BOSTON SCIENTIFIC CORP
Form 10-K
February 20, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934, or

For the fiscal year ended December 31, 2017

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

Commission File No. 1-11083
BOSTON SCIENTIFIC CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE	04-2695240
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

300 BOSTON SCIENTIFIC WAY, MARLBOROUGH, MASSACHUSETTS 01752-1234
(Address of principal executive offices) (zip code)
(508) 683-4000
(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

COMMON STOCK, $.01 PAR VALUE PER SHARE	NEW YORK STOCK EXCHANGE
(Title of each class)	(Name of exchange on which registered)

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 in Rule 405 of the Securities Act. Yes: þ No o
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes: o No þ
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: þ No o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorted period that the registrant was required to submit and post such files). Yes: þ No o
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. þ
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)
Smaller reporting company o	Emerging growth company o	

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. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes: o No þ
The aggregate market value of the registrant's common stock held by non-affiliates was approximately $37.9 billion based on the last reported sale price of $27.72 of the registrant's common stock on the New York Stock Exchange on June 30, 2017, the last business day of the registrant's most recently completed second fiscal quarter. (For this computation, the registrant has excluded the market value of all shares of common stock of the registrant reported as beneficially owned by executive officers, and directors of the registrant; such exclusion shall not be deemed to constitute an admission that any such person is an affiliate of the registrant.)
The number of shares outstanding of the registrant's common stock as of January 31, 2018 was 1,374,910,797.
Documents Incorporated by Reference
Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission in connection with its 2018 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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PART I

ITEM 1. BUSINESS

Our Company

Boston Scientific Corporation is a global developer, manufacturer and marketer of medical devices that are used in a broad range of interventional medical specialties. Our mission is to transform lives through innovative medical solutions that improve the health of patients around the world. As a medical technology leader for more than 35 years, we advance science for life by providing a broad range of high performance solutions to address unmet patient needs and reduce the cost of healthcare. When used in this report, the terms "we," "us," "our" and "the Company" mean Boston Scientific Corporation and its divisions and subsidiaries.

Our history began in the late 1960s when our co-founder, John Abele, acquired an equity interest in Medi-tech, Inc., a research and development company focused on developing alternatives to surgery. In 1969, Medi-tech introduced a family of steerable catheters used in some of the world's first less-invasive procedures. In 1979, John Abele joined with Pete Nicholas to form Boston Scientific Corporation, which indirectly acquired Medi-tech. This acquisition began a period of active and focused new product development, innovation, market development and organizational growth. Since then, we have advanced the practice of less-invasive medicine by helping physicians and other medical professionals diagnose and treat a wide range of diseases and medical conditions, and improve patients' quality of life by providing alternatives to surgery and other medical procedures that are typically traumatic to the body.

Our net sales have increased substantially since our formation. Our growth has been fueled in part by strategic acquisitions designed to improve our ability to take advantage of growth opportunities in the medical device industry and to build depth of portfolio within our core businesses. These strategic acquisitions have helped us to add promising new technologies to our pipeline and to offer one of the broadest product portfolios in the world for use in less-invasive procedures in our core areas of Cardiovascular, Rhythm Management and Medical Surgical (MedSurg). We believe that the depth and breadth of our product portfolio has also enabled us to compete more effectively in the current healthcare environment that seeks to improve outcomes and lower costs. Our strategy of category leadership also enables us to compete in a changing, contracting landscape and position our products with physicians, managed care, large buying groups, governments and hospitals, while also expanding internationally and managing the complexities of the global healthcare market.

Business Strategy

We operate following five strategic imperatives: Strengthen Category Leadership, Expand into High Growth Adjacencies, Drive Global Expansion, Fund the Journey to Fuel Growth and Develop Key Capabilities. We believe that our execution of these strategic imperatives will drive innovation, accelerate profitable revenue growth and increase stockholder value while strengthening our leadership position in the medical device industry.

We expect to continue to invest in our core franchises and also pursue opportunities to diversify and further expand our presence in strategic growth adjacencies and new global markets. Our approach to innovation combines internally-developed products and technologies with those we may obtain externally through strategic acquisitions, alliances and other investments. Our organic research and development efforts are focused largely on the development of next-generation and novel technology offerings across multiple programs and divisions. In the last several years, we have completed multiple acquisitions to execute this strategy and strengthened our core franchises and expanded into high growth adjacencies and global markets.

To support the achievement of our strategic and organizational objectives, our Enterprise Risk Management program analyzes the key risks inherent in achieving our strategic imperatives so we can anticipate and adapt to potential

challenges to preserve and grow shareholder value. Our Board of Directors oversees risk management and focuses on the most significant risks facing the Company including strategic, operational, financial, legal and compliance risks.

Products

In 2017, our products were offered for sale by seven core businesses: Interventional Cardiology, Cardiac Rhythm Management, Endoscopy, Peripheral Interventions, Urology and Pelvic Health, Neuromodulation and Electrophysiology. In 2017, we derived 27 percent of our sales from our Interventional Cardiology business, 21 percent from our Cardiac Rhythm Management business, 18 percent from our Endoscopy business, 12 percent from our Peripheral Interventions business, 12 percent from our Urology and Pelvic Health business, seven percent from our Neuromodulation business and three percent from our Electrophysiology business. Our seven core businesses are organized into three reportable segments: Cardiovascular, Rhythm Management and MedSurg.

The following describes our principal product offerings by reportable segment. In addition, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this Annual Report for further information on the financial results of our core businesses.

Cardiovascular

Interventional Cardiology

Our Interventional Cardiology business develops and manufactures technologies for diagnosing and treating coronary artery disease and other cardiovascular disorders including structural heart conditions. Our broad, innovative product offerings have enabled us to become a leader in the global interventional cardiology market.

Drug-Eluting Coronary Stent Systems

Our drug-eluting coronary stent product offerings are an important element of our global Interventional Cardiology market leadership. We believe we have enhanced the outcomes associated with the use of coronary stents, particularly the processes that lead to restenosis (the growth of neointimal tissue within an artery after angioplasty and stenting), through our scientific research and product development of drug-eluting stent systems. Our coronary stent offerings include:

- our SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System, featuring an ultra-thin abluminal (outer) bioabsorbable polymer coating and
- our Promus PREMIER™ and Promus™ Element™ Everolimus-Eluting Stents.

Complex PCI Therapies

Our product offerings to perform complex percutaneous coronary interventions (PCI) include a broad line of products used to treat patients with atherosclerosis, a principal cause of coronary artery obstructive disease. These include balloon catheters, rotational atherectomy systems, guide wires, guide catheters, embolic protection devices, crossing and re-entry devices for the treatment of chronically occluded coronary vessels and diagnostic catheters used in percutaneous transluminal coronary angioplasty (PTCA) procedures.

PCI Guidance

Our PCI Guidance offerings include a family of intravascular catheter-directed ultrasound imaging catheters, complemented by our intravascular ultrasound (IVUS) imaging system and our fractional flow reserve (FFR) devices and systems for use in coronary arteries and heart chambers as well as certain peripheral vessels to assist in the diagnosis of coronary artery disease. Our PCI Guidance product offerings include:

- our OptiCross™ IVUS Imaging catheter,
- our COMET™ FFR Pressure Guidewire and
- our iLab™ Ultrasound Imaging System with Polaris Software, designed to enhance the diagnosis and treatment of blocked vessels and other heart disorders, which is compatible with our full line of imaging catheters and FFR devices and continues to be our flagship console.

The iLab Ultrasound Imaging System has been placed in cardiology labs worldwide and provides an installed base through which we expect to continue to sell associated single-use products.

Structural Heart Therapies

Structural heart therapy is one of the fastest growing areas of the medical technology market and is highly synergistic with our Interventional Cardiology and Rhythm Management businesses. Our current structural heart product offerings include:

- our WATCHMAN™ Left Atrial Appendage Closure (LAAC) Technology (WATCHMAN), designed to close the left atrial appendage in patients with non-valvular atrial fibrillation who are at risk for ischemic stroke and
- our ACURATE TA™, ACURATE neo™ and ACURATE TF™ Aortic Valve Systems, which are based on a self-expanding architecture.

WATCHMAN is the first device to offer an alternative to warfarin that has been studied in a randomized clinical trial and is marketed globally. The WATCHMAN device has been commercially available internationally since 2009 and is the leading device

in percutaneous LAAC globally. In March 2015, the WATCHMAN device received Food and Drug Administration (FDA) approval to treat patients who are at an elevated risk of stroke, deemed suitable for warfarin and have appropriate rationale to seek a non-pharmacologic alternative to warfarin. We believe that the WATCHMAN device will be the only LAAC technology commercially available in the U.S. for multiple years.

On May 16, 2017, we completed the acquisition of Symetis SA (Symetis), a privately-held Swiss structural heart company focused on minimally-invasive transcatheter aortic valve replacement (TAVR) devices. Through this acquisition, we began selling our ACURATE neo Aortic Valve throughout Europe and now offer both transfemoral and transapical delivery systems. The ACURATE neo Aortic Valve features a highly deliverable catheter and intuitive "top-down" implantation approach for a stable, predictable procedure. We are also developing the ACURATE neo2™ Aortic Valve System, which features an enhanced outer sealing skirt. We are in the process of integrating Symetis into our Interventional Cardiology business and expect the integration to be substantially complete by the end of 2018.

In addition, the Lotus™ Valve System and next generation Lotus EDGE™ Valve System are TAVR products based on a mechanically-expanded architecture and are investigational devices within our structural heart portfolio, which are not currently commercially available. If we are able to address certain technical and regulatory hurdles, our goal is to return the Lotus EDGE Valve System to market.

Peripheral Interventions

Our Peripheral Interventions business develops and manufactures products to diagnose and treat peripheral arterial diseases, including a broad line of medical devices used in percutaneous transluminal angioplasty (PTA) and peripheral vascular diseases, as well as products to diagnose, treat and ease various forms of cancer. Our broad peripheral product offerings include products to treat arterial diseases (stents, balloon catheters, wires and atherectomy) and venous diseases (thrombectomy, wires and stents) and employ interventional oncology techniques to treat various cancers (peripheral embolization devices, microcatheters and drainage catheters).

Our peripheral angioplasty balloon technologies include:

- our Mustang™ PTA next-generation Balloon Catheter, a 0.035" balloon with superior crossing and tracking, powerful dilatation, longer lengths and smaller sheath sizes,
- our Coyote™ Balloon Catheter, a highly deliverable and ultra-low profile balloon dilatation catheter designed for a wide range of peripheral angioplasty procedures and
- our Sterling™ Balloon Catheter, a 0.018" PTA balloon catheter designed for post-stent dilatation as well as conventional balloon angioplasty to open blocked peripheral arteries.

Our peripheral stent technologies include:

- our EPIC™ Vascular Self-Expanding Stent System, a nitinol stent designed to sustain vessel patency while providing enhanced visibility and accuracy during placement,
- our Innova™ Self-Expanding Stent System, a laser-cut nitinol stent built for the superficial femoral artery (SFA, a large artery in the thigh) with flexibility, strength and fracture resistance and
- our Eluvia™ Drug Eluting Vascular Stent System, an innovative stent built on the Innova stent platform, designed to deliver a sustained dosage of paclitaxel during the time when restenosis is most likely to occur.

We are currently conducting a pivotal study designed to evaluate the safety and performance of our Eluvia Drug-Eluting Vascular Stent System, which received CE Mark in February 2016.

Our venous disease technologies include:

- our AngioJet™ Thrombectomy System, used in endovascular procedures to remove blood clots from blocked arteries and veins and
- our AngioJet Zelante DVT™ Thrombectomy Catheter to treat deep vein thrombosis (DVT) in large-diameter upper and lower limb peripheral veins, in the U.S. and Europe.

We also offer products designed to treat patients with non-vascular disease, primarily in interventional oncology. Our product offerings in this area include:

- our Direxion™ Torqueable Microcatheter and

- our line of interventional oncology product solutions, including the Renegade™ HI-FLO™ Fathom™ Microcatheter and Guidewire System and Interlock™ - 35 Fibered IDC™ and 18 Fibered IDC™ Occlusion System for peripheral embolization.

On December 31, 2015, we completed the acquisition of the interventional radiology business of CeloNova Biosciences (CeloNova). The acquisition included drug-eluting microspheres designed to be loaded with chemotherapy drugs for delivery to cancerous tumors and spherical embolic products used to treat uterine fibroids and other conditions. In 2017, we completed the integration of CeloNova into our Peripheral Interventions business.

Rhythm Management

Cardiac Rhythm Management

Our Cardiac Rhythm Management (CRM) business develops and manufactures a variety of implantable devices that monitor the heart and deliver electricity to treat cardiac abnormalities. Our product offerings include:

- our implantable cardioverter defibrillators (ICD) and implantable cardiac resynchronization therapy defibrillators (CRT-D) as well as the world's first and only commercially available subcutaneous implantable cardiac defibrillators (S-ICD),
- our pacemakers and implantable cardiac resynchronization therapy pacemakers (CRT-P) and
- our LATITUDE™ Remote Patient Management System, which allows for more frequent monitoring and better guided treatment decisions by enabling physicians in most geographies to monitor implantable system performance remotely.

Our entire transvenous defibrillator portfolio leverages our EnduraLife™ Battery Technology, including our extended longevity (EL) ICD, our CRT-D’s and our MINI (smallest and thinnest) ICD.

Our most current generation of defibrillators, the RESONATE™ family of devices, is now available in most major markets around the world. These devices include our proprietary HeartLogic™ Heart Failure (HF) Diagnostic, EnduraLife Battery Technology and SmartCRT™ with Multisite pacing in CRT-D. Magnetic resonate imaging (MRI) conditional labeling was approved by the FDA in September 2017 and covers our current generation RESONATE family of devices, as well as our prior generation of DYNAGEN™ and INOGEN™ devices. We now have MRI conditional labeling across our defibrillator portfolio in most major markets around the world, when used with our current generation of leads. Our implantable defibrillator portfolio is complemented by our suite of ACUITY™ X4 Quadripolar LV Leads, RELIANCE™ family of ICD Leads and INGEVITY™ Pacing Lead.

In addition to our transvenous defibrillator portfolio, we offer our EMBLEM™ MRI S-ICD System, which provides physicians the ability to treat patients who are at risk for sudden cardiac arrest without touching the heart or invading the vasculature. Our EMBLEM S-ICD devices have MRI conditional labeling and LATITUDE Remote Patient Management in most major markets.

We market our ACCOLADE™ family of pacemaker systems in nearly all major markets around the world. Approval of our ACCOLADE Pacemaker family in the U.S., Europe and Japan also included approval for use of these products in patients undergoing MRI scans. We received FDA approval of our ACCOLADE MRI-Compatible Pacemaker and MRI-compatible INGEVITY Pacing Lead in April 2016. Much like our defibrillator portfolio, our pacemakers leverage our INGEVITY Pacing Leads and LATITUDE Remote Patient Management in nearly all major markets.

Electrophysiology

Our Electrophysiology business develops and manufactures less-invasive medical technologies used in the diagnosis and treatment of rate and rhythm disorders of the heart, including a broad portfolio of therapeutic and diagnostic catheters and a variety of equipment used in the Electrophysiology lab. Our product offerings include:

- our Rhythmia™ Mapping System, a next-generation, catheter-based, 3-D cardiac mapping and navigation solution designed to help diagnose and guide treatment of a variety of arrhythmias,
- our Blazer™ Therapeutic Ablation Catheter line,
- a broad portfolio of diagnostic catheters including Blazer™ Dx-20, Dynamic Tip™ and Viking™ Catheters,
- intracardiac ultrasound catheters, delivery sheaths and other accessories and
- a full offering of capital equipment used in Electrophysiology labs, such as recording systems, generators and pumps.

Our cooled ablation catheters portfolio includes our U.S. and CE Mark approved Blazer™ Open-Irrigated and IntellaNav™ Open-Irrigated Ablation Catheters with a unique Total Tip Cooling™ Design. We also offer our IntellaNav™ XP and IntellaNav™ MiFi XP Catheters, as well as our IntellaNav MiFi™ Open-Irrigated catheter. Our IntellaTip™ MiFi XP, IntellaNav™ MiFi XP and

IntellaNav™ MiFi Open-Irrigated Catheters include MicroFidelity (MiFi) sensor technology in the catheter tip. All of our IntellaNav Catheters are designed to allow magnetic tracking when used with our Rhythmia Mapping System.

Our capital equipment offerings include our Rhythmia Mapping System, LabSystem PRO™ Recording System, Maestro™ RF Generators and the MetriQ™ Pump. In 2015, the Rhythmia Mapping System and IntellaMap Orion™ Mapping Catheter began full global commercialization, bringing to market a next-generation system capable of high-density high-resolution mapping. We are now in full global commercialization of our next generation Rhythmia HDx™ Mapping System.

On October 10, 2017, we completed the acquisition of Apama Medical Inc. (Apama), a privately-held company developing the Apama™ Radiofrequency single-shot Balloon Catheter System for the treatment of atrial fibrillation. We began the process of integrating Apama into our Rhythm Management segment in the fourth quarter of 2017 and expect the integration to be substantially complete by the end of 2019.

MedSurg

Endoscopy

Gastroenterology and Pulmonary

Our Endoscopy business develops and manufactures devices to diagnose and treat a broad range of gastrointestinal (GI) and pulmonary conditions with innovative, less invasive technologies. Our product offerings include:

- our SpyGlass™ DS System launched in 2015, which brings digital imaging, a wider field of view and a simpler set-up (compared to our legacy SpyGlass System), enabling cholangioscopy to play a greater role in the diagnosis and treatment of pancreatico-biliary diseases,
- our Resolution 360™ Clip launched in October 2016 (built on the technology of our legacy Resolution™ Clip), a hemostatic clipping technology designed to stop and help prevent bleeding during endoscopic procedures, using a multi-wire braided catheter designed to enable healthcare professionals to more accurately maneuver and deploy the clip to the target area site,
- our Epic™ Biliary Endoscopic Stent System launched in October 2017, indicated for the palliation of malignant strictures, is our first laser cut self-expanding metal stent and was developed to complement our braided metal stent portfolio,
- our Acquire™ Endoscopic Ultrasound Fine Needle Biopsy Device launched in January 2017, which is designed to obtain larger tissue specimens for histological assessment and is useful when diagnosing diseases such as pancreatic cancer, liver cancer and stomach lesions and
- our AXIOS™ Stent and Electrocautery Enhanced Delivery System is the first, and currently, only stent in the U.S. indicated for endoscopic drainage of pancreatic pseudocysts. In December 2017, we launched a new 20 mm AXIOS Stent in a limited number of hospitals in the U.S. and Europe.

On November 22, 2016, we completed our acquisition of EndoChoice Holdings, Inc. (EndoChoice). EndoChoice is an Alpharetta, Georgia based company focused on the development and commercialization of infection prevention products, pathology services and single-use devices for specialists treating a wide range of GI conditions. In 2017, we substantially completed the process of integrating EndoChoice into our Endoscopy business.

Interventional Bronchoscopy

We develop and market devices to diagnose, treat and palliate pulmonary diseases within the airway and lungs. Our products are designed to help perform biopsies, retrieve foreign bodies from airways, open airway narrowings, stop internal bleeding and ease symptoms of some types of airway cancers. Our product line includes pulmonary biopsy

forceps, transbronchial aspiration needles, retrieval baskets, tracheobronchial stents and balloons used to dilate narrowed airway passages or for tumor management, and the Alair™ Bronchial Thermoplasty System for the treatment of severe persistent asthma.

Urology and Pelvic Health

Our Urology and Pelvic Health business develops and manufactures devices to treat various urological and pelvic conditions for both male and female anatomies, including kidney stones, benign prostatic hyperplasia (BPH), erectile dysfunction, male incontinence, pelvic floor disorders, abnormal uterine bleeding and uterine fibroids and polyps. Our product offerings include:

- a full line of stone management products, including ureteral stents, catheters, baskets, guidewires, sheaths and balloons and stone laser devices,

- our LithoVue™ Single-Use Digital Flexible Ureteroscope, which delivers detailed high-resolution digital images for high-quality visualization and seamless navigation,
- penile implants to treat erectile dysfunction and urinary control systems to treat male urinary incontinence, under our Men's Health portfolio,
- our GreenLight XPS™ Laser System and MoXy™ Fiber to treat BPH and
- a range of devices for the treatment of Women's Health conditions such as stress urinary incontinence, pelvic organ prolapse, heavy menstrual bleeding (menorrhagia) and uterine fibroids and polyps.

On August 3, 2015, we completed the acquisition of the American Medical Systems male urology portfolio (AMS Portfolio Acquisition), which includes the men's health and prostate health businesses, from Endo International plc. The AMS male urology portfolio was integrated into our formerly named Urology and Women's Health business and the joint businesses became Urology and Pelvic Health. We substantially completed the integration in 2016.

Neuromodulation

Our Neuromodulation business develops and manufactures devices to treat various neurological movement disorders and manage chronic pain. Our product offerings include:

- our Precision™, Precision Spectra™, Precision Montage™, Precision Novi™ and Spectra WaveWriter™ Spinal Cord Stimula (SCS) Systems, designed to provide improved pain relief to a wide range of patients who suffer from chronic pain and
- our Vercise™, Vercise™ PC and Vercise Gevia™ Deep Brain Stimulation (DBS) Systems for the treatment of Parkinson's disease, tremor, and intractable primary and secondary dystonia, a neurological movement disorder characterized by involuntary muscle contractions.

The Precision Spectra™ SCS System is the world's first and only SCS system with 32 contacts and 32 dedicated power sources. We believe that we continue to have a technological advantage due to our proprietary features such as Multiple Independent Current Control and our Illumina 3D Proprietary Programming Software, which together are intended to allow the physician to target specific areas of pain and customize stimulation of nerve fibers more precisely. In 2015, we launched the Precision Novi™ SCS System in Europe and then in the U.S., offering the smallest 16-contact high capacity primary cell (PC) device, also referred to as non-rechargeable. In 2016, we launched the Precision Montage™ SCS System in Europe and the U.S. offering a16-contact rechargeable system with Illumina 3D™ programming and full body MRI labeling when conditions of use are met. In January 2018, we announced FDA approval for the Spectra WaveWriter™ SCS System, the first and only system approved by the FDA to simultaneously provide paresthesia-based and sub-perception therapy.

In December 2017, we received FDA approval for our Vercise™ DBS System in the U.S. as an adjunctive therapy in reducing some of the symptoms of moderate to advanced Parkinson’s disease. We also have regulatory approval for our Vercise DBS System in various international regions such as Europe, Latin America and Asia Pacific. In mid-2017, we launched our Gevia™ DBS System with the Cartesia™ Directional Lead, the first MRI conditional directional system, in Europe, Japan and various countries in Latin America. The Cartesia Directional Lead uses multi-directional stimulation for greater precision, intended to minimize side effects for patients. In 2015, we gained CE Mark approvals for the Vercise™ PC DBS System with its Neural Navigator™ Programming Software and the Cartesia Directional Lead.

Research and Development

Our investment in research and development is critical to driving our future growth. We expended $997 million on research and development in 2017, $920 million in 2016 and $876 million in 2015. Our investment in research and development reflects the following:

- internal research and development programs, regulatory design and clinical science, as well as other programs obtained through our strategic acquisitions and alliances and
- engineering efforts that incorporate customer feedback into continuous improvement efforts for currently marketed and next-generation products.

We have directed our development efforts toward innovative technologies designed to expand current markets or enter adjacent markets. We are transforming how we conduct research and development and are scrutinizing our cost structure, which we believe will enable increased development activity and faster concept-to-market timelines.

Focused, cross-functional teams take a formal approach to new product design and development, helping us to manufacture and offer innovative products in a consistently and efficiently. Involving cross-functional teams early in the process is the cornerstone of our product development cycle. We believe this collaboration allows our teams to concentrate resources on the most viable and clinically relevant new products and technologies and maximize cost and time savings as we bring them to market.

In addition to internal development, we work with hundreds of leading research institutions, universities and clinicians around the world to develop, evaluate and clinically test our products. We are expanding our collaborations to include research and development teams in emerging markets; these teams will focus on both global and local market requirements at a lower cost of development. We believe that these efforts will play a significant role in our future success.

Marketing and Sales

In 2017, we marketed our products and solutions to approximately 36,000 hospitals, clinics, outpatient facilities and medical offices in the U.S. and in approximately125 countries worldwide. The majority of our net sales are derived from countries in which we have direct sales organizations. We also have a network of distributors and dealers who offer our products in certain countries and markets. We expect to continue to leverage our infrastructure in markets where commercially appropriate and use third party distributors in those markets where it is not economical or strategic to establish or maintain a direct presence. No single institution accounted for more than ten percent of our net sales in 2017, 2016 or 2015; however, large group purchasing organizations, hospital networks and other buying groups have become increasingly important to our business and represent a substantial portion of our net sales. We have a dedicated corporate accounts organization in the U.S. and Europe focused principally on selling to major buying groups and integrated healthcare networks. We consistently strive to understand and exceed the expectations of our customers. Each of our businesses maintains dedicated sales forces and marketing teams focused on physicians who specialize in the diagnosis and treatment of different medical conditions, as well as on key hospital service line administrators, like the Cardiovascular Service Line Administrator. We believe that this dual focus on disease state management and hospital administrators enables us to develop highly knowledgeable and dedicated sales representatives and to foster collaborative relationships with both physicians and key service line administrators. We believe that our positive working relationships with physicians, service line administrators and others in the medical industry enable us to gain a detailed understanding of new therapeutic and diagnostic alternatives and to respond quickly to our customers' changing needs.

International Operations

International net sales accounted for approximately 43 percent of our net sales in 2017, 2016 and 2015. Maintaining and expanding our international presence is an important component of our long-term growth strategy. Through our international presence, we seek to increase net sales and market share, leverage our relationships with leading physicians and their clinical research programs, accelerate the time to bring new products to market and gain access to worldwide technological developments that we can implement across our product lines. In addition, we are investing in infrastructure in emerging markets to strengthen our sales and service capabilities and maximize our opportunities in these countries.

As of December 31, 2017, we had six principal international manufacturing facilities, including three in Ireland, two in Costa Rica and one in Puerto Rico. Approximately 40 percent of our products manufactured in 2017 were produced at these facilities. In the second half of 2017, we opened our regional manufacturing facility in Penang, Malaysia. We also maintain research and development capabilities in Ireland, Puerto Rico, Costa Rica, Germany, India and China. We operate physician training centers in France, Japan, South Africa, Germany, Italy, South Korea, Poland, India and China.

Manufacturing and Raw Materials

We are focused on continuously improving our supply chain effectiveness, strengthening our manufacturing processes and increasing operational efficiencies within our organization. We strive to improve the efficiency of our sourcing operations and to leverage the technical expertise of the broader market by partnering with strategic suppliers. In doing so, we seek to focus our internal resources on the development and commercial launch of new products and the enhancement of existing products. We continue to implement new systems designed to provide improved quality, reliability, service, greater efficiency and lower supply chain costs. We also drive continuous improvement in product quality through process controls and validations, supplier and distribution controls and providing our operations teams with the necessary training and tools. In addition, we remain focused on examining our operations and general business activities to enhance our operational effectiveness by identifying cost-improvement opportunities.

We remain committed to maintaining prudent investments in supply chain resiliency on an ongoing basis. Our products are designed and manufactured in technology centers around the world, either by us or third parties. We consistently monitor our inventory levels, manufacturing and distribution capabilities and maintain recovery plans to address potential disruptions that we may encounter. Many components used in the manufacturing of our products are readily fabricated from commonly available raw materials or off-the-shelf items available from multiple supply sources; however, certain items are custom made to meet our specifications. We believe that in most cases, redundant capacity exists at our suppliers and that alternative sources of supply are available or could be developed within a reasonable period of time. We also have an on-going program to identify single-source components and to develop alternative back-up supplies and we regularly readdress the adequacy and abilities of our suppliers to meet our needs. As an example, our past investments in supply chain risk reduction led to minimal production impact in the wake of Hurricanes Harvey, Irma and Maria in 2017.

Quality Assurance

We are committed to providing high quality products to our customers. Our quality system starts with the initial product specification and continues through the design of the product, component specification process and the manufacturing, sale and servicing of the product. Our quality system is intended to build in quality and process control and to utilize continuous improvement concepts throughout the product life. These systems are designed to enable us to satisfy various international quality system regulations, including those of the FDA with respect to products sold in the U.S. All of our manufacturing facilities and distribution centers are certified under the ISO 13485 quality system standard, established by the International Standards Organization (ISO) for medical devices, which includes requirements for an implemented quality system that applies to component quality, supplier control, product design and manufacturing operations. This certification can be obtained only after a complete audit of a company’s quality system by an independent outside auditor. Maintenance of the certification requires that these facilities undergo periodic re-examination.

Environmental Regulation and Management

We are subject to various environmental laws, directives and regulations both in the U.S. and abroad. Our operations involve the use of substances regulated under environmental laws, primarily in manufacturing and sterilization processes. We believe that sound environmental, health and safety performance contributes to our competitive strength while benefiting our customers, stockholders and employees. We are focused on continuous improvement in these areas by reducing pollution, depletion of natural resources and our overall environmental footprint. Specifically, we are working to optimize energy and resource usage, ultimately reducing greenhouse gas emissions and waste. We are listed on the FTSE4Good Corporate Social Responsibility Index, managed by the Financial Times and the London Stock Exchange, which measures the performance of companies that meet globally recognized standards of corporate responsibility. This listing recognizes our dedication to those standards and it places us in a select group of companies with a demonstrated commitment to responsible business practices and sound environmental policies.

We have obtained ISO 14001:2015 certifications at our major manufacturing plants and Tier 1 distribution centers around the world, as well as our Corporate headquarters in Marlborough, Massachusetts. ISO 14001:2015 is a globally recognized standard for Environmental Management Systems, established by the International Standards Organization, which provides a voluntary framework to identify key environmental aspects associated with our business. Using this environmental management system and the specific attributes of our certified locations in the U.S., Ireland, Costa Rica and the Netherlands, we continue to improve our environmental performance and reduce our environmental footprint.

Competition

We encounter significant competition across our product lines and in each market in which we sell our products and solutions, some from companies that may have greater financial and marketing resources than we do. Our primary competitors include Abbott Laboratories, Medtronic plc and Cook Medical, as well as a wide range of medical device companies that sell a single or limited number of competitive products or participate in only a specific market segment. We also face competition from non-medical device companies, such as pharmaceutical companies, which may offer alternative therapies for disease states that could also be treated using our products.

We believe that our products and solutions compete primarily on their ability to deliver both clinical and economic outcomes for our customers while also continuing to perform diagnostic and therapeutic procedures safely and effectively in a less-invasive manner. We also compete on, ease of use, comparative effectiveness, reliability and physician familiarity. In the current environment of managed care, with economically-motivated buyers, consolidation among healthcare providers, increased competition and declining reimbursement rates, we have been increasingly required to compete on the basis of price, value, reliability and efficiency. We believe the current global economic conditions and healthcare reform measures could continue to put additional competitive

pressure on us, including on our average selling prices, overall procedure rates and addressable market sizes. We recognize that our continued competitive success will depend upon our ability to:

- offer products and solutions that provide differentiated clinical and economic outcomes,
- create or acquire innovative, scientifically advanced technologies,
- apply our technology and solutions cost-effectively and with superior quality across product lines and markets,
- develop or acquire proprietary products and solutions,
- attract and retain skilled personnel,
- obtain patent or other protection for our products,
- obtain required regulatory and reimbursement approvals,
- continually enhance our quality systems,
- manufacture and successfully market our products and solutions either directly or through outside parties and
- supply sufficient inventory to meet customer demand.

Medical Device Regulatory Approvals

The medical devices that we manufacture and market are subject to regulation by numerous worldwide regulatory bodies, including the FDA and comparable international regulatory agencies. These agencies require manufacturers of medical devices to comply with applicable laws and regulations governing development, testing, manufacturing, labeling, marketing and distribution. Medical devices are also generally subject to varying levels of regulatory control based on risk level of the device.

In the U.S., authorization to distribute a new device can generally be met in one of three ways. The first process requires that a premarket notification (510(k)) be made to the FDA to demonstrate that the device is as safe and effective as, or substantially equivalent to, a legally marketed device (the “predicate” device). Applicants must submit performance data to establish substantial equivalence. In some instances, data from human clinical trials must also be submitted in support of a 510(k) premarket notification. If so, these data must be collected in a manner that conforms to the applicable IDE regulations. The FDA must issue a decision finding substantial equivalence before commercial distribution can occur. Changes to cleared devices that could not significantly affect the safety or effectiveness of the device can generally be made without additional 510(k) premarket notifications; otherwise, a new 510(k) is required.

The second process requires the submission of a premarket approval (PMA) application to the FDA to demonstrate that the device is safe and effective for its intended use. This approval process applies to most Class III devices and generally requires clinical data to support the safety and effectiveness of the device, obtained in adherence with IDE requirements. The FDA will approve the PMA application if it finds that there is a reasonable assurance that the device is safe and effective for its intended purpose and that the proposed manufacturing is in compliance with the Quality System Regulation (QSR). For novel technologies, the FDA will generally seek input from an advisory panel of medical experts and seek their views on the safety, effectiveness and benefit-risk of the device. The PMA process is generally more detailed, lengthier and more expensive than the 510(k) process.

The third process requires that an application for a Humanitarian Device Exemption (HDE) be made to the FDA for the use of a Humanitarian Use Device (HUD). An HUD is intended to benefit patients by treating or diagnosing a disease or condition that affects, or is manifested in, not more than 8,000 individuals in the U.S. per year. The application submitted to the FDA for an HDE is similar in both form and content to a PMA application, but is exempt from the effectiveness requirements of a PMA. The HUD provision of the regulation provides an incentive for the development of devices for use in the treatment or diagnosis of diseases affecting smaller patient populations.

In the European Economic Area (EEA), we are required to comply with applicable Medical Device Directives, specifically the Medical Devices Directive and the Active Implantable Medical Device Directive and affix a CE Mark

on medical devices that will be placed on the market within the EEA. The CE Mark is affixed following conformity assessment and either approval from the appointed independent Notified Body or through self-certification. CE Marking indicates conformity to the applicable Essential Requirements of the relevant Medical Devices Directive. The European Union (EU) Commission published a new Medical Device Regulation in 2017, which repealed the existing Directives and provides a three year transition period. The Medical Device Regulation will change multiple aspects of the existing regulatory framework, such as clinical evidence requirements and introduce several new requirements, such as Unique Device Identification (UDI). Thus, the new Medical Device Regulation significantly modifies and intensifies the compliance burden for industry.

We are also required to comply with the regulations of every other country where we commercialize products before we can launch new products, such as the requirement that we obtain approval from the Japanese Ministry of Health, Labor and Welfare (MHLW) and the China Food and Drug Administration. Many countries that previously did not have medical device regulations,

or minimal regulations, are now introducing them. For example, India is in the process of implementing new medical device regulations.

The FDA and other worldwide regulatory agencies and competent authorities actively monitor compliance to local laws and regulations through review and inspection of design and manufacturing practices, record keeping, reporting of adverse events, labeling and promotional practices. The FDA can ban certain medical devices, detain or seize adulterated or misbranded medical devices, order repair, replacement or refund of these devices and require notification of health professionals and others with regard to medical devices that present unreasonable risks of substantial harm to the public health. The FDA may also enjoin and restrain a company for certain violations of the Food, Drug and Cosmetic Act and the Safe Medical Devices Act pertaining to medical devices or initiate action for criminal prosecution of such violations. Regulatory agencies and authorities in the countries where we do business can halt production in or distribution within their respective country or otherwise take action in accordance with local laws and regulations.

International sales of medical devices manufactured in the U.S. that are not approved by the FDA for use in the U.S., or that are banned or deviate from lawful performance standards, are subject to FDA export requirements. Exported devices are subject to the regulatory requirements of each country to which the device is exported. Some countries do not have medical device regulations, but in most foreign countries, medical devices are regulated. Frequently, regulatory approval may first be obtained in a foreign country prior to application in the U.S. due to differing regulatory requirements; however, other countries, such as China for example, require approval in the country of origin first. Most countries outside of the U.S. require that product approvals be recertified on a regular basis, generally every five years. The recertification process requires that we evaluate any device changes and any new regulations or standards relevant to the device and, where needed, conduct appropriate testing to document continued compliance. Where recertification applications are required, they must be approved in order to continue selling our products in those countries.

Government Affairs

We maintain a global Government Affairs presence, headquartered in Washington, D.C., to actively monitor and advocate on a myriad legislation and policies impacting us, both on a domestic and an international front. The Government Affairs office works closely with members of Congress and committee staff, the White House and Administration offices, state legislatures and regulatory agencies, embassies and global governments on issues affecting our business. Our proactive approach and depth of political and policy expertise are aimed at having our positions heard by federal, state and global decision-makers, to advance our business objectives by educating policymakers on our positions, key priorities and the value of our technologies. The Government Affairs office also manages our political action committee and works closely with trade groups on issues affecting our industry and healthcare in general.

Healthcare Policies and Reimbursement

Political, economic and regulatory influences around the world continue to subject the healthcare industry to potential fundamental changes that could substantially affect our results of operations. Government and private sector initiatives related to limiting the growth of healthcare costs (including price regulation), coverage and payment policies, comparative effectiveness reviews of therapies, technology assessments and health care delivery structure reforms, are continuing in many countries where we do business. We believe that these changes are causing the marketplace to put increased emphasis on the delivery of treatments that can reduce costs, improve efficiencies and/or increase patient access. Although we believe our less-invasive products and technologies generate favorable clinical outcomes, value and cost efficiency, the resources necessary to demonstrate value to our customers, patients, payers and other stakeholders may be significant and new therapies may take a longer period of time to gain widespread adoption.

The impact to our business of the U.S. Patient Protection and Affordable Care Act's (ACA) provisions related to coverage expansion, payment reforms and delivery system has been immaterial. The ACA and Health Care and

Education Affordability Reconciliation Act were enacted into law in the U.S. in 2010. The legislation imposed on medical device manufacturers a 2.3 percent excise tax on U.S. sales of Class I, II and III medical devices beginning in January 2013. In December 2015, the Promise for Antibiotics and Therapeutics for Health Act, or PATH Act, was passed, which included legislation which temporarily suspended the 2.3 percent excise tax until December 31, 2017. In January 2018 another temporary two year suspension of the 2.3 percent excise tax was passed, extending the suspension to December 31, 2019. We have substantially reinvested the amounts we would have expended on this tax into jobs, innovation, research and development, collaborations with universities and other initiatives that will help treat patients and drive revenue growth.

The U.S. Federal government, as part of the ACA and certain state governments have enacted laws aimed at increasing transparency, or "sunshine," in relationships between medical device, biologics and pharmaceutical companies and healthcare professionals

(HCPs). As a result, we are required by law to report many types of payments and transfers of value provided to HCPs. Certain foreign jurisdictions are currently acting to implement similar laws. Failure to comply with sunshine laws and/or implement and adhere to adequate policies and practices to address changes to legal and regulatory requirements could have a negative impact on our results of operations.

As noted below, we expect certain trends to continue placing pressure on pricing in the U.S. The Tax Cuts and Jobs Acts (TCJA), enacted December 22, 2017 in the U.S., makes changes to the tax treatment of health care expenses and repealed the “individual mandate” to purchase private insurance. These tax law changes may result in changes to insurance coverage and financing of insurance coverage in individual markets. Additional legislation may result in changes to government programs such as Medicare, Medicaid and federal sunshine laws. In addition, the current U.S. Administration is considering a number of administrative policy changes that will likely result in additional changes to insurance coverage, financing of insurance coverage and benefits offered through private insurance in both the employer-sponsored and individual markets. At this point, the impact of potential legislative and administrative changes is unclear because specific changes have not been implemented. Additionally, while the implementation of the medical device tax has further been suspended until December 31, 2019, the status of the tax for sales after December 31, 2019 is not clear. The medical device tax may continue to be suspended, or may be reinstated at the same or at a different level effective January 1, 2020.

We expect that pricing of medical devices will remain under pressure as alternative payment reform such as prospective payment systems for hospital care, preferential site of service payments, value-based purchasing and accountable care organizations (ACOs) continue to take shape globally. We also expect marketplace changes to place pressure on medical device pricing globally as hospitals consolidate and large group purchasing organizations, hospital networks and other groups continue to seek to aggregate purchasing power. Similarly, governments are increasing the use of tenders, placing pressure on medical device pricing. Some governments also seek to limit the growth of healthcare costs through price regulation. Implementation of cost containment initiatives and healthcare reforms in significant markets such as the U.S., Japan and Europe and other markets may limit the price of, or the level at which reimbursement is provided for, our products, which in turn may influence a hospital’s or physician's selection of products used to treat patients.

Our products are purchased principally by hospitals, physicians and other healthcare providers around the world that typically bill various third-party payers, including government programs (e.g., Medicare and Medicaid in the U.S.) and private insurance payers, for the services provided to their patients. Third-party payers and governments may approve or deny coverage for certain technologies and associated procedures based on independently determined assessment criteria. Coverage decisions by payers for these technologies and associated procedures are based on a wide range of methodologies that may reflect the assessed resource costs, clinical outcomes and economic value of the technologies and associated procedures.

Proprietary Rights and Patent Litigation

We rely on a combination of patents, trademarks, trade secrets and non-disclosure agreements to protect our intellectual property. We generally file patent applications in the U.S. and foreign countries where patent protection for our technology is appropriate and available. As of December 31, 2017, we held more than 19,000 patents and had approximately 6,000 patent applications pending worldwide that cover various aspects of our technology. In addition, we hold exclusive and non-exclusive licenses to a variety of third-party technologies covered by patents and patent applications. In the aggregate, these intellectual property assets and licenses are of material importance to our business; however, we believe that no single patent, technology, trademark, intellectual property asset or license, except for those relating to our drug-eluting coronary stent systems, is material in relation to our business as a whole.

We rely on non-disclosure and non-competition agreements with employees, consultants and other parties to protect, in part, trade secrets and other proprietary technology. There has been substantial litigation regarding patent and other

intellectual property rights in the medical device industry, particularly in the areas in which we compete. We continue to defend ourselves against claims and legal actions alleging infringement of the patent rights of others. Additionally, we may find it necessary to initiate litigation to enforce our patent rights, to protect our trade secrets or know-how and to determine the scope and validity of the proprietary rights of others. Accordingly, we may seek to settle some or all of our pending litigation, particularly to manage risk over time. Settlement may include cross licensing of the patents that are the subject of the litigation as well as our other intellectual property and may involve monetary payments to or from third parties.

We maintain insurance policies providing limited coverage against securities claims and we are substantially self-insured with respect to product liability claims and fully self-insured with respect to intellectual property infringement claims. The absence of significant third-party insurance coverage increases our potential exposure to unanticipated claims or adverse decisions. See Note J – Commitments and Contingencies to our 2017 consolidated financial statements included in Item 8 of this Annual Report for a discussion of intellectual property, product liability and other litigation and proceedings in which we are involved.

Employees

As of December 31, 2017, we had approximately 29,000 employees, including approximately 14,000 in operations, 9,000 in selling, marketing and distribution, 4,000 in clinical, regulatory and research and development and 4,000 in administration. Of these employees, we employed approximately 15,000 outside the U.S., approximately 8,000 of whom are in the manufacturing operations function.

Community Outreach

We envision what is possible for communities around the world by giving our time and resources to positively impact the lives of others. Guided by our core value of caring, we seek to improve access to healthcare, invest in educational programming for students with limited means and access to opportunities, and support and embrace the spirit of voluntarism within our global workforce, while adhering to strong ethical standards. We are also driven to minimize our impact on the environment, demonstrated by our new commitment to carbon neutrality. Our goal is to achieve a zero carbon footprint in manufacturing operations for all of our products by 2030.

In some parts of the world, access to health information, screening, care and services can be limited. In 2017, we partnered with Project HOPE (Health Opportunities for People Everywhere) and Partners in Health to increase the number of healthcare workers in South Africa, India and Mexico. By increasing the number and proficiency of community healthcare workers, we can impact health outcomes for people today and into the future. In 2017 for example, our global health grants enabled 10 new physicians to be recruited, trained and relocated to Mexico's Chiapas Region. In India, more than 600 community health workers were trained on how to screen and identify diabetes and hypertension, resulting in nearly 12,000 people screened across India. Additionally, more than 100 community health workers were trained on screening protocols for chronic diseases within two districts in South Africa.

We are also inspired by young learners who share our passion for innovation and problem solving. Our employees also work with students around the world and share their passion for Science, Technology, Engineering and Math (STEM) through participation in more than 200 STEM events and school programs. Beyond the classroom, our employees provided more than 42,000 hours of community service to make a positive impact at more than 530 global community events in 33 countries.

Supporting five communities where we have a significant business presence, the Boston Scientific Foundation mission is simple: to help expand access to quality health care and educational opportunities for underserved populations. The Boston Scientific Foundation awarded nearly a million dollars in grant awards to more than 67 nonprofit organizations across the U.S. in 2017. With more than 70 employee volunteers who evaluate proposals for the Boston Scientific Foundation Board review and approval, the Boston Scientific Foundation was able fuel innovative solutions to improve access to quality healthcare and create new opportunities for students to learn and achieve.

Seasonality

Our net sales are influenced by many factors, including product launches, acquisitions, regulatory and reimbursement approvals, patient, physician and employee holiday schedules and other macro-economic conditions. While, our net sales do not reflect any significant degree of seasonality, customer purchases have historically been lower in the first and third quarters of the year.

Available Information

Copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), are available free of charge on our website (www.bostonscientific.com) as soon as reasonably practicable after we electronically file the material with or furnish it to the U.S. Securities and Exchange Commission (SEC). Printed copies of these posted materials are also available free of charge to stockholders who request them in writing from Investor Relations, 300 Boston Scientific Way, Marlborough, MA 01752-1234. Information on our website or linked to our website is not incorporated by reference into this Annual Report.

Safe Harbor for Forward-Looking Statements

Certain statements that we may make from time to time, including statements contained in this Annual Report and information incorporated by reference into this Annual Report, constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act) and Section 21E of the Exchange Act of 1934. Forward-looking

statements may be identified by words like “anticipate,” “expect,” “project,” “believe,” “plan,” “may,” “estimate,” “intend” and words. These forward-looking statements are based on our beliefs, assumptions and estimates using information available to us at the time and are not intended to be guarantees of future events or performance. If our underlying assumptions turn out to be incorrect, or if certain risks or uncertainties materialize, actual results could vary materially from the expectations and projections expressed or implied by our forward-looking statements. As a result, readers are cautioned not to place undue reliance on any of our forward-looking statements. Except as required by law, we do not intend to update any forward-looking statements even if new information becomes available or other events occur in the future.

The forward-looking statements in this Annual Report are based on certain risks and uncertainties, including the risk factors described in Item 1A under the heading “Risk Factors” and the specific risk factors discussed below and in connection with forward-looking statements throughout this Annual Report, which could cause actual results to vary materially from the expectations and projections expressed or implied by our forward-looking statements. These factors, in some cases, have affected and in the future could affect our ability to implement our business strategy and may cause actual results to differ materially from those contemplated by the forward-looking statements. These additional factors include, among other things, future political, economic, competitive, reimbursement and regulatory conditions; new product introductions; demographic trends; intellectual property; litigation and governmental investigations; financial market conditions; and future business decisions made by us and our competitors, all of which are difficult or impossible to predict accurately and many of which are beyond our control. We caution each reader of this Annual Report to consider carefully these factors.

The following are some of the important risk factors that could cause our actual results to differ materially from our expectations in any forward-looking statements. For further discussion of these and other risk factors, see Item 1A. Risk Factors.

Our Businesses

- Our ability to increase net sales, expand the market, capture market share and adapt to market volatility,
- The on-going impact on our business of physician alignment to hospitals, governmental investigations and audits of hospitals and other market and economic conditions on the overall number of procedures performed,
- Competitive offerings and related declines in average selling prices for our products,
- The performance of and physician and patient confidence in, our products and technologies or those of our competitors,
- The impact and outcome of ongoing and future clinical trials and market studies undertaken by us, our competitors or other third parties or perceived product performance of our or our competitors' products,
- Variations in clinical results, reliability or product performance of our and our competitor's products,
- Our ability to acquire or develop, launch and supply new or next-generation products and technologies worldwide and in line with our commercialization strategies in a timely and successful manner and with respect to our recent acquisitions,
- The effect of consolidation and competition in the markets in which we do business or plan to do business,
- Disruption in the manufacture or supply of certain components, materials or products or the failure to secure in a timely manner alternative manufacturing or additional or replacement components, materials or products,

- Our ability to retain and attract key personnel,

- The impact of enhanced requirements to obtain regulatory approval in the U.S. and around the world, including the associated timing and cost of product approval and

- The impact of increased pressure on the availability and rate of third-party reimbursement for our products and procedures in the U.S. and around the world, including with respect to the timing and costs of creating and expanding markets for new products and technologies.

Regulatory Compliance, Litigation and Data Protection

- The impact of healthcare policy changes and legislative or regulatory efforts in the U.S. and around the world to modify product approval or reimbursement processes, including a trend toward demonstrating clinical outcomes, comparative effectiveness and cost efficiency, as well as the impact of other healthcare reform legislation,

- Risks associated with our regulatory compliance and quality systems and activities in the U.S. and around the world, including meeting regulatory standards applicable to manufacturing and quality processes,

- Our ability to minimize or avoid future field actions or FDA warning letters relating to our products and processes and the on-going inherent risk of potential physician advisories related to medical devices,

- The impact of increased scrutiny of and heightened global regulatory enforcement facing the medical device industry arising from political and regulatory changes, economic pressures or otherwise, including under U.S. Anti-Kickback Statute, U.S. False Claims Act and similar laws in other jurisdictions, U.S. Foreign Corrupt Practices Act (FCPA) and similar laws in other jurisdictions, and U.S. and foreign export control, trade embargo and custom laws,

- Costs and risks associated with litigation,

- The effect of our litigation and risk management practices, including self-insurance and compliance activities on our loss contingencies, legal provision and cash flows,

- The impact of, diversion of management attention as a result of and costs to cooperate with, litigate and/or resolve governmental investigations and our class action, product liability, contract and other legal proceedings,

- The possibility of failure to protect our intellectual property rights and the outcome of patent litigation and

- Our ability to properly operate our information systems that support our business operations and protect our data integrity and products from a cyber-attack or other breach that has a material adverse effect on our business, reputation or results of operations.

Innovation and Certain Growth Initiatives

- The timing, size and nature of our strategic growth initiatives and market opportunities, including with respect to our internal research and development platforms and externally available research and development platforms and technologies and the ultimate cost and success of those initiatives and opportunities,

- Our ability to complete planned clinical trials successfully, obtain regulatory approvals and launch new and next generation products in a timely manner consistent with cost estimates, including the successful completion of projects from in-process research and development,

- Our ability to identify and prioritize our internal research and development project portfolio and our external investment portfolio on profitable revenue growth opportunities as well as to keep them in line with the estimated timing and costs of such projects and expected revenue levels for the resulting products and technologies,

- Our ability to successfully develop, manufacture and market new products and technologies in a timely manner and the ability of our competitors and other third parties to develop products or technologies that render our products or technologies noncompetitive or obsolete,

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The impact of our failure to succeed at our decision to discontinue, write-down or reduce the funding of any of our research and development projects, including in-process projects from in-process research and development, in our growth adjacencies or otherwise,

- Dependence on acquisitions, alliances or investments to introduce new products or technologies and to enter new or adjacent growth markets and our ability to fund them or to fund contingent payments with respect to those acquisitions, alliances and investments and

- The failure to successfully integrate and realize the expected benefits from the strategic acquisitions, alliances and investments we have consummated or may consummate in the future.

International Markets

- Our dependency on international net sales to achieve growth, including in emerging markets,
- The impact of changes in our international structure and leadership,
- The timing and collectability of customer payments, political and economic conditions (including the impact of the United Kingdom's exit from the EU, often referred to as "Brexit"), protection of our intellectual property, compliance with established and developing U.S. and foreign legal and regulatory requirements, including FCPA and similar laws in other jurisdictions and U.S. and foreign export control, trade embargo and custom laws, as well as changes in reimbursement practices and policies,
- Our ability to maintain or expand our worldwide market positions in the various markets in which we compete or seek to compete, including through investments in product diversification and emerging markets such as Brazil, Russia, India and China,
- Our ability to execute and realize anticipated benefits from our investments in emerging markets and
- The potential effect of foreign currency fluctuations and interest rate fluctuations on our net sales, expenses and resulting margins.

Liquidity

- Our ability to generate sufficient cash flow to fund operations, capital expenditures, global expansion initiatives, any litigation settlements and judgments, share repurchases and strategic investments and acquisitions as well as maintaining our investment grade ratings and managing our debt levels and covenant compliance,
- Our ability to access the public and private capital markets when desired and to issue debt or equity securities on terms reasonably acceptable to us,
- The unfavorable resolution of open tax matters, exposure to additional tax liabilities and the impact of changes in U.S. and international tax laws,
- The impact of examinations and assessments by domestic and international taxing authorities on our tax provision, financial condition or results of operations,
- The possibility of counterparty default on our derivative financial instruments,
- The impact of goodwill and other intangible asset impairment charges, including on our results of operations and
- Our ability to collect outstanding and future receivables and/or sell receivables under our factoring programs.

Cost Reduction and Optimization Initiatives

- Risks associated with significant changes made or expected to be made to our organizational and operational structure, pursuant to our 2016 Restructuring Plan as well as any further restructuring or optimization plans we may undertake in the future and our ability to recognize benefits and cost reductions from such programs and
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Business disruption and employee distraction as we execute our global compliance program, restructuring and optimization plans and divestitures of assets or businesses and implement our other strategic and cost reduction initiatives.

ITEM 1A. RISK FACTORS

In addition to the other information contained in this Annual Report and the exhibits hereto, the following risk factors should be considered carefully in evaluating our business. Our business, financial condition, cash flows or results of operations could be materially adversely affected by any of these risks. This section contains forward-looking statements. You should refer to the explanation of the qualifications and limitations on forward-looking statements set forth at the end of Item 1. Business of this Annual Report. Additional risks not presently known to us or that we currently deem immaterial may also adversely affect our business, financial condition, cash flows or results of operations.

We face intense competition and may not be able to keep pace with the rapid technological changes in the medical devices industry, which could have an adverse effect on our business, financial condition or results of operations.

The medical device markets in which we primarily participate are highly competitive. We encounter significant competition across our product lines and in each market in which our products are sold from various medical device companies, some of which may have greater financial and marketing resources than we do, including as a result of consolidation among our competitors in the healthcare industry. Our primary competitors include Abbott Laboratories, Medtronic plc and Cook Medical, as well as a wide range of medical device companies that sell a single or limited number of competitive products or which participate in only a specific market segment. We also face competition from non-medical device companies, including pharmaceutical companies, which may offer alternative therapies for disease states intended to be treated using our products.

Additionally, the medical device markets in which we primarily participate are characterized by extensive research and development and rapid technological change. Developments by other companies of new or improved products, processes or technologies may make our products or proposed products obsolete or less competitive and may negatively impact our net sales. We are required to devote continued efforts and financial resources to develop or acquire scientifically advanced technologies and products, apply our technologies cost-effectively across product lines and markets, obtain patent and other protection for our technologies and products, obtain required regulatory and reimbursement approvals and successfully manufacture and market our products consistent with our quality standards. If we fail to develop or acquire new products or enhance existing products, it could have a material adverse effect on our business, financial condition or results of operations. In addition, a delay in the timing of the launch of next-generation products and the overall performance of, and continued physician confidence in, those products may result in declines in our market share and have an adverse impact on our business, financial condition or results of operations.

We may experience declines in market size, average selling prices for our products, medical procedure volumes, and our share of the markets in which we compete, which may materially adversely affect our results of operations and financial condition.

We continue to experience pressures across many of our businesses due to competitive activity, increased market power of our customers as the healthcare industry consolidates, economic pressures experienced by our customers and the impact of managed care organizations and other third-party payers. These and other factors may adversely impact market sizes, as well as our share of the markets in which we compete, the average selling prices for our products or medical procedure volumes. There can be no assurance that the size of the markets in which we compete will increase above existing levels, that we will be able to regain or gain market share or compete effectively on the basis of price or that the number of procedures in which our products are used will increase above existing levels. Decreases in market sizes or our market share and declines in average selling prices or procedural volumes could materially adversely affect our results of operations or financial condition.

Continued consolidation in the healthcare industry or additional governmental controls exerted over pricing in key markets

could lead to increased demands for price concessions or limit or eliminate our ability to sell to certain of our significant market segments, which could have an adverse effect on our business, financial condition or results of operations.

Numerous initiatives and reforms by legislators, regulators and third-party payers to curb the rising cost of healthcare have catalyzed a consolidation of aggregate purchasing power. As the healthcare industry consolidates, competition to

provide products and services is expected to continue to intensify, resulting in pricing pressures, decreased average selling prices and the exclusion of certain suppliers from important market segments. We expect that market demand, government regulation, third-party coverage and reimbursement policies, government contracting requirements, and societal pressures will continue to change the worldwide healthcare industry, resulting in further business consolidations and alliances among our customers, which may increase competition, exert further downward pressure on the prices of our products and services and may adversely impact our business, financial condition or results of operations.

Healthcare cost containment pressures, government payment and delivery system reforms, changes in private payer policies, and marketplace consolidations could decrease the demand for our products, the prices which customers are willing to pay for those products and/or the number of procedures performed using our devices, which could have an adverse effect on our business, financial condition or results of operations.

Our products are purchased principally by hospitals, physicians and other healthcare providers around the world that typically bill various third-party payers, including government programs, authorities or agencies (e.g., Medicare and Medicaid in the United States) and private health plans, for the healthcare services provided to their patients. Governments and payers may also institute changes in health care delivery systems that may reduce funding for services or encourage greater scrutiny of health care costs. The ability of customers to obtain appropriate reimbursement for their products and services from private and governmental third-party payers is critical to the success of medical technology companies because it affects which products customers purchase and the prices they are willing to pay. Reimbursement and funding vary by country and can significantly impact the acceptance of new products and technologies and the use of established products and technologies. Even if we develop a promising new product, we may find limited demand for the product unless reimbursement approval is obtained from private and governmental third-party payers. Further legislative or administrative reforms to the reimbursement systems in the U.S., Japan, or other countries in a manner that significantly reduces reimbursement for procedures using our medical devices or denies coverage for those procedures, including price regulation, competitive bidding and tendering, coverage and payment policies, comparative effectiveness of therapies, heightened clinical data requirements, technology assessments and managed-care arrangements, could have a material adverse effect on our business, financial condition or results of operations

We are subject to a number of market, business, financial, legal and regulatory risks and uncertainties with respect to our international operations that could have a material impact on our business, financial condition or results of operations.

International net sales accounted for approximately 43 percent of our global net sales in 2017, with sales from emerging markets accounting for approximately 10 percent. An important part of our strategy is to continue pursuing growth opportunities in net sales and market share outside of the U.S. by expanding global presence, including in emerging markets. Our international operations are subject to a number of market, business and financial risks and uncertainties, including those related to political and economic instability, foreign currency exchange and interest rate fluctuations, competitive product offerings, local changes in health care financing and payment systems and health care delivery systems, local product preferences and requirements, including preferences for local manufacturers; workforce instability, less intellectual property protection in certain countries than exists in the U.S. and, in certain foreign countries, longer accounts receivable cycles. Such risks and uncertainties may adversely impact our ability to implement our growth strategy in these markets and, as a result, our sales growth, market share and operating profits from our international operations may be adversely affected.

Our international operations are subject to established and developing legal and regulatory requirements for medical devices in each country in which our products are marketed and sold. Most foreign countries have medical device regulations. Further, most countries outside of the U.S. require product approvals be renewed or recertified on a regular basis in order to continue to be marketed and sold there. In addition, several countries that previously did not have regulatory requirements for medical devices have established such requirements in recent years and other countries have expanded, or plan to expand, on existing regulations, including requiring local clinical data in addition to global clinical data. These factors have caused or may cause us to experience more uncertainty, risk, expense and delay in commercializing products in certain foreign jurisdictions, which could affect our ability to obtain approvals for our products in those jurisdictions and adversely impact our net sales, market share and operating profits from our international operations.

Further, international markets are affected by economic pressure to contain healthcare costs, which can lead to more rigorous evidence requirements and lower reimbursement rates for either our products directly or procedures in which our products are used. Governments and payers may also institute changes in health care delivery systems that may reduce funding for services or encourage greater scrutiny of health care costs. In addition, certain international markets may also be affected by foreign government efforts to reference reimbursement rates in other countries. All of

these types of changes may ultimately reduce selling prices of our products and/or reduce the number of procedures in which our products are used, which may adversely impact our net sales, market share and operating profits from our international operations.

In addition, our international operations are subject to other established and developing U.S. and foreign legal and regulatory requirements, including the U.S. Foreign Corrupt Practices Act (FCPA) and/or similar laws in other countries and U.S. and foreign import and export controls and licensing requirements, trade protection and embargo measures and customs laws. Global businesses, including those in the medical device industry, are facing increasing scrutiny of, and heightened enforcement efforts with respect to, their international operations. Any alleged or actual failure to comply with legal and regulatory requirements may subject us to government scrutiny, civil and/or criminal proceedings, sanctions and other liabilities, which may have a material adverse effect on our international operations, financial condition, results of operations and/or liquidity.

In a referendum on June 23, 2016, voters approved for the United Kingdom (UK) to exit the EU. As it stands, the UK will depart the European Union (EU) on March 30, 2019 but the terms of its withdrawal and the nature of its future relationship with the EU are still being decided. Future exit of the UK from the EU will have numerous consequences in all areas of the business, including, economic, regulatory, operational, and the actual impact depends on the ultimate deal reached and is very difficult to assess at this time. Changes in the industry regulations could have an effect on existing CE certificates being renewed and new certificates being issued which would impact the ability to trade; however it is impossible to assess the full impact at this stage.

In December of 2017, EU leaders announced an agreement to begin the next phase of negotiations, with talks on a transition period after March 2019 to begin in early 2018 and discussions on the future UK-EU relationship, including trade and security, to begin in March. At this stage, the materiality to us of the Brexit risk factor remains unknown and unquantifiable.

Any significant changes in the political and economic, financial, competitive, legal and regulatory or reimbursement conditions where we conduct, or plan to expand, our international operations may have a material impact on our business, financial condition or results of operations.

If we are unable to manage our debt levels, maintain investment grade credit ratings at the three ratings agencies, or experience a disruption in our cash flows it could have an adverse effect on our cost of borrowing, financial condition or results of operations.

As part of our strategy to maximize stockholder value, we use financial leverage to reduce our cost of capital. Our outstanding debt balance was $5.616 billion as of December 31, 2017 and $5.484 billion as of December 31, 2016. Although we currently have investment grade ratings at Moody's Investor Service, Standard & Poor's Rating Service and Fitch Ratings, our inability to maintain investment grade credit ratings could increase our cost of borrowing funds in the future and reduce our access to liquidity. Delays in our product development and new product launches could result in disruption in our cash flow or our ability to continue to effectively manage our debt levels could have an adverse effect on our cost of borrowing, financial condition or results of operations. In addition, our credit and security facilities contain covenants that require us to maintain specified financial ratios and place other limits on our business. If we are unable to satisfy these covenants, we may be required to obtain waivers from our lenders and no assurance can be made that our lenders would grant such waivers on favorable terms or at all and we could be required to repay any borrowings on demand.

We may record future goodwill impairment charges or other intangible asset impairment charges related to one or more of our global reporting units, which could materially adversely impact our results of operations.

We test our goodwill balances during the second quarter of each year for impairment, or more frequently if indicators are present or changes in circumstances suggest that impairment may exist. We assess goodwill for impairment at the reporting unit level and, in evaluating the potential for impairment of goodwill, we make assumptions regarding estimated revenue projections, growth rates, cash flows and discount rates. In the second quarter of 2017, we performed our annual goodwill impairment test for all of our reporting units. In conjunction with our annual test, the fair value of each reporting unit exceeded its carrying value. Therefore, it was not necessary to proceed to the second step of the impairment test. Refer to Critical Accounting Policies and Estimates within our Management's Discussion and Analysis of Financial Condition and Results of Operations contained in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this Annual Report for a discussion of key assumptions used in our testing.

On a quarterly basis, we monitor the key drivers of fair value to detect events or other changes that would warrant an interim impairment test of our goodwill and intangible assets. Relatively small declines in the future performance and cash flows of a reporting unit or asset group, changes in our reporting units or in the structure of our business as a result of future reorganizations, acquisitions or divestitures of assets or businesses, or small changes in other key assumptions, may result in the recognition of significant asset impairment charges, which could have a material adverse impact on our results of operations.

Failure to integrate acquired businesses into our operations successfully could adversely affect our business, financial condition and operating results.

As part of our strategy to realign our business portfolio, we completed several acquisitions in 2017, 2016 and 2015 and may pursue additional acquisitions in the future. Our integration of acquired businesses requires significant efforts, including corporate restructuring, the coordination of information technologies, research and development, sales and marketing, operations, regulatory, supply chain, manufacturing, quality systems and finance. These efforts result in additional expenses and involve significant management time. Some of the factors that could affect the success of our acquisitions include, among others, the effectiveness of our due diligence process, our ability to execute our business plan for the acquired companies, the strength of the acquired technology, results of clinical trials, regulatory approvals and reimbursement levels of the acquired products and related procedures,

the continued performance of critical transition services, our ability to adequately fund acquired in-process research and development projects and retain key employees and our ability to achieve synergies with our acquired companies, such as increasing sales of our products, achieving cost savings and effectively combining technologies to develop new products. In addition, foreign acquisitions involve unique risks, including those related to integration of operations across different geographies, cultures and languages, currency risks, and risks associated with the economic, political, legal and regulatory environment in specific countries. Our failure to manage successfully and coordinate the growth of the acquired companies could have an adverse impact on our business and our future growth. In addition, we cannot be certain that the businesses we acquire will become profitable or remain so, and if our acquisitions are not successful, we may record related asset impairment charges in the future or experience other negative consequences on our results.

We may not be successful in our strategy relating to future strategic acquisitions of, investments in, or alliances with, other companies and businesses, which have been a significant source of historical growth for us, and will be key to our diversification into new markets and technologies.

Our strategic acquisitions, investments and alliances are intended to further expand our ability to offer customers effective, high quality medical devices that satisfy their interventional needs. These acquisitions, investments and alliances have been a significant source of our growth. If we are unsuccessful in our acquisitions, investments and alliances, we may be unable to grow our business. The success of our strategy relating to future acquisitions, investments or alliances will depend on a number of factors, including:

- our ability to identify suitable opportunities for acquisition, investment or alliance, if at all,
- our ability to manage acquisition, investment, or alliance opportunities within our capital capacity and prioritize those investments to execute on our strategy,
- the ability of our due diligence process to uncover potential issues with target companies,
- our ability to finance any future acquisition, investment or alliance on terms acceptable to us, if at all,
- whether we are able to complete acquisitions, investments or alliances in a timely manner on terms that are satisfactory to us, if at all,
- our ability to successfully integrate and operate acquired businesses,
- our ability to successfully identify and retain key target employees,
- our ability to comply with applicable laws and regulations, including foreign laws and regulations and
- intellectual property and litigation related to newly acquired technologies.

Any potential future acquisitions we consummate may be dilutive to our earnings and may require additional debt or equity financing, depending on their size or nature.

We may not realize the expected benefits from our restructuring and optimization initiatives, our long-term expense reduction programs may result in an increase in short-term expense and our efforts may lead to unintended consequences.

We monitor the dynamics of the economy, the healthcare industry and the markets in which we compete and assess opportunities for improved operational effectiveness and efficiency and to better align expenses with revenues, while preserving our ability to make investments in research and development projects, capital and our people that we believe are important to our long-term success. As a result of these assessments, we have undertaken restructuring and optimization initiatives in order to enhance our growth potential and position us for long-term success. For example, in June 2016, we announced a restructuring initiative (the 2016 Restructuring Plan) intended to develop global commercialization, technology and manufacturing capabilities in key growth markets, build on our Plant Network Optimization (PNO) strategy which is intended to simplify our manufacturing plant structure by transferring certain production lines among facilities and expand operational efficiencies in support of our operating income margin goals. Key activities under the 2016 Restructuring Plan include strengthening global infrastructure through evolving global real estate assets and workplaces, developing global commercial and technical competencies, enhancing manufacturing and distribution expertise in certain regions and continuing implementation of our PNO strategy.

Activities under the plan were initiated in the second quarter of 2016 and are expected to be substantially completed by the end of 2018. We revised the original estimate for the costs and savings associated with the program in the first quarter of 2018, as approved by the Board of Directors. The 2016 Restructuring Plan is expected to result in total pre-tax charges of approximately $275 million to $325 million and reduce gross annual expenses by approximately $165 million to $175 million by the end of 2020 as program benefits are realized. We expect a substantial portion of the savings to be reinvested in strategic growth initiatives. Expense reduction initiatives under the plan include various cost and efficiency improvement measures, which may include movement of business activities, facility consolidations and closures and the transfer of product lines between manufacturing facilities, which, due to the highly regulated nature of our industry, requires a significant investment in time and cost to create duplicate manufacturing lines, run product validations and seek regulatory approvals. These measures could yield unintended consequences, such as distraction of our management and employees, business disruption, inability to attract or retain key personnel and reduced employee productivity, which could negatively affect our business, sales, financial condition and results of operations. Moreover, our restructuring and

optimization initiatives result in charges and expenses that impact our operating results. We cannot guarantee that the activities under the 2016 Restructuring Plan or other optimization initiatives will result in the desired efficiencies and estimated cost savings.

Current domestic and international economic conditions could adversely affect our cash flows and results of operations.

Uncertainty about global economic conditions, including as a result of credit and sovereign debt issues, has caused and may continue to cause disruption in the financial markets, including diminished liquidity and credit availability. These conditions may adversely affect our suppliers, leading them to experience financial difficulties or to be unable to borrow money to fund their operations, which could cause disruptions in our ability to produce our products. Our customers may experience financial difficulties or be unable to borrow money to fund their operations, which may adversely impact their ability or decision to purchase our products, particularly capital equipment, or to pay for our products they do purchase on a timely basis, if at all. In addition, we have accounts receivable factoring programs in certain European countries. Continued deterioration of the global economy or increase in sovereign debt issues may impact our ability to transfer receivables to third parties in certain of those countries in the future. Third parties such as banks offering factoring programs in these countries are looking to reduce their exposure levels to government owned or supported debt. This could result in terminations of, or changes to the costs or credit limits of our existing factoring programs. Such terminations or changes could have a negative impact on our cash flow and days sales outstanding.

The strength and timing of economic recovery remains uncertain and there can be no assurance that there will not be further deterioration in the global economy. Accordingly, we cannot predict to what extent global economic conditions, including sovereign debt issues and increased focus on healthcare systems and costs in the U.S. and abroad, may continue to negatively impact our average selling prices, net sales and profit margins, procedural volumes and reimbursement rates from third party payers. In addition, conditions in the financial markets and other factors beyond our control may adversely affect our ability to borrow money in the credit markets, access the capital markets and to obtain financing for acquisitions or other general corporate and commercial purposes.

Healthcare policy changes, including healthcare reform legislation, may have a material adverse effect on our business, financial condition, results of operations and cash flows.

Political, economic and policy influences are leading the healthcare industry to make substantial structural and financial changes that will continue affecting our results of operations. Government and private sector initiatives limiting the growth of healthcare costs (including price regulation), coverage and payment policies, comparative effectiveness of therapies, technology assessments and healthcare delivery structure reforms, are continuing in many countries where we do business. We believe that these changes are causing the marketplace to put increased emphasis on the delivery of more treatments that can reduce costs, improve efficiencies and/or increase patient access. Although we believe our less-invasive products and technologies generate favorable clinical outcomes, value and cost efficiency, the resources necessary and evidence necessary to demonstrate value to our customers, patients, payers and other stakeholders may be significant and it may take a longer period of time to gain widespread adoption. Moreover, there can be no assurance that our strategies will succeed for every product.

The Patient Protection and Affordable Care Act (ACA) and Health Care and Education Affordability Reconciliation Act of 2010 were enacted into law in the U.S. in March 2010. As a U.S. headquartered company with significant domestic sales, the medical device tax included in this law has materially affected us. The law imposed on medical device manufacturers a 2.3 percent excise tax on U.S. sales of Class I, II and III medical devices beginning in January 2013. Under the current administration, there may be a permanent repeal or an alteration of some or all elements of the ACA, but at this time it is not definite that a change will be enacted or what new healthcare provisions may be implemented. While the implementation of the medical device tax has been suspended until December 31, 2019, the

status of the tax for sales after December 31, 2019 is not clear. The tax may continue to be suspended, or may be reinstated at the same or at a different level effective January 1, 2020. Other provisions of this law, including comparative effectiveness research, pilot programs to evaluate alternative payment methodologies and other changes to the payment systems, have started changing the way healthcare is delivered, reimbursed and funded. While the extent to which it has affected our business is not clear, these changes, over the long-term, may adversely affect our business and results of operations.

We cannot predict the specific healthcare programs and regulations that will be ultimately implemented by regional and national governments globally. However, any changes that lower reimbursements for either our products and/or procedures using our products reduce medical procedure volumes and/or increase cost containment pressures on us or others in the healthcare sector could adversely affect our business and results of operations.

We are subject to extensive and dynamic medical device regulation, which may impede or hinder the approval or sale of our products and, in some cases, may ultimately result in an inability to obtain approval of certain products or may result in the recall or seizure of previously approved products.

Our products, marketing, sales and development activities and manufacturing processes are subject to extensive and rigorous regulation by the FDA pursuant to the Federal Food, Drug and Cosmetic Act (FDC Act), by comparable agencies in foreign countries and by other regulatory agencies and governing bodies. Under the FDC Act, medical devices must receive FDA clearance or approval or an exemption from such clearance or approval before they can be commercially marketed in the U.S. In the EU, we are required to comply with applicable medical device directives (including the Medical Devices Directive and the Active Implantable Medical Devices Directive) and obtain CE Mark certification in order to market medical devices. The CE Mark is applied following approval from an independent notified body or declaration of conformity. The process of obtaining marketing approval or clearance from the FDA or by comparable agencies in foreign countries for new products, or with respect to enhancements or modifications to existing products, could:

- take a significant period of time,
- require the expenditure of substantial resources,
- involve rigorous pre-clinical and clinical testing, as well as increased post-market surveillance,
- require changes to products and
- result in limitations on the indicated uses of products.

In addition, exported devices are subject to the regulatory requirements of each country to which the device is exported. Some countries do not have medical device regulations, but in most foreign countries, medical devices are regulated. Frequently, regulatory approval may first be obtained in a foreign country prior to application in the U.S. due to differing regulatory requirements; however, other countries, such as China for example, require approval in the country of origin or legal manufacturer first. Most countries outside of the U.S. require that product approvals be renewed or recertified on a regular basis, generally every four to five years. The renewal or recertification process requires that we evaluate any device changes and any new regulations or standards relevant to the device and conduct appropriate testing to document continued compliance. Where renewal or recertification applications are required, they may need to be renewed and/or approved in order to continue selling our products in those countries. There can be no assurance that we will receive the required approvals for new products or modifications to existing products on a timely basis or that any approval will not be subsequently withdrawn or conditioned upon extensive post-market study requirements.

Our global regulatory environment is becoming increasingly stringent and unpredictable, which could increase the time, cost and complexity of obtaining regulatory approvals for our products, as well as the clinical and regulatory costs of supporting those approvals. Several countries that did not have regulatory requirements for medical devices have established such requirements in recent years and other countries have expanded on existing regulations. Certain regulators are exhibiting less flexibility and are requiring local preclinical and clinical data in addition to global data. While harmonization of global regulations has been pursued, requirements continue to differ significantly among countries. We expect this global regulatory environment will continue to evolve, which could impact our ability to obtain future approvals for our products, or could increase the cost and time to obtain such approvals in the future.

The European Union regulatory bodies finalized a new Medical Device Regulation (MDR) in 2017, which replaced the existing Directives and provided three years for transition and compliance. The MDR will change several aspects of the existing regulatory framework, such as clinical data requirements and introduce new ones, such as Unique Device Identification (UDI). We and the Notified Bodies who will oversee compliance to the new MDR face uncertainties as the MDR is rolled out and enforced by the Commission and EEA Competent Authorities, creating risks in several areas, including the CE Marking process and data transparency, in the upcoming years.

The FDA and other worldwide regulatory agencies actively monitor compliance with local laws and regulations through review and inspection of design and manufacturing practices, recordkeeping, reporting of adverse events,

labeling and promotional practices. The FDA can ban certain medical devices, detain or seize adulterated or misbranded medical devices, order repair, replacement or refund of these devices and require notification of health professionals and others with regard to medical devices that present unreasonable risks of substantial harm to the public health. The FDA can take action against a company that promotes "off-label" uses. The FDA may also enjoin and restrain a company for certain violations of the FDC Act and other amending Acts pertaining to medical devices, or initiate action for criminal prosecution of such violations. Any adverse regulatory action, depending on its magnitude, may restrict a company from effectively marketing and selling its products, may limit a company's ability to obtain future premarket clearances or approvals and could results in a substantial modification to our business practices and operations. International sales of medical devices manufactured in the U.S. that are not approved by the FDA for use in the U.S., or that are banned or deviate from lawful performance standards, are subject to FDA export requirements.

Regulations regarding the development, manufacture and sale of medical devices are evolving and subject to future change. We cannot predict what impact, if any, those changes might have on our business. Failure to comply with regulatory requirements could have a material adverse effect on our business, financial condition and results of operations. Later discovery of previously unknown problems with a product or manufacturer could result in fines, delays or suspensions of regulatory clearances or approvals, seizures or recalls of products, physician advisories or other field actions, operating restrictions and/or criminal prosecution. We may also initiate field actions as a result of a failure to strictly comply with our internal quality policies. The failure to receive product approval clearance on a timely basis, suspensions of regulatory clearances, seizures or recalls of products, physician advisories or other field actions, or the withdrawal of product approval by the FDA or by comparable agencies in foreign countries could have a material adverse effect on our business, financial condition or results of operations.

Our products are continually subject to clinical trials conducted by us, our competitors or other third parties, the results of which may be unexpected, or perceived as unfavorable by the market, and could have a material adverse effect on our business, financial condition or results of operations.

As a part of the regulatory process of obtaining marketing clearance for new products and new indications for existing products, we conduct and participate in numerous clinical trials with a variety of study designs, patient populations and trial endpoints. Unexpected or inconsistent clinical data from existing or future clinical trials conducted by us, by our competitors or by third parties, or the FDA's or the market's perception of this clinical data, may adversely impact our ability to obtain product approvals, our position in, and share of, the markets in which we participate and our business, financial condition, results of operations or future prospects.

Our future growth is dependent upon the development of new products and enhancement of existing products, which requires significant research and development, clinical trials and regulatory approvals, all of which may be very expensive and time-consuming and may not result in commercially viable products.

In order to develop new products and enhance existing products, we focus our research and development programs largely on the development of next-generation and novel technology offerings across multiple programs and businesses. The development of new products and enhancement of existing products requires significant investment in research and development, clinical trials and regulatory approvals. The results of our product development efforts may be affected by a number of factors, including our ability to anticipate customer needs, innovate and develop new products, complete clinical trials, obtain regulatory approvals and reimbursement in the United States and abroad, manufacture products in a cost-effective manner, obtain appropriate intellectual property protection for our products and gain and maintain market approval of our products. There can be no assurance that any products now in development or that we may seek to develop in the future will achieve technological feasibility, obtain regulatory approval or gain market acceptance. If we are unable to develop and launch new products and enhanced products, our ability to maintain or expand our market position in the markets in which we participate may be materially adversely impacted. Further, we are continuing to investigate and have completed several acquisitions that involve opportunities to further expand our presence in and diversify into, priority growth areas by accessing new products and technologies. There can be no assurance that our investments will be successful or we will be able to access new products and technologies on terms favorable to us, or that these products and technologies will achieve commercial feasibility, obtain regulatory approval or gain market acceptance. A delay in the development or approval of new products and technologies or our decision to reduce our investments may adversely impact the contribution of these technologies to our future growth.

Additionally, certain products or groups of products, in particular new products or enhancements of existing products, may have a disproportionate impact on our business, financial condition and results of operations. Failure to meet growth projections, poor clinical outcomes, increasing regulatory requirements, launch delays and inability to effectively scale manufacturing and achieve targeted margins with respect to any of these products or groups of products in particular may materially adversely impact on our business, financial condition and results of operations.

The medical device industry and its customers continue to face scrutiny and regulation by governmental authorities and are often the subject of numerous investigations, often involving marketing and other business practices or product quality issues including device recalls or advisories. These investigations could result in the commencement of civil and criminal proceedings; imposition of substantial fines, penalties and administrative remedies, including

corporate integrity agreements, stipulated judgments or exclusion; diversion of our employees and management's attention; imposition of administrative costs and have an adverse effect on our financial condition, results of operations and liquidity; and may lead to greater governmental regulation in the future.

The medical devices we design, develop, manufacture and market are subject to rigorous regulation by the FDA and numerous other federal, state and foreign governmental authorities. These authorities continue to highly scrutinize our industry. We have received and in the future may receive, subpoenas and other requests for information from Congress and other state and federal governmental agencies, including, among others, the U.S. Department of Justice (DOJ), the Office of Inspector General of the

Department of Health and Human Services (HHS) and the Department of Defense, as well as from foreign governments and agencies. The requests and/or subpoenas we have received relate primarily to financial arrangements with healthcare providers, regulatory compliance and sale and/or product promotional practices. We have cooperated with these subpoenas and other requests for information and expect to continue to do so in the future. We cannot predict when a matter will be resolved, the outcome of the matter or its impact on us and cooperation may involve significant costs, including document production costs. An adverse outcome in any matter could include the commencement of an investigation, civil and criminal proceedings, substantial fines, penalties and administrative remedies, including exclusion from government reimbursement programs, entry into Corporate Integrity Agreements (CIAs) with governmental agencies and amendments to any existing CIAs. In addition, resolution of any matter could involve the imposition of additional and costly compliance obligations. For example, in 2009, we entered into a civil settlement with the DOJ regarding the DOJ's investigation relating to certain post-market surveys conducted by Guidant Corporation before we acquired Guidant in 2006. As part of the settlement, we entered into a 5-year CIA with the Office of Inspector General for HHS, which required various provisions, including enhancements to certain compliance procedures related to financial arrangements with healthcare providers. Cooperation with requests and investigations from external agencies result in employee resource costs and diversion of employee focus. If any requests or investigations continue over a long period of time, they could divert the attention of management from the day-to-day operations of our business and impose significant additional administrative burdens on us. These potential consequences, as well as any adverse outcome from these requests or investigations, could have a material adverse effect on our financial condition, results of operations and liquidity.

In addition, certain foreign governments, state governments (including that of Massachusetts, where we are headquartered) and the U.S. federal government have enacted legislation aimed at increasing transparency of our interactions with healthcare providers. As an example, compliance with the U.S. Physician Payment Sunshine Act requires us by law to disclose payments and other transfers of value to all U.S. physicians and U.S. teaching hospitals at the U.S. federal level made after August 1, 2013. Any failure to comply with these legal and regulatory requirements could impact our business. In addition, we have and may continue to devote substantial additional time and financial resources to further develop and implement enhanced structure, policies, systems and processes to comply with enhanced legal and regulatory requirements, which may also impact our business.

We anticipate that governmental authorities will continue to scrutinize our industry closely and that additional regulation may increase compliance and legal cost and exposure to litigation and have additional adverse effects on our operations.

Changes in tax laws, unfavorable resolution of tax contingencies, or exposure to additional income tax liabilities could have a material impact on our financial condition, results of operations and/or liquidity.

We are subject to income taxes as well as non-income based taxes, in both the U.S. and various foreign jurisdictions. We are subject to on-going tax audits in various jurisdictions. Tax authorities may disagree with certain positions we have taken and assess additional taxes. We regularly assess the likely outcomes of these audits in order to determine the appropriateness of our tax provision and have established contingency reserves for material, known tax exposures. However, the calculation of such tax exposures involves the application of complex tax laws and regulations in many jurisdictions, as well as interpretations as to the legality under European Union state aid rules of tax advantages granted in certain jurisdictions. Therefore, there can be no assurance that we will accurately predict the outcomes of these disputes or other tax audits or that issues raised by tax authorities will be resolved at a financial cost that does not exceed our related reserves and the actual outcomes of these disputes and other tax audits could have a material impact on our results of operations or financial condition.

On July 19, 2016, we entered into a Stipulation of Settled Issues with the Internal Revenue Service (IRS) intended to resolve certain transfer pricing issues, as well as certain issues related to our transaction with Abbott Laboratories, for the 2001 through 2007 tax years. The Stipulation of Settled Issues is contingent upon IRS Office of Appeals applying the same basis of settlement to all transfer pricing issues for the Company’s 2008, 2009 and 2010 tax years and if applicable, review by the U.S. Congress Joint Committee on Taxation. In October 2016, we reached an agreement in

principle with IRS Office of Appeals as to the resolution of the transfer pricing issues in 2008, 2009 and 2010 tax years, subject to additional calculations of tax as well as documentation to memorialize our agreement. The final resolution of these issues is contingent and if the Stipulation of Settled Issues is not finalized, it could have a material impact on our financial condition, results of operations, or cash flows.

Changes in tax laws and regulations, or their interpretation and application, in the jurisdictions where we are subject to tax could materially impact our effective tax rate. The U.S. enacted the Tax Cuts and Jobs Act (TCJA) on December 22, 2017 and we expect the U.S. Treasury to issue future notices and regulations under the TCJA. Certain provisions of the TCJA and the regulations issued thereunder could have a significant impact on our future results of operations as could interpretations made by the Company in the absence of regulatory guidance and judicial interpretations.

Additionally, the U.S. Congress, government agencies in non-U.S. jurisdictions where we and our affiliates do business and the Organization for Economic Co-operation and Development (OECD) have recently focused on issues related to the taxation of

multinational corporations. One example is in the area of “base erosion and profit shifting,” where profits are claimed to be earned for tax purposes in low-tax jurisdictions, or payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. The OECD has released several components of its comprehensive plan to create an agreed set of international rules for fighting base erosion and profit shifting. As a result, the tax laws in the U.S. and other countries in which we and our affiliates do business could change on a prospective or retroactive basis and any such changes could materially adversely affect our business.

Our operations in Puerto Rico and Costa Rica presently benefit from various tax incentives and grants. Unless these incentives and grants are extended, they will expire between 2023 and 2028. If we are unable to renew, extend, or obtain new incentive and grants, the expiration of the existing incentives and grants could have a material impact on our financial results in future periods.

We may not effectively be able to protect our intellectual property or other sensitive data, which could have a material adverse effect on our business, financial condition or results of operations.

The medical device market in which we primarily participate is largely technology driven. Physician customers have historically moved quickly to new products and new technologies. As a result, intellectual property rights, particularly patents and trade secrets, play a significant role in product development and differentiation. However, intellectual property litigation is inherently complex and unpredictable and appellate courts can overturn lower court decisions. Furthermore, as our business increasingly relies on technology systems and infrastructure, our intellectual property, other proprietary technology and other sensitive data are potentially vulnerable to loss, damage or misappropriation. Finally, our ability to protect novel business models is uncertain.

Competing parties in our industry frequently file multiple suits to leverage patent portfolios across product lines, technologies and geographies and to balance risk and exposure between the parties. In some cases, several competitors are parties in the same proceeding, or in a series of related proceedings, or litigate multiple features of a single class of devices. These forces frequently drive settlement not only of individual cases, but also of a series of pending and potentially related and unrelated cases. In addition, although monetary and injunctive relief is typically sought, remedies and restitution are generally not determined until the conclusion of the trial court proceedings and can be modified on appeal. Accordingly, the outcomes of individual cases are difficult to time, predict or quantify and are often dependent upon the outcomes of other cases in other geographies.

A number of third parties have asserted that our current and former product offerings infringe patents owned or licensed by them. We have similarly asserted that products sold by our competitors infringe patents owned or licensed by us. Adverse outcomes in one or more of the proceedings against us could limit our ability to sell certain products in certain jurisdictions, or reduce our operating margin on the sale of these products and could have a material adverse effect on our financial condition, results of operations or liquidity.

Patents and other proprietary rights are and will continue to be essential to our business and our ability to compete effectively with other companies will be dependent upon the proprietary nature of our technologies. We rely upon trade secrets, know-how, continuing technological innovations, strategic alliances and licensing opportunities to develop, maintain and strengthen our competitive position. We pursue a policy of generally obtaining patent protection in both the U.S. and abroad for patentable subject matter in our proprietary devices and attempt to review third-party patents and patent applications to the extent publicly available in order to develop an effective patent strategy, avoid infringement of third-party patents, identify licensing opportunities and monitor the patent claims of others. We currently own numerous U.S. and foreign patents and have numerous patent applications pending. We also are party to various license agreements pursuant to which patent rights have been obtained or granted in consideration for cash, cross-licensing rights or royalty payments. No assurance can be made that any pending or future patent applications will result in the issuance of patents, that any current or future patents issued to, or licensed by, us will not be challenged or circumvented by our competitors, or that our patents will not be found invalid. In addition, we

may have to take legal action in the future to protect our patents, trade secrets or know-how or to assert them against claimed infringement by others. Any legal action of that type could be costly and time consuming and no assurances can be made that any lawsuit will be successful. We are generally involved as both a plaintiff and a defendant in a number of patent infringement and other intellectual property-related actions. The invalidation of key patents or proprietary rights that we own, or an unsuccessful outcome in lawsuits to protect our intellectual property, could have a material adverse effect on our business, financial condition or results of operations.

In addition, the laws of certain countries in which we market and plan on manufacturing some of our products in the near future, do not protect our intellectual property rights to the same extent as the laws of the United States. If we are unable to protect our intellectual property in these countries, it could have a material adverse effect on our business, financial condition or results of operations.

Furthermore, our intellectual property, other proprietary technology and other sensitive data are potentially vulnerable to loss, damage or misappropriation from system malfunction, computer viruses and unauthorized access to our data or misappropriation

or misuse thereof by those with permitted access and other events. While we have invested to protect our intellectual property, products and other data and continue to work diligently in this area, 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, business, financial condition or results of operations.

We rely on the proper function, availability and security of information technology systems to operate our business and a cyber-attack or other breach of these systems could have a material adverse effect on our business, financial condition or results of operations.

We rely on information technology systems, including technology from third party vendors, to process, transmit and store electronic information in our day-to-day operations. Similar to other large multi-national companies, the size and complexity of our information technology systems makes them vulnerable to a cyber-attack, malicious intrusion, breakdown, destruction, loss of data privacy, or other significant disruption. Our information systems require an ongoing commitment of significant resources to maintain, protect and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving systems and regulatory standards, the increasing need to protect patient and customer information and changing customer patterns. In addition, third parties may attempt to hack into our products to obtain data relating to patients or disrupt performance of our products or to access our proprietary information and the technology from third party vendors that we rely upon may have defects or vulnerabilities which, in turn, create vulnerabilities or disruptions in our system. Any failure by us to maintain or protect our information technology systems and data integrity, including from cyber-attacks, intrusions or other breaches, could result in the unauthorized access to patient data and personally identifiable information, theft of intellectual property or other misappropriation of assets, or otherwise compromise our confidential or proprietary information and disrupt our operations. We also grow our company through acquisitions and may face risks associated with defects and vulnerabilities in their systems as we work to integrate the acquisitions into our information technology system.

In the U.S., federal and state privacy and security laws require certain of our operations to protect the confidentiality of personal information including patient medical records and other health information. In Europe, the Data Protection Directive requires us to manage individually identifiable information in the EU and, the new General Data Protection Regulation may impose fines of up to four percent of our global revenue in the event of violations after implementation of the requirements on May 25, 2018. Internationally, some countries have also passed laws that require individually identifiable data on their citizens to be maintained on local servers and that may restrict transfer or processing of that data. We believe that we meet the expectations of applicable regulations and that the ongoing costs and impacts of ensuring compliance with such rules are not material to our business. However, there is no guarantee that we will avoid enforcement actions by governmental bodies. Enforcement actions could be costly and interrupt regular operations of our business. Any of these events, in turn, may cause us to lose existing customers, have difficulty preventing, detecting and controlling fraud, have disputes with customers, physicians and other healthcare professionals, be subject to legal claims and liability, have regulatory sanctions or penalties imposed, have increases in operating expenses, incur expenses or lose revenues as a result of a data privacy breach or theft of intellectual property, or suffer other adverse consequences, any of which could have a material adverse effect on our business, financial condition or results of operations.

Pending and future intellectual property litigation could be costly and disruptive to us.

We operate in an industry that is susceptible to significant intellectual property litigation and, in recent years, it has been common for companies in the medical device field to aggressively challenge the patent rights of other companies. We are currently the subject of various patent litigation proceedings and other proceedings described in more detail under Note J – Commitments and Contingencies to our consolidated financial statements included in Item 8 of this Annual Report. Intellectual property litigation is expensive, complex and lengthy and its outcome is difficult to predict. Adverse outcomes in one or more of these matters could have a material adverse effect on our ability to sell certain products and on our operating margins, financial condition, results of operation or liquidity. Pending or future patent litigation may result in significant royalty or other payments or injunctions that can prevent the sale of products

and may significantly divert the attention of our technical and management personnel. In the event that our right to market any of our products is successfully challenged, we may be required to obtain a license on terms which may not be favorable to us, if at all. If we fail to obtain a required license or are unable to design around a patent, our business, financial condition or results of operations could be materially adversely affected.

Pending and future product liability claims and other litigation, including private securities litigation, stockholder derivative suits and contract litigation, may adversely affect our financial condition and results of operations or liquidity.

The design, manufacturing and marketing of medical devices of the types that we produce entail an inherent risk of product liability claims. Many of the medical devices that we manufacture and sell are designed to be implanted in the human body for long periods of time or indefinitely. A number of factors could result in an unsafe condition or injury to, or death of, a patient with respect to these or other products that we manufacture or sell, including physician technique and experience in performing the surgical

procedure, component failures, manufacturing flaws, design defects, off-label use or inadequate disclosure of product-related risks or product-related information. These factors could result in product liability claims, a recall of one or more of our products or a safety alert relating to one or more of our products. Product liability claims may be brought by individuals or by groups seeking to represent a class.

We are currently the subject of product liability litigation proceedings and other proceedings described in more detail under Note J – Commitments and Contingencies to our 2017 consolidated financial statements included in Item 8 of this Annual Report. The outcome of litigation, particularly class action lawsuits, is difficult to assess or quantify. Plaintiffs in these types of lawsuits often seek recovery of very large or indeterminate amounts, including not only actual damages, but also punitive damages. The magnitude of the potential losses relating to these lawsuits may remain unknown for substantial periods of time. In addition, the cost to defend against any future litigation may be significant. Product liability claims, securities and commercial litigation and other litigation in the future, regardless of the outcome, could have a material adverse effect on our financial condition, results of operations or liquidity. Additionally, we maintain an insurance policy providing limited coverage against securities claims and we are substantially self-insured with respect to product liability claims and fully self-insured with respect to intellectual property infringement claims. The fact that we do not maintain third-party insurance coverage for all categories of losses increases our exposure to unanticipated claims and adverse decisions and these losses could have a material adverse effect on our financial condition, results of operations or liquidity.

Any failure to meet regulatory quality standards applicable to our manufacturing and quality processes could have an adverse effect on our business, financial condition and results of operations.

As a medical device manufacturer, we are required to register our establishments and list our devices with the FDA and are subject to periodic inspection by the FDA for compliance with its Quality System Regulation requirements, which require manufacturers of medical devices to adhere to certain regulations, including testing, quality control and documentation procedures. 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, could cause or contribute to a death or serious injury. Compliance with applicable regulatory requirements is subject to continual review and is monitored rigorously through periodic inspections by the FDA which may result in observations on Form 483 and in some cases warning letters that require corrective action. In the European Community, we are required to maintain certain International Standards Organization (ISO) certifications in order to sell our products and must undergo periodic inspections by notified bodies to obtain and maintain these certifications. Many other countries in which we do business have requirements similar to those of the US or the EU and other foreign governments or agencies may subject us to periodic inspections as well. If we, or our manufacturers, fail to adhere to quality system regulations or ISO requirements, this could delay production of our products and lead to fines, difficulties in obtaining regulatory clearances, recalls, enforcement actions, including injunctive relief or consent decrees, or other consequences, which could, in turn, have a material adverse effect on our financial condition or results of operations.

Interruption of our manufacturing operations could adversely affect our results of operations and financial condition.

Our products are designed and manufactured in technology centers around the world, either by us or third parties. In most cases, the manufacturing of our products is concentrated in one or a few locations. Factors such as a failure to follow specific internal protocols and procedures, equipment malfunction, environmental factors or damage to one or more of our facilities could adversely affect our ability to manufacture our products. In the event of an interruption in manufacturing, we may be unable to quickly move to alternate means of producing affected products or to meet customer demand. In the event of a significant interruption, for example, as a result of a failure to follow regulatory protocols and procedures, we may experience lengthy delays in resuming production of affected products due primarily to needs for regulatory approvals. As a result, we may experience loss of market share, which we may be unable to recapture and harm to our reputation, which could adversely affect our results of operations and financial condition.

Disruptions in the supply of the materials and components used in manufacturing our products or the sterilization of our products by third-party vendors could adversely affect our results of operations and financial condition.

We purchase many of the materials and components used in manufacturing our products from third-party vendors. Certain of these materials and components are purchased from single sources due to quality considerations, expertise, costs or constraints resulting from regulatory requirements. In certain cases we may not be able to establish additional or replacement vendors for such materials or components in a timely or cost effective manner, largely as a result of FDA regulations that require validation of materials and components prior to their use in our products and the complex nature of our and many of our vendors' manufacturing processes. A reduction or interruption in the supply of materials and components used in manufacturing our products, an inability to timely develop and validate alternative sources if required or a significant increase in the price of such materials or components could adversely affect our results of operations and financial condition.

In addition, many of our products require sterilization prior to sale and we utilize a mix of internal resources and contract sterilizers to perform this service. To the extent we or our contract sterilizers are unable to sterilize our products, whether due to capacity, availability of materials for sterilization, regulatory or other constraints, we may be unable to transition to other contract sterilizer, sterilizer locations or sterilization methods in a timely or cost effective manner or at all, which could have an adverse impact on our results of operations and financial condition.

Our share price has been volatile and may fluctuate, and accordingly, the value of an investment in our common stock may also fluctuate.

Stock markets in general and our common stock in particular have experienced significant price and volume volatility over recent years. The market price and trading volume of our common stock may continue to be subject to significant fluctuations due to factors described under this Item 1A. Risk Factors, as well as economic and geopolitical conditions in general and to variability in the prevailing sentiment regarding our operations or business prospects, as well as, among other things, changing investment priorities of our stockholders. Because the market price of our common stock fluctuates significantly, stockholders may not be able sell their shares at attractive prices.

If we are unable to attract or retain key personnel, it could have an adverse effect on our business, financial condition and results from operations.

In our industry, there is substantial competition for key personnel in the regions in which we operate and we may face increased competition for such employees, particularly in emerging markets as the trend toward globalization continues. Our business depends to a significant extent on the continued service of senior management and other key personnel, the development of additional management personnel and the hiring of new qualified employees. There can be no assurance that we will be successful in retaining and developing existing personnel or recruiting new personnel. The loss of one or more key employees, our ability to attract or develop additional qualified employees or any delay in hiring key personnel could have material adverse effects on our business, financial condition or results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our world headquarters is located in Marlborough, Massachusetts, with regional headquarters located in Singapore and Voisins-le-Bretonneux, France. As of December 31, 2017, our principal manufacturing and technology centers were located in Minnesota, California and Indiana within the U.S., as well as internationally in Ireland, Costa Rica and Puerto Rico. In the second half of 2017, we opened a manufacturing facility in Malaysia. Our products are distributed worldwide from customer fulfillment centers in Massachusetts and the Netherlands. As of December 31, 2017, we maintained 13 principal manufacturing facilities, including seven in the U.S., three in Ireland, two in Costa Rica and one in Puerto Rico, as well as various distribution and technology centers around the world. Many of these facilities produce and manufacture products for more than one of our divisions and include research facilities. The following is a summary of our facilities as of December 31, 2017 (in approximate square feet):

	Owned *	Leased **	Total
U.S.	4,256,000	1,278,000	5,534,000
International	1,945,000	1,341,000	3,286,000
	6,201,000	2,619,000	8,820,000

* Includes our principal manufacturing facilities in Minnesota, Ireland, Puerto Rico and one facility in Costa Rica, our new manufacturing facility in Malaysia, our customer fulfillment centers in Massachusetts, the Netherlands and Japan, and our global headquarters location in Marlborough, Massachusetts.
** Includes our principal manufacturing facilities in California, Indiana and one facility in Costa Rica, and our regional headquarters located in Singapore and Voisins-le-Bretonneux, France.

We regularly evaluate the condition and capacity of our facilities to ensure they are suitable for the development, manufacturing and marketing of our products and provide adequate capacity for current and expected future needs. Further, our 2016 Restructuring Plan continues the implementation of our Plant Network Optimization strategy, which is intended to simplify our manufacturing plant structure by transferring certain productions lines among facilities. Refer to Restructuring-related Activities within Results of Operations included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this Annual Report and Note G – Restructuring-related Activities to our consolidated financial statements included in Item 8 of this Annual Report.

ITEM 3. LEGAL PROCEEDINGS

See Note J – Commitments and Contingencies to our consolidated financial statements included in Item 8 of this Annual Report and incorporated herein 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 (NYSE) under the symbol "BSX." The following table provides the market range for the closing price of our common stock for each of the last eight quarters based on reported sales prices on the NYSE.

2017	High	Low
First Quarter	$25.41	$21.88
Second Quarter	28.25	24.42
Third Quarter	29.17	26.26
Fourth Quarter	29.80	24.79

2016		
First Quarter	$18.82	$16.07
Second Quarter	23.37	18.94
Third Quarter	24.48	23.11
Fourth Quarter	23.77	20.09

Holders

The closing price of our common stock on January 31, 2018 was $27.96. As of January 31, 2018, there were 8,739 holders of record of our common stock.

Dividends

We did not pay a cash dividend in 2017, 2016 or 2015 and currently we do not intend to pay cash dividends. We may consider declaring and paying a cash dividend in the future; however, there can be no assurance that we will do so.

Securities Authorized for Issuance under Equity Compensation Plans

Please see Item 12. "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" under Part III of this Annual Report for information on where to find information required by Item 201(d) of Regulation S-K.

Purchases of Equity Securities by the Issuer and Affiliated Purchases

On January 25, 2013, our Board of Directors approved and on January 29, 2013, we announced a program authorizing the repurchase of up to $1.0 billion of our common stock. During 2014 we used $125 million of cash generated from operations to repurchase approximately 10 million shares of our common stock pursuant to our share repurchase authorizations. We made no share repurchases in 2017, 2016 or 2015. Refer to Note K - Stockholders' Equity to our consolidated financial statements contained in Item 8. Financial Statements and Supplementary Data of this Annual Report for additional information. As of December 31, 2017, we had approximately $535 million remaining available under the 2013 share repurchase program.

Stock Performance Graph

The graph below compares the five-year total return to stockholders on our common stock with the return of the Standard & Poor's (S&P) 500 Stock Index and the S&P Health Care Equipment Index. The graph assumes $100 was invested in our common stock and in each of the named indices on December 31, 2012 and that all dividends were reinvested.

Note: The stock price performance shown on the graph above is not indicative of future price performance. This graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, regardless of any general incorporation language in such filing.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SELECTED FINANCIAL DATA

(in millions, except per share data)

Operating Data

Year Ended December 31,	2017	2016	2015	2014	2013
Net sales	$9,048	$8,386	$7,477	$7,380	$7,143
Gross profit	6,455	5,962	5,304	5,170	4,969
Total operating expenses*	5,170	5,515	5,587	5,471	4,849
Operating income (loss)*	1,285	447	(283)	(301)	120
Income (loss) before income taxes	933	177	(650)	(509)	(223)
Net income (loss)	104	347	(239)	(119)	(121)
Net income (loss) per common share:					
Basic	$0.08	$0.26	$(0.18)	$(0.09)	$(0.09)
Assuming dilution	$0.08	$0.25	$(0.18)	$(0.09)	$(0.09)

Balance Sheet Data

As of December 31,	2017	2016	2015	2014	2013
Cash, cash equivalents and marketable securities	$188	$196	$319	$587	$217
Working capital	(1,832)	(348)	1,041	760	1,187
Total assets	19,042	18,096	18,133	17,024	16,549
Borrowings (short-term)	1,801	64	3	403	3
Borrowings (long-term)	3,815	5,420	5,674	3,841	4,215
Stockholders' equity	7,012	6,733	6,320	6,457	6,539
Book value per common share**	$5.11	$4.94	$4.69	$4.86	$4.95

*Pension termination charges of $44 million in 2015 have been reclassified from Operating expenses to Other, net to reflect our adoption of Accounting Standards Codification Update No. 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. Please refer to Note A – Significant Accounting Policies and Note P - New Accounting Pronouncements to our consolidated financial statements contained in Item 8. Financial Statements and Supplementary Data of this Annual Report.

**Book value per common share is calculated using shares outstanding as of December 31, for each year, respectively shown.

The data above include certain charges and/or credits recorded in conjunction with amortization, goodwill and intangible asset impairments, acquisitions and divestitures-related activities, restructuring and restructuring-related activities, pension termination charges, litigation-related charges, debt extinguishment charges, investment impairments and/or certain tax items. The data above should be read in conjunction with our consolidated financial statements, including the notes thereto, included in Item 8. Financial Statements and Supplementary Data of our Annual Report on Form 10-K.

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

The following discussion and analysis provides information management believes to be relevant to understanding the financial condition and results of operations of Boston Scientific Corporation and its subsidiaries. For a full understanding of our financial condition and results of operations, this discussion should be read in conjunction with our consolidated financial statements and accompanying notes included in Item 8 of this Annual Report.

Executive Summary

Financial Highlights and Trends

In 2017, we generated net sales of $9.048 billion, as compared to $8.386 billion in 2016, an increase of $662 million, or 7.9 percent. Our operational net sales, which exclude a 10 basis point impact related to changes in foreign currency exchange rates, increased $661 million, or 7.8 percent, as compared to the prior year.[1] This increase included operational net sales of approximately $105 million in 2017 due to the acquisition of EndoChoice Holdings, Inc. (EndoChoice) during the fourth quarter of 2016 and the acquisition of Symetis SA (Symetis) during the second quarter of 2017. Refer to the Business and Market Overview section for further discussion of our net sales by global business.

Our reported net income in 2017 was $104 million, or $0.08 per diluted share. Our reported results for 2017 included certain charges and/or credits totaling $1.647 billion (after-tax), or $1.18 per share. Excluding these items, net income for 2017 was $1.752 billion, or $1.26 per share.[1] Our reported net income in 2016 was $347 million, or $0.25 per diluted share. Our reported results for 2016 included certain charges and/or credits totaling $1.187 billion (after-tax), or $0.86 per share. Excluding these items, net income for 2016 was $1.534 billion, or $1.11 per share.[1]

[1] Operational net sales growth rates, which exclude the impact of changes in foreign currency exchange rates, and adjusted net income and adjusted net income per share, which exclude certain items required by generally accepted accounting principles in the United States (U.S. GAAP), are not prepared in accordance with U.S. GAAP and should not be considered in isolation from, or as a replacement for, the most directly comparable GAAP measure. Refer to Additional Information for a discussion of management's use of these non-GAAP financial measures.

The following is a reconciliation of our results of operations prepared in accordance with U.S. GAAP to those adjusted results considered by management. Refer to Results of Operations for a discussion of each reconciling item:

	Year Ended December 31, 2017			
in millions, except per share data	Pre-Tax	Tax Impact	After-Tax	Impact per Share
GAAP net income (loss)	$933	$(828)	$ 104	$ 0.08
Non-GAAP adjustments:				
Amortization expense	565	(74)	492	0.35
Intangible asset impairment charges	4	(0)	4	0.00
Acquisition-related net charges (credits)	34	(25)	9	0.01
Restructuring and restructuring-related net charges (credits)	95	(21)	75	0.05
Litigation-related net charges (credits)	285	(113)	172	0.12
Investment impairment charges	56	(20)	36	0.03
Tax Cuts and Jobs Act (TCJA) net charge	—	861	861	0.62
Adjusted net income	$1,972	$(220)	$ 1,752	$ 1.26

	Year Ended December 31, 2016			
in millions, except per share data	Pre-Tax	Tax Impact	After-Tax	Impact per Share
GAAP net income (loss)	$177	$170	$ 347	$ 0.25
Non-GAAP adjustments:				
Amortization expense	545	(67)	478	0.35
Intangible asset impairment charges	11	(1)	10	0.01
Acquisition-related net charges (credits)	136	(10)	126	0.09
Restructuring and restructuring-related net charges (credits)	78	(17)	61	0.04
Litigation-related net charges (credits)	804	(292)	512	0.37
Adjusted net income	$1,751	$(217)	$ 1,534	$ 1.11

Cash provided by operating activities was $1.426 billion in 2017. As of December 31, 2017, we had total debt of $5.616 billion, cash and cash equivalents of $188 million and a working capital deficit of $1.832 billion. We hold investment-grade ratings with all three major credit-rating agencies. We believe our investment grade credit profile reflects the size and diversity of our product portfolio, our leading share position in several of our served markets, our strong cash flow, our solid financial fundamentals and our financial strategy. Refer to Liquidity and Capital Resources for further information.

Business and Market Overview

The following section describes an overview of our product offerings and results of operations by business unit. For additional information on our businesses and their product offerings, see Item 1. Business of this Annual Report.

Cardiovascular

Interventional Cardiology

Our Interventional Cardiology business develops and manufactures technologies for diagnosing and treating coronary artery disease and other cardiovascular disorders including structural heart conditions. Our broad, innovative product offerings have enabled us to become a leader in the global interventional cardiology market.

Our net sales of Interventional Cardiology products of $2.419 billion represented approximately 27 percent of our consolidated net sales in 2017. Our Interventional Cardiology net sales increased $138 million, or 6.1 percent, in 2017, as compared to 2016. Our operational net sales, which exclude an immaterial impact related to changes in foreign currency exchange rates, increased 6.1 percent as compared to the prior year. This year-over-year increase was primarily related to sales of our WATCHMAN™ Left Atrial Appendage Closure Technology device and growth in our complex percutaneous coronary interventions (PCI) product offerings.

On May 16, 2017, we completed the acquisition of Symetis, a privately-held Swiss structural heart company focused on minimally-invasive transcatheter aortic valve replacement (TAVR) devices. We are in the process of integrating Symetis into our Interventional Cardiology business and expect the integration to be substantially complete by the end of 2018.

Peripheral Interventions

Our Peripheral Interventions business develops and manufactures products to diagnose and treat peripheral arterial diseases, including a broad line of medical devices used in percutaneous transluminal angioplasty (PTA) and peripheral vascular diseases, as well as products to diagnose, treat and ease various forms of cancer.

Our net sales of Peripheral Interventions products of $1.081 billion represented approximately 12 percent of our consolidated net sales in 2017. Our Peripheral Interventions net sales increased $69 million or 6.8 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 20 basis point impact related to changes in foreign currency exchange rates, increased 6.6 percent, as compared to 2016. This year-over-year increase was primarily driven by growth in our core franchises, particularly our stent portfolio, our drug-eluting product franchise and our atherectomy systems.

Rhythm Management

Cardiac Rhythm Management

Our Cardiac Rhythm Management (CRM) business develops and manufactures a variety of implantable devices that monitor the heart and deliver electricity to treat cardiac abnormalities.

The following are the components of our CRM net sales:

(in millions)	Year Ended December 31, 2017	December 31, 2016
Defibrillator systems	$1,305	$ 1,274

Pacemaker systems	590	576
CRM products	$1,895	$ 1,850

Our net sales of CRM products of $1.895 billion represented approximately 21 percent of our consolidated net sales in 2017. Our net sales of CRM products increased $45 million, or 2.5 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 20 basis point impact related to changes in foreign currency exchange rates, increased 2.3 percent, as compared to 2016. This year-over-year increase was driven by growth in both our defibrillator and pacemaker portfolios. Our defibrillator growth was primarily driven by continued EMBLEM™ S-ICD sales, launch of our RESONATE™ family of ICD and CRT-D's in Europe and the favorable impact from U.S. MRI safe conditional labeling, which was approved by the FDA in September 2017. Our

pacemaker growth was primarily driven by the annualized impact of our U.S. MRI pacemaker launch in the first half of 2017, partially offset by more difficult U.S. pacemaker comparisons in the second half of 2017.

Electrophysiology

Our Electrophysiology business develops and manufactures less-invasive medical technologies used in the diagnosis and treatment of rate and rhythm disorders of the heart, including a broad portfolio of therapeutic and diagnostic catheters and a variety of equipment used in the Electrophysiology lab.

Our net sales of Electrophysiology products of $278 million represented approximately three percent of our consolidated net sales in 2017. Our Electrophysiology net sales increased $35 million, or 14.5 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 10 basis point impact related to changes in foreign currency exchange rates, increased 14.4 percent, as compared to 2016. This year-over-year increase was primarily driven by increased sales of our next generation Rhythmia™ Mapping System, Rhythmia HDx™, Rhythmia related disposables and our expanding portfolio of navigation enabled therapeutic catheters.

MedSurg

Endoscopy

Our Endoscopy business develops and manufactures devices to diagnose and treat a broad range of gastrointestinal (GI) and pulmonary conditions with innovative, less invasive technologies.

Our net sales of Endoscopy products of $1.619 billion represented approximately 18 percent of our consolidated net sales in 2017. Our Endoscopy net sales increased $179 million, or 12.4 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 10 basis point impact related to changes in foreign currency exchange rates, increased 12.3 percent, as compared to 2016. This year-over-year increase was primarily driven by growth across several of our key product franchises, including our hemostasis franchise featuring our Resolution 360™ Clips, our biliary franchise with our SpyGlass™ DS Direct Visualization System and our infection prevention products and pathology services that were acquired as part of the EndoChoice acquisition.

On November 22, 2016, we completed our acquisition of EndoChoice. EndoChoice is an Alpharetta, Georgia based company focused on the development and commercialization of infection prevention products, pathology services and single-use devices for specialists treating a wide range of GI conditions. In 2017, we substantially completed the process of integrating EndoChoice into our Endoscopy business.

Urology and Pelvic Health

Our Urology and Pelvic Health business develops and manufactures devices to treat various urological and pelvic conditions for both male and female anatomies, including kidney stones, benign prostatic hyperplasia, erectile dysfunction, male incontinence, pelvic floor disorders, abnormal uterine bleeding and uterine fibroids and polyps.

Our net sales of Urology and Pelvic Health products of $1.124 billion represented approximately 12 percent of our consolidated net sales in 2017. Urology and Pelvic Health net sales increased $119 million, or 11.8 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 20 basis point impact related to changes in foreign currency exchange rates, increased 11.6 percent, as compared to 2016. This year-over-year increase was primarily attributable to growth in sales of our kidney stone products, including our LithoVue™ Digital Flexible Ureteroscope, our pelvic floor products, as a result of market share gains primarily driven by a competitor exiting the market in 2016, and our men's health products.

Neuromodulation

Our Neuromodulation business develops and manufactures devices to treat various neurological movement disorders and manage chronic pain.

Our net sales of Neuromodulation products of $635 million represented seven percent of our consolidated net sales in 2017. Neuromodulation net sales increased $79 million, or 14.2 percent, in 2017, as compared to 2016. Our operational net sales, which exclude a 10 basis point impact related to changes in foreign currency exchange rates, increased 14.1 percent, as compared to 2016. This year-over-year increase was primarily driven by continued adoption of our Precision Montage™ and Precision Spectra™ with MultiWave™ Technology Spinal Cord Simulator Systems in the U.S. and an increase in international sales, including sales of our Vercise™ Deep Brain Stimulation System.

Emerging Markets

As part of our strategic imperatives to drive global expansion, described in Item 1. Business of this Annual Report, we are seeking to grow net sales and market share by expanding our global presence, including in Emerging Markets. We define Emerging Markets as including 20 countries that we believe have strong growth potential based on their economic conditions, healthcare sectors and our global capabilities. We have increased our investment in infrastructure in these countries in order to maximize opportunities. Our Emerging Markets net sales represented 10.1 percent of our consolidated net sales in 2017 and 9.5 percent in 2016. In 2017, our Emerging Markets net sales grew 14.7 percent on a reported basis and excluding a 10 basis point impact related to changes in foreign currency exchange rates, grew 14.6 percent on an operational basis, both as compared to the prior year.

Results of Operations

Net Sales

The following table provides our net sales by business and the relative change in growth on an as reported basis.

	Year Ended December 31,				
(in millions)	2017	2016	2015	2017 versus 2016	2016 versus 2015
Interventional Cardiology	$2,419	$2,281	$2,033	6.1%	12.2%
Peripheral Interventions	1,081	1,011	904	6.8%	11.7%
Cardiovascular	3,500	3,292	2,937	6.3%	12.0%
Cardiac Rhythm Management	1,895	1,850	1,807	2.5%	2.3%
Electrophysiology	278	243	233	14.5%	4.1%
Rhythm Management	2,173	2,093	2,040	3.9%	2.6%
Endoscopy	1,619	1,440	1,306	12.4%	10.3%
Urology and Pelvic Health	1,124	1,005	693	11.8%	45.0%
Neuromodulation	635	556	501	14.2%	11.0%
MedSurg	3,377	3,001	2,500	12.5%	20.1%
Net Sales	$9,048	$8,386	$7,477	7.9%	12.1%

Refer to Executive Summary for further discussion of our net sales and a comparison of our 2017 and 2016 net sales.

In 2016, we generated net sales of $8.386 billion, as compared to $7.477 billion in 2015, an increase of $909 million, or 12.1 percent. Our operational net sales, which exclude a 40 basis point impact related to changes in foreign currency exchange rates, increased $1.008 billion, or 12.5 percent, as compared to the prior year. This increase was primarily due to increases in net sales from our Urology and Pelvic Health business of $312 million, primarily due to the AMS Portfolio Acquisition, from our Interventional Cardiology business of $248 million, led by sales from our Synergy drug-eluting stent and further penetration of the WATCHMAN™ Device, from our Endoscopy business of $134 million and from our Peripheral Intervention business of $107 million.

Gross Profit

Our gross profit was $6.455 billion in 2017, $5.962 billion in 2016 and $5.304 billion in 2015. As a percentage of net sales, our gross profit increased to 71.3 percent in 2017, as compared to 71.1 percent in 2016 and 70.9 percent in 2015. The following is a reconciliation of our gross profit margins and a description of the drivers of the change from period to period:

	Year Ended December 31,	
	2017	2016
Gross profit - prior year	71.1 %	70.9 %
Manufacturing cost reductions	1.9 %	2.0 %
Sales pricing and mix	0.1 %	(0.1)%
Inventory step-up due to acquisition accounting	(0.2)%	(0.2)%
Net impact of foreign currency	(1.3)%	(0.9)%
All other, including other inventory charges and other period expense	(0.3)%	(0.6)%
Gross profit - current year	71.3 %	71.1 %

The primary factor contributing to the increase in our gross profit margin for 2017 and 2016 as compared to the prior year periods was the positive impacts of cost reductions as a result of our process improvement programs and restructuring programs. Partially offsetting these factors was the net negative impact of foreign currency fluctuations and other inventory charges and period

expenses. In the first quarter of 2017, we recorded charges related to the voluntary removal of Lotus Valve Devices from global, commercial and clinical sites.

Operating Expenses

The following table provides a summary of certain of our operating expenses:

	Year Ended December 31,					
	2017		2016		2015	
(in millions)	$	% of Net Sales	$	% of Net Sales	$	% of Net Sales
Selling, general and administrative expenses	3,294	36.4%	3,099	37.0%	2,873	38.4%
Research and development expenses	997	11.0%	920	11.0%	876	11.7%
Royalty expense	68	0.8 %	79	0.9 %	70	0.9 %

Selling, General and Administrative (SG&A) Expenses

In 2017, our SG&A expenses increased $195 million, or six percent, as compared to 2016 and were 60 basis points lower as a percentage of net sales. This decrease in SG&A as a percentage of net sales was primarily driven by increased net sales, as well as the benefit of our targeted initiatives focused on reducing SG&A. In 2016, our SG&A expenses increased $226 million, or eight percent, as compared to 2015 and were 140 basis points lower as a percentage of net sales. This decrease in SG&A as a percentage of net sales was primarily driven by the benefit of our targeted initiatives focused on reducing SG&A, as well as the reduction in expenses resulting from the suspension of the Medical Device Excise Tax, which was substantially reinvested into our strategic growth initiatives. The Medical Device Excise Tax was temporarily suspended in December 2015 through December 31, 2017. In January 2018 another temporary two year suspension of the 2.3 percent excise tax was passed, extending the suspension to December 31, 2019.

Research and Development (R&D) Expenses

We remain committed to advancing medical technologies and investing in meaningful research and development projects across our businesses. In 2017, our R&D expenses increased $77 million, or eight percent, as compared to 2016, yet remained flat as a percentage of net sales at approximately 11.0 percent. In 2016, our R&D expenses increased $44 million, or five percent, as compared to 2015 and were 70 basis points lower as a percentage of net sales. The year-over-year increase in expenses was due primarily to investments across our businesses in order to maintain a pipeline of new products that we believe will contribute to profitable sales growth.

Royalty Expense

In 2017, our royalty expense decreased $11 million, or 14 percent, as compared to 2016. Our royalty expense remained relatively flat at approximately one percent of net sales for both periods. The decrease in royalty expense relates primarily to a renegotiated lower royalty rate structure on certain products.

In 2016, our royalty expense increased $9 million, or 13 percent, as compared to 2015 and remained relatively flat at approximately one percent of net sales for both periods. The increase in royalty expense was primarily due to increases in net sales of our drug-eluting stent systems in 2016.

Amortization Expense

Our amortization expense was $565 million in 2017, as compared to $545 million in 2016, an increase of $20 million or four percent. Amortization expense was $545 million in 2016, as compared to $495 million in 2015, an increase of

$50 million or 10 percent. The increases in each period were primarily due to amortizable intangible assets acquired as part of our recent acquisitions including the Symetis acquisition in 2017, the EndoChoice acquisition in 2016 and the AMS Portfolio Acquisition in 2015. Amortization expense is excluded by management for purposes of evaluating operating performance.

Intangible Asset Impairment Charges

In 2017, 2016 and 2015 we recorded immaterial intangible asset impairment charges, including impairments of in-process research and development in 2016 and 2015. Refer to Critical Accounting Estimates for a discussion of key assumptions used in our goodwill and intangible asset impairment testing and future events that could have a negative impact on the recoverability of our goodwill and amortizable intangible assets. Intangible asset impairment charges are excluded by management for purposes of evaluating operating performance.

Contingent Consideration Expense

We recorded a net benefit related to the change in fair value of our contingent consideration liabilities of $80 million in 2017, a net expense of $29 million in 2016 and a net expense of $123 million in 2015. Refer to Note B – Acquisitions and Strategic Investments to our consolidated financial statements contained in Item 8 of this Annual Report for additional details related to our contingent consideration arrangements. Contingent consideration expense is excluded by management for purposes of evaluating operating performance.

Restructuring-related Activities and Charges

The following table provides a summary of our restructuring and restructuring-related charges and cash payments:

	Year Ended December 31,		
(in millions)	2017	2016	2015
Total restructuring charges	$37	$28	$26
Total restructuring-related charges	$58	$50	$57
Total cash payments	$70	$82	$95

Restructuring and restructuring-related costs are excluded by management for purposes of evaluating operating performance.

The 2016 Restructuring Plan is expected to result in total pre-tax charges of approximately $275 million to $325 million and reduce gross annual expenses by approximately $165 million to $175 million by the end of 2020 as program benefits are realized. The 2014 Restructuring Plan resulted in total pre-tax charges of $261 million and is expected to continually reduce annual expenses by approximately $200 million. A substantial portion of these savings are being reinvested in strategic growth initiatives.

See Note G – Restructuring-related Activities to our consolidated financial statements included in Item 8 of this Annual Report for additional details on our restructuring plans.

Litigation-related Charges and Credits

We recorded litigation-related net charges in the amount of $285 million in 2017, $804 million in 2016 and $1.105 billion in 2015. The net charges recorded in 2017 and 2016 include amounts primarily related to transvaginal surgical mesh product liability cases and claims. The net charges recorded in 2015 include amounts primarily related to transvaginal surgical mesh product liability cases and claims and the charge related to the Mirowski Family Venture LLC (Mirowski) lawsuit following a jury verdict that Guidant Corporation (Guidant) breached their license agreement with Mirowski. Litigation related charges and credits are excluded by management for purposes of evaluating operating performance.

We continue to assess certain litigation and claims to determine the amounts, if any, that management believes will be paid as a result of such claims and litigation and, therefore, additional losses may be accrued and paid in the future, which could materially adversely impact our operating results, cash flows and/or our ability to comply with our debt covenants. Refer to Note J – Commitments and Contingencies to our consolidated financial statements contained in Item 8 of this Annual Report for additional discussion of our material legal proceedings.

Interest Expense

The following table provides a summary of our interest expense and average borrowing rate:

(in millions)	Year Ended December 31,		
	2017	2016	2015
Interest expense	$(229)	$(233)	$(284)
Average borrowing rate	3.8 %	4.0 %	5.2 %

Interest expense in 2015 included a pre-tax charge of approximately $45 million associated with debt extinguishment charges, representing premiums, accelerated amortization of debt issuance costs and investor discount costs net of interest rate hedge gains related to the early extinguishment of $1.000 billion of debt during the second quarter of 2015. Debt extinguishment charges are excluded by management for purposes of evaluating operating performance. Refer to Liquidity and Capital Resources in this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Note D – Hedging Activities and Fair Value Measurements and Note E – Borrowings and Credit Arrangements to our consolidated financial statements contained in Item 8. Financial Statements and Supplementary Data of this Annual Report for information regarding our debt obligations.

Other, net

The following are the components of Other, net:

(in millions)	Year Ended December 31,		
	2017	2016	2015
Interest income	$5	$5	$5
Net foreign currency gain (loss)	(15)	(13)	(21)
Net gain (loss) on investments	(92)	(21)	(9)
Other income (expense), net	(22)	(8)	(14)
Pension termination charges	—	—	(44)
	$(124)	$(37)	$(83)

In 2017, we recorded total charges of $56 million for an other-than-temporary impairment loss equal to the difference between the carrying value of one of our investments and their fair value. Certain impairment charges that are considered to be unusual or infrequent and significant are excluded by management for purposes of evaluating operating performance. Refer to Note B – Acquisitions and Strategic Investments to our consolidated financial statements contained in Item 8 of this Annual Report for information regarding our strategic investments.

We recorded pension termination charges of $44 million during 2015 associated with the termination of the Guidant Retirement Plan, a frozen defined benefit plan. In accordance with the adoption of ASC Update No. 2017-07, this charge was retrospectively reclassified from Operating expenses to Other, net on our consolidated statements of operations. Please refer to Note A – Significant Accounting Policies and Note P - New Accounting Pronouncements to our consolidated financial statements in Item 8. Financial Statements and Supplementary Data of this Annual Report for additional information. We do not expect to incur any additional charges in the future related to the termination of the Guidant Retirement Plan. Pension termination charges are excluded by management for purposes of evaluating operating performance.

Tax Rate

The following table provides a summary of our reported tax rate:

	Year Ended December 31,		
	2017	2016	2015
Reported tax rate	88.8 %	(95.9)%	63.2 %
Impact of certain receipts/charges*	(75.8)%	108.3 %	(53.5)%
	13.0 %	12.4 %	9.7 %

*These receipts/charges are taxed at different rates than our effective tax rate.

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The change in our reported tax rate for 2017, as compared to 2016 and 2015, relates primarily to the impact of certain receipts and charges that are taxed at different rates than our effective tax rate, including intangible asset impairment charges, acquisition-related items, restructuring and restructuring-related items, litigation-related items and certain investment impairments, as well as the impact of certain discrete tax items. Included in the discrete tax items during the year was the impact of the TCJA, enacted December 22, 2017 in the U.S.

In 2017, these receipts and charges included intangible asset impairment charges, acquisition-related items, restructuring and restructuring-related items, litigation-related items and certain investment impairments. Our reported tax rate for 2017 was also affected by discrete items primarily related to the TCJA.

In 2016, these receipts and charges included intangible asset impairment charges, acquisition-related items, restructuring and restructuring-related items and litigation-related items. Our reported tax rate for 2016 was also affected by discrete items primarily related to the resolution of various uncertain tax positions through settlement or expiration of statute, offset by a charge related to changes in state apportionment.

In 2015, these receipts and charges included intangible asset impairment charges, acquisition-related items, restructuring and restructuring-related items, litigation-related items, debt extinguishment charges and pension termination charges. Our reported tax rate for 2015 was also affected by discrete items primarily related to benefits due to settlement of various uncertain tax positions and reinstatement of certain tax legislation that has been retroactively applied.

We are contesting in U.S. Tax Court significant proposed adjustments from the Internal Revenue Service (IRS) related to its audit of our transfer pricing methodologies for the 2001 through 2007 tax years. The IRS also proposed similar transfer pricing adjustments for the 2008 through 2010 tax years. We disagree with the transfer pricing methodologies being applied by the IRS and we were scheduled to go to trial in the U.S. Tax Court in late July 2016. On July 19, 2016, we entered a Stipulation of Settled Issues with the IRS intended to resolve all of the aforementioned transfer pricing issues, as well as issues related to our transaction with Abbott Laboratories, for the 2001 through 2007 tax years. The Stipulation of Settled Issues is contingent upon the IRS Office of Appeals applying the same basis of settlement to all transfer pricing issues for the Company’s 2008, 2009 and 2010 tax years as well as review by the United States Congress Joint Committee on Taxation. In October 2016, we reached an agreement in principle with IRS Office of Appeals as to the resolution of the transfer pricing issues in 2008, 2009 and 2010 tax years, subject to additional calculations of tax as well as documentation to memorialize our agreement.

In the event that the conditions in the Stipulation of Settled Items are satisfied, we expect to make net tax payments of approximately $275 million, plus interest through the date of payment with respect to the settled issues. If finalized, payments related to the resolution are expected in the next six months. We believe that our income tax reserves associated with these matters are adequate as of December 31, 2017 and we do not expect to recognize any additional charges related to resolution of this controversy. However, the final resolution of these issues is contingent and if the Stipulation of Settled Issues is not finalized, it could have a material impact on our financial condition, results of operations, or cash flows.
See Note I - Income Taxes to our consolidated financial statements included in Item 8 of this Annual Report for additional details on our tax rate and our tax litigation.

Liquidity and Capital Resources

Based on our current business plan, we believe our existing balance of cash and cash equivalents, future cash generated from operations, access to capital markets and existing credit facilities will be sufficient to fund our operations, invest in our infrastructure, pay our legal-related liabilities, pay taxes due, fund possible mergers and/or acquisitions and service and repay our existing debt. Please refer to our Contractual Obligations and Commitments table for additional details on our future payment obligations and commitments.

As of December 31, 2017, we had $188 million of cash and cash equivalents on hand, comprised of $21 million invested in money market and government funds and $167 million in interest bearing and non-interest bearing bank accounts. We invest excess cash on hand in short-term financial instruments that earn market interest rates while mitigating principal risk through instrument and counterparty diversification, as well as what we believe to be prudent instrument selection. We limit our direct exposure to securities in any one industry or issuer. We also have full access to our $2.250 billion commercial paper program, which is backed by our 2017 revolving credit facility described below. As of December 31, 2017, we had $1.197 billion in commercial paper debt outstanding resulting in an additional $1.053 billion of available liquidity and $400 million of available borrowings under our credit and security facility secured by our U.S. trade receivables as of December 31, 2017, both described below.

The following provides a summary and description of our net cash inflows (outflows):

	Year Ended December 31,		
(in millions)	2017	2016	2015
Cash provided by (used for) operating activities	$1,426	$1,182	$691
Cash provided by (used for) investing activities	(1,010)	(887)	(2,186)
Cash provided by (used for) financing activities	110	(206)	1,276

Our cash generated from operations continues to be a significant source of funds for investing in our growth, including acquisitions and strategic alliances, managing our contingencies and reducing our debt levels.

Operating Activities

During 2017, we generated $1.426 billion of cash from operating activities, as compared to $1.182 billion in 2016, an increase of $244 million or 21 percent. This increase was primarily driven by the increase in operating profit for 2017 compared to 2016.

During 2016, we generated $1.182 billion of cash from operating activities, as compared to $691 million in 2015, an increase of $491 million, or 71 percent. This increase was primarily driven by the increase in operating profit for 2016 compared to 2015, partially offset by approximately $100 million increase in litigation-related payments, primarily associated with the transvaginal surgical mesh product liability cases and to Mirowski.

Investing Activities

During 2017, cash used for investing activities was $1.010 billion. Our investing activities primarily include $560 million of payments, net of cash acquired, for acquisitions including Symetis and Apama, $319 million of payments for purchases of property, plant and equipment, including amounts to complete our manufacturing plant in Malaysia and $131 million of payments related to strategic investments.

During 2016, cash used for investing activities was $887 million. Our investing activities primarily included $408 million of payments, net of cash acquired, for acquisitions including EndoChoice, $376 million in purchases of property, plant and equipment and $132 million of payments related to strategic investments, partially offset by proceeds from the sale of one of two buildings located in Quincy, Massachusetts for $29 million.

During 2015, cash used for investing activities was $2.186 billion. Our investing activities included $1.734 billion of payments net of cash acquired, for acquisitions, primarily related to the AMS Portfolio Acquisition and CeloNova, along with $266 million of payments related to strategic investments. Cash used for investing activities also included purchases of property, plant and equipment of $247 million.

Financing Activities

Our cash flows from financing activities reflect issuances and repayments of debt, including our new commercial paper program and cash used to new share settle and stock issuances related to our equity incentive programs, as discussed in Note K - Stockholders' Equity to our consolidated financial statements included in Item 8 of this Annual Report. Additionally, our financing activities included $33 million of contingent payments in 2017, $65 million of payments in 2016 and $156 million of payments in 2015 associated with our previous acquisitions.

Our liquidity plans are subject to a number of risks and uncertainties, including those described in Item 1A. Risk Factors of this Annual Report, some of which are outside our control. Macroeconomic conditions, adverse litigation outcomes and other risk and uncertainties could limit our ability to successfully execute our business plans and adversely affect our liquidity plans.

Debt

We had total debt of $5.616 billion as of December 31, 2017 and $5.484 billion as of December 31, 2016. The debt maturity schedule for the significant components of our long-term debt obligations is presented below:

in millions, except interest rates	Issuance Date	Maturity Date	As of December 31, 2017	2016	Semi-annual Coupon Rate	
January 2017 Notes	November 2004	January 2017	$—	$250	5.125	%
August 2018 Term Loan	August 2013	August 2018	—	150		
October 2018 Notes	August 2013	October 2018	*	600	2.650	%
January 2020 Notes	December 2009	January 2020	850	850	6.000	%
May 2020 Notes	May 2015	May 2020	600	600	2.850	%
August 2020 Term Loan	August 2015	August 2020	—	600		
May 2022 Notes	May 2015	May 2022	500	500	3.375	%
October 2023 Notes	August 2013	October 2023	450	450	4.125	%
May 2025 Notes	May 2015	May 2025	750	750	3.850	%
November 2035 Notes	November 2005	November 2035	350	350	7.000	%
January 2040 Notes	December 2009	January 2040	300	300	7.375	%
Unamortized Debt Issuance Discount		2018 - 2040	(6)	(8)		
Unamortized Deferred Financing Costs		2018 - 2040	(18)	(24)		
Unamortized Gain on Fair Value Hedges		2020-2025	38	51		
Capital Lease Obligation		Various	1	1		
Long-term debt			$3,815	$5,420		

*As of December 31, 2017, the $600 million under the October 2018 Notes is outstanding and classified as short-term debt.

Note: The table above does not include unamortized amounts related to interest rate contracts designated as cash flow hedges.

Revolving Credit Facility

On August 4, 2017, we entered into a $2.250 billion revolving credit facility (the 2017 Facility) with a global syndicate of commercial banks and terminated our previous $2.000 billion revolving credit facility (the 2015 Facility), which was scheduled to mature in April 2020. The 2017 Facility will mature on August 4, 2022. Eurodollar and multicurrency loans under the 2017 Facility bear interest at LIBOR plus an interest margin of between 0.90 percent and 1.50 percent, based on our corporate credit ratings (1.10 percent as of December 31, 2017). Under the credit agreement for the 2017 Facility (the 2017 Credit Agreement), we are required to pay a facility fee (0.15 percent as of December 31, 2017) based on our credit ratings and the total amount of revolving credit commitment, regardless of usage of the 2017 Facility. This facility provides backing for the commercial paper program described below. There were no amounts borrowed under our current or prior revolving credit facilities as of December 31, 2017 or December 31, 2016.

The 2017 Credit Agreement requires that we maintain certain financial covenants, as follows:

	Covenant Requirement as of December 31, 2017	Actual as of December 31, 2017
Maximum leverage ratio (1)	3.5 times	2.2 times

(1) Ratio of total debt to consolidated EBITDA, as defined by the credit agreement, for the preceding four consecutive fiscal quarters.

The 2017 Credit Agreement provides for an exclusion from the calculation of consolidated EBITDA, as defined by the agreement, through maturity, of any non-cash charges and up to $500 million in restructuring charges and

restructuring-related expenses related to our current or future restructuring plans. As of December 31, 2017, we had $444 million of the restructuring charge exclusion remaining. In addition, any cash litigation payments (net of any cash litigation receipts), as defined by the 2017 Credit Agreement, are excluded from the calculation of consolidated EBITDA, as defined in the 2017 Credit Agreement, provided that the sum of any excluded net cash litigation payments do not exceed $2.624 billion in the aggregate. As of December 31, 2017, we had approximately $1.839 billion of the legal exclusion remaining.

Any inability to maintain compliance with these covenants could require us to seek to renegotiate the terms of our credit facility or seek waivers from compliance with these covenants, both of which could result in additional borrowing costs. Further, there can be no assurance that our lenders would agree to such new terms or grant such waivers on terms acceptable to us. In this case, all credit facility commitments would terminate and any amounts borrowed under the facility would become immediately due and payable. Furthermore, any termination of our credit facility may negatively impact the credit ratings assigned to our commercial paper program which may impact our ability to refinance any then outstanding commercial paper as it becomes due and payable.

Commercial Paper

In June 2017, we launched a commercial paper program that allowed the Company to have a maximum of $2.000 billion in commercial paper outstanding. In August 2017, we increased our commercial paper program's maximum to $2.250 billion, in line with the increased size of the 2017 Facility. Outstanding commercial paper directly reduces borrowing capacity available under the 2017 Facility. As of December 31, 2017 there was $1.197 billion of commercial paper outstanding. The commercial paper program is backed by the 2017 Facility. Commercial paper issued as of December 31, 2017 had a weighted average maturity of 38 days and a weighted average yield of 1.85 percent.

Term Loans

As of December 31, 2016, we had $750 million outstanding under our unsecured term loan facilities. These facilities included an unsecured term loan for $150 million maturing August 2018 (2018 Term Loan) and an unsecured term loan facility for $600 million maturing August 2020 (2020 Term Loan). Both of these term loan facilities were fully repaid in 2017.

Senior Notes

We had senior notes outstanding of $4.400 billion as of December 31, 2017 and $4.650 billion as of December 31, 2016. On January 12, 2017, we used our existing credit facilities to repay the $250 million plus interest of our senior notes due in January 2017.

Our senior notes were issued in public offerings, are redeemable prior to maturity and are not subject to sinking fund requirements. Our senior notes are unsecured, unsubordinated obligations and rank on parity with each other. These notes are effectively junior to borrowings under our credit and security facility, to the extent if borrowed by our subsidiaries and to liabilities of our subsidiaries (see Other Arrangements below).

Our $4.050 billion of senior notes issued in 2009, 2013 and 2015 contain a change-in-control provision, which provides that each holder of the senior notes may require us to repurchase all or a portion of the notes at a price equal to 101 percent of the aggregate repurchased principal, plus accrued and unpaid interest, if a rating event, as defined in the indenture, occurs as a result of a change-in-control, as defined in the indenture. Any other credit rating changes may impact our borrowing cost, but do not require us to repay any borrowings.

The interest rate payable on our November 2035 Notes is currently 7.00 percent. Corporate credit rating improvements may result in a decrease in the adjusted interest rate on our November 2035 Notes to the extent that our lowest credit rating is above BBB- or Baa3. The interest rates on our November 2035 Notes will be permanently reinstated to the issuance rate if the lowest credit ratings assigned to these senior notes is either A- or A3 or higher.

Other Arrangements

As of December 31, 2016, we maintained a $300 million credit and security facility secured by our U.S. trade receivables maturing on June 9, 2017. In February 2017, we amended the terms of this credit and security facility, including increasing the facility size to $400 million and extending the facility maturity date to February 2019. We had no amounts outstanding under this facility as of December 31, 2017 and $60 million outstanding under our credit and security facility as of December 31, 2016. The credit and security facilities requires that we maintain a maximum leverage covenant consistent with our revolving credit facility.

We have accounts receivable factoring programs in certain European countries that we account for as sales under FASB ASC Topic 860, Transfers and Servicing. These agreements provide for the sale of accounts receivable to third parties, without recourse, of up to approximately $456 million as of December 31, 2017. We have no retained interests in the transferred receivables, other than collection and administrative responsibilities and, once sold, the accounts receivable are no longer available to satisfy creditors in the event of bankruptcy. We de-recognized $171 million of receivables as of December 31, 2017 at an average interest rate of 1.8 percent and $152 million as of December 31, 2016 at an average interest rate of 1.8 percent.

In addition, we have uncommitted credit facilities with a commercial Japanese bank that provide for borrowings, promissory notes discounting and receivables factoring of up to 22.000 billion Japanese yen (approximately $195 million as of December 31, 2017). We de-recognized $157 million of notes receivable as of December 31, 2017 at an average interest rate of 1.3 percent and $149 million of notes receivable as of December 31, 2016 at an average interest rate of 1.6 percent. De-recognized accounts and notes receivable are excluded from trade accounts receivable, net in the accompanying consolidated balance sheets.

We had outstanding letters of credit of $49 million as of December 31, 2017 and $44 million as of December 31, 2016, which consisted primarily of bank guarantees and collateral for workers' compensation insurance arrangements. As of December 31, 2017 and 2016, none of the beneficiaries had drawn upon the letters of credit or guarantees, accordingly, we have not recognized a related liability for our outstanding letters of credit in our consolidated balance sheets as of December 31, 2017 or 2016.

For additional details related to our debt, including our revolving credit facility, term loans, senior notes and other arrangements, see Note E – Borrowings and Credit Arrangements to our consolidated financial statements included in Item 8 of this Annual Report.

As of and through December 31, 2017, we were in compliance with all the required covenants related to our debt obligations.

Equity

During 2017 we received $85 million in proceeds from stock issuances related to our stock option and employee stock purchase plans, as compared to $111 million in 2016 and $114 million 2015. Proceeds from the exercise of employee stock options and employee stock purchases vary from period to period based upon, among other factors, fluctuations in the trading price of our common stock and in the exercise and stock purchase patterns of employees.

We did not repurchase any shares of our common stock during 2017, 2016, or 2015. As of December 31, 2017, we had remaining approximately $535 million authorized under our 2013 share repurchase program. There were approximately 248 million shares in treasury as of December 31, 2017 and December 31, 2016.

Stock-based compensation expense related to our stock ownership plans was $127 million in 2017, $116 million in 2016 and $107 million in 2015. Stock-based compensation expense varies from period to period based upon, among other factors: the timing, number and fair value of awards granted during the period; forfeiture levels related to unvested awards; and employee contributions to our employee stock purchase plan.

Contractual Obligations and Commitments

The following table provides a summary of certain information concerning our obligations and commitments to make future payments and is based on conditions in existence as of December 31, 2017:

(in millions)	2018	2019	2020	2021	2022	Thereafter	Total
Long-term debt obligations	$600	$—	$1,450	$—	$500	$ 1,850	$4,400
Interest payments (1)	195	179	145	111	103	796	1,529
Lease obligations (1)	72	52	40	33	28	93	317
Purchase obligations (1)	262	26	15	13	5	6	327
Minimum royalty obligations (1)	3	5	1	1	1	—	10
Legal reserves	1,176	—	—	—	—	—	1,176
One-time transition tax	22	38	38	38	38	287	463
Unrecognized tax benefits (2)	647	—	—	—	—	—	647
	$2,977	$300	$1,689	$196	$675	$ 3,032	$8,869

(1) In accordance with U.S. GAAP, these obligations relate to expenses associated with future periods and are not reflected in our consolidated balance sheets.

(2) Includes accrued interest and penalties and other related items.

The amounts in the table above with respect to lease obligations represent amounts pursuant to contractual arrangements for the lease of property, plant and equipment used in the normal course of business. Purchase obligations relate primarily to non-cancellable inventory commitments and capital expenditures entered in the normal

course of business. Royalty obligations reported above represent minimum contractual obligations under our current royalty agreements.

The table above does not reflect our long-term liability for legal matters that are probable and estimable of $436 million due to the timing of payment being uncertain. Refer to Note J – Commitments and Contingencies to our consolidated financial statements included in Item 8 of this Annual Report for more information on our legal accrual. In addition, the table above does not include $835 million of unrecognized tax benefits, accrued interest and penalties and other related items, because the timing of their future cash settlement is uncertain. Refer to Note I - Income Taxes to our consolidated financial statements included in Item 8 of this Annual Report for more information on these unrecognized tax benefits.

On January 24, 2018, we closed an investment and entered into an acquisition option agreement with Millipede, Inc. (Millipede). Under the terms of the agreements, we have purchased a portion of the outstanding shares of Millipede along with newly issued shares of the company. We also have the option to acquire the remaining shares of Millipede at any time prior to the completion of a first in human clinical study that meets certain parameters. Upon the completion of the clinical study, Millipede has the option to compel us to acquire the remaining shares of the company. Each company's option period expires by the end of 2019. Completion of this acquisition would result in an additional $325 million payment by us at closing with a further $125 million becoming payable upon achievement of a commercial milestone. Refer to Note B – Acquisitions and Strategic Investments to our consolidated financial statements included in Item 8 of this Annual Report for more information.

On November 1, 2017, we entered into a definitive agreement with an investee company where we may be obligated to pay $145 million in cash up-front and a maximum of $130 million in contingent payments to acquire the investee. The agreement contains a provision, expiring October 31, 2019, allowing the investee company to sell the remaining equity interests of the investee company to us upon achievement of a regulatory milestone and an option allowing us to acquire the remaining equity interests. Refer to Note B – Acquisitions and Strategic Investments to our consolidated financial statements included in Item 8 of this Annual Report for more information.

With certain of our acquisitions, we acquired in-process research and development projects that require future funding to complete the projects. The primary basis for determining the technological feasibility or completion of these projects is obtaining regulatory approval to market the underlying products in an applicable geographic region. We estimate that the total remaining R&D cost to complete acquired in-process research and development projects is between $45 million and $55 million. Net cash inflows from the projects currently in development are expected to commence in 2018 and will continue through 2031, following the respective launches of these technologies in the U.S., Europe and Japan. Certain of our acquisitions also involve the potential payment of contingent consideration. The table above does not reflect any such obligations, as the timing and amounts are uncertain. See Note B – Acquisitions and Strategic Investments to our consolidated financial statements included in Item 8 of this Annual Report for the estimated maximum potential amount of future contingent consideration we could be required to pay associated with prior acquisitions and the fair value of our contingent consideration liabilities as of December 31, 2017.

Legal Matters

For a discussion of our material legal proceedings see Note J – Commitments and Contingencies to our consolidated financial statements included in Item 8 of this Annual Report.

Critical Accounting Policies and Estimates

Our financial results are affected by the selection and application of accounting policies and methods. We have adopted accounting policies to prepare our consolidated financial statements in conformity with U.S. GAAP.

To prepare our consolidated financial statements in accordance with U.S. GAAP, management makes estimates and assumptions that may affect the reported amounts of our assets and liabilities, the disclosure of contingent liabilities as of the date of our financial statements and the reported amounts of our revenues and expenses during the reporting period. Our actual results may differ from these estimates. We consider estimates to be critical if (i) we are required to make assumptions about material matters that are uncertain at the time of estimation or if (ii) materially different estimates could have been made or it is reasonably likely that the accounting estimate will change from period to period. The following are areas considered to be critical and require management's judgment: Revenue Recognition,

Bad Debt Reserves, Inventory Provisions, Valuation of Intangible Assets and Contingent Consideration Liabilities, Goodwill Valuation, Legal and Product Liability Accruals and Income Taxes.

See Note A – Significant Accounting Policies to our consolidated financial statements included in Item 8 of this Annual Report for additional information related to our accounting policies and our consideration of these critical accounting areas. In addition, see Note B – Acquisitions and Strategic Investments and Note C - Goodwill and Other Intangible Assets for further discussion on the valuation of goodwill and intangible assets and contingent consideration; Note I - Income Taxes for further discussion on income tax related matters and Note J – Commitments and Contingencies for further discussion on legal and product liability matters.

Revenue Recognition

We generally allow our customers to return defective, damaged and, in certain cases, expired products for credit. We base our estimate for sales returns upon historical trends and record these amounts as a reduction of revenue when we sell the initial product. In addition, we may allow customers to return previously purchased products for next-generation product offerings. For these transactions, we defer recognition of revenue on the sale of the earlier generation product based upon an estimate of the amount to be returned when the next-generation products are shipped to the customer. Uncertain timing of next-generation product approvals, variability in product launch strategies, product recalls and variation in product utilization all affect our estimates related to sales returns and could cause actual returns to differ from these estimates.

Many of our CRM product offerings combine the sale of a device with our LATITUDE™ Patient Management System, which represents a future service obligation. For revenue arrangements with multiple deliverables, where the sale of a device is combined with a future service obligation, we defer revenue on the undelivered element and recognize this revenue over the related service period. Generally, we do not have vendor specific objective evidence of selling price available related to our future service obligations; therefore, we determine our estimates of selling price using third party evidence when available; otherwise, we use our best estimate of selling price. We allocate arrangement consideration using the relative selling price method. The use of alternative estimates of fair value could result in a different amount of revenue deferral.

Inventory Provisions

We base our provisions for excess, expired and obsolete inventory primarily 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 provisions for excess, expired and obsolete inventory in the future. Further, the industry in which we participate 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 and variation in product utilization all affect our estimates related to excess, expired and obsolete inventory.

Valuation of Intangible Assets and Contingent Consideration Liabilities

We base the fair value of identifiable intangible assets acquired in a business combination, including in-process research and development, on detailed valuations that use information and assumptions provided by management, which consider management’s best estimates of inputs and assumptions that a market participant would use. Further, for those arrangements that involve potential future contingent consideration, we record on the date of acquisition a liability equal to the fair value of the estimated additional consideration we may be obligated to make in the future. We re-measure this liability each reporting period and record changes in the fair value through a separate line item within our consolidated statements of operations. Increases or decreases in the fair value of the contingent consideration liability can result from changes in discount periods and rates, as well as changes in the timing and amount of revenue estimates or in the timing or likelihood of achieving regulatory, revenue or commercialization-based milestones. The use of alternative valuation assumptions, including estimated revenue projections; growth rates; cash flows and discount rates and alternative estimated useful life assumptions, or probabilities surrounding the achievement of clinical, regulatory or revenue-based milestones could result in different purchase price allocations, amortization expense and contingent consideration expense in current and future periods. We review intangible assets subject to amortization quarterly to determine if any adverse conditions exist or a change in circumstances has occurred that would indicate impairment or a change in the remaining useful life. If an impairment indicator exists, we test the intangible asset for recoverability. If the carrying value of the intangible asset is not recoverable, we will write the carrying value down to fair value in the period identified. We calculate fair value of our intangible assets as the present value of estimated future cash flows we expect to generate from the asset using a risk-adjusted discount rate. The use of alternative assumptions, including estimated cash flows, discount rates and alternative estimated remaining useful lives could result in different calculations of impairment. In addition, we test our indefinite-lived intangible assets at least annually for impairment and reassess their classification as indefinite-lived assets, or more frequently if change in circumstance or indicators exist. We assess qualitative factors to determine whether the existence of events and circumstances indicate that it is more likely than not that our indefinite-lived intangible assets are impaired. If we conclude that it is more likely than not that the asset is impaired,

we then determine the fair value of the intangible asset and perform the quantitative impairment test by comparing the fair value with the carrying value in accordance with FASB ASC Topic 350, Intangibles - Goodwill and Other (FASB ASC Topic 350). If the carrying value exceeds the fair value of the indefinite-lived intangible asset, we write the carrying value down to the fair value.

Goodwill Valuation

We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination to goodwill. We test our goodwill balances during the second quarter of each year for impairment, or more frequently

if indicators are present or changes in circumstances suggest that impairment may exist. We assess goodwill for impairment at the reporting unit level, which is defined as an operating segment or one level below an operating segment, referred to as a component. For our 2017, 2016 and 2015 annual impairment assessment, we identified seven reporting units: Interventional Cardiology, Peripheral Interventions, Cardiac Rhythm Management, Electrophysiology, Endoscopy, Urology and Pelvic Health and Neuromodulation. Beginning in 2016, we aggregated the Cardiac Rhythm Management and Electrophysiology reporting units, components of the Rhythm Management operating segment, based on the criteria prescribed in FASB ASC Topic 350. These reporting units were aggregated due to a reorganization that commenced in 2015 that resulted in integrated leadership, shared resources and consolidation of certain sites in 2016.

In performing the goodwill impairment assessment for 2017 and 2016, we utilized both the optional qualitative assessment and the quantitative approach prescribed under FASB ASC Topic 350. Beginning in 2016, the qualitative assessment was used for testing certain reporting units where fair value has historically exceeded carrying value by greater than 100 percent. All other reporting units were tested using the quantitative approach described below. The qualitative assessment requires an evaluation of whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount based on an assessment of relevant events including macroeconomic factors, industry and market conditions, cost factors, overall financial performance and other entity-specific factors. After assessing the totality of events, if it is determined that it is not more likely than not that the fair value of the reporting unit is less than its carrying value, the quantitative approach of the goodwill impairment test is unnecessary. If it is determined that impairment is more likely than not, then we perform the quantitative impairment test. In 2017, we selected our Rhythm Management operating segment and our Neuromodulation reporting unit for quantitative testing, while the remaining reporting units were qualitatively assessed. For all reporting units tested using the optional qualitative assessment, we concluded that it was not necessary to perform the quantitative impairment test as it is not more-likely-than-not such reporting units were impaired. For the two reporting units tested using the quantitative approach, we concluded that the fair value of each reporting unit exceeded its carrying value.

For our 2017, 2016 and 2015 annual impairment assessments, for those reporting units for which a quantitative test was performed, we used only the income approach, specifically the Discounted Cash Flow (DCF) method, to derive the fair value of each of our reporting units in preparing our goodwill impairment assessments. This approach calculates fair value by estimating the after-tax cash flows attributable to a reporting unit and then discounting these after-tax cash flows to a present value using a risk-adjusted discount rate. We selected this method as being the most meaningful in preparing our goodwill assessments because we believe the income approach most appropriately measures our income producing assets. We have considered using the market approach and cost approach but concluded they are not appropriate in valuing our reporting units given the lack of relevant market comparisons available for application of the market approach and the inability to replicate the value of the specific technology-based assets within our reporting units for application of the cost approach. Therefore, we believe that the income approach represents the most appropriate valuation technique for which sufficient data are available to determine the fair value of our reporting units.

In applying the income approach to our accounting for goodwill, we make assumptions about the amount and timing of future expected cash flows, terminal value growth rates and appropriate discount rates. The amount and timing of future cash flows within our DCF analysis is based on our most recent operational budgets, long range strategic plans and other estimates. The terminal value growth rate is used to calculate the value of cash flows beyond the last projected period in our DCF analysis and reflects our best estimates for stable, perpetual growth of our reporting units. We use estimates of market-participant risk-adjusted weighted average cost of capital (WACC) as a basis for determining the discount rates to apply to our reporting units' future expected cash flows.

Although we use consistent methodologies in developing the assumptions and estimates underlying the fair value calculations used in our impairment tests, these estimates are uncertain by nature and can vary from actual results. The use of alternative valuation assumptions, including estimated revenue projections, growth rates, cash flows and

discount rates could result in different fair value estimates.

Future events that could have a negative impact on the levels of excess fair value over carrying value of our reporting units include, but are not limited to:

- decreases in estimated market sizes or market growth rates due to greater-than-expected declines in procedural volumes, pricing pressures, reductions in reimbursement levels, product actions and/or competitive technology developments,

- declines in our market share and penetration assumptions due to increased competition, an inability to develop or launch new and next-generation products and technology features in line with our commercialization strategies and market and/or regulatory conditions that may cause significant launch delays or product recalls,

- decreases in our forecasted profitability due to an inability to implement successfully and achieve timely and sustainable cost improvement measures consistent with our expectations,

- negative developments in intellectual property litigation that may impact our ability to market certain products or increase our costs to sell certain products,

- the level of success of ongoing and future research and development efforts, including those related to recent acquisitions and increases in the research and development costs necessary to obtain regulatory approvals and launch new products,

- the level of success in managing the growth of acquired companies, achieving sustained profitability consistent with our expectations, establishing government and third-party payer reimbursement, supplying the market and increases in the costs and time necessary to integrate acquired businesses into our operations successfully,

- changes in our reporting units or in the structure of our business as a result of future reorganizations, acquisitions or divestitures of assets or businesses and

- increases in our market-participant risk-adjusted WACC and increases in our market-participant tax rate and/or changes in tax laws or macroeconomic conditions.

Negative changes in one or more of these factors, among others, could result in impairment charges.

Refer to Note C - Goodwill and Other Intangible Assets to our consolidated financial statements contained in Item 8. Financial Statements and Supplementary Data of this Annual Report for additional details related to our annual goodwill balances.

Legal and Product Liability Accruals

In the normal course of business, we are involved in various legal and regulatory proceedings, including intellectual property, breach of contract, securities litigation and product liability suits. In some cases, the claimants seek damages, as well as other relief, which, if granted, could require significant expenditures or impact our ability to sell our products. We accrue anticipated costs of settlement, damages, losses for product liability claims and, under certain conditions, costs of defense, based on historical experience or to the extent specific losses are probable and estimable. Otherwise, we expense these costs as incurred. If the estimate of a probable loss is a range and no amount within the range is more likely, we accrue the minimum amount of the range. Litigation and product liability matters are inherently uncertain and the outcomes of individual matters are difficult to predict and quantify. As such, significant judgment is required in determining our legal and product liability accruals. Our estimates related to our legal and product liability accruals may change as additional information becomes available to us, including information related to the nature or existence of claims against us; trial court or appellate proceedings; and mediation, arbitration or settlement proceedings.

Income Taxes

We establish reserves when we believe that certain positions are likely to be challenged despite our assertion that our tax return positions are fully supportable. The calculation of our tax liabilities involves significant judgment based on individual facts, circumstances and information available in addition to applying complex tax regulations in various jurisdictions across our global operations. Under U.S. GAAP, in order to recognize an uncertain tax benefit, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the benefit. Although we believe that we have adequately provided for liabilities resulting from tax assessments by taxing authorities, positions taken by these tax authorities could have a material impact on our effective tax rate, consolidated earnings, financial position and/or cash flows.

New Accounting Pronouncements

See Note P - New Accounting Pronouncements to our consolidated financial statements included in Item 8 of this Annual Report for additional information on Standards Implemented since December 31, 2016 and Standards to be Implemented.

Additional Information
Use of Non-GAAP Financial Measures

To supplement our consolidated financial statements presented on a GAAP basis, we disclose certain non-GAAP financial measures, including adjusted net income (earnings) and adjusted net income (earnings) per share that exclude certain amounts and operational net sales that exclude the impact of changes in foreign currency exchange rates. These non-GAAP financial measures are not in accordance with generally accepted accounting principles in the United States and should not be considered in isolation from or as a replacement for the most directly comparable GAAP financial measures. Further, other companies may calculate these non-GAAP financial measures differently than we do, which may limit the usefulness of those measures for comparative purposes.

To calculate adjusted net income (earnings) and adjusted net income (earnings) per share we exclude certain charges (credits) from GAAP net income as detailed below. The GAAP financial measure most directly comparable to adjusted net income is GAAP net income (loss) and the GAAP financial measure most directly comparable to adjusted net income per share is GAAP net income (loss) per share. To calculate operational net sales that exclude changes in foreign currency exchange rates, we convert actual net sales from local currency to U.S. dollars using constant foreign currency exchange rates in the current and prior period. The GAAP financial measure most directly comparable to operational growth rate percentages is growth rate percentages using net sales on a GAAP basis. Reconciliations of each of these non-GAAP financial measures to the corresponding GAAP financial measure are included in the relevant sections of this Annual Report.

Management uses these supplemental non-GAAP financial measures to evaluate performance period over period, to analyze the underlying trends in our business, to assess our performance relative to our competitors and to establish operational goals and forecasts that are used in allocating resources. In addition, management uses these non-GAAP financial measures to further its understanding of the performance of our operating segments. The adjustments excluded from our non-GAAP financial measures are consistent with those excluded from our operating segments' measures of net sales and profit or loss. These adjustments are excluded from the segment measures that are reported to our chief operating decision maker that are used to make operating decisions and assess performance.

We believe that presenting adjusted net income, adjusted net income per share that exclude certain amounts, and operational net sales that exclude the impact of changes in foreign currency exchange rates, in addition to the corresponding GAAP financial measures, provides investors greater transparency to the information used by management for its operational decision-making and allows investors to see our results "through the eyes" of management. We further believe that providing this information assists our investors in understanding our operating performance and the methodology used by management to evaluate and measure such performance.

The following is an explanation of each of the adjustments that management excluded as part of these non-GAAP financial measures as well as reasons for excluding each of these individual items:

Adjusted Net Income and Adjusted Net Income per Share

- Amortization expense - We record intangible assets at historical cost and amortize them over their estimated useful lives. Amortization expense is excluded from management's assessment of operating performance and is also excluded from our operating segments' measures of profit and loss used for making operating decisions and assessing performance. Accordingly, management has excluded amortization expense for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Intangible asset impairment charges - This amount represents write-downs of certain intangible asset balances during 2017, 2016 and 2015.We review intangible assets subject to amortization quarterly to determine if any adverse

conditions exist or a change in circumstances has occurred that would indicate impairment and test our indefinite-lived intangible assets at least annually for impairment. If we determine the carrying value of the amortizable intangible asset is not recoverable or we conclude that it is more likely than not that the indefinite-live asset is impaired, we will write the carrying value down to fair value in the period identified. We exclude the impact of impairment charges from management's assessment of operating performance and from our operating segments' measures of profit and loss used for making operating decisions and assessing performance. Accordingly, management has excluded intangible asset impairment charges for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Acquisition-related net charges (credits) - These adjustments may consist of (a) contingent consideration fair value adjustments, (b) gains on previously held investments, (c) purchased and/or funded in-process research and development expenses incurred outside of a business combination and (d) due diligence, other fees, inventory step-up amortization and integration and exit costs. The contingent consideration adjustments represent accounting adjustments to state contingent consideration liabilities at their estimated fair value. These adjustments can be highly variable depending on the assessed likelihood and amount of future contingent consideration payments. Due diligence, other fees, inventory step-up amortization and integration and exit costs include legal, tax, severance and other expenses associated with prior and potential future acquisitions that can be highly variable and not representative of ongoing operations. Accordingly, management excluded these amounts for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Restructuring and restructuring-related net charges (credits) - These adjustments represent severance and other direct costs associated with our restructuring plans. These restructuring plans each consist of distinct initiatives that are fundamentally different from our ongoing, core cost reduction initiatives in terms of, among other things, the frequency with which each action is performed and the required planning, resourcing, cost and timing. Examples of such initiatives include the movement of business activities, facility consolidations and closures and the transfer of product lines between manufacturing facilities, which, due to the highly regulated nature of our industry, requires a significant investment in time and cost to create duplicate manufacturing lines, run product validations and seek regulatory approvals. Restructuring initiatives generally take approximately two years to complete and have a distinct project timeline that begins subsequent to approval by our Board of Directors. In contrast to our ongoing cost reduction initiatives, restructuring initiatives typically result in duplicative cost and exit costs over this period of time, are one-time shut downs or transfers and are not considered part of our core, ongoing operations. Because these restructuring plans are incremental to the core activities that arise in the ordinary course of our business, management excluded these costs for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Litigation-related net charges (credits) - These adjustments include certain significant product liability and other litigation-related charges and credits. We record these charges and credits, which we consider to be unusual or infrequent and significant, within the litigation-related charges line in our consolidated statements of operations; all other legal and product liability charges, credits and costs are recorded within selling general and administrative expenses. These amounts are excluded by management in assessing our operating performance, as well as from our operating segments' measures of profit and loss used for making operating decisions and assessing performance. Accordingly, management excluded these amounts for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Investment impairment charges - These amounts represent write-downs relating to our investment portfolio that are considered unusual or infrequent and significant. Each reporting period, we evaluate our investments to determine if there are any events or circumstances that are likely to have a significant adverse effect on the fair value of the investment. If we identify an impairment indicator, we will estimate the fair value of the investment and compare it to its carrying value and determine if the impairment is other-than-temporary. For other-than-temporary impairments, we recognize an impairment loss equal to the difference between an investment’s carrying value and its fair value. Management excludes the impact of certain impairment charges when assessing operating performance, as well as from our operating segments’ measures of profit and loss used for making operating decisions and assessing performance. Accordingly, management excluded these investment impairment charges for purposes of calculating its non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

- Tax Cuts and Jobs Act (TCJA) net charge - These items represent adjustments of certain tax positions as a result of the TCJA, enacted in December 2017. These adjustments, which are estimates, are not indicative of expected

on-going operating results. We exclude the impact of this charge from management's assessment of operating performance and from our operating segments' measures of profit and loss used for making operating decisions and assessing performance. Accordingly, management excluded these amounts for the purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

Operational Net Sales Excluding the Impact of Changes in Foreign Currency Exchange Rates

- The impact of changes in foreign currency exchange rates is highly variable and difficult to predict. Accordingly, management may exclude the impact of changes in foreign currency exchange rates for purposes of reviewing the net

sales and growth rates to facilitate an evaluation of our current operating performance and a comparison to our past operating performance.

Rule 10b5-1 Trading Plans by Executive Officers

Periodically, certain of our executive officers adopt written stock trading plans in accordance with Rule 10b5-1 under the Exchange Act and our own Stock Trading Policy. A Rule 10b5-1 Trading Plan is a written document that pre-establishes the amount, prices and dates (or formulas for determining the amounts, prices and dates) of future purchases or sales of our stock, including shares issued upon exercise of stock options or vesting of deferred stock units. These plans are entered into at a time when the person is not in possession of material non-public information about our company. We disclose details regarding individual Rule 10b5-1 Trading Plans on the Investor Relations section of our website.

Management's Annual Report on Internal Control over Financial Reporting

As the management of Boston Scientific Corporation, we are responsible for establishing and maintaining adequate internal control over financial reporting. We designed our internal control process to provide reasonable assurance to management and the Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

We assessed the effectiveness of our internal control over financial reporting as of December 31, 2017. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control–Integrated Framework (2013 framework). Based on our assessment, we believe that, as of December 31, 2017, our internal control over financial reporting is effective at a reasonable assurance level based on these criteria.

Ernst & Young LLP, an independent registered public accounting firm, has issued an audit report on the effectiveness of our internal control over financial reporting. This report in which they expressed an unqualified opinion is included below.

/s/ Michael F. Mahoney	/s/ Daniel J. Brennan
Michael F. Mahoney	Daniel J. Brennan
President and Chief Executive Officer	Executive Vice President and Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Boston Scientific Corporation

Opinion on Internal Control over Financial Reporting

We have audited Boston Scientific Corporation's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Boston Scientific Corporation (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2017 consolidated financial statements of the Company and our report dated February 20, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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/ Ernst & Young LLP

Boston, Massachusetts

February 20, 2018

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We develop, manufacture and sell medical devices globally and our earnings and cash flows are exposed to market risk from changes in currency exchange rates and interest rates. We address these risks through a risk management program that includes the use of derivative financial instruments. We operate the program pursuant to documented corporate risk management policies. We do not enter derivative transactions for speculative purposes. Gains and losses on derivative financial instruments substantially offset losses and gains on underlying hedged exposures. Furthermore, we manage our exposure to counterparty risk on derivative instruments by entering into contracts with a diversified group of major financial institutions and by actively monitoring outstanding positions.

Our currency risk consists primarily of foreign currency denominated firm commitments, forecasted foreign currency denominated intercompany and third-party transactions and net investments in certain subsidiaries. We use both nonderivative (primarily European manufacturing operations) and derivative instruments to manage our earnings and cash flow exposure to changes in currency exchange rates. We had currency derivative instruments outstanding in the contract amount of $5.923 billion as of December 31, 2017 and $4.101 billion as of December 31, 2016. A ten percent appreciation in the U.S. dollar’s value relative to the hedged currencies would increase the derivative instruments’ fair value by $321 million as of December 31, 2017 as compared to $257 million as of December 31, 2016. A ten percent depreciation in the U.S. dollar’s value relative to the hedged currencies would decrease the derivative instruments’ fair value by $421 million as of December 31, 2017 as compared to $223 million as of December 31, 2016. Any increase or decrease in the fair value of our currency exchange rate sensitive derivative instruments would be substantially offset by a corresponding decrease or increase in the fair value of the hedged underlying asset, liability or forecasted transaction, resulting in minimal impact on our consolidated statements of operations.

Our interest rate risk relates primarily to U.S. dollar borrowings partially offset by U.S. dollar cash investments. We have historically used interest rate derivative instruments to manage our earnings and cash flow exposure to changes in interest rates. We had no interest rate derivative instruments outstanding as of December 31, 2017 and December 31, 2016. As of December 31, 2017, $4.414 billion of our outstanding debt obligations was at fixed interest rates, representing approximately 79 percent of our total debt.

See Note D – Hedging Activities and Fair Value Measurements to our consolidated financial statements contained in Item 8 of this Annual Report for further information regarding our derivative financial instruments.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Boston Scientific Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Boston Scientific Corporation (the Company) as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with US generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 20, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 1992.
Boston, Massachusetts
February 20, 2018

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

BOSTON SCIENTIFIC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
in millions, except per share data	2017	2016	2015 (restated)*
Net sales	$9,048	$8,386	$ 7,477
Cost of products sold	2,593	2,424	2,173
Gross profit	6,455	5,962	5,304
Operating expenses:			
Selling, general and administrative expenses	3,294	3,099	2,873
Research and development expenses	997	920	876
Royalty expense	68	79	70
Amortization expense	565	545	495
Intangible asset impairment charges	4	11	19
Contingent consideration expense (benefit)	(80)	29	123
Restructuring charges (credits)	37	28	26
Litigation-related charges (credits)	285	804	1,105
	5,170	5,515	5,587
Operating income (loss)	1,285	447	(283)
Other income (expense):			
Interest expense	(229)	(233)	(284)
Other, net	(124)	(37)	(83)
Income (loss) before income taxes	933	177	(650)
Income tax (benefit) expense	828	(170)	(411)
Net income (loss)	$104	$347	$ (239)
Net income (loss) per common share — basic	$0.08	$0.26	$ (0.18)
Net income (loss) per common share — assuming dilution	$0.08	$0.25	$ (0.18)
Weighted-average shares outstanding			
Basic	1,370.1	1,357.6	1,341.2
Assuming dilution	1,392.7	1,377.2	1,341.2

*Pension termination charges of $44 million in 2015, have been reclassified from Operating expenses to Other, net to reflect our adoption of Accounting Standards Codification Update No. 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. Please refer to Note A – Significant Accounting Policies and Note P - New Accounting Pronouncements for additional details.

See notes to the consolidated financial statements.

BOSTON SCIENTIFIC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31,		
(in millions)	2017	2016	2015
Net income (loss)	$104	$347	$(239)
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustment	48	(25)	(16)
Net change in derivative financial instruments	(106)	(45)	(67)
Net change in available-for-sale securities	5	(6)	—
Net change in unrealized costs associated with certain retirement plans	(6)	(11)	27
Total other comprehensive income (loss)	(59)	(87)	(56)
Total comprehensive income (loss)	$45	$260	$(295)

See notes to the consolidated financial statements.

BOSTON SCIENTIFIC CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

in millions, except share and per share data	As of December 31, 2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	$188	$196
Trade accounts receivable, net	1,548	1,472
Inventories	1,078	955
Prepaid income taxes	66	75
Other current assets	942	541
Total current assets	3,822	3,239
Property, plant and equipment, net	1,697	1,630
Goodwill	6,998	6,678
Other intangible assets, net	5,837	5,883
Other long-term assets	688	666
TOTAL ASSETS	$19,042	$18,096
LIABILITIES AND STOCKHOLDERS’ EQUITY		
Current liabilities:		
Current debt obligations	$1,801	$64
Accounts payable	530	447
Accrued expenses	2,456	2,312
Other current liabilities	867	764
Total current liabilities	5,654	3,587
Long-term debt	3,815	5,420
Deferred income taxes	191	18
Other long-term liabilities	2,370	2,338
Commitments and contingencies		
Stockholders’ equity:		
Preferred stock, $0.01 par value - authorized 50,000,000 shares, none issued and outstanding		
Common stock, $0.01 par value - authorized 2,000,000,000 shares; issued 1,621,062,898 shares as of December 31, 2017 and 1,609,670,817 shares as of December 31, 2016	16	16
Treasury stock, at cost - 247,566,270 shares as of December 31, 2017 and December 31, 2016	(1,717)	(1,717)
Additional paid-in capital	17,161	17,014
Accumulated deficit	(8,390)	(8,581)
Accumulated other comprehensive income (loss), net of tax:		
Foreign currency translation adjustment	(32)	(79)
Unrealized gain (loss) on derivative financial instruments	1	107
Unrealized gain (loss) on available-for-sale securities	(1)	(6)
Unrealized costs associated with certain retirement plans	(27)	(21)
Total stockholders’ equity	7,012	6,733
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$19,042	$18,096

See notes to the consolidated financial statements.

BOSTON SCIENTIFIC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

in millions, except share data	Common Stock Shares Issued	Common Stock Par Value	Treasury Stock	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)
Balance as of December 31, 2014	1,575,018,236	$ 16	$(1,717)	$ 16,703	$ (8,689)	$ 144
Net income (loss)					(239)	
Changes in other comprehensive income (loss), net of tax						
Foreign currency translation adjustment						(16)
Net change in derivative financial instruments						(67)
Net change in certain retirement plans						27
Impact of stock-based compensation plans, net of tax	19,195,550	—		157		
Rounding					1	
Balance as of December 31, 2015	1,594,213,786	$ 16	$(1,717)	$ 16,860	$ (8,927)	$ 88
Net income (loss)					347	
Changes in other comprehensive income (loss), net of tax						
Foreign currency translation adjustment						(25)
Net change in derivative financial instruments						(45)
Net change in available-for-sale securities						(6)
Net change in certain retirement plans						(11)
Impact of stock-based compensation plans, net of tax	15,457,031	—		153		
Rounding				1	(1)	
Balance as of December 31, 2016	1,609,670,817	$ 16	$(1,717)	$ 17,014	$ (8,581)	$ 1
Net income (loss)					104	
Cumulative effective adjustment for ASU 2016-09*					86	
Changes in other comprehensive income (loss), net of tax						
Foreign currency translation adjustment						48
Net change in derivative financial instruments						(106)
Net change in available-for-sale securities						5
Net change in certain retirement plans						(6)
Impact of stock-based compensation plans, net of tax	11,392,081			147		
Balance as of December 31, 2017	1,621,062,898	$ 16	$(1,717)	$ 17,161	$ (8,390)	$ (59)

*Please refer to Note P - New Accounting Pronouncements for additional details.

See notes to the consolidated financial statements.

BOSTON SCIENTIFIC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Year Ended December 31, 2017	2016 (restated)*	2015 (restated)*
Operating Activities			
Net income (loss)	$104	$ 347	$ (239)
Adjustments to reconcile net income (loss) to cash provided by operating activities			
Depreciation and amortization	844	815	769
Deferred and prepaid income taxes	245	(305)	(532)
Stock-based compensation expense	127	116	107
Intangible asset impairment charges	4	11	19
Net loss (gain) on investments and notes receivable	92	21	9
Contingent consideration expense (benefit)	(80)	29	123
Payment of contingent consideration in excess of amounts established in purchase accounting	(14)	(57)	(57)
Pension termination charges	—	—	44
Inventory step-up amortization	10	22	36
Other, net	27	(23)	86
Increase (decrease) in operating assets and liabilities, net of acquisitions:			
Trade accounts receivable	(30)	(216)	(17)
Inventories	(107)	40	3
Other assets	(20)	(43)	23
Accounts payable and accrued expenses	195	553	(20)
Other liabilities	28	(128)	337
Cash provided by operating activities	1,426	1,182	691
Investing Activities			
Purchases of property, plant and equipment	(319)	(376)	(247)
Proceeds on disposals of property, plant and equipment	—	29	—
Payments for acquisitions of businesses, net of cash acquired	(560)	(408)	(1,734)
Payments for investments and acquisitions of certain technologies	(131)	(132)	(266)
Proceeds from investments and collections of notes receivable	—	—	61
Cash used for investing activities	(1,010)	(887)	(2,186)
Financing Activities			
Payments of contingent consideration amounts previously established in purchase accounting	(33)	(65)	(156)
Proceeds from long-term borrowings, net of debt issuance and extinguishment costs	—	—	2,535
Payments on long-term borrowings	(1,000)	(250)	(1,150)
Net increase (decrease) in commercial paper	1,183	—	—
Proceeds from borrowings on credit facilities	2,156	630	565
Payments on borrowings from credit facilities	(2,216)	(570)	(565)
Cash used to net share settle employee equity awards	(65)	(62)	(66)
Proceeds from issuances of shares of common stock	85	111	114
Cash provided by (used for) financing activities	110	(206)	1,276
Effect of foreign exchange rates on cash	4	(2)	(4)

Net increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents	530	87	(223)
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of period	487	400	623
Cash, cash equivalents, restricted cash and restricted cash equivalents at end of period	$1,017	$ 487	$ 400
Supplemental Information			
Cash (received) paid for income taxes, net	$(42)	$ 94	$ 80
Cash paid for interest	235	233	283
Fair value of contingent consideration recorded in purchase accounting	94	50	63

*Certain prior year balances related to restricted cash have been reclassified to reflect our adoption of Accounting Standards Codification Update No. 2016-18, Statement of Cash Flows (Topic 230) - Restricted Cash and Accounting Standards Codification Update No. 2016-15, Statement of Cash Flows (Topic 230) - Classification of Certain Cash Receipts and Cash Payments. Please refer to Note A – Significant Accounting Policies and Note P - New Accounting Pronouncements for additional details.

See notes to the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

NOTE A – SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

Our consolidated financial statements include the accounts of Boston Scientific Corporation and our wholly-owned subsidiaries, after the elimination of intercompany transactions. We assess the terms of our investment interests to determine if any of our investees meet the definition of a variable interest entity (VIE). For any VIEs, we perform an analysis to determine whether our variable interests give us a controlling financial interest in a VIE. The analysis identifies the primary beneficiary of a VIE as the enterprise that has both 1) the power to direct activities of a VIE that most significantly impact the entity's economic performance and 2) the obligation to absorb losses of the entity or the right to receive benefits from the entity. Based on our assessments under the applicable guidance, we did not have controlling financial interests in any VIEs and therefore did not consolidate any VIEs for 2017, 2016 and 2015.

Basis of Presentation

The accompanying consolidated financial statements and footnotes have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and with the instructions to Form 10-K and Regulation S-X.

Amounts reported in millions within this report are computed based on the amounts in thousands. As a result, the sum of the components reported in millions may not equal the total amount reported in millions due to rounding. Certain columns and rows within tables may not add due to the use of rounded numbers. Percentages presented are calculated from the underlying numbers in dollars. Prior year balances were subject to rounding.

Certain prior year balances have been reclassified to reflect our adoption of Accounting Standards Codification (ASC) Update No. 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. Please refer to Note P - New Accounting Pronouncements for additional details.

In addition, certain prior year balances within our consolidated statements of cash flows have been reclassified to reflect our retrospective adoptions of ASC Update No. 2016-18, Statement of Cash Flows - Restricted Cash (Topic 230) and ASC Update No. 2016-15, Statement of Cash Flows (Topic 230) - Classification of Certain Cash Receipts and Cash Payments. As a result of adopting Update No. 2016-18, our cash provided by operating activities increased by $537 million for 2017, $210 million for 2016 and $46 million for 2015. The adoption of Update No. 2016-15 increased our 2015 cash provided by operating activities by approximately $45 million with a corresponding decrease in our cash provided by financing activities. Refer to Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents subheading below and Note P - New Accounting Pronouncements for additional details.

Subsequent Events

We evaluate events occurring after the date of our accompanying consolidated balance sheets for potential recognition or disclosure in our consolidated financial statements. We did not identify any material subsequent events requiring adjustment to our accompanying consolidated financial statements (recognized subsequent events). Those items requiring disclosure (unrecognized subsequent events) in the consolidated financial statements have been disclosed accordingly. Refer to Note B – Acquisitions and Strategic Investments and Note J – Commitments and Contingencies for further details.

Accounting Estimates

To prepare our consolidated financial statements in accordance with U.S. GAAP, management makes estimates and assumptions that may affect the reported amounts of our assets and liabilities, the disclosure of contingent liabilities as of the date of our consolidated financial statements and the reported amounts of our revenues and expenses during the reporting period. Our actual results may differ from these estimates. Refer to Critical Accounting Estimates included in Item 7 of this Annual Report for further discussion.

Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents

Cash and Cash Equivalents

We record cash and cash equivalents in our consolidated balance sheets at cost, which approximates fair value. Our policy is to invest excess cash in short-term marketable securities earning a market rate of interest without assuming undue risk of loss of principal amounts invested and we limit our direct exposure to securities in any one industry or issuer. We consider all short-term marketable securities with remaining days to maturity of 90 days or less from the purchase date that can be readily converted to cash to be cash equivalents.

We record available-for-sale investments at fair value and exclude unrealized gains and temporary losses on available-for-sale securities from earnings, reporting such gains and losses, net of tax, as a separate component of stockholders' equity, until realized. We compute realized gains and losses on sales of available-for-sale securities based on the average cost method, adjusted for any other-than-temporary declines in fair value. Refer to Investments in Publicly Traded and Privately Held Entities below for additional details.

Restricted Cash and Restricted Cash Equivalents

Amounts included in restricted cash represent cash on hand required to be set aside by a contractual agreement related to receivable factoring arrangements and deferred compensation plans and are included in the Other current assets caption on our consolidated balance sheets. Generally, the restrictions related to the factoring arrangements lapse at the time we remit the customer payments collected by us as servicer of previously sold customer receivables to the purchaser. Restrictions for deferred compensation lapse when amounts are paid to the employee. Restricted cash equivalents primarily represent amounts paid into various qualified settlement funds related to our ongoing transvaginal surgical mesh litigation and current amounts related to our pension plans and are included in the Other current assets caption on our consolidated balance sheets. The restrictions related to the various qualified settlement funds will lapse as we approve amounts payable to claimants, at which time we no longer have rights to a return of the amounts paid into the various qualified settlement funds. Restricted cash equivalents included in the Other long-term assets caption on our consolidated balance sheets are related to the long-term portion of our pension and deferred compensation plans. The following represents a reconciliation of cash and cash equivalents, restricted cash and restricted cash equivalents to the consolidated balance sheets:

	As of December 31,		
(in millions)	2017	2016	2015
Cash and cash equivalents	$188	$196	$319
Restricted cash included in Other current assets	803	269	68
Restricted cash included in Other long-term assets	26	22	14
Total cash, cash equivalents and restricted cash presented on the consolidated statements of cash flows	$1,017	$487	$400

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, derivative financial instruments and accounts and notes receivable. Our investment policy limits exposure to concentrations of credit risk and changes in market conditions. Counterparties to financial instruments expose us to credit-related losses in the event of nonperformance. We transact our financial instruments with a diversified group of major financial institutions with investment grade credit ratings and actively monitor their credit ratings and our outstanding positions to limit our credit exposure. We provide credit, in the normal course of business, to hospitals, healthcare agencies, clinics, doctors' offices and other private and governmental institutions and generally do not

require collateral. We record our accounts receivable in our consolidated balance sheets at net realizable value. We perform on-going credit evaluations of our customers and maintain allowances for potential credit losses, based on historical information and management's best estimates. We write off amounts determined to be uncollectible against this reserve. We recorded write-offs of uncollectible accounts receivable of $18 million in 2017, $11 million in 2016 and $16 million in 2015. We are not dependent on any single institution and no single customer accounted for more than ten percent of our net sales in 2017, 2016 and 2015 or accounts receivable at December 31, 2017 or 2016; however, large group purchasing organizations, hospital networks and other buying groups have become increasingly important to our business and represent a substantial portion of our U.S. net sales.

We closely monitor outstanding receivables for potential collection risks, including those that may arise from economic conditions, in both the U.S. and international economies. Our European sales to government-owned or supported customers in Southern Europe, specifically Greece, Italy, Spain and Portugal are subject to an increased number of days outstanding relative to other countries prior to payment. Historically, receivable balances with certain publicly-owned hospitals in these countries accumulate over a period of time and are then subsequently settled as large lump sum payments. While we believe our allowance for doubtful accounts in these countries is adequate as of December 31, 2017 and 2016, if significant changes were to occur in the payment practices of these European governments or if government funding becomes unavailable, we may not be able to collect on receivables due to us from these customers and our write-offs of uncollectible amounts may increase.

Revenue Recognition

We generate revenue primarily from the sale of single-use medical devices and present revenue net of sales taxes in our consolidated statements of operations. We sell our products primarily through a direct sales force. In certain international markets, we sell our products through independent distributors. We consider revenue to be realized or realizable and earned when all of the following criteria are met: persuasive evidence of a sales arrangement exists; delivery has occurred or services have been rendered; the price is fixed or determinable; and collectability is reasonably assured. Revenue is recognized upon passage of title and risk of loss to customers, unless we are required to provide additional services and provided we can form an estimate for sales returns. We recognize revenue from consignment arrangements based on product usage, or implant, which indicates that the sale is complete. For revenue arrangements with multiple deliverables, where the sale of a device is combined with a future service obligation, we defer revenue on the undelivered element and recognize this revenue over the related service period. Many of our Cardiac Rhythm Management (CRM) product offerings combine the sale of a device with our LATITUDE™ Patient Management System, which represents a future service obligation. Generally, we do not have vendor specific objective evidence of selling price available related to our future service obligations; therefore, we determine our estimates of selling price using third party evidence when available; otherwise, we use our best estimate of selling price. We allocate arrangement consideration using the relative selling price method.

We generally allow our customers to return defective, damaged and, in certain cases, expired products for credit. We base our estimate for sales returns upon historical trends and record the amount as a reduction to revenue when we sell the initial product. In addition, we may allow customers to return previously purchased products for next-generation product offerings. For these transactions, we defer recognition of revenue on the sale of the earlier generation product based upon an estimate of the amount of product to be returned when the next-generation products are shipped to the customer.

We also offer sales rebates and discounts to certain customers. We treat sales rebates and discounts as a reduction of revenue and classify the corresponding liability as current. We estimate rebates for products where there is sufficient historical information available to predict the volume of expected future rebates. If we are unable to estimate the expected rebates reasonably, we record a liability for the maximum rebate percentage offered. We have entered into certain agreements with group purchasing organizations to sell our products to participating hospitals at negotiated prices. We recognize revenue from these agreements following the same revenue recognition criteria discussed above.

Warranty Obligations

We offer warranties on certain of our product offerings. The majority of our warranty liability relates to implantable devices offered by our CRM business, which include defibrillator and pacemaker systems. Our CRM products come with a standard limited warranty covering the replacement of these devices. We offer a full warranty for a portion of the period post-implant and a partial warranty for a period of time thereafter. We estimate the costs that we may incur under our warranty programs based on the number of units sold, historical and anticipated rates of warranty claims and cost per claim and record a liability equal to these estimated costs as cost of products sold at the time the product

sale occurs. We assess the adequacy of our recorded warranty liabilities on a quarterly basis and adjust these amounts as necessary. Aggregate year over year changes in our product warranty accrual during 2017, 2016 and 2015 were immaterial.

Inventories

We state inventories at the lower of first-in, first-out cost or market. We base our provisions for excess, expired and obsolete inventory primarily 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 provisions for excess, expired and obsolete inventory in the future. Further, the industry in which we participate 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 and variation in product utilization all affect our estimates related to excess, expired and obsolete

inventory. Approximately 40 percent of our finished goods inventory as of both December 31, 2017 and December 31, 2016 was at customer locations pursuant to consignment arrangements or held by sales representatives.

Property, Plant and Equipment

We state property, plant, equipment and leasehold improvements at historical cost. We charge expenditures for maintenance and repairs to expense and capitalize additions and improvements that extend the life of the underlying asset. We provide for depreciation using the straight-line method at rates that approximate the estimated useful lives of the assets. We depreciate buildings over a maximum of 40 year life; building improvements over the remaining useful life of the building structure; equipment, furniture and fixtures over a three to seven year life; and leasehold improvements over the shorter of the useful life of the improvement or the term of the related lease. Depreciation expense was $279 million in 2017, $270 million in 2016 and $274 million in 2015.

Valuation of Business Combinations

We allocate the amounts we pay for each acquisition to the assets we acquire and liabilities we assume based on their fair values at the dates of acquisition, including identifiable intangible assets and in-process research and development which either arise from a contractual or legal right or are separable from goodwill. We base the fair value of identifiable intangible assets acquired in a business combination, including in-process research and development, on detailed valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired to goodwill. Transaction costs associated with these acquisitions are expensed as incurred through selling, general and administrative costs.

In those circumstances where an acquisition involves a contingent consideration arrangement, we recognize a liability equal to the fair value of the contingent payments we expect to make as of the acquisition date. We re-measure this liability each reporting period and record changes in the fair value through a separate line item within our consolidated statements of operations. Increases or decreases in the fair value of the contingent consideration liability can result from changes in discount periods and rates, as well as changes in the timing and amount of revenue estimates or in the timing or likelihood of achieving regulatory, revenue or commercialization-based milestones. Payment of additional consideration is generally contingent on the acquired company reaching certain performance milestones, including attaining specified revenue levels, achieving product development targets and/or obtaining regulatory approvals for products in development at the date of the acquisition.

Indefinite-lived Intangibles, including In-Process Research and Development (IPR&D)

Our indefinite-lived intangible assets that are not subject to amortization include acquired balloon and other technology, which is foundational to our continuing operations within the Cardiovascular market and other markets within interventional medicine and IPR&D intangible assets acquired in a business combination. Our IPR&D represents intangible assets acquired in a business combination that are used in research and development activities but have not yet reached technological feasibility, regardless of whether they have alternative future use. The primary basis for determining the technological feasibility or completion of these projects is obtaining regulatory approval to market the underlying products in an applicable geographic region. We classify IPR&D acquired in a business combination as an indefinite-lived intangible asset until the completion or abandonment of the associated research and development efforts. Upon completion of the associated research and development efforts, we will determine the useful life of the technology and begin amortizing the assets to reflect their use over their remaining lives. Upon permanent abandonment, we would write-off the remaining carrying amount of the associated in-process research and development intangible asset.

We test our indefinite-lived intangible assets at least annually during the third quarter for impairment and reassess their classification as indefinite-lived assets; in addition, we review our indefinite-lived assets for classification and impairment more frequently if changes in circumstances or indicators exist. We assess qualitative factors to determine whether the existence of events and circumstances indicate that it is more likely than not that our indefinite-lived intangible assets are impaired. If we conclude that it is more likely than not that the asset is impaired, we then determine the fair value of the intangible asset and perform the quantitative impairment test by comparing the fair value with the carrying value in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification® (ASC) Topic 350, Intangibles - Goodwill and Other. If the carrying value exceeds the fair value of the indefinite-lived intangible asset, we write the carrying value down to the fair value.

We use the income approach to determine the fair values of our IPR&D. This approach calculates fair value by estimating the after-tax cash flows attributable to an in-process project over its useful life and then discounting these after-tax cash flows back to a present value. We base our revenue assumptions on estimates of relevant market sizes, expected market growth rates, expected trends in technology and expected levels of market share. In arriving at the value of the in-process projects, we consider, among

other factors: the in-process projects' stage of completion; the complexity of the work completed as of the acquisition date; the costs already incurred; the projected costs to complete; the contribution of other acquired assets; the expected regulatory path and introduction dates by region; and the estimated useful life of the technology. We apply a market-participant risk-adjusted discount rate to arrive at a present value as of the date of acquisition. See Note C - Goodwill and Other Intangible Assets for more information related to indefinite-lived intangibles, including IPR&D.

For asset purchases outside of business combinations, we expense any purchased research and development assets as of the acquisition date.

Amortization and Impairment of Intangible Assets

We record intangible assets at historical cost and amortize them over their estimated useful lives. We use a straight-line method of amortization, unless a method that better reflects the pattern in which the economic benefits of the intangible asset are consumed or otherwise used up can be reliably determined. The approximate useful lives for amortization of our intangible assets are as follows: patents and licenses, two to 20 years; definite-lived technology-related and customer relationships, five to 25 years; other intangible assets, various.

We review intangible assets subject to amortization quarterly to determine if any adverse conditions exist or a change in circumstances has occurred that would indicate impairment or a change in the remaining useful life. Conditions that may indicate impairment include, but are not limited to, a significant adverse change in legal factors or business climate that could affect the value of an asset, a product recall, or an adverse action or assessment by a regulator. If an impairment indicator exists, we test the intangible asset for recoverability. For purposes of the recoverability test, we group our amortizable intangible assets with other assets and liabilities at the lowest level of identifiable cash flows if the intangible asset does not generate cash flows independent of other assets and liabilities. If the carrying value of the intangible asset (asset group) exceeds the undiscounted cash flows expected to result from the use and eventual disposition of the intangible asset (asset group), we will write the carrying value down to the fair value in the period identified.

We calculate fair value of our intangible assets as the present value of estimated future cash flows we expect to generate from the asset using a risk-adjusted discount rate. In determining our estimated future cash flows associated with our intangible assets, we use estimates and assumptions about future revenue contributions, cost structures and remaining useful lives of the asset (asset group). See Note C - Goodwill and Other Intangible Assets for more information related to impairments of intangible assets.

For patents developed internally, we capitalize costs incurred to obtain patents, including attorney fees, registration fees, consulting fees and other expenditures directly related to securing the patent.

Goodwill Valuation

We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination to goodwill. We test our goodwill balances during the second quarter of each year for impairment, or more frequently if indicators are present or changes in circumstances suggest that impairment may exist. We assess goodwill for impairment at the reporting unit level, which is defined as an operating segment or one level below an operating segment, referred to as a component. For our 2017, 2016 and 2015 annual impairment assessment, we identified seven reporting units: Interventional Cardiology, Peripheral Interventions, Cardiac Rhythm Management, Electrophysiology, Endoscopy, Urology and Pelvic Health and Neuromodulation. For our 2017 and 2016 annual impairment test, we aggregated the Cardiac Rhythm Management and Electrophysiology reporting units, components of the Rhythm Management operating segment, based on the criteria prescribed in FASB ASC Topic 350. These reporting units were aggregated due to a reorganization that commenced in 2015 that resulted in integrated leadership, shared resources and consolidation of certain sites in 2016.

In performing the goodwill impairment assessment for 2017 and 2016, we utilized both the optional qualitative assessment and the quantitative approach prescribed under FASB ASC Topic 350. Beginning in 2016, the qualitative assessment was used for testing certain reporting units where fair value has historically exceeded carrying value by greater than 100 percent. All other reporting units were tested using the quantitative approach described below. The qualitative assessment requires an evaluation of whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount based on an assessment of relevant events including macroeconomic factors, industry and market conditions, cost factors, overall financial performance and other entity-specific factors. After assessing the totality of events, if it is determined that it is not more likely than not that the fair value of the reporting unit is less than its carrying value, the quantitative approach of the goodwill impairment test is unnecessary. If it is determined that impairment is more likely than not, then we perform the quantitative impairment test. In 2017, we selected our Rhythm Management operating segment and our Neuromodulation reporting unit for quantitative testing, while the remaining reporting units were qualitatively assessed. For all reporting units tested using the optional qualitative assessment, we concluded

that it was not necessary to perform the quantitative impairment test as it is not more-likely-than-not such reporting units were impaired. For the two reporting units tested using the quantitative approach, we concluded that the fair value of each reporting unit exceeded its carrying value.

When allocating goodwill from business combinations to our reporting units, we assign goodwill to the reporting units that we expect to benefit from the respective business combination at the time of acquisition. In addition, for purposes of performing our goodwill impairment tests, assets and liabilities, including corporate assets, which relate to a reporting unit's operations, and would be considered in determining its fair value, are allocated to the individual reporting units. We allocate assets and liabilities not directly related to a specific reporting unit, but from which the reporting unit benefits, based primarily on the respective revenue contribution of each reporting unit.

For our 2017, 2016 and 2015 annual impairment assessments, for those reporting units for which a quantitative test was performed, we used only the income approach, specifically the Discounted Cash Flow (DCF) method, to derive the fair value of each of our reporting units in preparing our goodwill impairment assessments. This approach calculates fair value by estimating the after-tax cash flows attributable to a reporting unit and then discounting these after-tax cash flows to a present value using a risk-adjusted discount rate. We selected this method as being the most meaningful in preparing our goodwill assessments because we believe the income approach most appropriately measures our income producing assets. We have considered using the market approach and cost approach but concluded they are not appropriate in valuing our reporting units given the lack of relevant market comparisons available for application of the market approach and the inability to replicate the value of the specific technology-based assets within our reporting units for application of the cost approach. Therefore, we believe that the income approach represents the most appropriate valuation technique for which sufficient data are available to determine the fair value of our reporting units.

In applying the income approach to our accounting for goodwill, we make assumptions about the amount and timing of future expected cash flows, terminal value growth rates and appropriate discount rates. The amount and timing of future cash flows within our DCF analysis is based on our most recent operational budgets, long range strategic plans and other estimates. The terminal value growth rate is used to calculate the value of cash flows beyond the last projected period in our DCF analysis and reflects our best estimates for stable, perpetual growth of our reporting units. We use estimates of market-participant risk-adjusted weighted average cost of capital (WACC) as a basis for determining the discount rates to apply to our reporting units' future expected cash flows.

Refer to Note C - Goodwill and Other Intangible Assets to our consolidated financial statements for additional details related to our goodwill balances.

Investments in Publicly Traded and Privately Held Entities

We account for our publicly traded investments as available-for-sale securities based on the quoted market price at the end of the reporting period. Unrealized holding gains or losses during the period, net of tax, are recorded to accumulated other comprehensive income (loss). We compute realized gains and losses on sales of available-for-sale securities at fair value, adjusted for any other-than-temporary declines in fair value.

We account for investments in entities over which we have the ability to exercise significant influence under the equity method if we hold 50 percent or less of the voting stock and the entity is not a VIE in which we are the primary beneficiary in accordance with FASB ASC Topic 323, Investments - Equity Method and Joint Ventures. We record these investments initially at cost and adjust the carrying amount to reflect our share of the earnings or losses of the investee, including all adjustments similar to those made in preparing consolidated financial statements. We account for investments in private entities in which we have less than a 20 percent ownership interest under the cost method of accounting if we do not have the ability to exercise significant influence over the investee in accordance with FASB ASC Topic 325, Investments - Other. In addition, we have notes receivable from certain companies that we account

for in accordance with FASB ASC Topic 320, Investments - Debt and Equity Securities. Refer to Note B – Acquisitions and Strategic Investments for additional details on our investment balances.

Each reporting period, we evaluate our investments to determine if there are any events or circumstances that are likely to have a significant adverse effect on the fair value of the investment. Examples of such impairment indicators include, but are not limited to: a significant deterioration in earnings performance; recent financing rounds at reduced valuations; a significant adverse change in the regulatory, economic or technological environment of an investee; or a significant doubt about an investee's ability to continue as a going concern. If we identify an impairment indicator, we will estimate the fair value of the investment and compare it to its carrying value. Our estimation of fair value considers all available financial information related to the investee, including valuations based on recent third-party equity investments in the investee. If the fair value of the investment is less than its carrying value, the investment is impaired and we make a determination as to whether the impairment is other-than-temporary. We deem an impairment to be other-than-temporary unless we have the ability and intent to hold an investment for a period sufficient for a

market recovery up to the carrying value of the investment. Further, evidence must indicate that the carrying value of the investment is recoverable within a reasonable period. For other-than-temporary impairments, we recognize an impairment loss equal to the difference between an investment's carrying value and its fair value. Impairment losses on our investments are included in Other, net in our consolidated statements of operations.

Income Taxes

We utilize the asset and liability method of accounting for income taxes. Under this method, we determine deferred tax assets and liabilities based on differences between the financial reporting and tax bases of our assets and liabilities. We measure deferred tax assets and liabilities using the enacted tax rates and laws that will be in effect when we expect the differences to reverse. We reduce our deferred tax assets by a valuation allowance if, based upon the weight of available evidence, it is more likely than not that we will not realize some portion or all of the deferred tax assets. We consider relevant evidence, both positive and negative, to determine the need for a valuation allowance. Information evaluated includes our financial position and results of operations for the current and preceding years, the availability of deferred tax liabilities and tax carrybacks, as well as estimates of the impact of future taxable income and available prudent and feasible tax-planning strategies. We recognize interest and penalties related to income taxes as a component of income tax expense. See Note I - Income Taxes for further information and discussion of our income tax provision and balances including discussion of the impacts of the Tax Cuts and Jobs Act (TCJA) enacted in December 2017.

Legal and Product Liability Costs

In the normal course of business, we are involved in various legal and regulatory proceedings, including intellectual property, breach of contract, securities litigation and product liability suits. In some cases, the claimants seek damages, as well as other relief, which, if granted, could require significant expenditures or impact our ability to sell our products. We are also the subject of certain governmental investigations, which could result in substantial fines, penalties and administrative remedies. We maintain an insurance policy providing limited coverage against securities claims and we are substantially self-insured with respect to product liability claims and fully self-insured with respect to intellectual property infringement claims. We accrue anticipated costs of settlement, damages, losses for product liability claims and, under certain conditions, costs of defense, based on historical experience or to the extent specific losses are probable and estimable. Otherwise, we expense these costs as incurred. If the estimate of a probable loss is a range and no amount within the range is more likely, we accrue our best estimate of the minimum amount of the range. We analyze litigation settlements to identify each element of the arrangement. We allocate arrangement consideration to patent licenses received based on estimates of fair value and capitalize these amounts as assets if the license will provide an on-going future benefit. We record certain legal and product liability charges, credits and costs of defense, which we consider to be unusual or infrequent and significant as litigation-related charges within our consolidated statements of operations; all other legal and product liability charges, credits and costs are recorded within selling, general and administrative expenses. See Note J – Commitments and Contingencies for discussion of our individual material legal proceedings.

Costs Associated with Exit Activities

We record employee termination costs in accordance with FASB ASC Topic 712, Compensation - Nonretirement and Postemployment Benefits, if we pay the benefits as part of an on-going benefit arrangement, which includes benefits provided as part of our established severance policies or that we provide in accordance with international statutory requirements. We accrue employee termination costs associated with an on-going benefit arrangement if the obligation is attributable to prior services rendered, the rights to the benefits have vested, the payment is probable and we can reasonably estimate the liability. We account for employee termination benefits that represent a one-time benefit in accordance with FASB ASC Topic 420, Exit or Disposal Cost Obligations. We record such costs into expense over the employee's future service period, if any.

Other costs associated with exit activities may include contract termination costs, including costs related to leased facilities to be abandoned or subleased, consultant fees and impairments of long-lived assets. The costs are expensed in accordance with FASB ASC Topic 420 and FASB ASC Topic 360, Property, Plant and Equipment and are included in restructuring charges in our consolidated statement of operations. Additionally, costs directly related to our active restructuring initiatives, including program management costs, accelerated depreciation and costs to transfer product lines among facilities are included within costs of products sold and selling, general and administrative expenses in our consolidated statement of operations. See Note G – Restructuring-related Activities for further information and discussion of our restructuring plans.

Translation of Foreign Currency

We translate all assets and liabilities of foreign subsidiaries from the functional currency, which is generally the local currency, into U.S. dollars using the year-end exchange rate and translate revenues and expenses at the average exchange rates in effect during the year. We show the net effect of these translation adjustments in our consolidated financial statements as a component

of accumulated other comprehensive income. For any significant foreign subsidiaries located in highly inflationary economies, we would re-measure their financial statements as if the functional currency were the U.S. dollar. We did not record any highly inflationary economy translation adjustments in 2017, 2016 or 2015.

Foreign currency transaction gains and losses are included in Other, net in our consolidated statements of operations, net of losses and gains from any related derivative financial instruments.

Financial Instruments

We recognize all derivative financial instruments in our consolidated financial statements at fair value in accordance with FASB ASC Topic 815, Derivatives and Hedging and we present assets and liabilities associated with our derivative financial instruments on a gross basis in our financial statements. In accordance with FASB ASC Topic 815, for those derivative instruments that are designated and qualify as hedging instruments, the hedging instrument must be designated, based upon the exposure being hedged, as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation. The accounting for changes in the fair value of a derivative instrument depends on whether it qualifies for, and has been designated as part of a hedging relationship, as well as on the type of hedging relationship. Our derivative instruments do not subject our earnings or cash flows to material risk, as gains and losses on these derivatives generally offset losses and gains on the item being hedged. We do not enter into derivative transactions for speculative purposes and we do not have any non-derivative instruments that are designated as hedging instruments pursuant to FASB ASC Topic 815. Refer to Note D – Hedging Activities and Fair Value Measurements for more information on our derivative instruments.

Shipping and Handling Costs

We generally do not bill customers for shipping and handling of our products. Shipping and handling costs of $110 million in 2017, $101 million in 2016 and $93 million in 2015 are included in selling, general and administrative expenses.

Research and Development

We expense research and development costs, including new product development programs, regulatory compliance and clinical research as incurred. Refer to Indefinite-lived Intangibles, including In-Process Research and Development for our policy regarding IPR&D acquired in connection with our business combinations and asset purchases.

Employee Retirement Plans

Following our 2006 acquisition of Guidant Corporation, we sponsored the Guidant Supplemental Retirement Plan, a frozen, non-qualified defined benefit plan for certain former officers and employees of Guidant. The plan was partially frozen as of September 25, 1995 and completely frozen as of May 31, 2007 and was terminated effective December 1, 2014. During 2015, we finalized the termination process and settled the plan’s obligations. As a result, we recorded pension termination charges of $44 million for the year ended December 31, 2015.

The Guidant Supplemental Retirement Plan was partially funded through a Rabbi Trust that contains segregated company assets (restricted cash) used to pay the benefit obligations related to the plan.

We also maintain an Executive Retirement Plan, a defined benefit plan covering executive officers and division presidents and certain persons that may have served in these roles. Participants may retire with unreduced benefits once retirement conditions have been satisfied. In addition, we maintain retirement plans covering certain international employees.

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We use a December 31 measurement date for these plans and record the underfunded portion as a liability, recognizing changes in the funded status through other comprehensive income (OCI). The outstanding obligation is as follows:

	As of December 31, 2017			
(in millions)	Accumulated Benefit Obligation (ABO)	Projected Benefit Obligation (PBO)	Fair value of Plan Assets	Underfunded PBO Recognized
Executive Retirement Plan	$18	$ 21	$ —	$ 21
Guidant Supplemental Retirement Plan (frozen)	33	33	—	33
International Retirement Plans	138	153	87	66
	189	$ 207	$ 87	$ 120

	As of December 31, 2016			
(in millions)	Accumulated Benefit Obligation (ABO)	Projected Benefit Obligation (PBO)	Fair value of Plan Assets	Underfunded PBO Recognized
Executive Retirement Plan	$15	$ 17	$ —	$ 17
Guidant Supplemental Retirement Plan (frozen)	32	32	—	32
International Retirement Plans	93	103	54	49
	$140	$ 152	$ 54	$ 98

A rollforward of the changes in the pension benefit obligation for our funded retirement plans is as follows:

	Year Ended December 31,	
(in millions)	2017	2016
Beginning obligations	$152	$131
Acquired and established plans (1)	33	—
Service and interest costs	17	10
Actuarial gain (loss)	2	10
Plan amendments and assumption changes	(1)	7
Benefits paid	(8)	(5)
Foreign currency exchange	11	(1)
Ending obligation	$207	$152

(1) Plans obtained through acquisition and other increases in connection with our international operations.

The critical assumptions associated with our employee retirement plans as of December 31, 2017 are as follows:

	Discount Rate	Expected Return on Plan Assets	Rate of Compensation Increase
Executive Retirement Plan	3.25%		3.00%
Guidant Supplemental Retirement Plan (frozen)	3.50%		
International Retirement Plans	0.50% - 2.25%	2.50% - 4.10%	1.50% - 6.78%

We base our discount rate on the rates of return available on high-quality bonds with maturities approximating the expected period over which benefits will be paid. The rate of compensation increase is based on historical and expected rate increases. We base our rate of expected return on plan assets on historical experience, our investment guidelines and expectations for long-term rates of return. Our international pension plan assets are invested in a variety of securities, primarily equity securities and government bonds. These securities are considered Level 1 fair value investments and are valued at quoted market prices.

A rollforward of the changes in the fair value of plan assets for our funded retirement plans is as follows:

	Year Ended December 31,	
(in millions)	2017	2016
Beginning fair value	$54	$52
Acquired and established plans (1)	19	—
Actual return on plan assets	6	(1)
Employer contributions	10	7
Participant contributions	1	—
Benefits paid	(8)	(5)
Foreign currency exchange	4	1
Ending fair value	$87	$54

(1) Plans obtained through acquisition and other increases in connection with our international operations.

We also sponsor a voluntary 401(k) Retirement Savings Plan for eligible employees. We match 200 percent of employee elective deferrals for the first two percent of employee eligible compensation and 50 percent of employee elective deferrals greater than two percent, but not exceeding six percent, of employee eligible compensation. Total expense for our matching contributions to the plan was $79 million in 2017, $72 million in 2016 and $69 million in 2015.

Net Income (Loss) per Common Share

We base net income (loss) per common share upon the weighted-average number of common shares and common stock equivalents outstanding during each year. Potential common stock equivalents are determined using the treasury stock method. We exclude stock options and stock awards whose effect would be anti-dilutive from the calculation.

NOTE B – ACQUISITIONS AND STRATEGIC INVESTMENTS

Our consolidated financial statements include the operating results for each acquired entity from its respective date of acquisition. We do not present pro forma financial information for these acquisitions given their results are not material to our consolidated financial statements. Transaction costs associated with these acquisitions were expensed as incurred and are not material for the years ended December 31, 2017, 2016 and 2015.

2017 Acquisitions

Apama Medical Inc.

On October 10, 2017, we completed the acquisition of Apama Medical Inc. (Apama), a privately-held company developing the Apama™ Radiofrequency single-shot Balloon Catheter System for the treatment of atrial fibrillation. Total consideration was comprised of approximately $175 million cash up-front and a maximum of $125 million in contingent payments based on the achievement of clinical and regulatory milestones. We began the process of integrating Apama into our Rhythm Management segment in the fourth quarter of 2017 and expect the integration to be substantially complete by the end of 2019.

Symetis SA

On May 16, 2017, we completed the acquisition of Symetis SA (Symetis), a privately-held Swiss structural heart company focused on minimally-invasive transcatheter aortic valve replacement devices, for approximately $430 million in cash. We are in the process of integrating Symetis into our Interventional Cardiology business and expect

the integration to be substantially complete by the end of 2018.

Purchase Price Allocation

We accounted for these acquisitions as a business combination and, in accordance with FASB ASC Topic 805, Business Combinations, we recorded the assets acquired and liabilities assumed at their respective fair values as of the acquisition date. The components of the aggregate preliminary purchase price are as follows (in millions):

Payment for acquisitions, net of cash acquired	$561
Fair value of contingent consideration	94
	$655

The following summarizes the preliminary purchase price allocation for our 2017 acquisitions as of December 31, 2017 (in millions):

Goodwill	$308
Amortizable intangible assets	278
Indefinite-lived intangible assets	186
Other assets acquired	45
Liabilities assumed	(58)
Deferred tax liabilities	(104)
	$655

We allocated a portion of the purchase price to specific intangible asset categories as follows:

	Amount Assigned (in millions)	Amortization Period (in years)	Risk-Adjusted Discount Rates used in Purchase Price Allocation
Amortizable intangible assets:			
Technology-related	$ 268	13	24%
Other intangible assets	10	2-13	24%
Indefinite-lived intangible assets:			
Purchased research and development	$ 186	N/A	15%
	$ 464		

2016 Acquisitions

EndoChoice Holdings, Inc.

On November 22, 2016, we completed our acquisition of EndoChoice Holdings, Inc. (EndoChoice) for $8.00 per share or approximately $213 million. In addition, total consideration for the acquisition also included repayment of EndoChoice's existing senior term loan facility totaling $43 million and related acquisition fees and expenses. EndoChoice is an Alpharetta, Georgia based company focused on the development and commercialization of infection control products, pathology services and single-use devices for specialists treating a wide range of gastrointestinal (GI) conditions. In 2017, we substantially completed the process of integrating EndoChoice into our Endoscopy business.

In addition, we completed other individually immaterial acquisitions during 2016 for total consideration of $189 million in cash at closing plus aggregate contingent consideration of up to $125 million.

Purchase Price Allocation

We accounted for these acquisitions as a business combination and, in accordance with FASB ASC Topic 805, we recorded the assets acquired and liabilities assumed at their respective fair values as of the acquisition date. The components of the aggregate purchase price are as follows (in millions):

Payment for acquisitions, net of cash acquired	$365
Fair value of contingent consideration	50
Fair value of debt repaid	43
	$458

The following summarizes the purchase price allocation for our 2016 acquisitions as of December 31, 2016 (in millions):

Goodwill	$204
Amortizable intangible assets	228
Other assets acquired	83
Liabilities assumed	(57)
	$458

We allocated a portion of the purchase price to specific intangible asset categories as follows:

	Amount Assigned (in millions)	Weighted Average Amortization Period (in years)	Range of Risk-Adjusted Discount Rates used in Purchase Price Allocation
Amortizable intangible assets:			
Technology-related	$ 176	9-13	11% - 20%
Customer relationships	51	9-13	11% - 12%
Other intangible assets	1	4	11%
	$ 228		

2015 Acquisitions

Interventional Radiology Business of CeloNova Biosciences

On December 31, 2015, we completed the acquisition of the interventional radiology business of CeloNova Biosciences (CeloNova), for an upfront payment of $70 million and additional payments contingent on regulatory and sales milestones. The acquisition included drug-eluting microspheres designed to be loaded with chemotherapy drugs for delivery to cancerous tumors and spherical embolic products used to treat uterine fibroids and other conditions. In 2017, we completed the integration of CeloNova into our Peripheral Interventions business.

AMS Portfolio Acquisition

On August 3, 2015, we completed the acquisition of the American Medical Systems male urology portfolio (AMS Portfolio Acquisition), which includes the men's health and prostate health businesses, from Endo International plc. Total consideration was comprised of $1.616 billion in up-front cash plus related fees and expenses and a potential additional $50 million in consideration based on 2016 sales. The AMS male urology portfolio was integrated into our formerly named Urology and Women's Health business and the joint businesses became Urology and Pelvic Health. We substantially completed the integration in 2016. In addition, as part of the acquisition agreement, we made a $60 million Series B non-voting preferred stock investment in the women's health business of Endo Health Solutions, a wholly owned subsidiary of Endo International, plc., representing the remaining Women's Health

business of the American Medical Systems Portfolio. This investment was subsequently repaid in the fourth quarter of 2015.

In addition, we completed other individually immaterial acquisitions during 2015 for total consideration of $69 million in cash at closing plus aggregate contingent consideration of up to $14 million.

Purchase Price Allocation

We accounted for these acquisitions as business combinations and, in accordance with FASB ASC Topic 805, we have recorded the assets acquired and liabilities assumed at their respective fair values as of the acquisition dates. The components of the aggregate purchase prices are as follows (in millions):

Payment for acquisitions, net of cash acquired	$1,735
Fair value of contingent consideration	63
	$1,798

The following summarizes the aggregate purchase price allocation for the 2015 acquisitions as of December 31, 2015 (in millions):

Goodwill	$573
Amortizable intangible assets	1,074
Indefinite-lived intangible assets	6
Inventory	103
Other assets acquired	165
Liabilities assumed	(123)
	$1,798

We allocated a portion of the purchase price to specific intangible asset categories as follows:

	Amount Assigned (in millions)	Weighted Average Amortization Period (in years)	Range of Risk-Adjusted Discount Rates used in Purchase Price Allocation
Amortizable intangible assets:			
Technology-related	$ 431	11-13	14% - 23%
Customer relationships	625	12-13	14% - 15%
Other intangible assets	18	13	14%
Indefinite-lived intangible assets:			
In-process research & development	6	N/A	17%
	$ 1,080		

For our 2017, 2016 and 2015 acquisitions, our technology-related intangible assets consist of technical processes, intellectual property and institutional understanding with respect to products and processes that we will leverage in future products or processes and will carry forward from one product generation to the next. We used the multi-period excess earnings method, a variation of the income approach and relief from royalty approach to derive the fair value of the technology-related intangible assets and are amortizing them on a straight-line basis over their assigned estimated useful lives.

Other intangible assets primarily include acquired customer relationships and tradenames. Customer relationships represent the estimated fair value of non-contractual customer, payor and distributor relationships. Customer relationships are direct relationships with physicians and hospitals performing procedures with the acquired products, payor relationships are contracts and relationships with healthcare payors relating to reimbursement of services and distributor relationships are relationships with third parties used to sell the acquired products, all as of the acquisition date. These relationships were valued separately from goodwill because there is a history and pattern of conducting business with customers and distributors. We used the income approach or the replacement cost and lost profits methodology to derive the fair value of the customer relationships. The customer relationships intangible assets are amortized on a straight-line basis over their assigned estimated useful lives. Tradenames include brand names that we

expect to continue using in our product portfolio and related marketing materials. The tradenames are valued using a relief from royalty methodology and are amortized on a straight-line basis over their assigned estimated useful lives.

We believe that the estimated intangible asset values represent the fair value at the date of acquisition and do not exceed the amount a third party would pay for the assets. These fair value measurements are based on significant unobservable inputs, including

management estimates and assumptions and, accordingly, are classified as Level 3 within the fair value hierarchy prescribed by FASB ASC Topic 820, Fair Value Measurements and Disclosures.

Goodwill was established due primarily to synergies expected to be gained from leveraging our existing operations as well as revenue and cash flow projections associated with future technologies and has been allocated to our reportable segments based on the relative expected benefit. Based on preliminary estimates, the goodwill recorded related to our 2017 acquisitions is not deductible for tax purposes. Of the goodwill recorded related to our 2016 acquisitions, $116 million is deductible for tax purposes. Refer to Note C - Goodwill and Other Intangible Assets for more information related to goodwill allocated to our reportable segments.

Contingent Consideration

We recorded a net benefit related to the changes in fair value of our contingent consideration liabilities of $80 million during 2017, a net expense related to the changes in fair value of our contingent consideration liabilities of $29 million during 2016 and a net expense related to the change in fair value of our contingent consideration liabilities of $123 million during 2015. We made contingent consideration payments of $48 million in 2017, $122 million in 2016 and $213 million in 2015.

Changes in the fair value of our contingent consideration liabilities were as follows (in millions):

Balance as of December 31, 2015	$246
Amounts recorded related to new acquisitions	50
Other amounts recorded related to prior acquisitions	1
Fair value adjustment	29
Contingent payments related to prior period acquisition	(122)
Balance as of December 31, 2016	$204
Amounts recorded related to new acquisitions	94
Fair value adjustment	(80)
Contingent payments related to prior period acquisition	(48)
Balance as of December 31, 2017	$169

As of December 31, 2017, the maximum amount of future contingent consideration (undiscounted) that we could be required to pay was approximately $1.320 billion.

The recurring Level 3 fair value measurements of our contingent consideration liabilities include the following significant unobservable inputs:

Contingent Consideration Liabilities	Fair Value as of December 31, 2017	Valuation Technique	Unobservable Input	Range
R&D and Commercialization-based Milestone	$125 million	Discounted Cash Flow	Discount Rate	2% - 3%
			Probability of Payment	17% - 100%
			Projected Year of Payment	2018 - 2022
Revenue-based Payments	$44 million	Discounted Cash Flow	Discount Rate	11% - 15%
			Projected Year of Payment	2018 - 2026

Projected contingent payment amounts related to some of our R&D, commercialization-based and revenue-based milestones are discounted back to the current period using a discounted cash flow (DCF) model. Projected revenues are based on our most recent internal operational budgets and long-range strategic plans. Increases in projected revenues and probabilities of payment may result in higher fair value measurements. Increases in discount rates and the time to payment may result in lower fair value measurements. Increases or decreases in any of those inputs together, or in isolation, may result in a significantly lower or higher fair value measurement.

Strategic Investments

On January 24, 2018, we closed an investment and entered into an acquisition option agreement with Millipede, Inc. (Millipede), a privately-held company that has developed the IRIS Transcatheter Annuloplasty Ring System for the treatment of severe mitral regurgitation. Under the terms of the agreements, we have purchased a portion of the outstanding shares of Millipede along with newly issued shares of the company for a total consideration of $90 million. We also have the option to acquire the remaining

shares of the company at any time prior to the completion of a first in human clinical study that meets certain parameters. Upon the completion of the clinical study, Millipede has the option to compel us to acquire the remaining shares of the company. Each company's option period expires by the end of 2019. Completion of this acquisition would result in an additional $325 million payment by us at closing with a further $125 million becoming payable upon achievement of a commercial milestone.

On November 1, 2017, we entered into a definitive agreement with an investee company where we may be obligated to pay $145 million in cash up-front and a maximum of $130 million in contingent payments to acquire the investee. The agreement contains a provision, expiring October 31, 2019, allowing the investee company to sell the remaining equity interests of the investee company to us upon achievement of a regulatory milestone and an option allowing us to acquire the remaining equity interests.

The aggregate carrying amounts of our strategic investments were comprised of the following categories:

(in millions)	As of December 31, 2017	December 31, 2016
Equity method investments	$209	$ 265
Cost method investments	81	20
Available-for-sale securities	15	20
Notes receivable	47	42
	$353	$ 347

These investments are classified as other long-term assets within our accompanying consolidated balance sheets, in accordance with U.S. GAAP and our accounting policies.

In 2017, we recorded charges of $72 million for other-than-temporary impairment losses equal to the difference between the carrying value of our investments and their fair value. These charges were recorded within the Other, net caption of our consolidated statements of operations.

As of December 31, 2017, the book value of our equity method investments exceeded our share of the book value of the investees' underlying net assets by approximately $212 million, which represents amortizable intangible assets and IPR&D, corresponding deferred tax liabilities and goodwill.

NOTE C – GOODWILL AND OTHER INTANGIBLE ASSETS

The gross carrying amount of goodwill and other intangible assets and the related accumulated amortization for intangible assets subject to amortization and accumulated write-offs of goodwill are as follows:

	As of December 31, 2017		As of December 31, 2016	
(in millions)	Gross Carrying Amount	Accumulated Amortization/ Write-offs	Gross Carrying Amount	Accumulated Amortization/ Write-offs
Amortizable intangible assets				
Technology-related	$9,386	$ (4,880)	$9,123	$ (4,468)
Patents	517	(379)	529	(374)
Other intangible assets	1,633	(838)	1,583	(722)
	$11,536	$ (6,097)	$11,235	$ (5,564)
Unamortizable intangible assets				
Goodwill	$16,898	$ (9,900)	$16,578	$ (9,900)

IPR&D	278	—	92	—
Technology-related	120	—	120	—
	$17,295	$ (9,900)	$16,790	$ (9,900)

In the third quarter of 2017, we performed our annual impairment test of all IPR&D projects and our indefinite-lived core technology assets and determined that the assets were not impaired. In addition, we verified the classification as indefinite-lived assets continues to be appropriate. Intangible asset impairment charges were immaterial in 2017, 2016 and 2015.

The following represents our goodwill balance by global reportable segment:

(in millions)	Cardiovascular	Rhythm Management	MedSurg	Total
Balance as of December 31, 2015	$ 3,451	$ 292	$ 2,730	$ 6,473
Impact of foreign currency fluctuations and other changes in carry amount	—	(2)	(1)	(3)
Goodwill acquired	62	—	146	208
Balance as of December 31, 2016	$ 3,513	$ 290	$ 2,875	$ 6,678
Impact of foreign currency fluctuations and other changes in carry amount	9	1	2	12
Goodwill acquired	182	126	—	308
Balance as of December 31, 2017	$ 3,704	$ 417	$ 2,877	$ 6,998

We did not have any goodwill impairments in 2017, 2016 or 2015.

Estimated amortization expense for each of the five succeeding fiscal years based upon our amortizable intangible asset portfolio as of December 31, 2017 is as follows:

Fiscal Year	(in millions)
2018	$ 551
2019	546
2020	543
2021	507
2022	477

NOTE D – HEDGING ACTIVITIES AND FAIR VALUE MEASUREMENTS

Derivative Instruments and Hedging Activities

We address market risk from changes in foreign currency exchange rates and interest rates through risk management programs which include the use of derivative financial instruments. We operate these programs pursuant to documented corporate risk management policies and do not enter into derivative transactions for speculative purposes. Our derivative instruments do not subject our earnings or cash flows to material risk, as the gains or losses on these derivatives generally offset losses or gains recognized on the hedged item.

We manage concentration of counterparty credit risk by limiting acceptable counterparties to major financial institutions with investment grade credit ratings, limiting the amount of credit exposure to individual counterparties and by actively monitoring counterparty credit ratings and the amount of individual credit exposure. We also employ master netting arrangements that limit the risk of counterparty non-payment on a particular settlement date to the net gain that would have otherwise been received from the counterparty. Although not completely eliminated, we do not consider the risk of counterparty default to be significant as a result of these protections. Further, none of our derivative instruments are subject to collateral or other security arrangements, nor do they contain provisions that are dependent on our credit ratings from any credit rating agency.

Our risk from changes in currency exchange rates consists primarily of monetary assets and liabilities, forecast intercompany and third-party transactions and net investments in certain subsidiaries. We manage currency exchange rate risk at a consolidated level to reduce the cost of hedging by taking advantage of offsetting transactions. We employ derivative instruments, primarily forward currency contracts, to reduce the risk to our earnings and cash flows associated with changes in currency exchange rates.

The success of our currency risk management program depends, in part, on forecast transactions denominated primarily in British pound sterling, Euro and Japanese yen. We may experience unanticipated currency exchange gains or losses to the extent the actual activity is different than forecast. In addition, changes in currency exchange rates related to any unhedged transactions may impact our earnings and cash flows.

Certain of our currency derivative instruments are designated as cash flow hedges under FASB ASC Topic 815, Derivatives and Hedging and are intended to protect the U.S. dollar value of forecasted transactions. The effective portion of gains or losses on a derivative instrument designated as a cash flow hedge is recorded in other comprehensive income (OCI) and is included in the Accumulated other comprehensive income (loss), net of tax (AOCI) caption of our consolidated balance sheets until the underlying third-party transaction occurs. When the related third-party transaction occurs we recognize the gain or loss to earnings within the Cost of products sold caption of our consolidated statements of operations. In the event the hedging relationship is no longer effective, or if the hedged forecast transaction becomes no longer probable, we reclassify the amount of gains or losses on the derivative instrument designated as a cash flow hedge to earnings at that time.

We also use currency forward contracts that are not part of designated hedging relationships under FASB ASC Topic 815 as a part of our strategy to manage our exposure to currency exchange rate risk related to monetary assets and liabilities and related forecast transactions. These non-designated currency forward contracts have an original time to maturity consistent with the hedged currency transaction exposures, generally less than one year, and are marked-to-market with changes in fair value recorded to earnings and reflected within the Other, net caption of our consolidated statements of operations.

Our interest rate risk relates primarily to U.S. dollar borrowings partially offset by U.S. dollar cash investments. We use interest rate derivative instruments to manage our earnings and cash flow exposure to changes in interest rates. Under these agreements we and the counterparty, at specified intervals, exchange the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount. We designate these derivative instruments either as fair value or cash flow hedges under FASB ASC Topic 815.
The changes in the fair value of interest rate derivatives designated as fair value hedges and the changes in the fair value of the underlying hedged debt instrument generally offset and are recorded within the Interest expense caption of our consolidated statements of operations. To the extent the hedge relationship is effective, we record the changes in the fair value of interest rate derivatives designated as cash flow hedges within OCI and included within the AOCI caption of our consolidated balance sheets until the underlying hedged item occurs, at which time we recognize the gain or loss within Interest expense. We record the ineffective portion, if any, of our interest rate derivatives designated as cash flow hedges directly to earnings within Interest expense and in the event the hedged cash flow does not occur, or it becomes no longer probable that it will occur we reclassify the amount of gains or losses to earnings at that time.

We are amortizing the realized gains or losses from interest rate derivative instruments previously designated as fair value hedges and the effective portion of gains or losses from interest rate derivative contracts previously designated as cash flow hedges into earnings as a component of Interest expense over the remaining term of the hedged item in accordance with FASB ASC Topic 815.

The following table presents the contractual amounts of our derivative instruments outstanding:

(in millions)	Topic 815 designation	As of December 31, 2017	December 31, 2016
Forward currency contracts	Cash flow hedge	$3,252	$ 2,271
Forward currency contracts	Non-designated	2,671	1,830
Total Notional Outstanding		$5,923	$ 4,101

The remaining time to maturity as of December 31, 2017 is within 60 months for all designated forward currency contracts and generally less than one year for all non-designated forward currency contracts.

We had no interest rate derivative instruments outstanding as of December 31, 2017 and December 31, 2016.

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The following presents the effect of our derivative instruments designated as cash flow hedges under FASB ASC Topic 815 on our accompanying consolidated statements of operations:

(in millions)	Location in Consolidated Statements of Operations	Effective Amount Recognized in OCI			Effective Amount Reclassified from AOCI into Earnings		
		Pre-Tax Gain (Loss)	Tax Benefit (Expense)	Gain (Loss) Net of Tax	Pre-Tax (Gain) Loss	Tax (Benefit) Expense	(Gain) Loss Net of Tax
Year Ended December 31, 2017							
Forward currency contracts	Cost of products sold	$(101)	$ 37	$ (65)	$(64)	$ 23	$(41)
Interest rate derivative contracts	Interest expense	—	—	—	(1)	—	(1)
		$(101)	$ 37	$ (65)	$(65)	$ 23	$(42)
Year Ended December 31, 2016							
Forward currency contracts	Cost of products sold	$65	$ (23)	$ 40	$(133)	$ 48	$(84)
Interest rate derivative contracts	Interest expense	—	—	—	(1)	—	(1)
		$65	$ (23)	$ 40	$(134)	$ 48	$(85)
Year Ended December 31, 2015							
Forward currency contracts	Cost of products sold	$98	$ (35)	$ 63	$(213)	$ 77	$(136)
Interest rate derivative contracts	Interest expense	11	(4)	7	(2)	1	(1)
		$109	$ (39)	$ 70	$(215)	$ 78	$(137)

The amount of net gains or losses recognized in earnings related to the ineffective portion of hedging relationships was immaterial in all periods presented.

As of December 31, 2017, pre-tax net gains or losses for our derivative instruments designated, or previously designated, as currency hedge contracts under FASB ASC Topic 815 that may be reclassified to earnings within the next twelve months are presented below:

(in millions) Designated Derivative Instrument	Topic 815 Designation	Location in Consolidated Statements of Operations	Amount of Pre-Tax Gain (Loss) that may be Reclassified to Earnings
Interest rate derivative contracts	Fair value hedge	Interest expense	$ 12
Interest rate derivative contracts	Cash flow hedge	Interest expense	1
Forward currency contracts	Cash flow hedge	Cost of products sold	(31)

Net gains and losses on currency hedge contracts not designated as hedging instruments offset by net losses and gains from currency transaction exposures are presented below:

(in millions)	Location in Consolidated Statements of Operations	Year Ended December 31, 2017	2016	2015
Net gain (loss) on currency hedge contracts	Other, net	$ (25)	$ (20)	$ 48
Net gain (loss) on currency transaction exposures	Other, net	10	7	(69)
Net currency exchange gain (loss)		$ (15)	$ (13)	$ (21)

Fair Value Measurements

FASB ASC Topic 815 requires all derivative instruments to be recognized at their fair values as either assets or liabilities on the balance sheet. We determine the fair value of our derivative instruments using the framework prescribed by FASB ASC Topic 820, Fair Value Measurements and Disclosures, by considering the estimated amount we would receive or pay to transfer these instruments at the reporting date when taking into account current currency exchange rates, interest rates, the creditworthiness of the counterparty for unrealized gain positions and our own creditworthiness for unrealized loss positions. In certain instances, we may utilize financial models to measure fair value of our derivative instruments. In doing so, we use inputs that include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are

not active, other observable inputs for the asset or liability and inputs derived principally from, or corroborated by, observable market data by correlation or other means.

The following are the balances of our derivative assets and liabilities:

(in millions)	Location in Consolidated Balance Sheets (1)	As of December 31, 2017	December 31, 2016
Derivative Assets:			
Designated Derivative Instruments			
Forward currency contracts	Other current assets	$7	$ 98
Forward currency contracts	Other long-term assets	57	65
		64	163
Non-Designated Derivative Instruments			
Forward currency contracts	Other current assets	18	36
Total Derivative Assets		$82	$ 199
Derivative Liabilities:			
Designated Derivative Instruments			
Forward currency contracts	Other current liabilities	$37	$ 3
Forward currency contracts	Other long-term liabilities	33	4
		69	7
Non-Designated Derivative Instruments			
Forward currency contracts	Other current liabilities	21	19
Total Derivative Liabilities		$90	$ 26

(1) We classify derivative assets and liabilities as current when the remaining term of the derivative contract is one year or less.

Recurring Fair Value Measurements

On a recurring basis, we measure certain financial assets and financial liabilities at fair value based upon quoted market prices. Where quoted market prices or other observable inputs are not available, we apply valuation techniques to estimate fair value. FASB ASC Topic 820 establishes a three-level valuation hierarchy for disclosure of fair value measurements. The category of a financial asset or a financial liability within the valuation hierarchy is based upon the lowest level of input that is significant to the measurement of fair value. The three levels of the hierarchy are defined as follows:

- Level 1 – Inputs to the valuation methodology are quoted market prices for identical assets or liabilities.
- Level 2 – Inputs to the valuation methodology are other observable inputs, including quoted market prices for similar assets or liabilities and market-corroborated inputs.
- Level 3 – Inputs to the valuation methodology are unobservable inputs based on management’s best estimate of inputs market participants would use in pricing the asset or liability at the measurement date, including assumptions about risk.

Assets and liabilities measured at fair value on a recurring basis consist of the following:

(in millions)	As of December 31, 2017 Level 1	Level 2	Level 3	Total	December 31, 2016 Level 1	Level 2	Level 3	Total
Assets								
Money market and government funds	$21	$ —	$—	$21	$42	$—	$—	$42
Available-for-sale securities	15	—	—	15	20	—	—	20
Forward currency contracts	—	82	—	82	—	199	—	199
	$36	$ 82	$—	$118	$62	$199	$—	$261
Liabilities								
Forward currency contracts	$—	$ 90	$—	$90	$—	$26	$—	$26
Accrued contingent consideration	—	—	169	169	—	—	204	204
	$—	$ 90	$169	$259	$—	$26	$204	$230

Our investments in money market and government funds are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices. These investments are classified as cash and cash equivalents within our accompanying consolidated balance sheets, in accordance with U.S. GAAP and our accounting policies. In addition to $21 million invested in money market and government funds as of December 31, 2017, we had $167 million in interest bearing and non-interest bearing bank accounts. In addition to $42 million invested in money market and government funds as of December 31, 2016, we had $19 million in short-term deposits and $135 million in interest bearing and non-interest bearing bank accounts.

Our recurring fair value measurements using significant unobservable inputs (Level 3) relate solely to our contingent consideration liability. Refer to Note B – Acquisitions and Strategic Investments for a discussion of the changes in the fair value of our contingent consideration liability.

Non-Recurring Fair Value Measurements

We hold certain assets and liabilities that are measured at fair value on a non-recurring basis in periods subsequent to initial recognition. The fair value of a cost method investment is not estimated if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investment. Refer to Note B – Acquisitions and Strategic Investments for a discussion of our strategic investments.

Refer to Note C - Goodwill and Other Intangible Assets for a discussion of the fair values and annual impairment tests of goodwill and our indefinite lived intangible assets.

The fair value of our outstanding debt obligations was $5.945 billion as of December 31, 2017 and $5.739 billion as of December 31, 2016. We determined fair value by using quoted market prices for our publicly registered senior notes, classified as Level 1 within the fair value hierarchy, amortized cost for commercial paper and face value for term loans and credit facility borrowings outstanding. Refer to Note E – Borrowings and Credit Arrangements for a discussion of our debt obligations.

NOTE E – BORROWINGS AND CREDIT ARRANGEMENTS

We had total debt of $5.616 billion as of December 31, 2017 and $5.484 billion as of December 31, 2016. The debt maturity schedule for the significant components of our long-term debt obligations is presented below:

in millions, except interest rates	Issuance Date	Maturity Date	As of December 31, 2017	2016	Semi-annual Coupon Rate	
January 2017 Notes	November 2004	January 2017	$—	$250	5.125	%
August 2018 Term Loan	August 2013	August 2018	—	150		
October 2018 Notes	August 2013	October 2018	*	600	2.650	%
January 2020 Notes	December 2009	January 2020	850	850	6.000	%
May 2020 Notes	May 2015	May 2020	600	600	2.850	%
August 2020 Term Loan	August 2015	August 2020	—	600		
May 2022 Notes	May 2015	May 2022	500	500	3.375	%
October 2023 Notes	August 2013	October 2023	450	450	4.125	%
May 2025 Notes	May 2015	May 2025	750	750	3.850	%
November 2035 Notes	November 2005	November 2035	350	350	7.000	%
January 2040 Notes	December 2009	January 2040	300	300	7.375	%
Unamortized Debt Issuance Discount		2018 - 2040	(6)	(8)		
Unamortized Deferred Financing Costs		2018 - 2040	(18)	(24)		
Unamortized Gain on Fair Value Hedges		2020-2025	38	51		
Capital Lease Obligation		Various	1	1		
Long-term debt			$3,815	$5,420		

*As of December 31, 2017, the $600 million under the October 2018 Notes is outstanding and classified as short-term debt.

Note: The table above does not include unamortized amounts related to interest rate contracts designated as cash flow hedges.

Revolving Credit Facility

On August 4, 2017, we entered into a $2.250 billion revolving credit facility (the 2017 Facility) with a global syndicate of commercial banks and terminated our previous $2.000 billion revolving credit facility (the 2015 Facility), which was scheduled to mature in April 2020. The 2017 Facility will mature on August 4, 2022. Eurodollar and multicurrency loans under the 2017 Facility bear interest at LIBOR plus an interest margin of between 0.90 percent and 1.50 percent, based on our corporate credit ratings (1.10 percent as of December 31, 2017). Under the credit agreement for the 2017 Facility (the 2017 Credit Agreement), we are required to pay a facility fee (0.15 percent as of December 31, 2017) based on our credit ratings and the total amount of revolving credit commitment, regardless of usage of the 2017 Facility. This facility provides backing for the commercial paper program described below. There were no amounts borrowed under our current or prior revolving credit facilities as of December 31, 2017 or December 31, 2016.

The 2017 Credit Agreement requires that we maintain certain financial covenants, as follows:

	Covenant Requirement as of December 31, 2017	Actual as of December 31, 2017
Maximum leverage ratio (1)	3.5 times	2.2 times

(1) Ratio of total debt to consolidated EBITDA, as defined by the credit agreement, for the preceding four consecutive fiscal quarters.

The 2017 Credit Agreement provides for an exclusion from the calculation of consolidated EBITDA, as defined by the agreement, through maturity, of any non-cash charges and up to $500 million in restructuring charges and

restructuring-related expenses related to our current or future restructuring plans. As of December 31, 2017, we had $444 million of the restructuring charge exclusion remaining. In addition, any cash litigation payments (net of any cash litigation receipts), as defined by the 2017 Credit Agreement, are excluded from the calculation of consolidated EBITDA, as defined in the 2017 Credit Agreement, provided that the sum of any excluded net cash litigation payments do not exceed $2.624 billion in the aggregate. As of December 31, 2017, we had approximately $1.839 billion of the legal exclusion remaining.

Any inability to maintain compliance with these covenants could require us to seek to renegotiate the terms of our credit facility or seek waivers from compliance with these covenants, both of which could result in additional borrowing costs. Further, there can be no assurance that our lenders would agree to such new terms or grant such waivers on terms acceptable to us. In this case, all credit facility commitments would terminate and any amounts borrowed under the facility would become immediately due and payable. Furthermore, any termination of our credit facility may negatively impact the credit ratings assigned to our commercial paper program which may impact our ability to refinance any then outstanding commercial paper as it becomes due and payable.

Commercial Paper

In June 2017, we launched a commercial paper program that allowed the Company to have a maximum of $2.000 billion in commercial paper outstanding. In August 2017, we increased our commercial paper program's maximum to $2.250 billion, in line with the increased size of the 2017 Facility. Outstanding commercial paper directly reduces borrowing capacity available under the 2017 Facility. As of December 31, 2017 there was $1.197 billion of commercial paper outstanding. The commercial paper program is backed by the 2017 Facility. Commercial paper issued as of December 31, 2017 had a weighted average maturity of 38 days and a weighted average yield of 1.85 percent.

Term Loans

As of December 31, 2016, we had $750 million outstanding under our unsecured term loan facilities. These facilities included an unsecured term loan for $150 million maturing August 2018 (2018 Term Loan) and an unsecured term loan facility for $600 million maturing August 2020 (2020 Term Loan). Both of these term loan facilities were fully repaid in 2017.

Senior Notes

We had senior notes outstanding of $4.400 billion as of December 31, 2017 and $4.650 billion as of December 31, 2016. On January 12, 2017, we used our existing credit facilities to repay the $250 million plus interest of our senior notes due in January 2017.

Our senior notes were issued in public offerings, are redeemable prior to maturity and are not subject to sinking fund requirements. Our senior notes are unsecured, unsubordinated obligations and rank on parity with each other. These notes are effectively junior to borrowings under our credit and security facility, to the extent if borrowed by our subsidiaries and to liabilities of our subsidiaries (see Other Arrangements below).

Our $4.050 billion of senior notes issued in 2009, 2013 and 2015 contain a change-in-control provision, which provides that each holder of the senior notes may require us to repurchase all or a portion of the notes at a price equal to 101 percent of the aggregate repurchased principal, plus accrued and unpaid interest, if a rating event, as defined in the indenture, occurs as a result of a change-in-control, as defined in the indenture. Any other credit rating changes may impact our borrowing cost, but do not require us to repay any borrowings.

The interest rate payable on our November 2035 Notes is currently 7.00 percent. Corporate credit rating improvements may result in a decrease in the adjusted interest rate on our November 2035 Notes to the extent that our lowest credit rating is above BBB- or Baa3. The interest rates on our November 2035 Notes will be permanently reinstated to the issuance rate if the lowest credit ratings assigned to these senior notes is either A- or A3 or higher.

Other Arrangements

As of December 31, 2016, we maintained a $300 million credit and security facility secured by our U.S. trade receivables maturing on June 9, 2017. In February 2017, we amended the terms of this credit and security facility, including increasing the facility size to $400 million and extending the facility maturity date to February 2019. We had no amounts outstanding under this facility as of December 31, 2017 and $60 million outstanding under our credit and security facility as of December 31, 2016. The credit and security facilities requires that we maintain a maximum leverage covenant consistent with our revolving credit facility.

We have accounts receivable factoring programs in certain European countries that we account for as sales under FASB ASC Topic 860, Transfers and Servicing. These agreements provide for the sale of accounts receivable to third parties, without recourse, of up to approximately $456 million as of December 31, 2017. We have no retained interests in the transferred receivables, other than collection and administrative responsibilities and, once sold, the accounts receivable are no longer available to satisfy creditors in the event of bankruptcy. We de-recognized $171 million of receivables as of December 31, 2017 at an average interest rate of 1.8 percent and $152 million as of December 31, 2016 at an average interest rate of 1.8 percent.

In addition, we have uncommitted credit facilities with a commercial Japanese bank that provide for borrowings, promissory notes discounting and receivables factoring of up to 22.000 billion Japanese yen (approximately $195 million as of December 31, 2017). We de-recognized $157 million of notes receivable as of December 31, 2017 at an average interest rate of 1.3 percent and $149 million of notes receivable as of December 31, 2016 at an average interest rate of 1.6 percent. De-recognized accounts and notes receivable are excluded from trade accounts receivable, net in the accompanying consolidated balance sheets.

We had outstanding letters of credit of $49 million as of December 31, 2017 and $44 million as of December 31, 2016, which consisted primarily of bank guarantees and collateral for workers' compensation insurance arrangements. As of December 31, 2017 and 2016, none of the beneficiaries had drawn upon the letters of credit or guarantees, accordingly, we have not recognized a related liability for our outstanding letters of credit in our consolidated balance sheets as of December 31, 2017 or 2016.

As of and through December 31, 2017, we were in compliance with all the required covenants related to our debt obligations.

NOTE F – LEASES AND OTHER PURCHASE OBLIGATIONS

Rent expense amounted to $88 million in 2017, $80 million in 2016 and $76 million in 2015.

Future minimum rental commitments as of December 31, 2017 under all noncancellable lease agreements, including capital leases, were as follows:

(in millions)	As of December 31, 2017
2018	$ 72
2019	52
2020	40
2021	33
2022	28
Thereafter	93
	$ 317

Future minimum purchase obligations as of December 31, 2017, were as follows:

(in millions)	As of December 31, 2017
2018	$ 262
2019	26
2020	15
2021	13
2022	5
Thereafter	6
	$ 327

NOTE G – RESTRUCTURING-RELATED ACTIVITIES

We monitor the dynamics of the economy, the healthcare industry and the markets in which we compete and assess opportunities for improved operational effectiveness and efficiency and better alignment of expenses with revenues, while preserving our ability to make the investments in research and development projects, capital, our people that we believe are essential to our long-term success. As a result of these assessments, we have undertaken various restructuring initiatives in order to enhance our growth potential and position us for long-term success. These initiatives are described below.

2016 Restructuring Plan

On June 6, 2016, our Board of Directors approved and we committed to, a restructuring initiative (the 2016 Restructuring Plan). The 2016 Restructuring Plan is intended to develop global commercialization, technology and manufacturing capabilities in key growth markets, build on our Plant Network Optimization (PNO) strategy which is intended to simplify our manufacturing plant

structure by transferring certain production lines among facilities and expand operational efficiencies in support of our operating income margin goals. Key activities under the 2016 Restructuring Plan include strengthening global infrastructure through evolving global real estate assets and workplaces, developing global commercial and technical competencies, enhancing manufacturing and distribution expertise in certain regions and continuing implementation of our PNO strategy. These activities were initiated in the second quarter of 2016 and are expected to be substantially completed by the end of 2018. We revised the original estimate for the costs and savings associated with the program in the first quarter of 2018, as approved by the Board of Directors.

The following table provides a summary of our estimates of total pre-tax charges associated with the 2016 Restructuring Plan by major type of cost:

Type of cost	Total Estimated Amount Expected to be Incurred
Restructuring charges:	
Termination benefits	$95 million to $105 million
Other (1)	$15 million to $25 million
Restructuring-related expenses:	
Other (2)	$165 million to $195 million
	$275 million to $325 million

(1) Consists primarily of consulting fees and costs associated with contract cancellations.
(2) Comprised of other costs directly related to the 2016 Restructuring Plan, including program management, accelerated depreciation and costs to transfer product lines among facilities.

Approximately $250 million to $300 million of these charges are estimated to result in cash outlays.

2014 Restructuring Plan

On October 22, 2013, our Board of Directors approved and we committed to, a restructuring initiative (the 2014 Restructuring Plan). The 2014 Restructuring Plan built on the progress we made to address financial pressures in a changing global marketplace, further strengthened our operational effectiveness and efficiency and supported new growth investments. Key activities under the plan included continued implementation of our PNO strategy, continued focus on driving operational effectiveness and efficiencies and business and commercial model changes. The PNO strategy simplified our manufacturing plant structure by transferring certain production lines among facilities. Other activities involved rationalizing organizational reporting structures to streamline various functions, eliminate bureaucracy, increase productivity and better align resources to business strategies and marketplace dynamics. These activities were initiated in the fourth quarter of 2013 and were substantially completed by the end of 2015, except for certain actions associated with our PNO strategy, which were completed by the end of 2016.

The following table provides a summary of our total pre-tax charges associated with the 2014 Restructuring Plan by major type of cost:

Type of cost	Total Amount Incurred
Restructuring charges:	
Termination benefits	$91 million
Other (1)	$34 million
Restructuring-related expenses:	
Other (2)	$136 million
	$261 million

(1) Consists primarily of consulting fees and costs associated with contract cancellations.
(2) Comprised of other costs directly related to the 2014 Restructuring Plan, including program management, accelerated depreciation and costs to transfer product lines among facilities.

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The following presents the restructuring charges (credits) recorded pursuant to our restructuring plans by major type and line item within our accompanying consolidated statements of operations, as well as by program:

Year Ended December 31, 2017

(in millions)	Termination Benefits	Accelerated Depreciation	Transfer Costs	Other	Total
Restructuring charges	$ 25	$ —	$ —	$ 12	$ 37
Restructuring-related expenses:					
Cost of products sold	—	—	45	—	45
Selling, general and administrative expenses	—	7	—	6	13
	—	7	45	6	58
	$ 25	$ 7	$ 45	$ 18	$ 95

All charges incurred in 2017 were related to the 2016 Restructuring Plan.

Year Ended December 31, 2016

(in millions)	Termination Benefits	Accelerated Depreciation	Transfer Costs	Fixed Asset Write-offs	Other	Total
Restructuring charges	$ 19	$ —	$ —	$ 2	$ 7	$ 28
Restructuring-related expenses:						
Cost of products sold	—	—	34	—	—	34
Selling, general and administrative expenses	—	5	—	—	11	16
	—	5	34	—	11	50
	$ 19	$ 5	$ 34	$ 2	$ 18	$ 78

(in millions)	Termination Benefits	Accelerated Depreciation	Transfer Costs	Fixed Asset Write-offs	Other	Total
2016 Restructuring Plan	$ 24	$ 1	$ 15	$ —	$ 7	$ 47
2014 Restructuring Plan	(5)	4	19	2	11	31
	$ 19	$ 5	$ 34	$ 2	$ 18	$ 78

Year Ended December 31, 2015

(in millions)	Termination Benefits	Accelerated Depreciation	Transfer Costs	Other	Total
Restructuring charges	$ 23	$ —	$ —	$ 3	$26
Restructuring-related expenses:					
Cost of products sold	—	—	31	—	31
Selling, general and administrative expenses	—	3	—	23	26
	—	3	31	23	57
	$ 23	$ 3	$ 31	$ 26	$83

(in millions)	Termination Benefits	Accelerated Depreciation	Transfer Costs	Other	Total
2014 Restructuring plan	$ 27	$ 3	$ 31	$ 26	$87
Substantially complete restructuring plan	(4)	—	—	—	(4)
	$ 23	$ 3	$ 31	$ 26	$83

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The following table presents cumulative restructuring and restructuring-related charges incurred as of December 31, 2017, related to our 2016 Restructuring Plan and our 2014 Restructuring Plan:

(in millions)	2016 Restructuring Plan	2014 Restructuring Plan	Total
Termination benefits	$ 49	$ 91	$140
Fixed asset write-offs	—	2	2
Other (1)	16	32	48
Total restructuring charges	65	125	190
Accelerated depreciation	9	12	21
Transfer costs	60	75	135
Other (2)	8	49	57
Restructuring-related charges	77	136	213
	$ 142	$ 261	$403

(1) Consists primarily of consulting fees and costs associated with contract cancellations.
(2) Comprised of other costs directly related to our Restructuring Plans, including program management, accelerated depreciation and costs to transfer product lines among facilities.

Cash payments associated with our 2016 Restructuring Plan and 2014 Restructuring Plan were made using cash generated from operations and are comprised of the following:

(in millions)	2016 Restructuring Plan	2014 Restructuring Plan	Total
Year Ended December 31, 2017			
Termination benefits	$ 19	$ —	$19
Transfer costs	45	—	45
Other	6	—	6
	$ 70	$ —	$70
Program to Date			
Termination benefits	$ 27	$ 93	$120
Transfer costs	60	74	134
Other	10	77	87
	$ 97	$ 244	$341

Our restructuring liability is primarily comprised of accruals for termination benefits. The following is a rollforward of the termination benefit liability associated with our 2016 Restructuring Plan and our 2014 Restructuring Plan, which is reported as a component of accrued expenses included in our accompanying consolidated balance sheets:

(in millions)	2016 Restructuring Plan	2014 Restructuring Plan	Total
Accrued as of December 31, 2015	$ —	$ 29	$29
Charges	24	(5)	19
Cash payments	(8)	(24)	(32)
Accrued as of December 31, 2016	$ 16	$ —	$16
Charges	25	—	25
Cash payments	(19)	—	(19)
Accrued as of December 31, 2017	$ 22	$ —	$22

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NOTE H – SUPPLEMENTAL BALANCE SHEET INFORMATION

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

Trade accounts receivable, net

(in millions)	As of December 31, 2017	December 31, 2016
Accounts receivable	$1,645	$ 1,591
Less: allowance for doubtful accounts	(68)	(73)
Less: allowance for sales returns	(30)	(46)
	$1,548	$ 1,472

The following is a rollforward of our allowance for doubtful accounts:

	Year Ended December 31,		
(in millions)	2017	2016	2015
Beginning balance	$73	$75	$76
Net charges to expenses	14	9	15
Utilization of allowances	(18)	(11)	(16)
Ending balance	$68	$73	$75

Inventories

(in millions)	As of De