operating Drivers (KODs). Corporate employees, including corporate officers, will be measured against Corporate KODs. For business unit and region employees, enhanced "line of sight" KOD profiles will apply to increase awareness of company-wide strategy execution. US business unit and Global Supply Chain employees will have a KOD profile consisting of 70% Global Business Unit KODs and 30% Corporate KODs. Business-unit aligned region employees will have a KOD Profile consisting of 70% Region KODs and 30% Global Business Unit KODs. Other region employees will be tied to 70% Region KODs and 30% Corporate KODs. Employees can request a copy of their KOD profile from Human Resources or their manager. The actual split may vary depending on the business unit.

Depending on how KODs are achieved, the level of initial bonus funding based on achievement of financial performance goals will be further modified by a factor of not less than 50% (with a 30 point threshold) and not more than 150%.

Financials x Key Operating Drivers
Actual funding will be based on the product of the foregoing two components (financials x KODs), and will not exceed 175%.

Exhibit B provides *examples* of how the bonus amount would be funded, assuming attainment of a certain level of financial performance (as determined by the Plan Administrator) and as modified by the level of KOD achievement.

TARGET BONUS LEVELS

The target bonus amounts are expressed as a percentage of an employee's 2018 eligible earnings. If a participant had a job change during the Plan year that affected the bonus level, the target bonus level for purposes of this Plan will be the target bonus applicable at year-end. If a participant had a job change during the Plan year that affected their KOD modifier, the KOD modifier will be pro-rated based on the time the participant was in a job tied to that KOD modifier.

Participants may receive more or less than their target bonus amounts depending on bonus funding and management's determination of Performance Management Objective (PMO) achievement and at the discretion of the Company.

ACTUAL BONUS PAYOUTS

A participant's actual bonus payout amount will be based on individual achievement of 2018 PMOs, as determined by the participant's manager in her/his discretion. The PMOs are established by the participant's manager, following discussion with and input from the participant. PMOs should reflect a balance between team and individual goals, financial and non-financial goals, and be clearly aligned with Edwards' business goals and the organization's KODs.

After the Plan year, the Plan participant and her/his manager will discuss individual PMO achievement levels. The Plan participant's manager assigns PMO achievement percentages, which may range from 0% to 200%. The assignment of the PMO achievement percentage shall be within the discretion of the Plan participant's manager. Unless determined otherwise by the Plan Administrator, for every 1% awarded by the manager over 100%, a corresponding discount of 1% below 100% must be applied to another participant in the department or organization, so that the total PMO pool for the department or organization adds up to approximately 100% (*i.e.*, changes up or down must offset each other). Under no circumstance will a participant receive a PMO achievement percentage greater than 200%.

Actual bonus payouts are calculated as follows:

Bonus Target Amount = Participant's 2018 Eligible Earnings x Participant's 2018 EIP Bonus %

Payout = Bonus Target Amount x Financial Funding x KOD Modifier x PMO Achievement %

PAYMENT OF BONUSES

The Plan Administrator will review the bonus award recommendations in February 2019 and approve or modify the individual bonus award recommendations in its discretion.

2018 EIP payouts will be issued as soon as possible following the February Board of Directors meeting, but generally no later than March 15, 2019 ("Bonus Payout Date").

To receive a bonus award, a participant must be on the Edwards payroll with an "active" or "LOA" status as of the Bonus Measurement Date, except as provided in the Termination of Employment Section, below.

Required withholdings, including any withholding for employees subject to tax laws of other countries, and authorized deductions will be subtracted from the gross amount of the bonus award. Bonus payouts are considered to be part of benefit pay. Contributions to the Edwards 401(k) Savings and Investment Plan and the Edwards Executive Deferred Compensation Plan will also be deducted, as authorized or required by the Plan terms. Employee Stock Purchase Plan payments will not be deducted from the bonus award payout.

TERMINATION OF EMPLOYMENT

To encourage continued employment with Edwards, participants who voluntarily sever their employment with Edwards or who are involuntarily terminated, for reasons other than those listed below, during the Plan year, are ineligible for a 2018 EIP bonus payout.

Participants who are employed at least six months during the Plan year and are terminated due to the following reasons during the Plan year are eligible for bonus payouts based on their actual eligible earnings:

1. Involuntary Termination – termination of employment due to a reduction in force, departmental restructuring or job redefinition; or
2. Disability – when an employee becomes disabled and unable, either with or without reasonable accommodation, to perform the essential functions of his/her position in the foreseeable future; or
3. Retirement – termination of employment after age fifty-five (55) and 10 years of service; or
4. Death.

The bonus amounts in these cases will be based on the full year of business performance for funding purposes and the level of PMO completion, as determined by the participant's manager in her/his discretion (*see* next section), and eligible earnings.

PLAN ADMINISTRATION

The Plan Administrator is the Edwards Lifesciences Compensation and Governance Committee (or its successor). The Plan Administrator may delegate responsibility for Plan administration to a designee; provided, however, that the Plan Administrator may not delegate responsibility for approval of target and actual bonus amounts for Edwards' executive officers. As used in this Plan, the term "Plan Administrator" includes any such designee.

The Plan Administrator shall have the sole discretion and authority to interpret this Plan and to determine the outcome of any question or dispute that may arise under this Plan. Among other things, the Plan Administrator is authorized to: (1) set the applicable financial performance targets and the method of determining attainment of such targets; (2) determine if, and to what extent, the financial performance targets have been satisfied; (3) set the KODs and target bonus amounts that apply to employees; (4) determine Plan eligibility; (5) adjust the actual bonus payouts based on its assessment of overall Company performance and other criteria it determines appropriate; (6) approve or modify individual bonus awards; (7) interpret the Plan and its application to individual Plan participants; (8) resolve specific Plan questions and issues; (9) adopt or modify rules and procedures for the administration of the Plan; and (10) recommend Plan continuation, changes, and adjustments from year-to-year. The decisions of the Plan Administrator shall be final and binding.

Eligible positions and target bonus levels will be evaluated and determined on an annual basis, subject to the discretion of the Company to roll out a new plan or no plan in future plan years as set out above.

Effect of Leave of Absence. If a Plan participant is on an approved leave of absence during the Plan year, the PMO achievement decision will be based on the time worked before and/or after the leave during the Plan year, and any bonus award will be based on achievement of the prorated PMOs.

The Plan Administrator must approve any exception to any provision of the Plan.

GENERAL

Nothing contained in this Plan, nor any action taken under this Plan, is to be construed as a contract of employment with Edwards or any affiliate, or as giving a Plan participant any right to continued employment with Edwards or any affiliate.

No person will, because of participation in this Plan, acquire any right to an accounting or to examine the financial records or affairs of Edwards.

This Plan supersedes any prior or existing incentive compensation plans, whether express or implied or oral or written, with respect to the Plan participants.

The Company reserves the right to abandon (i.e., terminate), amend, or modify the Plan, at any time, without advance notice.

EXHIBIT A

Eligible Earnings

Edwards' intent in calculating and measuring eligible earnings for purposes of EIP Bonus payout is to avoid paying a bonus (EIP) on top of other bonuses. We intend to pay EIP based on regular salary earnings and exclude allowances, reimbursements, and bonus payouts

For purposes of the 2018 EIP, eligible earnings shall include:

- Salary and hourly wage earnings, including overtime pay
- Shift differential pay
- Lead pay
- Call-in pay
- Payments in lieu of a pay increase
- Retroactive pay
- Double time pay
- Paid time-off benefits:
    - Bereavement leave pay
    - Paid holidays
    - Jury duty leave pay
    - Vacation pay
    - Paid sick time
    - Short-term disability pay
    - Military leave pay

For purposes of the 2018 EIP, eligible earnings shall not include:

- Bonuses, awards, allowances, and/or reimbursements, including:
    - Incentive bonuses under the Edwards Incentive Plan and/or any other bonus plans
    - Attendance awards
    - Automobile allowances and mileage reimbursement
    - Business and travel expense reimbursements
    - Cash prizes or awards
    - Holiday gifts
    - Sales Compensation
    - Contest pay or prizes
    - Discretionary bonus awards
    - Draws toward commissions
    - Employee referral awards
    - For waiver of employee benefits or participation in any employee benefit plan
    - Hiring bonuses
    - Retention bonuses
    - Tax equalization payments to expatriates
    - Technical achievement awards
    - Travel allowances
    - Tuition reimbursements
    - Severance pay
    - Workers' compensation benefits

- Amounts paid, accrued or imputed as income, such as:
    - Benefits received under any government-sponsored employee benefit plan, such as a life insurance or short-term/long-term disability insurance plan
    - Deferred compensation, including deferred bonuses and interest earnings thereon
    - Executive perquisite allowances
    - Invention fees and awards
    - Income from sale of stock
    - Income from the exercise of stock options

- Moving/relocation expenses or benefits, including mortgage differential payments and reimbursement of moving/relocation expenses
- Non-cash prizes or awards
- Pay for unused sick time
- Pay for unused vacation time
- Performance shares
- Promotional awards
- Restricted stock rights
- Stock appreciation rights
- Value of any fringe benefit granted to the participant

EXHIBIT B

Examples

Funding and Payout Determination for 2018 EIP[1]

Example 1: Corporate Employee

Assumptions
Eligible Earnings: $100,000
Bonus Target %: 10%
Bonus Target Amount: $10,000

Financial Performance

Financial Measures	% of Target Earned	Weight	Funding % Per Category
Revenue Growth	100%	50%	50%
Net Income	110%	30%	33%
Free Cash Flow	100%	20%	20%
		Funding Based on Financial Measures	**103%**

Key Operating Drivers Performance

Corporate KOD Modifier Table - Example

KOD Modifier Based on Performance Compared to Expected Range				KOD Modifier – Illustrative Performance	
KOD	**Underachieve Points**	**Achieve Points**	**Overachieve Points**	**Performance Level**	**Modifier**
1	0	60	120	Achieve	60
2	0	15	30	Overachieve	30
3	0	15	30	Achieve	15
4	0	10	20	Achieve	10
				KOD Modifier[2]	**115%**

PMO Achievement = 100%

Bonus Payout Calculation

Payout = Bonus Target Amount x Financial Funding x KOD Modifier x PMO Achievement

Payout = $10,000 x 103% x 115% x 100% = $11,845

1 The Plan Administrator may, at its discretion, adjust the level of bonus payouts based on its assessment of overall Company performance and other criteria it determines appropriate.
2 50% floor (with a 30-point threshold) and 150% ceiling.

Examples

Funding and Payout Determination for 2018 EIP[1]

Example 2: Business Unit Employee

Assumptions

Eligible Earnings	Bonus Target %	Bonus Target Amount
$100,000	10%	$10,000

Financial Performance

Financial Measures	% of Target Earned	Weight	Funding % Per Category
Revenue Growth	100%	50%	50%
Net Income	110%	30%	33%
Free Cash Flow	100%	20%	20%
		Funding Based on Financial Measures	**103%**

Key Operating Drivers Performance

Corporate KOD Modifier Table – Example

KOD Modifier Based on Performance Compared to Expected Range				KOD Modifier – Illustrative Performance	
KOD	**Underachieve Points**	**Achieve Points**	**Overachieve Points**	**Performance Level**	**Modifier**
1	0	60	120	Achieve	60
2	0	15	30	Overachieve	30
3	0	15	30	Achieve	15
4	0	10	20	Achieve	10
				Corporate KOD Modifier[2]	**115%**

Business Unit KOD Modifier Table – Example

KOD Modifier Based on Performance Compared to Expected Range				KOD Modifier – Illustrative Performance	
KOD	**Underachieve Points**	**Achieve Points**	**Overachieve Points**	**Performance Level**	**Modifier**
1	0	50	100	Achieve	50
2	0	25	50	Achieve	25
3	0	25	50	Achieve	25
				Business Unit KOD Modifier[2]	**100%**

Business Unit Employee KOD Profile

KOD	Result	Weight	KOD Profile %
Business Unit	100%	70%	70%
Corporate	115%	30%	35%
		Final Business Unit KOD Profile Result	**105%**

PMO Achievement = 100%

Bonus Payout Calculation

Payout = Bonus Target Amount x Financial Funding x KOD Modifier x PMO Achievement

Payout = $10,000 x 103% x 105% x 100% = $10,815

_____

1 The Plan Administrator may, at its discretion, adjust the level of bonus payouts based on its assessment of overall Company performance and other criteria it determines appropriate.

2 50% floor (with a 30-point threshold) and 150% ceiling.

Exhibit 10.26

AMENDMENT NO. 4
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, Amendment No. 2 executed on February 24, 2017, and Amendment No. 3 executed on February 14, 2018, 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 July 31, 2018, Article VII, Section 7.9(c) is hereby amended in part as follows:

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

(i) …

(ii) Definitions:

"Eligible Individual" 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).

"Eligible Expenses" 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.

"Eligible Distributions" 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*.

"*Eligibility Period"* means the period between September 20, 2017 to ***November 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.

Distributions from the Plan received by plan participants between July 1, 2018 and July 31, 2018, could be treated as Eligible Distributions, provided that they comply with the above and the sworn statement is provided to the Plan Administrator on or before September 28, 2018.

(d) …

IN WITNESS WHEREOF, the Committee has caused this Amendment No. 4 to be executed by an authorized representative on the 14th day of November of 2018.

EDWARDS LIFESCIENCES CORPORATION
ADMINISTRATIVE AND INVESTMENT COMMITTEE

By: /s/ Christine Z McCauley
Christine Z. McCauley, Chairperson

Exhibit 21.1

The following entities are wholly-owned subsidiaries 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 PVT, 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.
Red Hill Holding LLC		Delaware		U.S.
Red Hill Insurance Corporation		D.C.		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, MEPE				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
Edwards Lifesciences Korea Co., Ltd.				Korea

Legal Entity		State of Incorporation/ Formation		Country of Incorporation/ Formation
Edwards Lifesciences (Malaysia) Sdn. Bhd.				Malaysia
Edwards Lifesciences Asia Pacific 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

Exhibit 23

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, 333-52334, 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 15, 2019 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 15, 2019

Exhibit 31.1

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 15, 2019

Exhibit 31.2

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/ SCOTT B. ULLEM

Scott B. Ullem
Corporate Vice President,
Chief Financial Officer

February 15, 2019

Exhibit 32

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, 2018 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

February 15, 2019

/s/ SCOTT B. ULLEM

Scott B. Ullem
Corporate Vice President,
Chief Financial Officer

February 15, 2019