2018 ANNUAL REPORT

Teleflex®

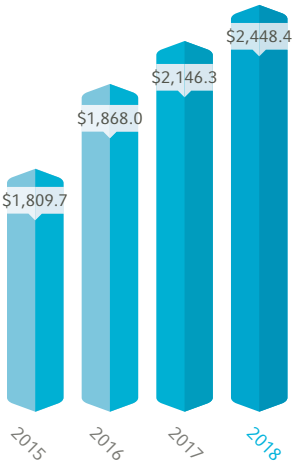
Drive to High Growth

Growing | *Innovating* | *Connecting*

FINANCIAL HIGHLIGHTS

FROM CONTINUING OPERATIONS

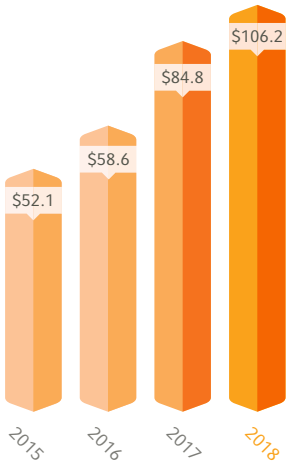
(Dollars in millions, except per share data)



NET REVENUES

14.1%

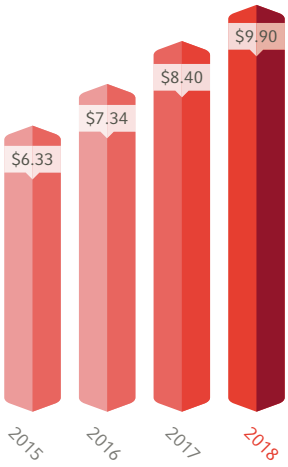
Variance



RESEARCH AND DEVELOPMENT

25.3%

Variance



ADJUSTED EARNINGS PER SHARE [1]

17.9%

Variance

NET CASH PROVIDED BY OPERATING ACTIVITIES

2.1%

Variance

2018 NET REVENUES BY REPORTING SEGMENT

- 16% All Other
- 8% Anesthesia North America
- 12% Asia Pacific
- 25% Europe, Middle East, and Africa
- 11% Interventional North America
- 8% OEM
- 7% Surgical North America
- 13% Vascular North America

2018 NET REVENUES BY END MARKET

- 4% Home Care
- 9% Medical Device Manufacturers
- 87% Hospitals and Healthcare Providers

[1] A table reconciling adjusted earnings per share to the most directly comparable GAAP measure can be found at the end of this Annual Report. Tables reconciling our 2018 constant currency revenue growth and adjusted operating margin, which are discussed in this Annual Report, to the most directly comparable GAAP measures are also included at the end of this Annual Report.

Drive to High Growth

Growing | *Innovating* | *Connecting*

The global healthcare market is rapidly expanding, and Teleflex is at the forefront of this growth. As we enter 2019, we are steadily advancing our mission of enabling safer and more cost-effective health outcomes for patients around the world, while establishing Teleflex as a high-growth company that can generate strong and consistent value for our shareholders, customers, and employees.

GROWING

We are driving sustainable, long-term growth across our products, margins, and markets, and we are creating new opportunities for our global constituents.

INNOVATING

We are bringing advanced medical devices that fill unmet needs for both patients and healthcare providers to key clinical markets and high-growth regions around the globe.

CONNECTING

We are connecting with our customers at every point in their process—from defining their needs to developing effective solutions that improve health outcomes, create efficiencies, and reduce medical costs.

ARROW® DEKNATEL® HUDSON RCI® LMA® MANTA™ Vascular Closure Device

Pilling® RÜSCH® UROLIFT® Vascular Solutions WECK®

The Teleflex portfolio comprises many trusted names in medical technology, including Arrow®, Deknatel®, Hudson RCI®, LMA®, Manta™, Pilling®, Rüsch®, Urolift®, Vascular Solutions, and Weck®. Diverse in focus and unique in approach, these entities are united by a common sense of purpose: To leverage best-in-class technologies to enable effective clinical solutions for patients and healthcare providers around the world.

TO OUR SHAREHOLDERS

For Teleflex, 2018 was a milestone year. We marked our 75th anniversary and continued to advance our mission of improving the health and quality of people's lives around the world. We delivered meaningful growth in revenues, margins, and earnings, and generated strong shareholder value. At the same time, we executed a wide range of strategic initiatives that accelerated our transition to becoming a high-growth company and further solidified our foundation for the future.

OUR HIGHLIGHTS FOR 2018 INCLUDE:

- We integrated our two 2017 scale acquisitions and capitalized on the synergies they created.
- We fueled innovation, launching 11 new products and line extensions and generating 1.6% revenue growth from new product sales.
- We invested in our pipeline, advancing the development of several key products.
- We acquired Essential Medical, enhancing our portfolio with a new product that serves a large addressable market.
- We continued to execute on our previously announced restructuring programs and launched a new restructuring program to generate additional savings.

We also delivered strong 2018 financial results, including constant currency growth of 12.7% and adjusted earnings per share growth of 17.9%. The credit for our 2018 accomplishments belongs to our employees, who deliver excellence every day, and we thank them for a job well done. During the year, we reinforced the importance of our employees by continuing to invest in a rewarding work environment. Among other initiatives, we launched a new platform to expand our corporate responsibility efforts, and we enhanced our benefits plan.

DRIVE TO HIGH GROWTH

As the world's population ages, demand for healthcare is rising. Markets around the globe are seeking better ways to administer this care, and many are turning to Teleflex for help. Our portfolio includes innovative products designed to increase patient safety, reduce recovery times, and decrease overall healthcare expenses. Moreover, many of our products are focused on "non-postponable" procedures that must be performed in a timely manner. Collectively, these factors place Teleflex in a prime position to accelerate growth. We are committed to becoming a high-growth company, and we have set a goal of delivering organic constant currency revenue growth of 6%-7% from 2019 through 2021. We are working toward this by executing our growth strategy, which we call DRIVE to High Growth. This strategy includes five tenets: Deliver accelerated new product growth, Reach deeper product utilization, Invest in key market segments, Value addition through global infrastructure, and Execute strategic M&A. We are making significant progress in these areas and are on track to meet our multi-year financial targets.

INVESTING IN GROWTH MARKETS

Our strategy centers on investing in markets that offer the highest potential returns on capital, including catheter complications, anesthesia and emergency medicine, percutaneous laparoscopy, interventional cardiology, and interventional urology. We are fueling growth in these markets by promoting differentiated products that have clear clinical value, significant intellectual property protection, and strong margins. In segments where Teleflex is already a market leader, such as catheter complications and emergency medicine, we are driving deeper utilization of existing products. In other markets, such as percutaneous laparoscopy and interventional cardiology, we are expanding our market share by promoting increased product utilization. In interventional urology, the UroLift® System has made us the market leader for the minimally invasive treatment of benign prostatic hyperplasia (BPH), but we are early in the adoption phase of this product and face significant opportunity for global growth.

MAXIMIZING OUR GLOBAL INFRASTRUCTURE

We continuously evaluate our global infrastructure to identify opportunities for non-revenue dependent margin growth. Over the past four years, we have initiated several restructuring programs that have yielded significant savings for Teleflex. In 2018, we continued to execute our previously announced programs, delivering adjusted operating margin of 25.7%, and we outlined a new multi-year margin expansion plan. This plan includes a footprint consolidation initiative, which will improve our operating leverage and is expected to generate adjusted operating margin of between 30% and 31% by 2021.

EXECUTING STRATEGIC M&A

We have made excellent progress in integrating our 2017 acquisitions of Vascular Solutions and NeoTract. In 2018, Vascular Solutions delivered revenue growth of approximately 37%, largely driven by the distributor-to-direct conversions we initiated in 2017. NeoTract exceeded our expectations, contributing approximately 90 basis points toward our full-year organic constant currency revenue growth rate. We enhanced our product portfolio by acquiring Essential Medical, a privately-held medical device company that has developed the MANTA™ Vascular Closure Device. A unique system for closing large-bore arteriotomies, MANTA™ has been approved in the European Union since 2016. In early 2019, MANTA™ received FDA pre-market approval, making it a first-to-market solution in the U.S. We also advanced our M&A strategy by continuing to make select distributor-to-direct conversions. Going direct has generated significant value for Teleflex, including stronger revenue growth, closer customer relationships, and improved margins. As a result, we continue to seek promising future opportunities to convert to this model.

FACING A BRIGHT FUTURE

Our management team enters 2019 with confidence. We are an established leader in key growth markets, with a large and differentiated portfolio of products, backed by well-respected global brands. We have the scale, infrastructure, and footprint to command a meaningful presence in the global healthcare market, as well as the flexibility to move quickly and make sound business decisions. We have an exceptional track record for execution, underscored by our consistent ability to deliver steady growth in both revenues and margins. Finally, we have a sound strategy, a proven management team, and dedicated employees. We move forward committed to capitalizing on these strengths to achieve our financial targets and reward the support of our shareholders.

LIAM J. KELLY
President and Chief Executive Officer

THOMAS E. POWELL
Executive Vice President and Chief Financial Officer

DRIVE TO HIGH GROWTH

We are committed to transforming Teleflex into a high-growth company, and we are on track to deliver average constant currency revenue growth of 6%-7% from 2019 through 2021. The springboard for our progress is our growth strategy, which focuses on five tenets:

2019-2021 DRIVE TO HIGH GROWTH

Deliver accelerated new product growth

Reach deeper product utilization

I nvest in key market segments

Value addition through global infrastructure

Execute strategic M&A

DELIVER ACCELERATED NEW PRODUCT GROWTH

We have an excellent track record for fueling growth through product innovation. We are leveraging this momentum by continuing to launch highly differentiated products that address unmet clinical needs and offer strong margins.

REACH DEEPER PRODUCT UTILIZATION

We have the potential to capture significant market share by promoting increased utilization of our existing products among current customers. We are focusing our attention on differentiated, high-margin products within large markets that offer us the greatest opportunity for increased penetration.

INVEST IN KEY MARKET SEGMENTS

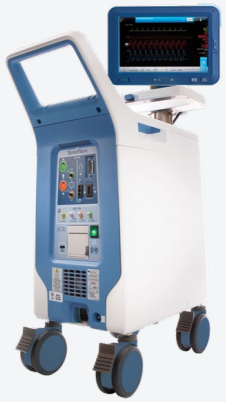
We are investing in key medical sectors that offer the highest potential returns on capital, as well as significant room for market share expansion, including catheter complications, anesthesia and emergency medicine, percutaneous laparoscopy, interventional cardiology, and interventional urology. Within these markets, we are promoting clinically differentiated products that can command high margins and have strong intellectual property protection.

VALUE ADDITION THROUGH GLOBAL INFRASTRUCTURE

We are leveraging our powerful global infrastructure to enter high-growth markets by launching new products, introducing existing products into new regions, and executing our "go-direct" strategy in select areas of the world. This includes leveraging our distribution model in China to promote key products.

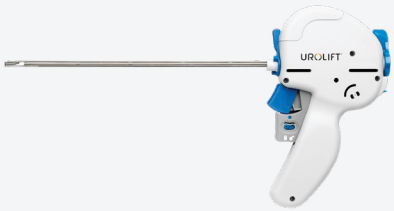
EXECUTE STRATEGIC M&A

We are continuing to seek acquisition opportunities that will enable us to deliver shareholder value by strengthening our financial profile, increasing our scale, building our product portfolio, and fortifying our innovation capabilities.



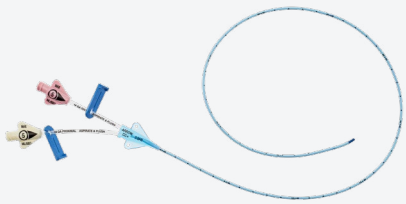
AC3 OPTIMUS™ INTRA-AORTIC BALLOON PUMP

Our product innovations include the AC3 Optimus™ Intra-Aortic Balloon Pump (IABP), which helps a weakened heart to pump blood, allowing clinicians to deliver IABP therapy to a broad range of patients, even those with severe arrhythmias. In 2018, this product earned a prestigious Medical Design Excellence Award.



THE UROLIFT® SYSTEM

We are working diligently to position unique, high-margin products within promising markets across Europe and Asia, including the UroLift® System, which represents a breakthrough in the area of minimally invasive benign prostatic hyperplasia (BPH) care.



ARROW+GARD BLUE ADVANCE™ PICC

We are working to expand our presence in China by continuing to introduce key products to this burgeoning market, including our line of coated peripherally inserted central catheters (PICCs), which use our proprietary Arrow+gard Blue Advance™ Technology to provide broad-spectrum antimicrobial and antithrombogenic protection.

CAMERON HICKS

Vice President, Global Human Resources and Employee Communications

> *"Our employees take pride in the fact that the work they do truly makes a difference in people's lives. This fuels a genuine passion for their jobs that is evident across our entire organization."*

The primary force behind our company's success has always been our people. In every area of our business, we employ industry leaders who stand out not only for their insight and experience, but also for their commitment to our mission of improving health outcomes for people around the world. Every day, our employees do their part to fulfill this mission. From interacting with our customers, to conducting R&D, to testing new products, to ensuring that our supply chain is reliable and efficient, our people deliver a level of excellence that sets Teleflex apart within the medical device industry.

THE TELEFLEX ADVANTAGE

Teleflex is committed to being the best place to work within our industry. We fulfill this goal by taking decisive measures to provide a rewarding environment. This includes creating a diverse and welcoming corporate culture, cultivating a strong entrepreneurial spirit, offering meaningful growth opportunities, and rewarding employees for their dedication. In 2018, we demonstrated our commitment to our employees by rolling out an enhanced benefits package. As of 2019, eligible U.S.-based employees will receive new and expanded family-friendly benefits, including parental leave, infertility services, and adoption support. Just as our employees help improve the lives of millions of patients and healthcare providers around the world, we expect our expanded benefits plan to make a difference for our employees and their families.

Clinicians around the world count on Teleflex products to add meaningful value, and we respond by delivering the highest levels of innovation, quality, and efficiency in our industry. Every day, our products make a difference for patients in a variety of healthcare settings, including:

31,000
In more than 31,000 surgical procedures across the United States

1,600
For more than 1,600 patients who require vascular access intervention

6,000
For more than 6,000 patients in the Intensive Care Unit

3,200
By 3,200 emergency responders to treat patients in the field

Statistics included in the graphic above were calculated based on 2016 sales data, and management assumptions and estimates.

BEST PLACE TO WORK

Teleflex was named one of the top Best Places to Work for both 2018 and 2019 by the MedReps community of medical sales talent. According to respondents, Teleflex earned these accolades as a result of our positive culture and exceptional ability to make a difference for our customers.

JOIN ACT WITH PURPOSE

In 2018, we formalized our corporate social responsibility activities by launching JOIN Act with Purpose, a broad-based platform with a global governing body and charter. JOIN Act with Purpose will serve as the umbrella for our corporate responsibility activities, advancing and expanding our commitment to sustainability, philanthropy, environmental issues, and community involvement.

CELEBRATING OUR 75TH ANNIVERSARY

We commemorated our milestone anniversary by sponsoring special volunteer events across our global business, which honored Teleflex's commitment to improving the health and quality of people's lives. Our employees were encouraged to conduct these events in collaboration with local nonprofit healthcare organizations during June, the month that Teleflex was originally incorporated in 1943. Our workforce answered the call, with approximately 4,000 employees at 50 Teleflex sites giving back to 76 charities.

GWEN CHAPMAN

Vice President, Chief Compliance Officer

> *"The same entrepreneurial spirit that fuels Teleflex's product innovation drives our exceptional commitment to maintaining uncompromising compliance and ethical standards."*

Our mission is to provide clinically effective medical technologies that improve the health and quality of people's lives. Achieving this requires us to uphold the highest standards for product quality and safety, and to maintain the strictest compliance benchmarks in the medical device industry. Our compliance function encompasses every facet of our operations. We employ "best practices" of corporate governance, including meeting extensive global legal and regulatory requirements. We maintain exemplary ethical standards across our business, and we reinforce responsibility and trust at all levels of our organization through training, reward programs, and regular performance reviews. Ethics are an integral aspect of compliance, as well as an important part of Teleflex's growth strategy, and we are making significant investments in this area. This includes bringing in new talent, as well as launching new programs, training platforms, and communications vehicles that support our goal of offering a satisfying work environment that encompasses diversity, community involvement, and a strong environmental scorecard.

MARIO WIJKER

Vice President, Global Quality Assurance and Regulatory Affairs

> *"Quality is a Teleflex hallmark, and we are making significant investments to ensure that we continue to set the industry standard for excellence."*

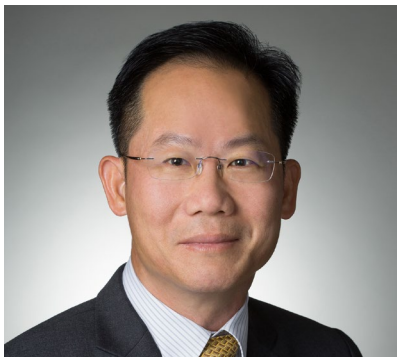
Teleflex operates in a fast-moving environment that requires unfailing attention to stringent regulatory and quality standards. We deliver a broad range of products to customers around the world. Each of these countries has a distinct set of regulatory requirements, some of which are evolving in concert with rising consumer demand for medical care. At the same time, our growth continues to bring new businesses, products, facilities, and people under the Teleflex umbrella. We are sharply focused on assimilating these additions while maintaining our strict quality standards in every business and every geography, every day. This effort guides the way we design, manufacture, package, and label our products, as well as the way we train our employees, market to our customers, and oversee our vendors and suppliers. It also includes a deep commitment to maintaining excellence in regulatory affairs, which is vital to our ability to streamline the process of new product registrations and expedite growth in global markets.

MICHELLE FOX
Vice President, Clinical and Medical Affairs

"We provide specialized training to approximately 80 thousand healthcare professionals each year, helping to drive effective product usage and advance our mission of improving patient care throughout the world."

Teleflex is an industry leader in the area of clinical education, funding a growing range of innovative programs to educate the clinicians who use our products and ensure efficient, high-quality usage. This effort is vital to our progress. Not only does clinical education help us to fulfill our corporate mission of improving health outcomes, it also enables us to spur the widespread adoption of our products, and to expand product utilization into new clinical situations. We partner with leading medical professional societies around the world to administer our clinical education programs, including our Clinical and Medical Affairs Procedural Lab Program, which uses cadaveric specimens and simulation to demonstrate advanced medical procedures and techniques in a real-world environment. As Teleflex has grown, we have dramatically increased our investment in clinical and medical affairs, and today this area is a global function with a significant presence in our Europe, Middle East, and Africa (EMEA) region and a rapidly expanding position in Asia-Pacific.

JEAN-LUC DIANDA
President, EMEA and Global Urology



SUNNY GOH
President, APAC

JAY WHITE
President, The Americas

"We are leveraging our powerful global infrastructure to drive growth in select markets, geographic regions and products that offer the greatest potential for long-term value."

Our global infrastructure is a powerful growth vehicle for Teleflex, and we are aggressively leveraging it to achieve our financial objectives. This effort includes identifying opportunities to introduce both new products and legacy products into new geographies. We make these decisions carefully, allocating our resources to high-margin products and high-growth markets that offer significant potential for us to increase our market share. Once we have identified these factors, we rely on close collaboration between our business units and our international teams to develop country-specific strategies for each product. We are currently working to register our line of coated peripherally inserted central catheters (PICCs) in China, and we are developing plans to position the UroLift® System and key Vascular Solutions products within promising markets across Europe and Asia. We are also continuing to pursue distributor-to-direct conversions in order to accelerate revenue growth, strengthen customer relationships, and drive margins.

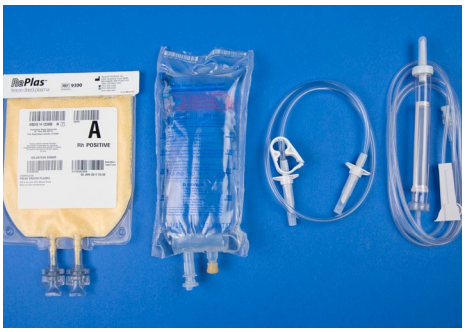
JAMES WINTERS
Vice President, Manufacturing

BERT LANE
Vice President, Global Logistics and Distribution

> *"As we grow, our supply chain continues to offer us significant opportunities to create efficiencies that increase our margins, and we are committed to capturing them."*

We continuously evaluate our supply chain to identify ways to expand our margins that are not dependent on revenues. These efforts are crucial to maintaining our competitive position, and we are committed to delivering a combination of consistent evaluation, purposeful restructuring, strict expense controls, and sound execution that will produce meaningful results. Over the past several years, we have initiated several restructuring programs that have enabled us to improve margins and to realize approximately $69 million in cumulative savings as of the end of 2018. In addition to savings already achieved, our restructuring programs are expected to generate between $55 and $68 million in additional annualized savings through 2026. In 2018, we continued to implement these plans, keeping us well on track to reach our 2021 margin targets. Finally, every acquisition we complete creates new opportunities for us to streamline our operational functions, realize efficiencies, and reduce our costs, and we will continue to develop and execute restructuring programs that add meaningful value.

DRIVING GROWTH THROUGH SCALE ACQUISITIONS



Vascular Solutions' patented RePlas™ Freeze Dried Plasma is a blood component that is currently limited by U.S. Federal law to investigational use only (not approved by the FDA), but is rapidly moving down the regulatory path and is on track to receive Biologics License Application (BLA) approval in 2019. A lyophilized fresh frozen plasma that utilizes a proprietary manufacturing process to allow for reconstitution prior to use, RePlas™ has valuable applications in time-sensitive military and emergency situations, and faces an estimated $100 million market opportunity.

VASCULAR SOLUTIONS

Our acquisition of Vascular Solutions provided Teleflex with a broad range of differentiated interventional cardiology and radiology products, as well as a strong pipeline of technologies in development. In 2018, this business posted strong revenues, driven in part by the success of the distributor-to-direct strategy we executed in late 2017, which gave us greater control over our sales channel. We also made significant progress in advancing the development of key Vascular Solutions products during the year, and we continued to capitalize on synergies created by our acquisition, including leveraging our global distribution platform to market these products to our existing customers. Looking ahead, we believe that Vascular Solutions is poised to deliver significant new product momentum and strong revenue growth.

GWEN WATANABE

Vice President, Global Corporate Development, Strategy and Strategic Partnerships

"We have a proven track record of identifying acquisition candidates that are a precise strategic fit for our business and have the potential to generate strong and sustainable value."

MANTA™ Vascular Closure Device

Teleflex is a highly experienced acquirer, having completed more than 40 strategic M&A transactions since 2011, including our scale acquisitions of LMA in 2012, Vidacare in 2013, and NeoTract and Vascular Solutions in 2017. Collectively, these transactions have enriched our product portfolio, expanded our global reach, and strengthened our financial metrics. In 2018, we integrated NeoTract and Vascular Solutions, and we acquired Essential Medical, a privately-held medical device company that has developed the MANTA™ Vascular Closure Device for large-bore closure. We believe there is a large unmet need for a reliable large-bore closure system, and MANTA™, which received FDA pre-market approval in early 2019, is poised to be first-to-market within the U.S. We move forward committed to seeking promising acquisition opportunities and maintaining the disciplined M&A process that is a Teleflex hallmark.

In 2018, NeoTract received the Phoenix Emerging Growth Company Award in recognition of its strategically significant acquisition by Teleflex in 2017. The Phoenix Awards recognize outstanding achievements in the medical device and diagnostic industry, and this is the second time NeoTract has earned this honor, having received the Phoenix Most Promising New Product Award for the UroLift® System in 2016.

NEOTRACT

Our acquisition of NeoTract brought us the UroLift® System, an innovative technology for the minimally invasive treatment of benign prostatic hyperplasia (BPH). The UroLift® System has already become a standard of care in the U.S, but we have only scratched the surface of the estimated $30 billion domestic BPH market. We are fueling adoption of the UroLift® System by training our sales teams and clinicians, investing in patient awareness campaigns, and pursuing global growth. In 2018, we received approval to distribute the UroLift® System in Japan, and we continued to invest in clinical data, participating in several real-world studies that helped build the most extensive body of clinical evidence for safety, efficacy and cost effectiveness of any BPH therapy. In addition, in its revised clinical guidelines released in 2018, the American Urological Association (AUA) recognized the UroLift® System as a standard-of-care treatment for lower urinary tract symptoms due to BPH. We are excited about our progress, and we anticipate that NeoTract will make significant contributions to our revenue growth and margin expansion over the long term.

REWARDING EXCELLENCE

WE ARE COMMITTED to rewarding employees who demonstrate exemplary performance while upholding our Core Values, which center around people and include a commitment to building trust, cultivating an entrepreneurial spirit, and maintaining a fun work environment. We created the Teleflex Chairman's Award to celebrate employees who exceed expectations in the areas of innovation, customer focus, and/or productivity. Candidates must be nominated by their peers, and in 2018, we received nominations for a record 42 individuals and teams. After carefully evaluating the candidates and their contributions, we presented the 2018 Teleflex Chairman's Award to:

Jana Vaskova, Jiri Kinc

Location: Zdar, Czech Republic

Jana and Jiri redesigned packaging lines and standardized employee training within their facility, improving both productivity and quality. After soliciting associate feedback, Jana led the transformation of four product lines, designing a new layout and preparing a more efficient packaging process that was fully adopted within eight months. Simultaneously, Jiri introduced Training Within Industry Job Instruction methodology to the same four product lines, ensuring a consistent training process. Collectively, these initiatives yielded a marked increase in short-term efficiency and cost savings.

Matthew Strub

Location: Maple Grove, MN, USA

Matthew automated the Maple Grove manufacturing floor's data collection process, saving substantial labor hours and generating significant cost savings. He eliminated manual tracking on spreadsheets, developed a system to directly import daily production output data into SharePoint, and built a dashboard and phone app to summarize production floor data. Today, the plant's performance can be reviewed in real time, and historical data is readily available. The platform Matthew developed has been implemented in Teleflex's Asheboro, Arlington Heights, Chelmsford, and Plymouth plants and will launch in Mexico in 2019.

CLINICAL AND MEDICAL AFFAIRS PROCEDURAL LAB COMMITTEE

Standing row left to right: **Karen Hust, Matt Becka, Sean Allen, Jim Blosser, Dan Smith, Heather Wear**
Seated row left to right: **Kelli Thomas, Heather Suhor, Dr. Chris Davlantes, Elizabeth Conaway, Amy Mills**
Not pictured: **Amy Bardin, Justin Clements, Tim Collins, Joanna Lim**

Location: Global

This team was tasked with ensuring that healthcare providers were fully educated regarding the safe use of the Arrow® EZ-IO® Intraosseous Vascular Access System and select Teleflex airway products. The team researched our existing educational modalities, developed an enriched subject matter platform, and obtained feedback from both faculty and healthcare providers on how to better serve their needs. Following this, they piloted and tracked an innovative new education format, through which they successfully executed cadaveric lab tracks in the U.S., as well as local labs and two society labs in EMEA, and labs in APAC.

INTERVENTIONAL UROLOGY MARKETING TEAM

Michael Waidler, Matt Monarski, Lisa Tran, Nicole Hill, Jessica Eddy, Tom Panchak

Location: Pleasanton, CA, USA

This six-member team created a public relations program that is fueling patient awareness of the UroLift® System on both a local and national scale, and driving increased traffic to this product's website, already creating significant opportunities for media audiences to view UroLift® coverage. The team's initiatives included conducting a men's health survey, placing news articles in key clinical publications, building a turnkey program to create stories featuring regional physicians and patients, and placing hundreds of these stories in local media. The team also launched Google and Facebook advertising, and revamped the UroLift® website to feature clearer educational language, a symptom analyzer, and a physician locator.

Teleflex®

FORM 10K

FOR THE FISCAL YEAR ENDED
DECEMBER 31, 2018

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018 or

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

For the transition period from_____ to _____.
Commission file number 1-5353

TELEFLEX INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware	**23-1147939**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. employer identification no.)**
550 East Swedesford Road, Suite 400, Wayne, Pennsylvania	**19087**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (610) 225-6800

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

Title of Each Class	**Name of Each Exchange On Which Registered**
Common Stock, par value $1 per share	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

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

The aggregate market value of the Common Stock of the registrant held by non-affiliates of the registrant (28,548,748 shares) on July 1, 2018 (the last business day of the registrant's most recently completed fiscal second quarter) was $7,592,539,530[(1)]. The aggregate market value was computed by reference to the closing price of the Common Stock on such date, as reported by the New York Stock Exchange.

The registrant had 46,020,435 Common Shares outstanding as of February 19, 2019.

DOCUMENT INCORPORATED BY REFERENCE:

Certain provisions of the registrant's definitive proxy statement in connection with its 2018 Annual Meeting of Stockholders, to be filed within 120 days of the close of the registrant's fiscal year, are incorporated by reference in Part III hereof.

(1) For purposes of this computation only, the registrant has defined "affiliate" as including executive officers and directors of the registrant and owners of more than five percent of the common stock of the registrant, without conceding that all such persons are "affiliates" for purposes of the federal securities laws.

TELEFLEX INCORPORATED
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2018
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Information Concerning Forward-Looking Statements

All statements made in this Annual Report on Form 10-K, other than statements of historical fact, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “will,” “would,” “should,” “guidance,” “potential,” “continue,” “project,” “forecast,” “confident,” “prospects” and similar expressions typically are used to identify forward-looking statements. Forward-looking statements are based on the then-current expectations, beliefs, assumptions, estimates and forecasts about our business and the industry and markets in which we operate. These statements are not guarantees of future performance and are subject to risks and uncertainties, which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or implied by these forward-looking statements due to a number of factors, including:

- changes in business relationships with and purchases by or from major customers or suppliers, including delays or cancellations in shipments;
- demand for and market acceptance of new and existing products;
- our inability to integrate acquired businesses into our operations, realize planned synergies and operate such businesses profitably in accordance with our expectations;
- our inability to effectively execute our restructuring programs;
- our inability to realize anticipated savings resulting from restructuring plans and programs;
- the impact of enacted healthcare reform legislation and proposals to amend or replace the legislation;
- changes in Medicare, Medicaid and third-party coverage and reimbursements;
- the impact of tax legislation and related regulations;
- competitive market conditions and resulting effects on revenues and pricing;
- increases in raw material costs that cannot be recovered in product pricing;
- global economic factors, including currency exchange rates, interest rates, trade disputes, sovereign debt issues and the impact of the United Kingdom's pending departure from the European Union, commonly referred to as "Brexit";
- difficulties entering new markets; and
- general economic conditions.

For a further discussion of the risks relating to our business, see Item 1A, “Risk Factors” in this Annual Report on Form 10-K. We expressly disclaim any obligation to update these forward-looking statements, except as otherwise explicitly stated by us or as required by law or regulation.

PART I

ITEM 1. *BUSINESS*

Teleflex Incorporated is referred to herein as “we,” “us,” “our,” “Teleflex” and the “Company.”

THE COMPANY

Teleflex is a global provider of medical technology products that enhance clinical benefits, improve patient and provider safety and reduce total procedural costs. We primarily design, develop, manufacture and supply single-use medical devices used by hospitals and healthcare providers for common diagnostic and therapeutic procedures in critical care and surgical applications. We market and sell our products to hospitals and healthcare providers worldwide through a combination of our direct sales force and distributors. Because our products are used in numerous markets and for a variety of procedures, we are not dependent upon any one end-market or procedure. We manufacture our products at approximately 35 manufacturing sites, with major manufacturing operations located in the Czech Republic, Germany, Malaysia, Mexico and the United States (the "U.S.").

We are focused on achieving consistent, sustainable and profitable growth and improving our financial performance by increasing our market share and improving our operating efficiencies through:

- development of new products and product line extensions;
- investment in new technologies and broadening the application of our existing technologies;
- expansion of the use of our products in existing markets and introduction of our products into new geographic markets;
- achievement of economies of scale as we continue to expand by utilizing our direct sales force and distribution network to sell new products, as well as by increasing efficiencies in our sales and marketing organizations, research and development activities and manufacturing and distribution facilities; and
- expansion of our product portfolio through select acquisitions, licensing arrangements and business partnerships that enhance, expand or expedite our development initiatives or our ability to increase our market share.

Our research and development capabilities, commitment to engineering excellence and focus on low-cost manufacturing enable us to bring cost effective, innovative products to market that improve the safety, efficacy and quality of healthcare. Our research and development initiatives focus on developing these products for both existing and new therapeutic applications, as well as developing enhancements to, and product line extensions of, existing products. During 2018 we introduced several product line extensions and 11 new products. Our portfolio of existing products and products under development consists primarily of Class I and Class II medical devices, most of which require 510(k) clearance by the United States Food and Drug Administration ("FDA") for sale in the United States, and some of which are exempt from the requirement to obtain 510(k) clearance. We believe that 510(k) clearance or 510(k)-exempt status reduces our research and development costs and risks, and typically results in a shorter timetable for new product introductions as compared to the premarket approval, or PMA, process that would be required for Class III medical devices. See "Government Regulation" below for additional information.

HISTORY AND RECENT DEVELOPMENTS

Teleflex was founded in 1943 as a manufacturer of precision mechanical push/pull controls for military aircraft. From this original single market, single product orientation, we expanded and evolved through entries into new businesses, development of new products, introduction of products into new geographic or end-markets and acquisitions and dispositions of businesses. Throughout our history, we have continually focused on providing innovative, technology-driven, specialty-engineered products that help our customers meet their business requirements.

Beginning in 2007, we significantly changed the composition of our portfolio of businesses, expanding our presence in the medical device industry, while divesting all of our other businesses, which served the aerospace, automotive, industrial and marine markets. Following the divestitures of our marine business and cargo container and systems businesses in 2011, we became exclusively a medical device company.

We expect to continue to increase the size of our business through a combination of acquisitions and organic growth initiatives.

Recent acquisitions and distributor-to-direct sales conversions

In 2017, we completed two large scale acquisitions: NeoTract, Inc. ("NeoTract") and Vascular Solutions, Inc. (“Vascular Solutions”). NeoTract was a medical device company that developed and commercialized the UroLift System, a minimally invasive medical device for treating lower urinary tract symptoms due to benign prostatic hyperplasia, or BPH. Vascular Solutions was a medical device company that developed and marketed clinical products for use in minimally invasive coronary and peripheral vascular procedures.

During the past several years, we have also completed a number of smaller acquisitions and "distributor to direct" sales conversions in several countries. Distributor to direct sales conversations generally involve the elimination of a distributor from the sales channel, either by acquiring the distributor or terminating the distribution relationship (in some instances, particularly in Asia, the conversions involve our acquisition or termination of a master distributor and the continued sale of our products through sub-distributors). Our distributor to direct sales conversions generally enable us to obtain improved product pricing and more direct access to the end users of our products within the sales channel.

See Note 4 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information regarding recent acquisitions and distributor to direct sales conversions.

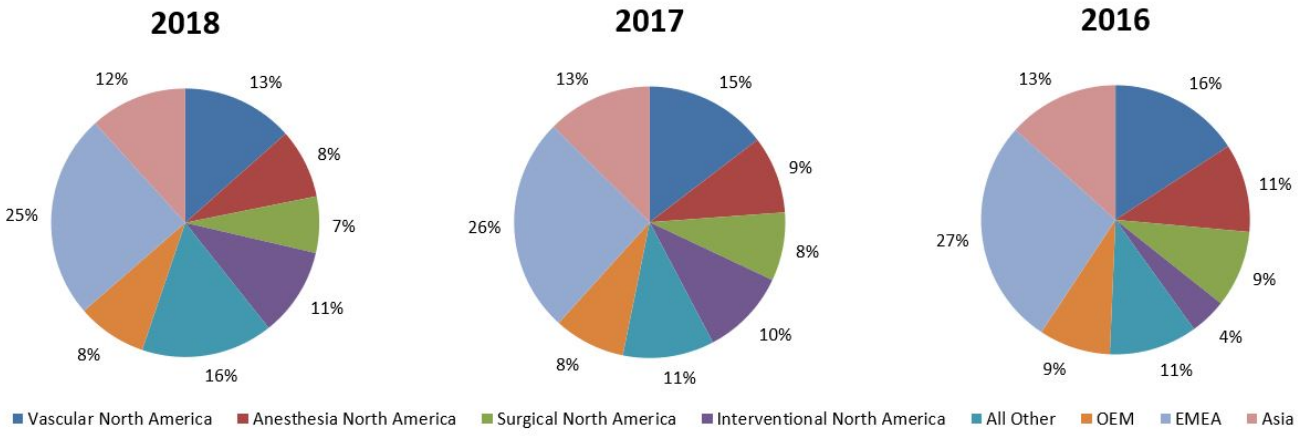
Restructuring programs

We continue to execute our footprint realignment and other restructuring programs designed to improve efficiencies in our manufacturing and distribution facilities and, to a lesser extent, our sales and marketing and research and development organizations. See Note 5 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

OUR SEGMENTS

We have the following seven reportable segments: Vascular North America, Interventional North America, Anesthesia North America, Surgical North America, EMEA, Asia and OEM. In connection with the presentation of segment information, we present certain operating segments, which include Interventional Urology North America and Respiratory North America, as well as Latin America, collectively in the “all other” category because separate information with regard to each of these operating segments is not material.

The following charts depict our net revenues by reportable operating segment and by the operating segments in the "all other" category as a percentage of our total consolidated net revenues for the years ended December 31, 2018, 2017 and 2016.



Vascular North America: Our Vascular North America segment is comprised of our North American vascular access business, which offers products that facilitate a variety of critical care therapies and other applications. These products primarily consist of our Arrow branded catheters and related devices, such as catheter positioning systems. They are used in a wide range of procedures, including the administration of intravenous therapies, the measurement

of blood pressure and the withdrawal of blood samples through a single puncture site. This portfolio principally consists of the following products:

- Arrow Central Venous Catheters (CVCs): Arrow CVCs are inserted in the neck or shoulder area and come in multiple lengths with up to five channels, or lumens. They are available with a pressure injectable option that gives clinicians who perform contrast-enhanced CT scans the ability to use an indwelling (in the body) pressure injectable Arrow CVC to inject contrast dye for the scan without having to insert a second catheter.
- Arrow EZ-IO Intraosseous Vascular Access System: The Arrow EZ-IO system provides intraosseous, or in the bone, access for the delivery of medications and fluids when traditional vascular access is difficult or impossible. Sales of the Arrow EZ-IO system to our hospital customers are included in our Vascular North America segment results, while, as noted below, sales of the product for use in pre-hospital emergency settings are included in our Anesthesia North America segment results.
- Arrow Peripherally Inserted Central Catheters (PICCs): Arrow PICCs are soft, flexible catheters that are inserted in the upper arm and advanced into a vein that carries blood to the heart in order to administer various types of intravenous medications and therapies. Arrow PICCs have a pressure injectable option that can withstand the higher pressures required to inject contrast media for CT scans.
- Arrow Jugular Axillo-subclavian Central Catheters (JACCs): Arrow JACCs are designed to be inserted in the neck or shoulder area and provide an alternative to traditional CVCs and PICCs for acute care. Arrow JACCs may be used for short or long-term periods to treat patients who may have poor peripheral circulation.
- Arrow Midline Catheters: Arrow Midlines are made of a flexible polyurethane material and are inserted in the upper arm. Midlines are appropriate when patients face difficult intravenous catheter insertions or therapy will last no longer than one to four weeks.
- Arrow Vascular Positioning Systems (VPS): We offer two distinct catheter tip positioning systems that are designed to facilitate precise placement of catheters within the heart. The first is our VPS G4 Vascular Positioning System, indicated as an alternative to chest x-ray confirmation for CVC tip placement confirmation in adult patients. The VPS G4 analyzes multiple metrics, in real time, to help clinicians navigate through the circulatory system and identify the correct catheter tip placement in the heart. We also offer the Arrow VPS Rhythm™ System, which provides electrocardiogram (ECG)-based tip confirmation in a highly portable, lightweight and versatile design. ECG technology facilitates catheter tip placement and confirmation within the superior vena-cava-cavatorial junction in the heart, and can be used with a broad range of catheter types. When paired with our VPS TipTracker stylet for insertion of PICCs, the Arrow VPS Rhythm System provides real-time visual navigation by tracing the catheter pathway with a blue line on a color screen.
- Arrow Arterial Catheterization Kits: Our Arrow arterial catheterization kits facilitate arterial pressure monitoring and blood withdrawal for glucose, blood-gas and electrolyte measurement in a wide variety of critical care and intensive care settings.
- Arrow Multi-Lumen Access Catheters (MAC): The Arrow MAC combines the access of a sheath introducer with the high-flow lumens of a central line. The MAC's hemostasis valve allows for easy access for additional devices, such as a thermodilution catheter or ARROW MAC Companion Catheter, adding up to three additional lumens.
- Arrow Percutaneous Sheath Introducers: Our Arrow percutaneous sheath introducers are used to insert cardiovascular and other catheterization devices into the vascular system during critical care procedures.
- Arrow Endurance Extended Dwell Peripheral Catheter System: The Arrow Endurance enables the provision of continuous intravenous therapy for the entire length of stay. It permits access to the patient’s peripheral vascular system to sample blood, monitor blood pressure, or administer fluids.

The large majority of our CVCs are treated with solutions based on our ARROWg+ard or ARROWg+ard Blue Plus antimicrobial technology, which have been shown to reduce the risk of catheter related bloodstream infection. Our technology, available on our PICCs, JACCs and Midlines, provides antimicrobial and antithrombogenic protection on inner and outer catheter surfaces as well as the entire fluid pathway of the catheter. It has been shown to be effective in reducing microbial colonization and thrombus accumulation on catheter surfaces.

Many of our vascular access catheters are available in Maximal Barrier Precautions trays, which are designed to assist healthcare providers in complying with clinical guidelines for reducing catheter-related bloodstream infections. These trays are available for CVCs, PICCs and multi-access catheters and include a full body drape, coated or non-coated catheters and other accessories. In addition, our ErgoPACK system offers clinicians a broad range of tray

configurations with components packaged in the tray in the order in which they will be required during the procedure, and incorporates features designed to promote ease of use and patient and provider safety.

Interventional North America: Our Interventional North America segment consists of products used by interventional cardiologists, interventional radiologists, vascular surgeons and vein practices. It is comprised of the North American component of our Vascular Solutions business, which we acquired in February 2017, and our legacy Teleflex interventional access and cardiac care businesses. Additionally, in 2018, we expanded our product portfolio with the acquisitions of Essential Medical, Inc. and certain assets of QT Vascular LTD to include the following products:

- The Chocolate XD Percutaneous Transluminal Coronary Angioplasty (PTCA) Balloon: The Chocolate XD PTCA Balloon is a non-drug coated angioplasty balloon catheter used in the preparation and treatment of coronary lesions.

- Glider PTCA Balloon Catheter: The Glider PTCA Balloon Catheter is an angioplasty balloon catheter designed to cross through tight lesions or stent struts during complex coronary procedures.

- Manta Vascular Closure Device: The Manta Vascular Closure Device is used for closure of large bore arteriotomies at femoral arterial access sites after cardiac catheterization.

Vascular Solutions product portfolio

Our Vascular Solutions portfolio consists of clinically advanced devices for treating coronary and peripheral vascular disease and includes the following:

- GuideLiner guide extension catheters: Our GuideLiner family is designed to increase guide catheter support and stability to allow deep-seating of the guide catheter for distal device delivery and selective delivery of contrast. The device can also be utilized in assisting complex cardiac catheter interventions.

- TrapLiner catheters: Our TrapLiner catheter is intended for use in conjunction with guide catheters to access discrete regions of the coronary and/or peripheral vasculature, to facilitate placement of interventional devices and to facilitate the exchange of interventional devices while maintaining the position of the guidewire within the vasculature. The TrapLiner catheter is similar in design to the GuideLiner guide extension catheter, with the added feature of an integrated balloon for trapping a standard 0.014” guidewire within a guide catheter. The TrapLiner catheter can be used as an alternative method to the trapping technique that requires the use of a percutaneous transluminal coronary angioplasty (PTCA) balloon to exchange an existing over-the-wire catheter while maintaining guidewire position. The technique of guidewire trapping for catheter exchange is most commonly performed in complex interventional procedures.

- Turnpike catheters: These catheters may be used to facilitate placement and exchange of guidewires and to deliver diagnostic and therapeutic agents to discrete regions of the coronary and peripheral vasculature.

- Micro-introducers: These products are used to gain percutaneous access to the vasculature for performing arterial and venous catheterization procedures.

- TwinPass Torque: The TwinPass Torque is designed for procedures that call for the delivery of two interventional guidewires from a single catheter in clinical situations where catheter delivery and turning control are important.

- Guidewires: Our Spectre Guidewire is a dual-core design guidewire that provides enhanced deliverability in coronary and peripheral interventions. Raider Guidewire is a specialty wire with a unique tip designed to gain access to small vessels.

Interventional access product portfolio

Our interventional access products are used in a wide range of applications, including dialysis, oncology and critical care therapies. Our interventional access portfolio also includes Arrow branded products, such as diagnostic and drainage kits, embolectomy balloons, and reinforced percutaneous sheath introducers. Our interventional access products include the following:

- Arrow OnControl Powered Bone Marrow / Bone Access System: The Arrow OnControl powered bone access system is used to perform bone marrow biopsies and aspirations and access bone lesions for hematology and in ontological diagnostic procedures.

- Arrow Trerotola Percutaneous Thrombectomy Device (PTD): The Arrow Trerotola PTD is used for declotting of dialysis grafts and fistulas, respectively indirect and direct connections between an artery and a vein for hemodialysis access.

- Arrow Chronic Hemodialysis Catheters: The Arrow chronic hemodialysis catheters include both antegrade and retrograde insertion options for split, step and symmetrical tip configurations.

- ARROW-Clark VectorFlow Hemodialysis Catheter: The Arrow-Clark VectorFlow catheter is a symmetrical tip tunneled hemodialysis catheter designed to reduce loss of lock solution (which is used on catheters to reduce the risk of thrombosis), give sustained high flows and reduce the risk of thrombus accumulation due to platelet activation. Additionally, the specially designed catheter tip enables placement flexibility with minimal impact on recirculation.

- Arrow Polysite Low Profile Hybrid Ports: The Arrow Polysite Low Profile Hybrid Port is used for long-term access to the central venous system and to facilitate repeated vascular access. It is available in multiple standard French sizes. The hybrid design provides a strong titanium reservoir and lightweight plastic body delivering the strength and the comfort needed for long-term treatment in patients of all sizes.

Cardiac care product portfolio

Products in the cardiac care portfolio include diagnostic catheters, intra-aortic balloon catheters and capital equipment. Diagnostic catheters include thermodilution and wedge pressure catheters. Our Berman and Reverse Berman catheters are used during the x-ray examination of blood vessels and our temporary pacing catheters are often used in common interventional procedures such as transcatheter aortic valve replacement, or TAVR. We also manufacture sheaths for femoral and trans-radial aortic access used in diagnostic and therapeutic procedures. Our capital equipment offering includes our intra-aortic balloon pump, or IABP. When combined with our intra aortic balloon catheter, our IABPs are used to augment oxygen delivery to the cardiac muscle and reduce the oxygen demand after cardiac surgery, heart attack or interventional procedures. We recently launched the Autocat 3 Optimus, our third generation IABP. This device helps a weakened heart pump blood and can deliver IABP therapy to a broad range of patients, even those with severe arrhythmias.

Anesthesia North America: Our Anesthesia North America segment is comprised of our North American pain management and airway management products and other products that, like our airway management products, provide pre-hospital emergency applications.

Pain management products

Our pain management products, which are designed for use in a broad range of surgical and obstetric procedures, consist principally of the following:

- Arrow Epidural Catheters, Needles and Kits: We offer a broad range of Arrow epidural products, including the Arrow FlexTip Plus epidural catheter, to facilitate epidural analgesia. Epidural analgesia may be used separately for pain management, as an adjunct to general anesthesia, as a sole technique for surgical anesthesia and for post-operative pain management.

- Arrow Peripheral Nerve Block (PNB) Catheters, Pumps, Needles and Kits: Our portfolio of Arrow PNB products, which includes the Arrow Stimucath and FlexBlock catheters, are designed to be used by anesthesiologists to provide localized pain relief by injecting anesthetics to deliberately interrupt the signals traveling along a nerve. Nerve blocks are used in a variety of different procedures, including orthopedics.

- AutoFuser Disposable Pain Pumps: Our AutoFuser Disposable Pain Pumps are designed for general infusion use, which includes regional anesthesia and pain management. Routes of administration include percutaneous, subcutaneous and epidural, and into the intra-operative (soft tissue/body cavity) sites. The AutoFuser offers multiple reservoir sizes and configurations to meet a variety of clinical demands.

Airway management products

Our airway management products and related devices, which are designed for use in both pre-hospital emergency and hospital settings, consist principally of the following:

- LMA Airways: Our LMA laryngeal masks are used by anesthesiologists and emergency responders to establish an airway to channel anesthesia gas or oxygen to a patient's lungs during surgery or trauma. The LMA Gastro Airway is the first single-use laryngeal mask with a gastric channel. Designed for use in upper endoscopy procedures, this device offers an increased level of airway management for clinicians. The LMA Gastro Airway also includes our Cuff Pilot technology, which enables clinicians to confirm that the inserted cuff is properly inflated and to monitor pressure levels.

- LMA Atomization: Our LMA atomization portfolio includes products designed to facilitate atomized delivery of certain medications. Included in the portfolio is our LMA MAD Nasal, an intranasal mucosal atomization device that is designed to provide a safe and painless way to deliver medications approved for intranasal delivery to a patient's blood stream without an intravenous line or needle.

- RUSCH Endotracheal Tubes and Laryngoscopes: We offer a broad portfolio of products to facilitate and support endotracheal intubation to administer oxygen and anesthetic gases in multiple settings (surgery, critical care and emergency settings). We also provide a broad range of products for laryngoscopy, a procedure that is primarily used to obtain a view of the airway to facilitate tracheal intubation during general anesthesia or cardiopulmonary resuscitation ("CPR"). Among these products is the Rusch DispoLED Laryngoscope Handle and Green Rusch Lite Blade, a single-use system designed to help facilities comply with standards designed to reduce the potential for patient cross-contamination associated with reusable devices during intubation.

Pre-hospital emergency products

As noted above, our airway management products can be used in pre-hospital emergency settings. We offer other products designed for use in pre-hospital emergency settings, including the Arrow EZ-IO System, which is described in the Vascular North America segment summary above. The Arrow EZ-IO System offers a method for vascular access that can be administered quickly and effectively in emergency situations.

Surgical North America: Our surgical products are designed to provide surgeons with a comprehensive range of devices for use in a variety of surgical procedures. Our portfolio consists of single-use and reusable products, including the following:

- Weck Ligation Systems: Our Weck Ligation Systems feature the Weck Metal Ligating Clips and Hem-o-lok Polymer Ligating Clips. Weck Metal Ligating Clips are intended for use in procedures involving vessels or anatomic structures and are sold in various sizes, types and materials. Our Hem-o-lok Polymer Ligating Clips are intended for use in procedures involving ligation of vessels or tissue structures and are sold in various sizes in a manual and automatic format.

- Weck EFx Fascial Closure Systems: Our Weck fascial closure systems are used in laparoscopic surgical procedures and are intended to facilitate placement of sutures used to repair laparoscopic defects and minimize complications and costs associated with port-site herniation. We offer a full portfolio of fascial closure devices, which provides a wide range of clinical options.

- Percutaneous Surgical Systems: Our MiniLap surgical instruments are designed to be inserted percutaneously (through the skin) to enable surgeons to perform laparoscopic surgery without the need for an insertion trocar. The MiniLap family of surgical instruments consists of a ThumbGrip option with a 2.3mm shaft or a pistol design option, called MiniGrip, with a 2.4mm shaft. In addition, we have developed the Percuvance percutaneous surgical system, which features a 2.9mm device shaft with 5 mm operating tips. The Percuvance system is used to penetrate soft tissue to access certain areas of the abdomen and to grasp, hold and manipulate tissue, and, like our MiniLap surgical instruments, enables surgeons to access the abdominal cavity without the need for access ports.

Our other branded surgical products include our Weck Vista bladeless access ports, Deknatel sutures, Pleur-evac chest drainage system and our Pilling and Kmedic surgical instruments.

***Europe, the Middle East and Africa* ("*EMEA*"):** Our EMEA segment designs, manufactures and distributes medical devices primarily used in critical care, surgical applications and cardiac care and generally serves two end markets: hospitals/ healthcare providers, and home health. The products offered by our EMEA segment are most widely used in acute care settings for a range of diagnostic and therapeutic procedures and in general and specialty surgical applications, such as urology.

Asia: Our Asia segment, like our EMEA segment, designs, manufactures and distributes medical devices primarily used in critical care, surgical applications and cardiac care and generally serves hospitals and healthcare providers. The products offered by our Asia segment are most widely used in acute care settings for a range of diagnostic and therapeutic procedures and in general and specialty surgical applications.

Original Equipment Manufacturer and Development Services ("OEM"): Our OEM segment designs, manufactures and supplies devices and instruments for other medical device manufacturers. Our OEM division, which includes the TFX OEM and Deknatel OEM brands, provides custom-engineered extrusions, diagnostic and interventional catheters, balloons and balloon catheters, sheath/dilator sets (introducers) and kits, sutures, performance fibers, and bioresorbable resins and fibers. We offer an extensive portfolio of integrated capabilities, including engineering, material selection, regulatory affairs, prototyping, testing and validation, manufacturing, assembly and packing.

Other businesses: Our other operating segments do not meet the threshold for separate disclosure under applicable accounting guidance and are therefore included in the "all other" line item in tabular presentations of segment information. Products offered by these operating segments include single-use respiratory, urology and interventional urology products. We also have an operating segment encompassing our Latin American business.

Respiratory/urology North America

In 2015, we combined our respiratory and urology businesses. Our respiratory products are used in a variety of care settings and include oxygen therapy products, aerosol therapy products, spirometry products, and ventilation management products. Our Hudson RCI brand has been a prominent name in respiratory care for over 65 years.

Our urology product portfolio provides bladder management for patients in the hospital and individuals in the home care markets. The product portfolio consists principally of a wide range of catheters (including Foley, intermittent, external and suprapubic), urine collectors, catheterization accessories and products for operative endourology marketed under the Rusch brand name.

Interventional urology North America

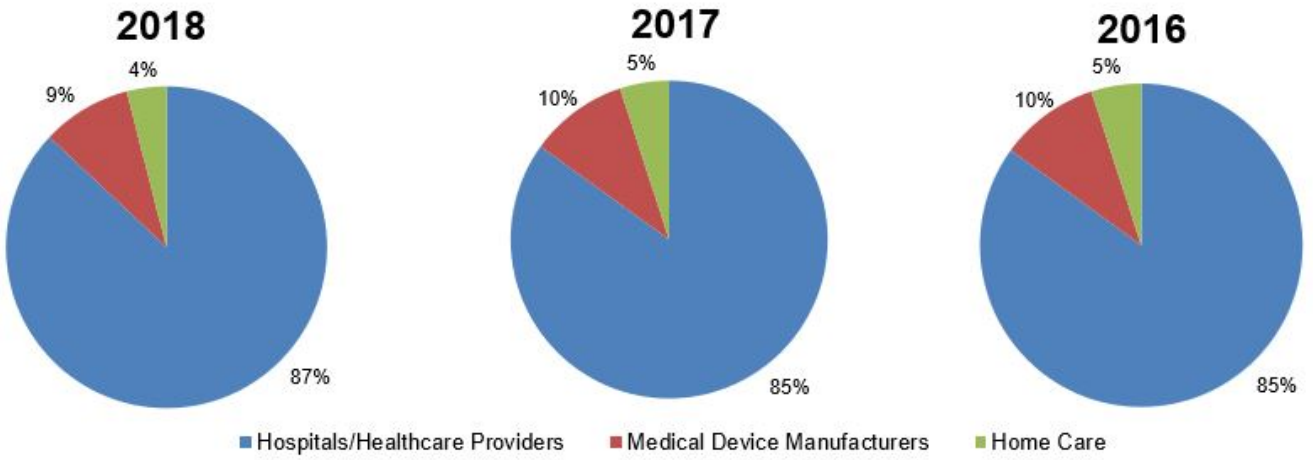
As a result of our acquisition of NeoTract in 2017, we now offer the UroLift System, a minimally invasive technology for treating lower urinary tract symptoms due to benign prostatic hyperplasia, or BPH. The UroLift System involves the placement of permanent implants, typically through a transurethral outpatient procedure, that hold the prostate lobes apart to relieve compression on the urethra without cutting, heating or removing prostate tissue.

Latin America

Our Latin America business generally engages in the same type of operations, and serves the same type of end markets, as the EMEA and Asia segments.

OUR MARKETS

We generally serve three end-markets: hospitals and healthcare providers, medical device manufacturers and home care. These markets are affected by a number of factors, including demographics, utilization and reimbursement patterns. The following charts depict the percentage of net revenues for the years ended December 31, 2018, 2017 and 2016 derived from each of our end markets.



GOVERNMENT REGULATION

We are subject to comprehensive government regulation both within and outside the U.S. relating to the development, manufacture, sale and distribution of our products.

Regulation of Medical Devices in the United States

All of our medical devices manufactured or sold in the United States are subject to the Federal Food, Drug, and Cosmetic Act ("FDC Act"), and its implementing regulations, which are enforced by the FDA. The FDA and, in some cases, other government agencies administer requirements for the design, testing, safety, effectiveness, manufacturing, labeling, storage, record keeping, clearance, approval, advertising and promotion, distribution, post-market surveillance, import and export of our medical devices.

Unless an exemption or pre-amendment grandfather status applies, each medical device that we market must first receive either clearance as a Class I or Class II device (by submitting a premarket notification ("510(k)") or approval as a Class III device (by filing a premarket approval application ("PMA")) from the FDA pursuant to the FDC Act. To obtain 510(k) clearance, a manufacturer must demonstrate that the proposed device is substantially equivalent to a legally marketed device (a 510(k)-cleared device, pre-amendment device for which FDA has not called for PMAs or a device with a de novo authorization), referred to as the "predicate device." Substantial equivalence is established by the applicant showing that the proposed device has the same intended use as the predicate device, and it either has the same technological characteristics or has been shown to be equally safe and effective and does not raise different questions of safety and effectiveness as compared to the predicate device. The FDA's 510(k) clearance process usually takes from four to nine months, but it can last longer. A device that is not eligible for the 510(k) process because there is no predicate device may be reviewed through the de novo process (the process for granting marketing authorization when no substantially equivalent device exists) if the FDA agrees it is a low to moderate risk device. A device not eligible for 510(k) clearance or de novo authorization is categorized as Class III and must follow the PMA approval pathway, which requires proof of the safety and effectiveness of the device to the FDA's satisfaction. The process of obtaining PMA approval is much more costly, lengthy and uncertain than the 510(k) or de novo process. It generally takes from one to three years or even longer. Our portfolio of existing products and pipeline of potential new products consist primarily of Class I and Class II devices that require 510(k) clearance, although a few are 510(k)-exempt. In addition, modifications made to devices after they receive clearance or approval may require a new 510 (k) clearance or approval of a PMA or PMA supplement. We cannot be sure that 510(k) clearance or PMA approval will be obtained in a timely matter if at all for any device that we propose to market.

A clinical trial is almost always required to support a PMA application and is sometimes required for a 510(k) clearance or a de novo authorization. The sponsor of a clinical study must comply with and conduct the study in accordance with the applicable federal regulations, including FDA's investigational device exemption ("IDE") requirements, and good clinical practice ("GCP"). Clinical trials must also be approved by an institutional review board ("IRB"), which is an appropriately constituted group that has been formally designated to review biomedical research involving human subjects and which has the authority to approve, require modifications in, or disapprove research to

protect the rights, safety, and welfare of the human research subject. The FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. An IRB may also require the clinical trial at the site to be halted for failure to comply with the IRB's requirements, or may impose other conditions.

A device placed on the market must comply with numerous regulatory requirements. Those regulatory requirements include the following:

- device listing and establishment registration;
- adherence to the Quality System Regulation ("QSR") which requires stringent design, testing, control, documentation, complaint handling and other quality assurance procedures;
- labeling requirements;
- FDA prohibitions against the promotion of off-label uses or indications;
- adverse event and malfunction reporting;
- post-approval restrictions or conditions, potentially including post-approval clinical trials or other required testing;
- post-market surveillance requirements;
- the FDA's recall authority, whereby it can require or ask for the recall of products from the market; and
- voluntary corrections or removals reporting and documentation.

The FDA has issued final regulations regarding the Unique Device Identification ("UDI") System, which requires manufacturers to mark certain medical devices with unique identifiers. While the FDA expects that the UDI System will help track products during recalls and improve patient safety, it has required us to make changes to our manufacturing and labeling, which could increase our costs. The UDI System is being implemented in stages based on device risk, with the first requirements having taken effect in September 2014 and the last taking effect in September 2022.

Certain of our medical devices are sold in convenience kits that include a drug component, such as lidocaine. These types of kits are generally regulated as combination products within the Center for Devices and Radiological Health ("CDRH") under the device regulations because the device provides the primary mode of action of the kit. Although the kit as a whole is regulated as a medical device, it may be subject to certain drug requirements such as current good manufacturing practices ("cGMPs") to the extent applicable to the drug-component repackaging activities and subject to inspection to verify compliance with cGMPs as well as other regulatory requirements.

Our manufacturing facilities, as well as those of certain of our suppliers, are subject to periodic and for-cause inspections to verify compliance with the QSR as well as other regulatory requirements. Such inspections are performed through the new Medical Device Single Audit Program (MDSAP) and other specified audits by regulatory authorities. If the FDA were to find that we or certain of our suppliers have failed to comply with applicable regulations, it could institute a wide variety of enforcement actions, ranging from issuance of a warning or untitled letter to more severe sanctions, such as product recalls or seizures, civil penalties, consent decrees, injunctions, criminal prosecution, operating restrictions, partial suspension or total shutdown of production, refusal to permit importation or exportation, refusal to grant, or delays in granting, clearances or approvals or withdrawal or suspension of existing clearances or approvals. The FDA also has the authority under certain circumstances to request repair, replacement or refund of the cost of any medical device manufactured or distributed by us. Any of these actions could have an adverse effect on our business. Manufacturing certification requirements and audits through the MDSAP program also applies.

Regulation of Medical Devices Outside of the United States

Medical device laws also are in effect in many of the markets outside of the United States in which we do business. These laws range from comprehensive device approval requirements for some or all of our products to requests for product data or certifications. Inspection of and controls over manufacturing, as well as monitoring of device-related adverse events, are components of most of these regulatory systems. Manufacturing certification requirements and audits through the MDSAP program or other regulatory authority inspections also apply. In addition, the European Union ("EU") has adopted the EU Medical Device Regulation (the "EU MDR"), which imposes stricter requirements for the marketing and sale of medical devices (as compared to the predecessor Medical Device Directive), including in the area of clinical evaluation requirements, quality systems and post-market surveillance. Manufacturers of currently marketed medical devices will have until May 2020 to meet the requirements of the EU MDR. Failure to meet these requirements could adversely impact our business in the EU and other regions that tie their product registrations to the EU requirements.

Healthcare Laws

We are subject to various federal, state and local laws in the United States targeting fraud and abuse in the healthcare industry. These laws prohibit us from, among other things, soliciting, offering, receiving or paying any remuneration to induce the referral or use of any item or service reimbursable under Medicare, Medicaid or other federally or state financed healthcare programs. Violations of these laws are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs. In addition, we are subject to federal and state false claims laws in the United States that prohibit the submission of false payment claims under Medicare, Medicaid or other federally or state funded programs. Certain marketing practices, such as off-label promotion, and violations of federal anti-kickback laws may also constitute violations of these laws.

We are also subject to various federal and state reporting and disclosure requirements related to the healthcare industry. Rules issued by the Centers for Medicare & Medicaid Services ("CMS") require us to collect and report information on payments or transfers of value to physicians and teaching hospitals, as well as investment interests held by physicians and their immediate family members. Effective January 2022, we will also be required to collect and report information on payments or transfers of value to physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists and certified nurse-midwives. The reported data is available to the public on the CMS website. Failure to submit required information may result in civil monetary penalties. In addition, several states now require medical device companies to report expenses relating to the marketing and promotion of device products and to report gifts and payments to individual physicians in these states. Other states prohibit various other marketing-related activities. The federal government and certain other states require the posting of information relating to clinical studies and their outcomes. The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with the different compliance and/or reporting requirements among a number of jurisdictions increases the possibility that a healthcare company may violate one or more of the requirements, resulting in increased compliance costs that could adversely impact our results of operations.

Other Regulatory Requirements

We are also subject to the United States Foreign Corrupt Practices Act and similar anti-bribery laws applicable in jurisdictions outside the United State that generally prohibit companies and their intermediaries from improperly offering or paying anything of value to non-United States government officials for the purpose of obtaining or retaining business. Because of the predominance of government-sponsored healthcare systems around the world, most of our customer relationships outside of the United States are with government entities and are therefore subject to such anti-bribery laws. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced government corruption to some degree, and in certain circumstances strict compliance with anti-bribery laws may conflict with local customs and practices. In the sale, delivery and servicing of our medical devices and software outside of the United States, we must also comply with various export control and trade embargo laws and regulations, including those administered by the Department of Treasury's Office of Foreign Assets Control ("OFAC") and the Department of Commerce's Bureau of Industry and Security ("BIS") which may require licenses or other authorizations for transactions relating to certain countries and/or with certain individuals identified by the United States government. Despite our global trade and compliance program, our internal control policies and procedures may not always protect us from reckless or criminal acts committed by our employees, distributors or other agents. Violations of these requirements are punishable by criminal or civil sanctions, including substantial fines and imprisonment.

COMPETITION

The medical device industry is highly competitive. We compete with many companies, ranging from small start-up enterprises to companies that are larger and more established than us and have access to significantly greater financial resources. Furthermore, extensive product research and development and rapid technological advances characterize the market in which we compete. We must continue to develop and acquire new products and technologies for our businesses to remain competitive. We believe that we compete primarily on the basis of clinical superiority and innovative features that enhance patient benefit, product reliability, performance, customer and sales support, and cost-effectiveness. Our major competitors include Medtronic plc, Becton, Dickinson and Company and Boston Scientific Corporation.

SALES AND MARKETING

Our product sales are made directly to hospitals, healthcare providers, distributors and to original equipment manufacturers of medical devices through our own sales forces, independent representatives and independent distributor networks.

BACKLOG

Most of our products are sold to hospitals or healthcare providers on orders calling for delivery within a few days or weeks, with longer order times for products sold to medical device manufacturers. Therefore, our backlog of orders is not indicative of revenues to be anticipated in any future 12-month period.

PATENTS AND TRADEMARKS

We own a portfolio of patents, patents pending and trademarks. We also license various patents and trademarks. Patents for individual products extend for varying periods based upon the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. Trademark rights may potentially extend for longer periods of time and are dependent upon national laws and use of the marks. All product names throughout this document are trademarks owned by, or licensed to, us or our subsidiaries. Although these have been of value and are expected to continue to be of value in the future, we do not consider any single patent or trademark, except for the Teleflex and Arrow brands, to be essential to the operation of our business.

SUPPLIERS AND MATERIALS

Materials used in the manufacture of our products are purchased from a large number of suppliers in diverse geographic locations. We are not dependent on any single supplier for a substantial amount of the materials used or components supplied for our overall operations. Most of the materials and components we use are available from multiple sources, and where practical, we attempt to identify alternative suppliers. However, our ability to establish alternate sources of supply may be delayed due to FDA and other regulatory authority requirements regarding the manufacture of our products. Volatility in commodity prices, particularly with respect to aluminum, steel and plastic resins, can have a significant impact on the cost of producing certain of our products. We may not be able to successfully pass cost increases through to all of our customers, particularly original equipment manufacturers.

RESEARCH AND DEVELOPMENT

We are engaged in both internal and external research and development. Our research and development efforts support our strategic objectives to provide innovative new, safe and effective products that enhance clinical value by reducing infections, improving patient and clinician safety, enhancing patient outcomes and enabling less invasive procedures.

We also acquire or license products and technologies that are consistent with our strategic objectives and enhance our ability to provide a full range of product and service options to our customers.

SEASONALITY

Portions of our revenues are subject to seasonal fluctuations. Incidence of flu and other disease patterns as well as the frequency of elective medical procedures affect revenues related to single-use products. Historically, we have experienced higher sales in the fourth quarter as a result of these factors.

EMPLOYEES

We employed approximately 15,200 full-time and temporary employees at December 31, 2018. Of these employees, approximately 3,800 were employed in the United States and 11,400 in countries other than the United States. Approximately 11% of our employees in the United States and in other countries were covered by union contracts or collective-bargaining arrangements. We believe we have good relationships with our employees.

ENVIRONMENTAL

We are subject to various environmental laws and regulations both within and outside the United States. Our operations, like those of other medical device companies, involve the use of substances regulated under environmental laws, primarily in manufacturing and sterilization processes. While we continue to devote resources to compliance with existing environmental laws and regulations, we cannot ensure that our costs of complying with current or future environmental protection, health and safety laws and regulations will not exceed our estimates or will not have a material adverse effect on our business, financial condition, results of operations and cash flows. Further, we cannot ensure that we will not be subject to environmental claims for personal injury or cleanup in the future based on our past, present or future business activities.

INVESTOR INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Therefore, we file reports, proxy statements and other information with the Securities and Exchange Commission (SEC). The SEC maintains a website (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

You can access financial and other information about us in the Investors section of our website, which can be accessed at www.teleflex.com. We make available through our website, free of charge, 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 with or furnished to the SEC under Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after electronically filing or furnishing such material to the SEC. The information on our website is not part of this Annual Report on Form 10-K. The reference to our website address is intended to be an inactive textual reference only.

We are a Delaware corporation incorporated in 1943. Our executive offices are located at 550 East Swedesford Road, Suite 400, Wayne, PA 19087.

EXECUTIVE OFFICERS

The names and ages of our executive officers and the positions and offices held by each such officer are as follows:

Name	Age	Positions and Offices with Company
Liam J. Kelly	52	President and Chief Executive Officer
Thomas E. Powell	57	Executive Vice President and Chief Financial Officer
Karen T. Boylan	47	Vice President, Global Strategic Projects
Cameron P. Hicks	54	Vice President, Global Human Resources
James J. Leyden	52	Vice President, General Counsel and Secretary

Mr. Kelly has been our President and Chief Executive Officer since January 2018. From May 2016 to December 31, 2017, Mr. Kelly served as our President and Chief Operating Officer. From April 2015 to April 2016, he served as Executive Vice President and Chief Operating Officer. From April 2014 to April 2015, Mr. Kelly served as Executive Vice President and President, Americas. From June 2012 to April 2014 Mr. Kelly served as Executive Vice President and President, International. He also has held several positions with regard to our EMEA segment, including President from June 2011 to June 2012, Executive Vice President from November 2009 to June 2011, and Vice President of Marketing from April 2009 to November 2009. Prior to joining Teleflex, Mr. Kelly held various senior level positions with Hill-Rom Holdings, Inc., a medical device company, from October 2002 to April 2009, serving as its Vice President of International Marketing and R&D from August 2006 to February 2009.

Mr. Powell has been our Executive Vice President and Chief Financial Officer since February 2013. From March 2012 to February 2013, Mr. Powell was Senior Vice President and Chief Financial Officer. He joined Teleflex in August 2011 as Senior Vice President, Global Finance. Prior to joining Teleflex, Mr. Powell served as Chief Financial Officer and Treasurer of Tomotherapy Incorporated, a medical device company, from June 2009 until June 2011. In 2008, he served as Chief Financial Officer of Textura Corporation, a software provider. From April 2001 until January 2008, Mr. Powell was employed by Midway Games, Inc., a software provider, serving as its Executive Vice President, Chief Financial Officer and Treasurer from September 2001 until January 2008. Mr. Powell has also held leadership positions with Dade Behring, Inc. (now Siemens Healthcare Diagnostics), PepsiCo, Bain & Company, Tenneco Inc. and Arthur Andersen & Company.

Ms. Boylan became our Vice President, Global Strategic Projects in January 2019. She previously served as our Vice President, Global RA/QA from August 2014 until December 2018. Ms. Boylan joined Teleflex in January 2013 as Vice President, International RA/QA. Prior to joining Teleflex, Ms. Boylan served as QA Vice President, Corporate Quality Systems for Boston Scientific Corporation, a developer, manufacturer and marketer of medical devices, from April 1996 to December 2012.

Mr. Hicks has been our Vice President, Global Human Resources since April 2013. Prior to joining Teleflex, Mr. Hicks served as Executive Vice President of Human Resources & Organizational Effectiveness for Harlan Laboratories, Inc., a private global provider of pre-clinical and non-clinical research services, from July 2010 to March 2013. From April 1990 to January 2010, Mr. Hicks held various leadership roles with MDS Inc., a provider of products and services for the development of drugs and the diagnosis and treatment of disease, including Senior Vice President of Human Resources for MDS' global Pharma Services division from November 2000 to January 2010.

Mr. Leyden has been our Vice President, General Counsel and Secretary since February 2014. He previously held the positions of Acting General Counsel from November 2013 to February 2014, Deputy General Counsel from February 2013 to November 2013 and Associate General Counsel from December 2004 to February 2013. Prior to joining Teleflex, Mr. Leyden served as general counsel of InfraSource Services, Inc., a utility infrastructure construction company, from April 2004 to December 2004. From February 2002 to April 2004, he served as Associate General Counsel of Aramark Corporation, a provider of food, facility and uniform services.

Our officers are elected annually by our board of directors. Each officer serves at the discretion of the board.

ITEM 1A. *RISK FACTORS*

In addition to the other information set forth in this Annual Report on Form 10-K, you should carefully consider the following factors which could have a material adverse effect on our business, financial condition, results of operations or stock price. The risks below are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also adversely affect our business, financial condition, results of operations or stock price.

We face strong competition. Our failure to successfully develop and market new products could adversely affect our business.

The medical device industry is highly competitive. We compete with many domestic and foreign medical device companies ranging from small start-up enterprises that might sell only a single or limited number of competitive products or compete only in a specific market segment, to companies that are larger and more established than us, have a broad range of competitive products, participate in numerous markets and have access to significantly greater financial and marketing resources than we do.

In addition, the medical device industry is characterized by extensive product research and development and rapid technological advances. The future success of our business will depend, in part, on our ability to design and manufacture new competitive products and enhance existing products. Our product development efforts may require us to make substantial investments. There can be no assurance that we will be able to successfully develop new products, enhance existing products or achieve market acceptance of our products, due to, among other things, our inability to:

- identify viable new products;
- maintain sufficient liquidity to fund our investments in research and development and product acquisitions;
- obtain adequate intellectual property protection;

- gain market acceptance of new products; or
- successfully obtain regulatory approvals.

In addition, our competitors currently may be developing, or may develop in the future, products that provide better features, clinical outcomes or economic value than those that we currently offer or subsequently develop. Our failure to successfully develop and market new products or enhance existing products could have a material adverse effect on our business, financial condition and results of operations.

Our customers depend on third party coverage and reimbursements, and the failure of healthcare programs to provide sufficient coverage and reimbursement for our medical products could adversely affect us.

The ability of our customers to obtain coverage and reimbursement for our products is important to our business. Demand for many of our existing and new medical products is, and will continue to be, affected by the extent to which government healthcare programs and private health insurers reimburse our customers for patients' medical expenses in the countries where we do business. Even when we develop or acquire a promising new product, demand for the product may be limited unless reimbursement approval is obtained from private and government third party payors. Internationally, healthcare reimbursement systems vary significantly. In some countries, medical centers are constrained by fixed budgets, regardless of the volume and nature of patient treatment. Other countries require application for, and approval of, government or third party reimbursement. Without both favorable coverage determinations by, and the financial support of, government and third party insurers, the market for many of our medical products would be adversely affected. In this regard, we cannot be sure that third party payors will maintain the current level of coverage and reimbursement to our customers for use of our existing products. Adverse coverage determinations, including reductions in the amount of reimbursement, could harm our business by discouraging customers' selection of, and reducing the prices they are willing to pay for, our products.

In addition, as a result of their purchasing power, third party payors have implemented and are continuing to implement cost cutting measures such as seeking discounts, price reductions or other incentives from medical products suppliers and imposing limitations on coverage and reimbursement for medical technologies and procedures. These trends could compel us to reduce prices for our products and could cause a decrease in the size of the market or a potential increase in competition that could negatively affect our business, financial condition and results of operations.

We may not be successful in achieving expected operating efficiencies and sustaining or improving operating expense reductions, and may experience business disruptions associated with restructuring, facility consolidations, realignment, cost reduction and other strategic initiatives.

Over the past several years we have implemented a number of restructuring, realignment and cost reduction initiatives, including facility consolidations, organizational realignments and reductions in our workforce, and we may engage in similar efforts in the future. While we have realized some efficiencies from these initiatives, we may not realize the benefits of these or future initiatives to the extent we anticipated. Further, such benefits may be realized later than expected, and the ongoing difficulties in implementing these measures may be greater than anticipated, which could cause us to incur additional costs or result in business disruptions. In addition, if these measures are not successful or sustainable, we may be compelled to undertake additional restructuring, realignment and cost reduction efforts, which could result in significant additional charges. Moreover, if our restructuring, realignment and cost reduction efforts prove ineffective, our ability to achieve our strategic and business plan goals may be adversely affected.

In addition, as part of our efforts to increase operating efficiencies, we plan to upgrade the existing enterprise resource planning, or ERP, system used by our EMEA segment to our global ERP system in 2019. In connection with this upgrade, we could experience business disruptions, which could adversely affect commercial activities such as our ability to receive and process orders and deliver products, negatively impact customer relationships and divert the attention of management away from daily operations. In addition, any delays in the implementation of this initiative could cause us to incur additional unexpected costs. Should we experience such difficulties, our business, cash flows and results of operations could be adversely affected.

A significant portion of our United States revenues is derived from sales to distributors, and "destocking" activity by these distributors can adversely affect our revenues and results of operations.

A significant portion of our revenues in the United States is derived from sales to distributors, who, in turn, sell our products to hospitals and other health care institutions. From time to time, these distributors may decide to reduce their levels of inventory with regard to certain of our products, a practice we refer to as "destocking." A distributor's decision to reduce inventory levels with respect to our products may be based on a number of factors, such as distributor expectations regarding demand for a particular product, distributor buying decisions (including decisions to purchase competing products), changes in distributor policies regarding the maintenance of inventory levels, economic conditions and other factors. For example, during the third quarter of 2016, we experienced a decline in purchases by our United States distributors that adversely affected our revenues and results of operations. We believe the reduction resulted from the distributors' expectations of a less severe 2016-2017 flu season, which resulted in reduced levels of purchasing with respect to certain of our products that are used for treatment of hospitalized patients suffering from the flu. Following such instances of reduced purchases, distributors may revert to previous purchasing levels; nevertheless, we cannot assure that distributors will, in fact, increase purchases of our products in this manner. A decline in the level of product purchases by our United States distributors in the future could have a material adverse effect on our revenues and results of operations during a reporting period, and an extended decline in such product purchases could have a longer term material adverse effect.

We are subject to extensive government regulation, which may require us to incur significant expenses to ensure compliance. Our failure to comply with those regulations could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Our products are classified as medical devices and are subject to extensive regulation in the United States by the FDA and by comparable government agencies in other countries. The regulations govern, among other things, the development, design, clearance, approval, manufacturing, labeling, importing and exporting and sale and marketing of many of our products. Moreover, these regulations are subject to future change.

In the United States, before we can market a new medical device, or a new use of, or claim for, or significant modification to, an existing product, we generally must first receive either 510(k) clearance or de novo authorization or approval of a premarket approval application, or PMA, from the FDA. Similarly, most major markets for medical devices outside the United States also require clearance, approval or compliance with certain standards before a product can be commercially marketed. In the European Union, a new Medical Device Regulation was published in 2017 that, when it enters into full force in 2020, will include significant additional pre- and post-market requirements. The process of obtaining regulatory clearances and approvals to market a medical device, particularly from the FDA and certain foreign government authorities, can be costly and time consuming, and clearances and approvals might not be granted for new products on a timely basis, if at all. In addition, once a device has been cleared or approved, a new clearance or approval may be required before the device may be modified or its labeling changed. Furthermore, the FDA or a foreign government authority may make its review and clearance or approval process more rigorous, which could require us to generate additional clinical or other data, and expend more time and effort, in obtaining future product clearances or approvals. The regulatory clearance and approval process may result in, among other things, delayed realization of product revenues, substantial additional costs or limitations on indicated uses of products, any one of which could have a material adverse effect on our financial condition and results of operations. Even after a product has received marketing approval or clearance, such product approval or clearance can be withdrawn or limited due to unforeseen problems with the device or issues relating to its application.

Failure to comply with applicable regulations could lead to adverse effects on our business, which could include:

- partial suspension or total shutdown of manufacturing;
- product shortages;
- delays in product manufacturing;
- warning or untitled letters;
- fines or civil penalties;
- delays in or restrictions on obtaining new regulatory clearances or approvals;
- withdrawal or suspension of required clearances, approvals or licenses;
- product seizures or recalls;

- injunctions;
- criminal prosecution;
- advisories or other field actions;
- operating restrictions; and
- prohibitions against exporting of products to, or importing products from, countries outside the United States.

We could be required to expend significant financial and human resources to remediate failures to comply with applicable regulations and quality assurance guidelines. In addition, civil and criminal penalties, including exclusion under Medicaid or Medicare, could result from regulatory violations. Any one or more of these events could have a material adverse effect on our business, financial condition and results of operations.

Medical devices are cleared or approved for one or more specific intended uses and performance claims must be adequately substantiated. Promoting a device for an off-label use or making misleading or unsubstantiated claims could result in government enforcement action.

Furthermore, our facilities are subject to periodic inspection by the FDA and other federal, state and foreign government authorities, which require manufacturers of medical devices to adhere to certain regulations, including the FDA's Quality System Regulation, which requires, among other things, periodic audits, design controls, quality control testing and documentation procedures, as well as complaint evaluations and investigation. In addition, any facilities assembling convenience kits that include drug components and are registered as drug repackaging establishments are also subject to current good manufacturing practices requirements for drugs. The FDA also requires the reporting of certain adverse events and product malfunctions and may require the reporting of recalls or other field safety corrective actions. Issues identified through such inspections and reports may result in FDA enforcement action through any of the actions discussed above. Moreover, issues identified through such inspections and reports may require significant resources to resolve.

We are subject to healthcare fraud and abuse laws, regulation and enforcement; our failure to comply with those laws could have a material adverse effect on our results of operations and financial condition.

We are subject to healthcare fraud and abuse regulation and enforcement by the federal government and the governments of those states and foreign countries in which we conduct our business. The laws that may affect our ability to operate include:

- the federal healthcare anti-kickback statute, which, among other things, prohibits persons from knowingly and willfully offering or paying remuneration to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs such as Medicare and Medicaid, or soliciting payment for such referrals, purchases, orders and recommendations;
- federal false claims laws which, among other things, prohibit individuals or entities from knowingly presenting, or causing to be presented, false or fraudulent claims for payment from the federal government, including Medicare, Medicaid or other third-party payors;
- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which prohibits schemes to defraud any healthcare benefit program and false statements relating to healthcare matters; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers.

If our operations are found to be in violation of any of these laws or any other government regulations, we may be subject to penalties, including civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, the exclusion from participation in federal and state healthcare programs and imprisonment of personnel, any of which could adversely affect our ability to operate our business and our financial results. The risk of our being found to have violated these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations.

Further, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the "Affordable Care Act"), imposed annual reporting and disclosure requirements on device manufacturers for any "transfer of value" made or distributed to physicians or teaching hospitals. Effective January 2022, we will also be required to collect and report information on payments or transfers of value to physician

assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists and certified nurse-midwives. The reported information is made publicly available in a searchable format. In addition, device manufacturers are required to report and disclose any investment interests held by physicians and their immediate family members during the preceding calendar year. Failure to submit required information may result in civil monetary penalties for each payment, transfer of value or ownership or investment interests not reported in an annual submission, up to an aggregate of $150,000 per year (and up to an aggregate of $1 million per year for "knowing failures").

In addition, there has been a recent trend of increased federal and state regulation of payments made to healthcare providers. Some states, such as California, Connecticut, Nevada and Massachusetts, mandate implementation of compliance programs that include the tracking and reporting of gifts, compensation for consulting and other services, and other remuneration to healthcare providers. The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with the different compliance and/or reporting requirements among a number of jurisdictions increases the possibility that we may inadvertently violate one or more of the requirements, resulting in increased compliance costs that could adversely impact our results of operations.

We may incur material losses and costs as a result of product liability and warranty claims, as well as product recalls, any of which may adversely affect our results of operations and financial condition. Furthermore, our reputation as a medical device company may be damaged if one or more of our products are, or are alleged to be, defective.

Our businesses expose us to potential product liability risks that are inherent in the design, manufacture and marketing of our products. In particular, our medical device products are often used in surgical and intensive care settings for procedures involving seriously ill patients. In addition, many of our products are designed to be implanted in the human body for varying periods of time. Product defects or inadequate disclosure of product-related risks with respect to products we manufacture or sell could result in patient injury or death. In addition, in connection with the divestitures of our former non-medical businesses, we agreed to retain certain liabilities related to those businesses, which include, among other things, liability for products manufactured prior to the date on which we completed the sale of the business. Product liability and warranty claims often involve very large or indeterminate amounts, including punitive damages. The magnitude of potential losses from product liability lawsuits may remain unknown for substantial periods of time, and the related legal defense costs may be significant. We could experience material warranty or product liability losses in the future and incur significant costs to defend these claims.

In addition, if any of our products are, or are alleged to be, defective, we may voluntarily participate, or be required by regulatory authorities to participate, in a recall of that product. In the event of a recall, we may lose sales and be exposed to individual or class-action litigation claims. Moreover, negative publicity regarding a quality or safety issue, whether accurate or inaccurate, could harm our reputation, decrease demand for our products, lead to product withdrawals or impair our ability to successfully launch and market our products in the future. Product liability, warranty and recall costs may have a material adverse effect on our business, financial condition, results of operations and cash flows.

The ongoing volatility in the domestic and global financial markets, combined with a continuation of constrained global credit markets could adversely impact our results of operations, financial condition and liquidity.

We are subject to risks arising from adverse changes in general domestic and global economic conditions. The economic slowdown and disruption of credit markets that occurred several years ago led to recessionary conditions and depressed levels of consumer and commercial spending, resulting in reductions, delays or cancellations of purchases of our products and services. Despite improvements in recent years, particularly in the United States, economic conditions continue to cause disruption in some financial markets, resulting in, among other things, diminished liquidity and credit availability. We cannot predict the duration or extent of any economic recovery or the extent to which our customers will return to more typical spending behaviors. The continuation in a number of markets of weak economic growth, constricted credit, public sector austerity measures in response to public budget deficits and foreign currency volatility, particularly with respect to the euro, could have a material adverse effect on our results of operations, financial condition and liquidity.

Additionally, our customers, particularly in Italy, Spain, Portugal and Greece, have extended or delayed payments for products and services already provided, which has increased our focus on collectability with respect to our accounts receivable from these customers. To date, we have not experienced an inordinate amount of payment defaults by our customers, and we have sufficient lending commitments in place to enable us to fund our foreseeable additional

operating needs. However, the ongoing uncertainty in the European financial markets, combined with a continuation of constrained European credit markets creates a risk that some of our European customers and suppliers may be unable to access liquidity. As of December 31, 2018 and 2017, our aggregate net current and long term trade accounts receivable in Italy, Spain, Portugal and Greece were $39.0 million and $49.1 million, respectively. In 2018, 2017 and 2016, net revenues from these countries were approximately 6%, 6% and 7% of total net revenues, respectively, and average days that accounts receivable from these countries were outstanding were 121, 154 and 182 days, respectively. Although we maintain allowances for doubtful accounts to cover the estimated losses which may occur when customers cannot make their required payments, we cannot assure that the loss rate will not increase in the future given the volatility in the worldwide economy. If our allowance for doubtful accounts is insufficient to address receivables we ultimately determine are uncollectible, we would be required to incur additional charges, which could materially adversely affect our results of operations. Moreover, our inability to collect outstanding receivables could adversely affect our financial condition and cash flow from operations.

In addition, adverse economic and financial market conditions may result in future impairment charges with respect to our goodwill and other intangible assets, which would not directly affect our liquidity but could have a material adverse effect on our reported financial results.

Our strategic initiatives, including acquisitions, may not produce the intended growth in revenue and operating income, which could have a material adverse effect on our operating results.

Our strategic initiatives include making significant investments designed to achieve revenue growth and to enable us to meet or exceed margin improvement targets. If we do not achieve the expected benefits from these investments or otherwise fail to execute on our strategic initiatives, we may not achieve the growth improvement we are targeting and our results of operations may be adversely affected.

In addition, as part of our strategy for growth, we have made, and may continue to make, acquisitions and divestitures and enter into strategic alliances such as joint ventures and joint development agreements. However, we may not be able to identify suitable acquisition candidates, complete acquisitions or integrate acquisitions successfully, and our joint ventures or strategic alliances may not prove to be successful. In this regard, acquisitions involve numerous risks, including difficulties in the integration of acquired operations, technologies, services and products and the diversion of management's attention from other business concerns. Moreover, the products and technologies that we acquire may not be successful or may require us to devote significantly greater development, marketing and other resources, as well as significantly greater investments, than we anticipated. We could also experience negative effects on our results of operations and financial condition from acquisition-related charges, amortization of intangible assets, asset impairment charges and other matters that could arise in connection with the acquisition of a company or business, including matters related to internal control over financial reporting and regulatory compliance, as well as the short-term effects of increased costs on results of operations. Although our management will endeavor to evaluate the risks inherent in any particular transaction, there can be no assurance that we will identify all such risks or the magnitude of the risks. In addition, prior acquisitions have resulted, and future acquisitions could result, in the incurrence of substantial additional indebtedness and expenditures. Future acquisitions may also result in potentially dilutive issuances of equity securities. There can be no assurance that difficulties encountered in connection with acquisitions will not have a material adverse effect on our business, financial condition and results of operations.

In connection with certain of our completed acquisitions, we have agreed to pay consideration that is contingent upon the achievement of specified objectives, such as receipt of regulatory approval, commercialization of a product or achievement of sales targets. As of the acquisition date, we record a contingent liability representing the estimated fair value of the contingent consideration we expect to pay. On a quarterly basis, we reassess these obligations and, in the event our estimate of the fair value of the contingent consideration changes, we record increases or decreases in the fair value as an adjustment to operating earnings, which could have a material impact on our results of operations. As of December 31, 2018, we accrued $304.2 million of contingent consideration, most of which related to our acquisition of NeoTract. In addition, actual payments may differ materially from the amount of the contingent liability , which could have a material impact on our results of operations, cash flows and liquidity. For information regarding assumptions related to our contingent consideration liabilities, see "Critical Accounting Policies and Estimates" under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Annual Report on Form 10-K. For additional information regarding our acquisitions, see Note 10 to the consolidated financial statements included in this Annual Report on Form 10-K.

Health care reform may have a material adverse effect on our industry and our business.

Political, economic and regulatory developments have effected fundamental changes in the healthcare industry. The Affordable Care Act substantially changed the way health care is financed by both government and private insurers. It also encourages improvements in the quality of health care products and services and significantly impacts the United States pharmaceutical and medical device industries. Among other things, the Affordable Care Act:

- established a 2.3% excise tax on sales of medical devices with respect to any entity that manufactures or imports specified medical devices offered for sale in the United States, although this tax was suspended for 2016 and 2017 as a result of the enactment of the Consolidated Appropriations Act of 2016 and has been further suspended for 2018 and 2019 as a result of the enactment of the Consolidated Appropriations Act of 2018;
- established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research;
- implemented payment system reforms, including a national pilot program to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain health care services through bundled payment models; and
- created an independent payment advisory board that will submit recommendations to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate.

While, as noted above, the excise tax has been suspended through 2019, we may again be subject to the excise tax in 2020 unless the suspension is extended further. We cannot predict at this time the full impact of the Affordable Care Act or other healthcare reform measures that may be adopted in the future on our financial condition, results of operations and cash flows. In this regard, several legislative initiatives to repeal and replace the Affordable Care Act were proposed, but not adopted in 2017. However, United States tax legislation adopted in December 2017 and commonly referred to as the Tax Cuts and Jobs Act ("TCJA") eliminated the individual mandate under the Affordable Care Act, which has resulted in increased uncertainty regarding insurance premium prices for participants in insurance exchanges under the act, and may have other effects. Moreover, on December 14, 2008, the United States District Court for the Northern District of Texas ruled that the individual mandate provision of the Affordable Care Act is unconstitutional and the remainder of the act is invalid, although the Court stayed its ruling pending appeal. The nature and effect of any modification or repeal of, or legislative substitution for, the Affordable Care Act, or any court decision regarding the act's validity, is uncertain, and we cannot predict the effect that any of these events would have on the longer-term viability of the act, or on our financial condition, results of operations or cash flows.

We are subject to risks associated with our non-United States operations.

We have significant manufacturing and distribution facilities, research and development facilities, sales personnel and customer support operations in a number of countries outside the United States, including Belgium, the Czech Republic, Germany, Ireland, Malaysia and Mexico. In addition, a significant portion of our non-United States revenues are derived from sales to third party distributors. As of December 31, 2018, 75% of our full-time and temporary employees were employed in countries outside of the United States, and approximately 40% of our net property, plant and equipment was located outside the United States. In addition, for the years ended December 31, 2018, 2017 and 2016 approximately 41%, 42% and 46%, respectively, of our net revenues (based on the Teleflex entity generating the sale) were derived from operations outside the United States.

Our international operations are subject to risks inherent in doing business outside the United States, including:

- exchange controls, currency restrictions and fluctuations in currency values;
- trade protection measures, tariffs and other duties, especially in light of trade disputes between the United States and several foreign countries, including China;
- potentially costly and burdensome import or export requirements;
- laws and business practices that favor local companies;
- changes in foreign medical reimbursement policies and procedures;
- subsidies or increased access to capital for firms that currently are or may emerge as competitors in countries in which we have operations;
- substantial foreign tax liabilities, including potentially negative consequences resulting from changes in tax laws;

- restrictions and taxes related to the repatriation of foreign earnings;
- differing labor regulations;
- additional United States and foreign government controls or regulations;
- the impact of the United Kingdom's pending departure from the European Union, commonly referred to as "Brexit";
- difficulties in the protection of intellectual property; and
- unsettled political and economic conditions and possible terrorist attacks against American interests.

In addition, the United States Foreign Corrupt Practices Act (the “FCPA”) prohibits companies and their intermediaries from making improper payments to non-United States officials for the purpose of obtaining or retaining business. Similar anti-bribery laws are in effect in several foreign jurisdictions. The FCPA also imposes accounting standards and requirements on publicly traded United States corporations and their foreign affiliates, which, among other things, are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments to government officials, and to prevent the establishment of “off the books” slush funds from which such improper payments can be made. Because of the predominance of government-sponsored health care systems around the world, many of our customer relationships outside of the United States are with government entities and are therefore subject to such anti-bribery laws. Our policies mandate compliance with these anti-bribery laws. However, we operate in many parts of the world that have experienced government corruption to some degree. Despite meaningful measures that we undertake to facilitate lawful conduct, which include training and compliance programs and internal control policies and procedures, we may not always prevent reckless or criminal acts by our employees, distributors or other agents. In addition, we may be exposed to liability due to pre-acquisition conduct of employees, distributors or other agents of businesses or operations we acquire. Violations of anti-bribery laws, or allegations of such violations, could disrupt our operations, involve significant management distraction and have a material adverse effect on our business, financial condition, results of operations and cash flows. We also could be subject to severe penalties and other adverse consequences, including criminal and civil penalties, disgorgement, substantial expenditures related to further enhancements to our procedures, policies and controls, personnel changes and other remedial actions, as well as harm to our reputation.

Furthermore, we are subject to the export controls and economic embargo rules and regulations of the United States, including the Export Administration Regulations and trade sanctions against embargoed countries, which are administered by the Office of Foreign Assets Control within the Department of the Treasury, as well as other laws and regulations administered by the Department of Commerce. These regulations limit our ability to market, sell, distribute or otherwise transfer our products or technology to prohibited countries or persons. While we train our employees and contractually obligate our distributors to comply with these regulations, we cannot assure that a violation will not occur, whether knowingly or inadvertently. Failure to comply with these rules and regulations may result in substantial civil and criminal penalties, including fines and the disgorgement of profits, the imposition of a court-appointed monitor, the denial of export privileges and debarment from participation in United States government contracts, any of which could have a material adverse effect on our international operations or on our business, results of operations, financial condition and cash flows.

Foreign currency exchange rate, commodity price and interest rate fluctuations may adversely affect our results.

We are exposed to a variety of market risks, including the effects of changes in foreign currency exchange rates, commodity prices and interest rates. Products manufactured in, and sold into, foreign markets represent a significant portion of our operations. Our consolidated financial statements reflect translation of financial statements denominated in non-United States currencies to United States dollars, our reporting currency, as well as the foreign currency exchange gains and losses resulting from the remeasurement of assets and liabilities and from transactions denominated in currencies other than the primary currency of the country in which the entity operates, which we refer to as "non-functional currencies." A strengthening or weakening of the United States dollar in relation to the foreign currencies of the countries in which we sell or manufacture our products, such as the euro, will affect our United States dollar-reported revenue and income. Although we have entered into forward contracts with several major financial institutions to hedge a portion of our monetary assets and liabilities and projected cash flows denominated in non-functional currencies in order to reduce the effects of currency rate fluctuations, changes in the relative values of currencies may, in some instances, have a significant effect on our results of operations.

Many of our products have significant plastic resin content. We also use quantities of other commodities, such as aluminum and steel. Increases in the prices of these commodities could increase the costs of our products and services. We may not be able to pass on these costs to our customers, particularly with respect to those products we sell under group purchase agreements, which could have a material adverse effect on our results of operations and cash flows.

Increases in interest rates may adversely affect the financial health of our customers and suppliers, thereby adversely affecting their ability to buy our products and supply the components or raw materials we need. In addition, our borrowing costs have been adversely affected by recent interest rate increases, and could be further affected if interest rates continue to increase. Any of these events could have a material adverse effect on our financial condition, results of operations and cash flows.

Under our cross-currency swap agreements, a meaningful decline in the U.S. dollar to euro exchange rate could have a material adverse effect on our cash flows.

On October 4, 2018, we entered into cross-currency swap agreements with six different financial institutions to hedge against the effect of variability in the U.S. dollar to euro exchange rate. Under the terms of the swap agreements, we notionally exchanged $500.0 million at an annual interest rate of 4.625% for €433.9 million at an annual interest rate of 1.942%. The swap agreements, which expire on October 4, 2023, require an exchange of the notional amounts between us and the counterparties upon expiration or earlier termination of the agreements. If, at the expiration or earlier termination of the swap agreements, the U.S. dollar to euro exchange rate has declined from the rate in effect on October 4, 2018, we are required to pay the counterparties an amount equal to the excess of the U.S. dollar value of €433.9 million over $500.0 million (we and the counterparties have agreed to a net settlement with regard to the exchange of the notional amounts at the date of expiration or earlier termination of the agreements). In the event of a significant decline in the U.S. dollar to euro exchange rate, our payment obligations to the counterparties could have a material adverse effect on our cash flows. In this regard, if, at the expiration or earlier termination of the swap agreements, the U.S. dollar to euro currency exchange rate has declined by 10% from the rate in effect at October 4, 2018 (at that date, the exchange rate was 1.15 U.S. dollar per euro), we would be required to pay approximately $50 million to the counterparties in respect of the notional settlement. To the extent we enter into additional cross-currency swap agreements, a decline in the relevant exchange rates could further adversely affect our cash flows.

Fluctuations in our effective tax rate and changes to tax laws may adversely affect us.

As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. Our effective tax rate is derived from a combination of applicable tax rates in the various countries, states and other jurisdictions in which we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each of these jurisdictions. Our effective tax rate may, however, differ from the estimated amount due to numerous factors, including a change in the mix of our profitability from country to country and changes in tax laws (including the impact of the enactment of the TCJA). Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could have an adverse effect on our business, financial condition and results of operations and cash flows.

An interruption in our manufacturing or distribution operations or our supply of raw materials may adversely affect our business.

Many of our key products are manufactured at or distributed from single locations, and the availability of alternate facilities is limited. If operations at one or more of our facilities is suspended due to natural disasters or other events, we may not be able to timely manufacture or distribute one or more of our products at previous levels or at all. Furthermore, our ability to establish replacement facilities or to substitute suppliers may be delayed due to regulations and requirements of the FDA and other regulatory authorities regarding the manufacture of our products. In addition, in the event of delays or cancellations in shipments of raw materials by our suppliers, we may not be able to timely manufacture or supply the affected products at previous levels or at all. The manufacture of our products is highly exacting and complex, due in part to strict regulatory requirements. Problems in the manufacturing process, including equipment malfunction, failure to follow specific protocols and procedures, defective raw materials and environmental factors, could lead to delays in product releases, product shortages, unanticipated costs, lost revenues and damage to our reputation. A failure to identify and address manufacturing problems prior to the release of products to our customers may also result in quality or safety issues. A reduction or interruption in manufacturing or distribution, or our inability to secure suitable alternative sources of raw materials or components, could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Our ability to attract, train, develop and retain key employees is important to our success.

Our success depends, in part, on our ability to continue to retain key personnel, including our executive officers and other members of our senior management team. Our success also depends, in part, on our ability to attract, train, develop and retain other key employees, including research and development, sales, marketing and operations personnel. We may experience difficulties in retaining executives and other employees due to many factors, including:

- the intense competition for skilled personnel in our industry;
- fluctuations in global economic and industry conditions;
- changes in our organizational structure;
- our restructuring initiatives;
- competitors' hiring practices; and
- the effectiveness of our compensation programs.

Our inability to attract, train, develop and retain such personnel could have an adverse effect on our business, results of operations, financial condition and cash flows.

Our failure to maintain strong relationships with physicians and other health care professionals could adversely affect us.

We depend on our ability to maintain strong working relationships with physicians and other healthcare professionals in connection with research and development for some of our products. We rely on these professionals to provide us with considerable knowledge and advice regarding the development and use of these products. Physicians assist us as researchers, product consultants, inventors and public speakers. If we fail to maintain our working relationships with physicians and, as a result, no longer have the benefit of their knowledge and advice, our products may not be developed in a manner that is responsive to the needs and expectations of the professionals who use and support our products, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our technology is important to our success, and our failure to protect our intellectual property rights could put us at a competitive disadvantage.

We rely on the patent, trademark, copyright and trade secret laws of the United States and other countries to protect our proprietary rights. Although we own numerous United States and foreign patents and have submitted numerous patent applications, we cannot be assured that any pending patent applications will issue, or that any patents, issued or pending, will provide us with any competitive advantage or will not be challenged, invalidated or circumvented by third parties. In addition, we rely on confidentiality and non-disclosure agreements with employees and take other measures to protect our know-how and trade secrets. The steps we have taken may not prevent unauthorized use of our technology by competitors or other persons who may copy or otherwise obtain and use these products or technology, particularly in foreign countries where the laws may not protect our proprietary rights to the same extent as in the United States. We cannot assure that current and former employees, contractors and other parties will not breach their confidentiality agreements with us, misappropriate proprietary information, copy or otherwise obtain and use our information and proprietary technology without authorization or otherwise infringe on our intellectual property rights. Our inability to protect our proprietary technology could adversely affect our business, financial condition, results of operations and cash flows. Moreover, there can be no assurance that others will not independently develop know-how and trade secrets comparable to ours or develop better technology than our own, which could reduce or eliminate any competitive advantage we have developed.

Our products or processes may infringe the intellectual property rights of others, which may cause us to pay unexpected litigation costs or damages or prevent us from selling our products.

We cannot be certain that our products do not and will not infringe issued patents or other intellectual property rights of third parties. We may be subject to legal proceedings and claims in the ordinary course of our business, including claims of alleged infringement of the intellectual property rights of third parties. Any such claims, whether or not meritorious, could result in litigation and divert the efforts of our personnel. If we are found liable for infringement, we may be compelled to enter into licensing agreements (which may not be available on acceptable terms or at all)

or to pay damages or cease making or selling certain products. We may need to redesign some of our products or processes to avoid future infringement liability. Any of the foregoing events could be detrimental to our business.

Other pending and future litigation may involve significant costs and adversely affect our business.

We are party to various lawsuits and claims arising in the normal course of business involving, among other things, contracts, intellectual property, import and export regulations, and employment and environmental matters. The defense of these lawsuits may divert our management's attention, and may involve significant legal expenses. In addition, we may be required to pay damage awards or settlements, or become subject to injunctions or other equitable remedies, that could have a material adverse effect on our financial condition and results of operations. While we do not believe that any litigation in which we are currently engaged would have such an adverse effect, the outcome of litigation, including regulatory matters, is often difficult to predict, and we cannot assure that the outcome of pending or future litigation will not have a material adverse effect on our business, financial condition, results of operations or cash flows.

Our substantial indebtedness could adversely affect our business, financial condition or results of operations.

As of December 31, 2018, we had total consolidated indebtedness of $2.2 billion.

Our substantial level of indebtedness increases the risk that we may be unable to generate cash sufficient to satisfy our debt obligations. It could also have significant effects on our business. For example, it could:

- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund capital expenditures, research and development efforts and other general corporate expenditures;
- limit our ability to borrow additional funds for general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restrict us from pursuing business opportunities; and
- place us at a disadvantage compared to competitors that have less indebtedness.

If we do not generate sufficient cash flow from operations or if future borrowings are not available to us in an amount sufficient to pay our indebtedness when due or to fund our other liquidity needs, we may be forced to:

- refinance all or a portion of our indebtedness;
- sell assets;
- reduce or delay capital expenditures; or
- seek to raise additional capital.

We may not be able to effect any of these actions on commercially reasonable terms or at all. Our ability to refinance our indebtedness will depend on our financial condition at the time, the restrictions in the instruments governing our outstanding indebtedness and other factors, including market conditions.

Our inability to generate sufficient cash flow to satisfy our debt service obligations, or to refinance or restructure our obligations on commercially reasonable terms or at all, could have a material adverse effect on our business, financial condition and results of operations.

Our debt agreements impose restrictions on our business, which could prevent us from pursuing business opportunities and taking other desirable corporate actions, and may adversely affect our ability to respond to changes in our business and manage our operations.

Our senior credit agreement and the indentures governing our 5.25% senior notes due 2024 (the "2024 Notes"), our 4.875% senior notes due 2026 (the "2026 Notes") and our 4.625% senior notes due 2027 (the "2027 Notes" and, together with the 2024 Notes, the "Senior Notes") contain covenants that, among other things, impose significant restrictions on our business. The restrictions that these covenants place on us and our restricted subsidiaries collectively include limitations on our and their ability to, among other things:

- incur additional indebtedness or issue preferred stock or otherwise disqualified stock;
- create liens;
- pay dividends, make investments or make other restricted payments;
- sell assets;
- merge, consolidate, sell or otherwise dispose of all or substantially all of our assets; and
- enter into transactions with our affiliates.

In addition, our senior credit agreement also contains financial covenants, including covenants requiring maintenance of a consolidated leverage ratio, a secured leverage ratio and a consolidated interest coverage ratio, calculated in accordance with the terms of the senior credit agreement. A breach of any covenants under any one or more of our debt agreements could result in a default, which if not cured or waived, could result in the acceleration of all of our debt. In addition, any debt agreements we enter into in the future may further limit our ability to enter into certain types of transactions.

We may issue additional shares of our common stock or instruments convertible into our common stock, which could lower the price of our common stock.

We are not restricted from issuing additional shares of our common stock or other instruments convertible into our common stock. As of December 31, 2018, we had outstanding approximately 46.0 million shares of our common stock, options to purchase approximately 1.5 million shares of our common stock (of which approximately 1.1 million were vested as of that date), restricted stock units covering approximately 0.2 million shares of our common stock (which are expected to vest over the next three years), performance stock units covering a maximum of 22,290 shares of our common stock (which may vest in early 2021, depending on our performance with regard to specified financial measures and market performance of our common stock compared to designated public companies) and approximately 1,767 shares of our common stock to be distributed from our deferred compensation plan. As of December 31, 2018, 3.6 million shares of our common stock are reserved for issuance upon the exercise of stock options. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock.

If we issue additional shares of our common stock or instruments convertible into our common stock, such issuances may materially and adversely affect the price of our common stock. Furthermore, our issuance of shares following the exercise of some or all of the outstanding stock options, as well as the vesting of restricted stock units and some or all of the performance stock units will dilute the ownership interests of existing stockholders, and the issuance and sale in the public market of such shares of our common stock could adversely affect prevailing market prices of our common stock.

Disruption of critical information systems or material breaches in the security of our systems may adversely affect our business and customer relationships.

We rely on information technology systems to process, transmit, and store electronic information in our day-to-day operations. We also rely on our technology infrastructure, among other functions, to enable us to interact with customers and suppliers, fulfill orders, generate invoices, collect and make payments, ship products, provide support to customers, fulfill contractual obligations and otherwise perform business functions. Our internal information technology systems, as well as those systems maintained by third-party providers, may be subjected to computer viruses or other malicious codes, unauthorized access attempts, and cyber-attacks, any of which could result in data leaks or otherwise compromise our confidential or proprietary information and disrupt our operations. Cyber-attacks are becoming more sophisticated and frequent, and in some cases have caused significant harm. Although we have taken numerous measures to protect our information systems and enhance data security, we cannot assure that these measures will prevent security breaches that could have a significant impact on our business, reputation and financial results. If we fail to monitor, maintain or protect our information technology systems and data integrity effectively or fail to anticipate, plan for or manage significant disruptions to these systems, we could, among other things, lose customers, have difficulty preventing fraud, have disputes with customers, physicians and other health care professionals, be subject to regulatory sanctions or penalties, incur expenses, lose revenues or suffer other adverse consequences. Any of these events could have a material adverse effect on our business, results of operations, financial condition or cash flows.

Regulations related to conflict minerals have caused us to incur additional costs and may adversely affect our business.

In 2012, the SEC promulgated rules under the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding disclosure of the use of tin, tantalum, tungsten and gold, known as "conflict minerals," included in components of products either manufactured by public companies or for which public companies have contracted to manufacture. These rules require that we undertake due diligence efforts to determine whether such minerals originated from the Democratic Republic of Congo (the "DRC") or an adjoining country and, if so, whether such minerals helped finance armed conflict in the DRC or an adjoining country. In accordance with applicable regulations, we have filed conflict minerals reports annually, beginning in 2014. As discussed in these reports, we have determined that certain of our products contain the specified minerals, and we have undertaken, and continue to undertake, efforts to identify where such minerals originated. We have incurred, and expect to continue to incur, costs associated with complying with these disclosure requirements, including costs related to determining the sources of the specified minerals used in our products. These rules could adversely affect the sourcing, supply and pricing of materials used in our products. Our customers may require that our products be free of conflict minerals, and our revenues and margins may be adversely affected if we are unable to provide assurances to our customers that our products are "DRC conflict free" (generally, the product does not contain conflict minerals originating in the DRC or an adjoining country that directly or indirectly finance or benefit specified armed groups) due to, among other things, our inability to procure conflict free minerals at a reasonable price, or at all. Moreover, we may be adversely affected if we are unable to pass through any increased costs associated with meeting customer demands that we provide products that are DRC conflict free. We also may face reputational challenges if our due diligence efforts do not enable us to verify the origins of all conflict minerals or to determine that any conflict minerals used in products we manufacture or in products manufactured by others for us are DRC conflict-free.

Our operations expose us to the risk of material environmental and health and safety liabilities.

We are subject to numerous foreign, federal, state and local environmental protection and health and safety laws governing, among other things:

- the generation, storage, use and transportation of hazardous materials;
- emissions or discharges of substances into the environment; and
- the health and safety of our employees.

These laws and regulations are complex, change frequently and have tended to become more stringent over time. We cannot provide assurance that our costs of complying with current or future environmental protection and health and safety laws, or our liabilities arising from past or future releases of, or exposures to, hazardous substances, which may include claims for personal injury or cleanup, will not exceed our estimates or will not adversely affect our financial condition and results of operations.

Our workforce covered by collective bargaining and similar agreements could cause interruptions in our provision of products and services.

As of December 31, 2018, approximately 11% of our employees in the United States and in other countries were covered by union contracts or collective bargaining arrangements. It is likely that a portion of our workforce will remain covered by collective bargaining and similar agreements for the foreseeable future. Strikes or work stoppages could occur that would adversely impact our relationships with our customers and our ability to conduct our business.

We may not pay dividends on our common stock in the future.

Holders of our common stock are entitled to receive dividends only as our board of directors may declare out of funds legally available for such payments. The declaration and payment of future dividends to holders of our common stock will be at the discretion of our board of directors and will depend upon many factors, including our financial condition, earnings, requirements under covenants in our debt instruments, legal requirements and other factors as our board of directors deems relevant. We cannot assure that our cash dividend will not be reduced, or eliminated, in the future.

Certain provisions of our corporate governing documents, Delaware law and our senior notes could discourage, delay, or prevent a merger or acquisition.

Provisions of our certificate of incorporation and bylaws could impede a merger, takeover or other business combination involving us or discourage a potential acquirer from making a tender offer for our common stock. For example, our certificate of incorporation authorizes our board of directors to determine the number of shares in a series, the consideration, dividend rights, liquidation preferences, terms of redemption, conversion or exchange rights and voting rights, if any, of unissued series of preferred stock, without any vote or action by our stockholders. Thus, our board of directors can authorize and issue shares of preferred stock with voting or conversion rights that could adversely affect the voting or other rights of holders of our common stock. We are also subject to Section 203 of the Delaware General Corporation Law, which imposes restrictions on mergers and other business combinations between us and any holder of 15% or more of our common stock. These provisions could have the effect of delaying or deterring a third party from acquiring us even if an acquisition might be in the best interest of our stockholders, and accordingly could reduce the market price of our common stock.

Certain provisions in the indentures governing the Senior Notes could make it more difficult or more expensive for a third party to acquire us. If an acquisition event constitutes a “change of control,” as defined in the indentures governing the Senior Notes, holders of such notes will have the right to require us to purchase their notes in cash (in the case of the 2027 Notes, the right will apply if the change in control is coupled with a ratings downgrade). Our obligations under the Senior Notes could increase the cost of acquiring us or otherwise discourage a third party from acquiring us or removing incumbent management, and accordingly could cause a reduction in the market price of our common stock.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

Not applicable.

ITEM 2. *PROPERTIES*

We own or lease approximately 90 properties consisting of plants, engineering and research centers, distribution warehouses, offices and other facilities. We believe that the properties are maintained in good operating condition and are suitable for their intended use. In general, our facilities meet current operating requirements for the activities currently conducted within the facilities.

Our major facilities (those with 50,000 or greater square feet) at December 31, 2018 are as follows:

Location	Square Footage	Owned or Leased
Olive Branch, MS	627,000	Leased
Kamunting, Malaysia	286,000	Owned
Nuevo Laredo, Mexico	277,000	Leased
Asheboro, NC	204,000	Owned
Reading, PA	166,000	Owned
Tongeren, Belgium	163,000	Leased
Morrisville, NC	162,000	Leased
Chihuahua, Mexico	153,000	Owned
Maple Grove, MN	129,000	Owned
Zdar Nad Sazauou, Czech Republic	108,000	Owned
Chihuahua, Mexico	100,000	Leased
Tecate, Mexico	102,000	Leased
Hradec Kralove, Czech Republic	92,000	Owned
Chelmsford, MA	91,000	Leased
Kulim, Malaysia	90,000	Owned
Kernen, Germany	86,000	Leased
Arlington Heights, IL	86,000	Leased
Wayne, PA	84,000	Leased
Jaffrey, NH	81,000	Owned
Kamunting, Malaysia	77,000	Leased
Chihuahua, Mexico	68,000	Leased
Chihuahua, Mexico	63,000	Owned
Limerick, Ireland	59,000	Owned
Mansfield, MA	57,000	Leased
Bad Liebenzell, Germany	53,000	Leased

Operations in each of our business segments are conducted at locations both in and outside of the United States. Of the facilities listed above, with the exception of Jaffrey, NH, Mansfield, MA, and Limerick, Ireland, which are used solely for the OEM segment, our facilities generally serve more than one business segment and are often used for multiple purposes, such as administrative/sales, manufacturing and warehousing/distribution.

In addition to the properties listed above, we own or lease approximately 670,000 square feet of additional warehousing, manufacturing and office space in the North America, South America, Europe, Asia and Africa.

ITEM 3. *LEGAL PROCEEDINGS*

We are party to various lawsuits and claims arising in the normal course of business. These lawsuits and claims include actions involving product liability and product warranty, intellectual property, contracts, employment and environmental matters. As of December 31, 2018 and 2017, we accrued liabilities of $0.6 million and $3.8 million respectively, in connection with these matters, representing our best estimate of the cost within the range of estimated possible loss that will be incurred to resolve these matters. Based on information currently available, advice of counsel, established reserves and other resources, we do not believe that any such actions are likely to be, individually or in the aggregate, material to our business, financial condition, results of operations or cash flows. However, in the event of unexpected further developments, it is possible that the ultimate resolution of these matters, or other similar matters, if unfavorable, may be materially adverse to our business, financial condition, results of operations or cash flows. See Note 16 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

ITEM 4. *MINE SAFETY DISCLOSURES*

Not applicable.

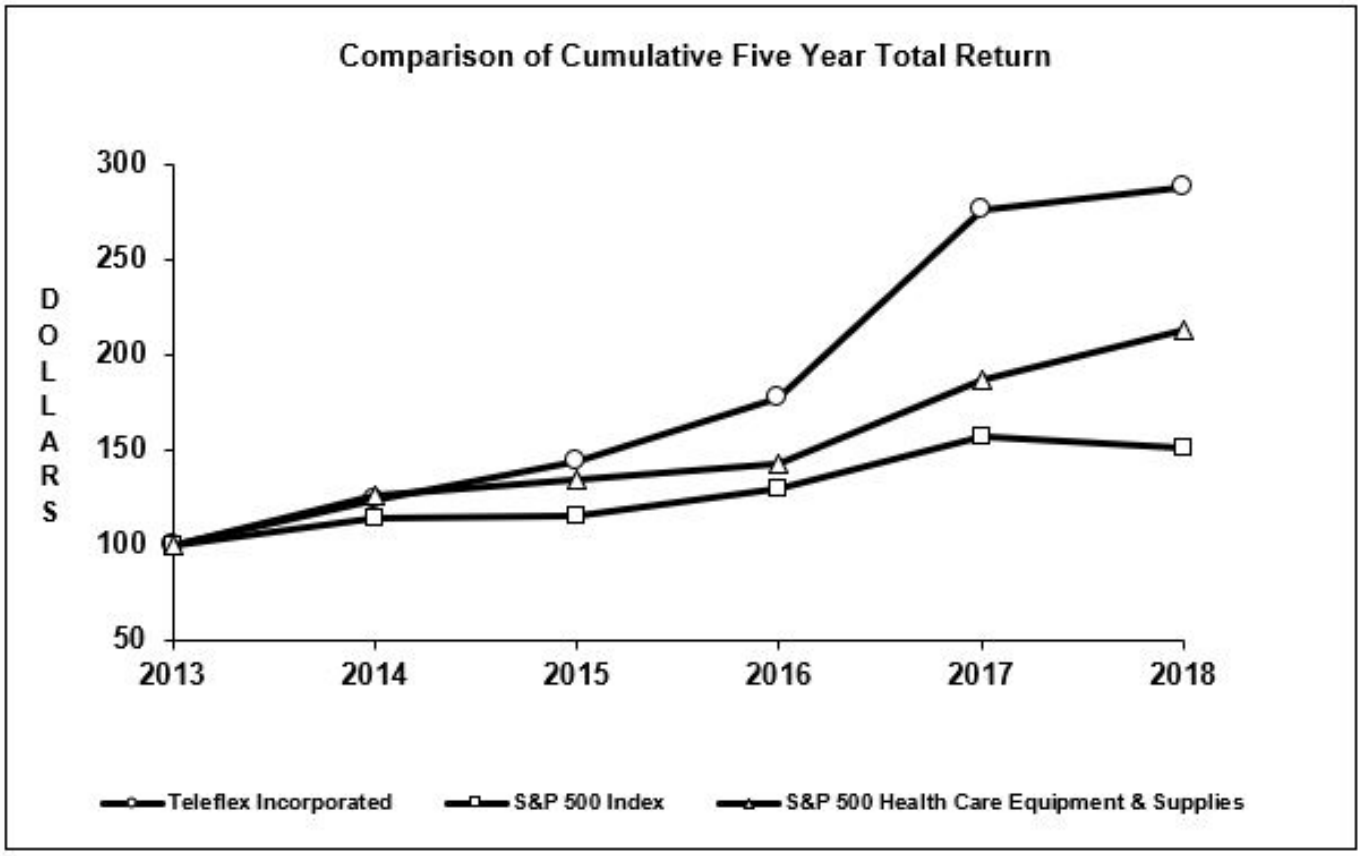
PART II

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

Our common stock is listed on the New York Stock Exchange under the symbol "TFX." As of February 19, 2019, we had 473 holders of record of our common stock. A substantially greater number of holders of our common stock are beneficial owners whose shares are held by brokers and other financial institutions for the accounts of beneficial owners.

Stock Performance Graph

The following graph provides a comparison of five year cumulative total stockholder returns of Teleflex common stock, the Standard & Poor's (S&P) 500 Stock Index and the S&P 500 Healthcare Equipment & Supply Index. The annual changes for the five-year period shown on the graph are based on the assumption that $100 had been invested in Teleflex common stock and each index on December 31, 2013 and that all dividends were reinvested.



MARKET PERFORMANCE

Company / Index	2013	2014	2015	2016	2017	2018
Teleflex Incorporated	100	124	143	177	275	288
S&P 500 Index	100	114	115	129	157	150
S&P 500 Healthcare Equipment & Supply Index	100	126	134	142	186	213

ITEM 6. *SELECTED FINANCIAL DATA*

	2018[1]	2017[1]	2016[1]	2015[1]	2014[1]
	(Dollars in thousands, except per share)				
Statement of Income Data:					
Net revenues	$ 2,448,383	$ 2,146,303	$ 1,868,027	$ 1,809,690	$ 1,839,832
Income from continuing operations before interest, loss on extinguishment of debt and taxes	$ 321,704	$ 372,279	$ 319,453	$ 315,891	$ 284,862
Income from continuing operations	$ 196,432	$ 155,263	$ 237,651	$ 236,808	$ 191,460
Amounts attributable to common shareholders for income from continuing operations	$ 196,432	$ 155,263	$ 237,187	$ 235,958	$ 190,388
Per Share Data:					
Income from continuing operations — basic	$ 4.30	$ 3.45	$ 5.47	$ 5.68	$ 4.60
Income from continuing operations — diluted	$ 4.20	$ 3.33	$ 4.98	$ 4.91	$ 4.10
Cash dividends	$ 1.36	$ 1.36	$ 1.36	$ 1.36	$ 1.36
Balance Sheet Data:					
Total assets	$ 6,277,991	$ 6,181,492	$ 3,891,213	$ 3,871,774	$ 3,912,431
Long-term borrowings	$ 2,072,200	$ 2,162,927	$ 850,252	$ 641,850	$ 693,720
Shareholders' equity	$ 2,539,978	$ 2,430,531	$ 2,137,517	$ 2,009,272	$ 1,911,309
Statement of Cash Flows Data:					
Net cash provided by operating activities from continuing operations	$ 435,086	$ 426,301	$ 410,590	$ 303,446	$ 290,241
Net cash used in investing activities from continuing operations	$ (196,394)	$ (1,832,855)	$ (56,974)	$ (154,848)	$ (108,137)
Net cash (used in) provided by financing activities from continuing operations	$ (206,433)	$ 1,141,259	$ (118,692)	$ (85,583)	$ (287,703)
Supplemental Data:					
Free cash flow[(2)]	$ 354,291	$ 355,398	$ 357,455	$ 241,998	$ 222,670

Certain financial information is presented on a rounded basis, which may cause minor differences.

(1) Amounts include the impact of businesses acquired during the period, commencing on the respective acquisition dates. See Note 4 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

(2) Free cash flow is calculated by subtracting capital expenditures from cash provided by operating activities from continuing operations. Free cash flow is a non-GAAP financial measure. This financial measure is used in addition to and in conjunction with results presented in accordance with generally accepted accounting principles in the United States, or GAAP, and should not be considered a substitute for net cash provided by operating activities from continuing operations, the most comparable GAAP financial measure. Management believes that free cash flow is a useful measure to investors because it facilitates an assessment of funds available to satisfy current and future obligations, pay dividends and fund acquisitions. We also use this financial measure for internal managerial purposes and to evaluate period-to-period comparisons. Free cash flow is not a measure of cash available for discretionary expenditures since we have certain non-discretionary obligations, such as debt service, that are not deducted from the measure. We strongly encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. The following is a reconciliation of free cash flow to the most comparable GAAP measure.

	2018	2017	2016	2015	2014
	(Dollars in thousands)				
Net cash provided by operating activities from continuing operations	$ 435,086	$ 426,301	$ 410,590	$ 303,446	$ 290,241
Less: Capital expenditures	80,795	70,903	53,135	61,448	67,571
Free cash flow	$ 354,291	$ 355,398	$ 357,455	$ 241,998	$ 222,670

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

Overview

We are a global provider of medical technology products focused on enhancing clinical benefits, improving patient and provider safety and reducing total procedural costs. We primarily design, develop, manufacture and supply single-use medical devices used by hospitals and healthcare providers for common diagnostic and therapeutic procedures in critical care and surgical applications. We market and sell our products worldwide through a combination of our direct sales force and distributors. Because our products are used in numerous markets and for a variety of procedures, we are not dependent upon any one end-market or procedure. We are focused on achieving consistent, sustainable and profitable growth by increasing our market share and improving our operating efficiencies.

We evaluate our portfolio of products and businesses on an ongoing basis to ensure alignment with our overall objectives. Based on our evaluation, we may identify opportunities to expand our margins through strategic divestitures of existing businesses and product lines that do not meet our objectives. In addition, we may seek to optimize utilization of our facilities through restructuring initiatives designed to further reduce our cost base and enhance our competitive position. Finally, we may continue to explore opportunities to expand the size of our business and improve our margins through a combination of acquisitions and distributor to direct sales conversions, which generally involve our elimination of a distributor from the sales channel, either by acquiring the distributor or terminating the distributor relationship (in some instances, particularly in Asia, the conversions involve our acquisition or termination of a master distributor and the continued sale of our products through sub-distributors). Our distributor to direct sales conversions are designed to facilitate improved product pricing and more direct access to the end users of our products within the sales channel.

In May 2018 and February 2019, we initiated restructuring plans primarily involving the relocation of certain manufacturing operations to existing lower-cost locations and related workforce reductions (the "2018 Footprint realignment plan" and the "2019 Footprint realignment plan," respectively). The 2018 Footprint realignment plan, which also involves the outsourcing of certain European distribution operations, and the 2019 Footprint realignment plan are expected to be substantially completed during 2024 and 2022, respectively. For additional information on both of these plans and a discussion of our other ongoing restructuring programs, see "*Restructuring and impairment charges*" under "Results of Operations" below.

We have continued to expand our presence within the medical device industry through strategic acquisitions. During 2018, we completed several acquisitions of businesses that complement our interventional and surgical product portfolios. The total fair value of the consideration transferred in connection with these acquisitions was $172.3 million, which included initial payments of $117.6 million and contingent consideration having an estimated fair value of $54.7 million. The contingent consideration liability represents the estimated fair value of the Company's obligations to make additional payments if certain sales and regulatory goals are met.

During the year ended December 31, 2018, we also completed several distributor to direct sales conversions. The aggregate consideration we transferred in connection with these transactions was $4.9 million.

In October 2017, we completed the acquisition of NeoTract, Inc. ("NeoTract"), a medical device company that developed and commercialized the UroLift System, a minimally invasive medical device for treating lower urinary tract symptoms due to benign prostatic hyperplasia, or BPH. We made initial payments of $725.6 million in cash less a favorable working capital adjustment of $1.4 million and agreed to pay up to an additional $300 million in the aggregate contingent if we achieve specified net sales goals through the end of 2020. We made an additional payment of $75 million during 2018 as a result of the achievement of a sales goal for the period from January 1, 2018 to April 30, 2018. In February 2017, we completed the acquisition of Vascular Solutions, Inc. ("Vascular Solutions"), a medical device company that developed and marketed clinical products for use in minimally invasive coronary and peripheral vascular procedures, for an aggregate purchase price of $975.5 million. In addition, during the year ended December 31, 2017, we completed acquisitions related to our anesthesia and respiratory product portfolios and distributor to direct sales conversions. The total fair value of the consideration related to these acquisitions was $80.1 million.

U.S. Tax Legislation

U.S. tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "TCJA") was enacted on December 22, 2017. The legislation significantly changes United States (or "U.S.") tax law by, among other things, reducing the U.S. corporate income tax rate from a maximum of 35% to 21%; implementing a territorial tax system, generally

providing for, among other things, a dividends received deduction on the foreign source portion of dividends received from a foreign corporation if specified conditions are met; and imposing a one-time repatriation tax on undistributed post-1986 earnings and profits of foreign subsidiaries, which will be deemed repatriated for purposes of the tax.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address the application of U.S. GAAP in situations where a company does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the TCJA. SAB 118 states that in these circumstances, if the Company can determine a reasonable estimate for the income tax effects, the SEC staff would not object if the company includes in its financial statements the reasonable estimate it has determined (and the SEC staff also expressed its belief that it would not be appropriate for a company to exclude a reasonable estimate from its financial statements to the extent a reasonable estimate has been determined). We included a provisional $107.9 million net tax expense related to the deemed repatriated earnings and the revaluation of deferred tax assets and liabilities in our consolidated financial statements for the year ended December 31, 2017.

During 2018, we made adjustments to the provisional amounts for taxes on deemed repatriated earnings and the revaluation of deferred tax assets and liabilities due to additional analysis, changes in interpretations and in our assumptions, and the issuance of additional regulatory guidance. As prescribed under SAB 118, these adjustments were identified and recorded as discrete adjustments in the period in which such changes were made. During 2018, we recognized a net $2.3 million discrete tax benefit as a result of adjustments to the provisional tax impacts of the TCJA included in our consolidated financial statements for the year ended December 31, 2017. These adjustments included a $0.2 million reduction in the provisional tax on deemed repatriated earnings and a $2.1 million tax benefit from changes in our revaluation of deferred tax assets and liabilities. We completed our accounting for these impacts during the fourth quarter 2018.

Health Care Reform

In 2010, the Patient Protection and Affordable Care Act (as amended, the "Affordable Care Act") was signed into law. The legislation is far-reaching and is intended to expand access to health insurance coverage and improve the quality and reduce the costs of healthcare. For medical device companies such as Teleflex, the expansion of medical insurance coverage should lead to greater utilization of the products we manufacture, but the provisions of the legislation designed to contain the cost of healthcare could negatively affect pricing of our products and encourage patient outcome driven results. The overall impact of the Affordable Care Act on our business is yet to be determined, mainly due to uncertainties around future customer behaviors, which we believe will be affected by reimbursement factors such as insurance coverage, statistics, patient outcomes and patient satisfaction. [Several legislative initiatives to repeal the Affordable Care Act and adopt a form of replacement legislation were proposed, but not adopted, in 2017. However, the TCJA eliminated the individual mandate under the Affordable Care Act, which generally required most Americans to maintain a minimum level of health insurance coverage.] As a result, the level of insurance premium prices for participants in insurance exchanges under the Affordable Care Act is subject to increased uncertainty. Moreover, on December 14, 2018, the United States District Court for the Northern District of Texas ruled that the individual mandate provision of the Affordable Care Act is unconstitutional and the remainder of the act is invalid, although the Court stayed its ruling pending appeal. The nature and effect of any modification or repeal of, or legislative substitution for, the Affordable Care Act, any court decision regarding the act's validity and, generally, the longer-term viability of the act, is uncertain.

The Affordable Care Act imposed a 2.3% excise tax on sales of medical devices, beginning in 2013. Although the excise tax has been suspended through 2019, its status remains unclear for subsequent years.

Global Economic Conditions

Global economic conditions in the past decade have had an adverse impact on market activities due to, among other things, failure of financial institutions, falling asset values, diminished liquidity, reduced demand for products and services and significant fluctuations in foreign currency exchange rates. In response, we adjusted production levels and engaged in new restructuring activities. We continue to review and evaluate our manufacturing, warehousing and distribution processes to maximize efficiencies through the elimination of redundancies in our operations and the consolidation of facilities. Although, on a consolidated basis, the consequences of economic conditions, other than fluctuations in foreign currency exchange rates, have not had a significant adverse impact on our financial position, results of operations or liquidity, healthcare policies and practice trends vary by country, and the impact of the global economic downturn was felt to varying degrees in each of our regional markets over the last several years. While there generally has been some improvement in economic conditions recently, the degree of improvement has been uneven among our regional markets, and the continuation of economic trends of uncertain economic growth, constricted credit,

public sector austerity measures in response to public budget deficits and foreign currency volatility, particularly with respect to the euro, could have a material adverse effect on our results of operations and our liquidity.

In recent years, hospitals in some regions of the United States experienced a decline in admissions, a weaker payor mix, and a reduction in elective procedures. Consequently, hospitals took actions to reduce their costs, including limiting their capital spending. Despite recent improvements in the economic environment, challenges persist, particularly in some European countries, as discussed below. Approximately 95% of our net revenues come from single-use products primarily used in critical care and surgical applications, and our sales volume could be negatively impacted if hospital admission rates or payor mix change. Conversely, our sales volume could increase due to the greater number of insured individuals as a result of the Affordable Care Act, which has had the effect of facilitating medical insurance coverage for many persons who previously were not covered, although, as noted above, the Affordable Care Act may be subject to repeal, a final court determination of invalidity, further modification or replacement; therefore, the longer-term viability of the act is uncertain.

A number of European countries continue to contend with considerable government debt, annual deficits and high levels of unemployment. Despite some indications of a more positive economic outlook in Europe, the prospects for continued growth are uncertain, and the healthcare sector remains weak. In particular, budgetary restraints among European countries have led to cost control measures, such as delays in approvals for elective surgeries.The public healthcare systems in certain countries in Western Europe, most notably Greece, Spain, Portugal and Italy, have experienced significantly reduced liquidity due to recessionary conditions, which continues to result in delays in payments to us by customers in these countries. Moreover, the impact of ongoing uncertainty regarding the impact of the departure of the United Kingdom from the European Union and political developments in European nations could have a profound economic effect in Europe and elsewhere.

In Asia, we believe the economic outlook for the healthcare sector generally is positive. However, a deceleration of growth in the Chinese economy and recent US-China trade tensions have increased uncertainties within Asia. In addition, we continue to confront government-implemented price management and reimbursement controls, particularly in China and India. There also has been an increase in government initiatives to help local manufacturers access a bigger share of the local market. Moreover, many countries in the region have become more proactive with respect to regulatory requirements, and as a result, we expect longer, costlier and more complicated regulatory approval processes in these countries.

In Latin America, some highly regulated economies such as Argentina, Brazil, and Venezuela have experienced unusually high inflation rates and weakening currencies. This has impacted the budgets of the public healthcare systems resulting in delays in the importation of medical devices. Although Latin America does not represent a significant portion of our business, our operations in this region may be adversely affected by these factors.

Results of Operations

As used in this discussion, "new products" are products for which commercial sales have commenced within the past 36 months, and “existing products” are products for which commercial sales commenced more than 36 months ago. Discussion of results of operations items that reference the effect of one or more acquired businesses (except as noted below with respect to acquired distributors) generally reflects the impact of the acquisitions within the first 12 months following the date of the acquisition. In addition to increases and decreases in the per unit selling prices of our products to our customers, our discussion of the impact of product price increases and decreases also reflects the impact on the pricing of our products resulting from any elimination of distributors, either through acquisition or termination of the distributor, from the sales channel.

Certain financial information is presented on a rounded basis, which may cause minor differences.

Revenues

	2018	2017	2016
	(Dollars in millions)		
Net Revenues	$ 2,448.4	$ 2,146.3	$ 1,868.0

Comparison of 2018 and 2017

Net revenues for the year ended December 31, 2018 increased 14.1%, or $302.1 million, compared to the prior year. The increase is primarily attributable to net revenues of $165.1 million generated by acquired businesses, primarily NeoTract, a $60.4 million increase in sales volumes of existing products and, to a lesser extent, an increase in new product sales and favorable fluctuations in foreign currency exchange rates.

Comparison of 2017 and 2016

Net revenues for the year ended December 31, 2017 increased 14.9%, or $278.3 million, compared to the prior year. The increase is primarily attributable to net revenues of $205.8 million generated by acquired businesses, primarily Vascular Solutions and NeoTract and, to a lesser extent, an increase in new product sales.

Gross profit

	2018	2017	2016
	(Dollars in millions)		
Gross profit	$ 1,384.4	$ 1,171.8	$ 996.2
Percentage of revenues	56.5%	54.6%	53.3%

Comparison of 2018 and 2017

For the year ended December 31, 2018, gross margin increased 190 basis points, or 3.5%, compared to the prior year. The increase in gross margin reflects the favorable impact of gross profit generated by acquired businesses, primarily NeoTract, and the impact of favorable fluctuations in foreign currency exchange rates. Moreover, gross margin for the year ended December 31, 2017 reflected the adverse impact of the step-up in carrying value of inventory recognized in connection with the Vascular Solutions acquisition.

Comparison of 2017 and 2016

For the year ended December 31, 2017, gross margin increased 130 basis points, or 2.4%, compared to the prior year. The increase in gross margin is primarily attributable to gross margin generated by acquired businesses, a more favorable mix of products sold, cost improvement initiatives, including the 2016 and 2014 footprint realignment plans described below and the impact of price increases. These increases were partially offset by the unfavorable $10.4 million impact of the step-up in carrying value of inventory recognized in connection with the Vascular Solutions acquisition that adversely affected cost of goods sold upon sale of such inventory during 2017, as well as higher logistics and distributions costs.

Selling, general and administrative

	2018	2017	2016
	(Dollars in millions)		
Selling, general and administrative	$ 878.7	$ 700.0	$ 563.3
Percentage of revenues	35.9%	32.6%	30.2%

Comparison of 2018 and 2017

Selling, general and administrative expenses increased $178.7 million during the year ended December 31, 2018 compared to the prior year. The increase is primarily attributable to expenses incurred by our acquired businesses (primarily NeoTract, which we acquired in October 2017), which consisted of a $49.4 million increase in contingent consideration expense resulting from a change in the estimated fair value of our contingent consideration liabilities, a $48.2 million increase in amortization expense and a $56.7 million increase in other operating expenses. The increases were partially offset by a decrease in transaction and other non recurring expenses.

Comparison of 2017 and 2016

Selling, general and administrative expenses increased $136.7 million during the year ended December 31, 2017 compared to the prior year. The increase is primarily attributable to $108.3 million in expenses related to acquired businesses and distributor to direct sales conversions, the unfavorable impact of increases in the fair value of contingent consideration liabilities and unfavorable fluctuations in foreign currency exchange rates.

Research and development

	2018	2017	2016
	(Dollars in millions)		
Research and development	$ 106.2	$ 84.8	$ 58.6
Percentage of revenues	4.3%	3.9%	3.1%

Comparison of 2018 and 2017

The increase in research and development expenses for the year ended December 31, 2018 is primarily attributable to expenses incurred in connection with our interventional urology, anesthesia and interventional product portfolios.

Comparison of 2017 and 2016

The increase in research and development expenses for the year ended December 31, 2017 is primarily attributable to expenses incurred by acquired businesses, primarily Vascular Solutions, and to a lesser extent, NeoTract. Additionally, 2017 research and development expenses reflect increased spending on new product development with respect to several of our segments.

Restructuring and impairment charges

2019 Footprint realignment plan

In February 2019, we initiated a restructuring plan primarily involving the relocation of certain manufacturing operations to existing lower-cost locations and related workforce reductions (the “2019 Footprint realignment plan"). These actions are expected to be substantially completed during 2022.

We estimate that we will incur aggregate pre-tax restructuring and restructuring related charges in connection with the 2019 Footprint realignment plan of $56 million to $70 million, of which, we expect $21 million to $26 million to be incurred in 2019 and most of the balance is expected to be incurred prior to the end of 2021. We estimate that $53 million to $66 million of these charges will result in cash outlays, of which, $8 million to $9 million is expected to be made in 2019 and most of the balance is expected to be made by the end of 2021. Additionally, we expect to incur $29 million to $35 million in aggregate capital expenditures under the plan, of which, $18 million to $22 million is expected to be incurred during 2019 and most of the balance is expected to be incurred by the end of 2021.

We expect to begin realizing plan-related savings in 2021 and expect to achieve annual pre-tax savings of $12 million to $14 million once the plan is fully implemented.

Anticipated charges and pre-tax savings related to restructuring programs and other similar cost savings initiatives

In addition to the 2019 Footprint realignment plan, we have ongoing restructuring programs related to (i) the integration of Vascular Solutions into Teleflex; (ii) the centralization of certain administrative functions in our EMEA segment; (iii) the consolidation of our manufacturing operations (referred to as our 2018, 2016 and 2014 Footprint realignment plans); and (iv) other restructuring programs designed to improve operating efficiencies and reduce costs. See Note 5 to the condensed consolidated financial statements included in this report. In addition, we have similar ongoing activities to relocate certain manufacturing operations within our OEM segment ("the OEM initiative") that do not meet the criteria for a restructuring program under applicable accounting guidance, but the activities should result in cost savings (we expect only minimal costs to be incurred). With respect to our restructuring programs and OEM initiative, the table below summarizes (1) the estimated total charges that will be incurred and the estimated annual pre-tax savings once the programs are completed; (2) the charges incurred and estimated annual pre-tax savings realized through December 31, 2018; and (3) the estimated charges to be incurred and the estimated incremental annual pre-tax savings to be realized for these programs and OEM initiative through December 31, 2018 and from January 1, 2019 through their respective anticipated completion dates. As used in the table, "pre-tax savings" include (1) anticipated cost savings with respect to our historical expense items and (2) anticipated efficiencies to be realized with respect to costs that otherwise would have resulted from business acquisitions.

Estimated charges and pre-tax savings are subject to change based on, among other things, the nature and timing of restructuring activities and similar activities, changes in the scope of restructuring programs and the OEM initiative, unanticipated expenditures and other developments, the effect of additional acquisitions or dispositions, failure to realize anticipated savings from a supply contract related to a component included in certain kits sold by our Vascular

North America and Anesthesia North America segments, and other factors that were not reflected in the assumptions made by management in previously estimating restructuring and restructuring related charges and estimated pre-tax savings. Moreover, estimated pre-tax savings constituting efficiencies with respect to increased costs that otherwise would have resulted from business acquisitions involve, among other things, assumptions regarding the cost structure and integration of businesses that previously were not administered by our management, which are subject to a particularly high degree of risk and uncertainty. It is likely that estimates of charges and pre-tax savings will change from time to time, and the table below reflects changes from amounts previously estimated. In addition, the table below does not include estimated charges and pre-tax savings related to completed programs.

Pre-tax savings can also be affected by increases or decreases in sales volumes generated by the businesses impacted by the consolidation of manufacturing operations; such variations in revenues can increase or decrease pre-tax savings generated by the consolidation of manufacturing operations. For example, an increase in sales volumes generated by the impacted businesses, although likely increasing manufacturing costs, may generate additional savings with respect to costs that otherwise would have been incurred if the manufacturing operations were not consolidated.

	Restructuring programs and other similar cost saving initiatives		
	Estimated Total	Through December 31, 2018	Estimated Remaining from January 1, 2019 through December 31, 2026
		(Dollars in millions)	
Restructuring charges	$131 - $150	$102	$29 - $48
Restructuring related charges (1)	140 - 171	58	82 - 113
Total charges	$271 - $321	$160	$111 - $161
OEM initiative pre-tax savings	$6 - $7	$1	$5 - $6
Pre-tax savings (2)	118 - 130	68	50 - 62
Total pre-tax savings	$124 - $137	$69	$55 - $68

(1) Restructuring related charges represent costs that are directly related to the programs and principally constitute costs to transfer manufacturing operations to the new locations, project management costs and accelerated depreciation, as well as a charge associated with our exit from facilities that is expected to be imposed by the taxing authority in the affected jurisdiction. Most of these changes (other than the tax charge) are expected to be recognized in cost of goods sold.

(2) Approximately 70% of the pre-tax savings are expected to result in reductions to cost of goods sold. As previously disclosed, during 2016, in connection with our execution of the 2014 Footprint realignment plan, we implemented changes to medication delivery devices included in certain of our kits, which are expected to result in increased product costs (and therefore reduce the annual savings we anticipated at the inception of the program). However, we also expect to achieve improved pricing on these kits that will offset the increased costs, resulting in estimated annual increased revenues of $3 million to $4 million, which is not reflected in the table above. Since 2017, we have realized an aggregate benefit of $2.4 million resulting from this incremental pricing. More recently, during the fourth quarter of 2017, we entered into an agreement with an alternate provider for the development and supply of a component to be included in certain kits sold by our Vascular North America and Anesthesia North America operating segments. The agreement will result in increased development costs but is expected to reduce the cost of the component supply, once the supply becomes commercially available, as compared to the costs incurred with respect to our current suppliers. Therefore, we anticipate a net savings from the agreement, which is reflected in the table above. See “2014 Manufacturing Footprint Realignment Plan” below for additional information.

The following discussion provides additional details with respect to our restructuring programs for which we incurred restructuring charges in 2018:

2018 Footprint realignment plan

On May 1, 2018, we initiated a restructuring plan involving the relocation of certain European manufacturing operations to existing lower-cost locations, the outsourcing of certain European distribution operations and related workforce reductions. These actions commenced in the second quarter 2018 and are expected to be substantially completed by the end of 2024.

We estimate that we will incur aggregate pre-tax restructuring and restructuring related charges in connection with the 2018 Footprint realignment plan of $102 million to $133 million, of which, we estimate that $99 million to $127 million of these charges will result in future cash outlays. Additionally, we expect to incur $19 million to $23 million in aggregate capital expenditures under the plan, most of which we expect to be incurred by the end of 2021.

We began realizing plan-related savings in 2018 and expect to achieve annual pre-tax savings of $25 million to $30 million once the plan is fully implemented.

2016 Footprint realignment plan

In 2016, we initiated a restructuring plan involving the relocation of certain manufacturing operations, the relocation and outsourcing of certain distribution operations and a related workforce reduction at certain of our facilities (the "2016 Footprint realignment plan"). These actions commenced in the first quarter 2016 and were substantially completed by the end of 2018.

2014 Footprint realignment plan

In April 2014, we initiated a restructuring plan (the "2014 Footprint realignment plan") involving the consolidation of operations and a related reduction in workforce at certain facilities, and the relocation of manufacturing operations from certain higher-cost locations to existing lower-cost locations. We estimate that we will incur aggregate pre-tax charges in connection with the 2014 Footprint realignment plan of approximately $47 million to $52 million. Additionally, we estimate that we will achieve annual pre-tax savings of $26 million to $29 million and we expect the plan will be substantially complete by the end of 2021.

2017 Vascular Solutions integration and EMEA restructuring programs

During the first quarter 2017, the Company committed to restructuring programs related to the integration of Vascular Solutions into Teleflex and to the centralization of certain administrative functions in Europe. Both programs were substantially completed during 2018 and as a result, the Company expects future restructuring expenses associated with the program, if any, to be nominal.

The following table provides information regarding restructuring charges we have incurred with respect to each of our restructuring programs, as well as impairment charges, for the years ended December 31, 2018, 2017, and 2016. The restructuring charges listed in the table primarily consist of termination benefits.

	2018	2017	2016
	(Dollars in millions)		
2018 Footprint realignment plan	$ 55.0	$ —	$ —
2017 Vascular Solutions integration program	0.6	5.5	—
2017 EMEA restructuring program	0.7	5.2	—
2016 Footprint realignment plan	2.9	2.1	12.5
2014 Footprint realignment plan	0.8	0.7	0.1
Other restructuring programs(1)	0.1	1.3	3.2
Impairment charges (2)	19.1	—	43.4
Total	$ 79.2	$ 14.8	$ 59.2

(1) Other restructuring programs include the Other 2016 restructuring programs (in 2017 and 2016) and the 2017 Pyng Integration program (in 2018 2017). We committed to the 2017 Pyng Integration program during the second quarter 2017, following our acquisition of Pyng Medical Corp in April 2017. Each of these programs were substantially completed as of December 31, 2018.

(2) Impairment charges recognized in 2018 included $17.2 million related to certain intellectual property and other assets associated with products that were eliminated from our interventional product portfolio. Impairment charges recognized in 2016 included $41.0 million related to a discontinued intellectual property research and development (IPR&D) project and two properties that were sold during the first quarter 2017.

Interest expense

	2018	2017	2016
	(Dollars in millions)		
Interest expense	$ 103.0	$ 82.5	$ 54.9
Average interest rate on debt during the year	4.25%	3.70%	3.80%

Comparison of 2018 and 2017

The increase in interest expense for the year ended December 31, 2018 compared to the prior year was primarily due to an increase in average debt outstanding resulting from additional borrowings under our principal credit facility, as well as the November 2017 issuance of our 4.625% Senior Notes due 2027 ("2027 Notes"). The increase in interest expense was also the result of a higher average interest rate on our debt.

Comparison of 2017 and 2016

The increase in interest expense for the year ended December 31, 2017 compared to the prior year was primarily due to an increase in average debt outstanding, mainly attributable to borrowings under our senior credit agreement (the "Credit Agreement") that were utilized to fund the Vascular Solutions and NeoTract acquisitions, offset by a slight decline in the average interest rate on debt.

Loss on extinguishment of debt

	2018	2017	2016
	(Dollars in millions)		
Loss on extinguishment of debt	$ —	$ 5.6	$ 19.3

For the years ended December 31, 2017 and 2016, the loss on the extinguishment of debt was related to our repurchases or the conversion of portions of the $400 million principal amount of our 3.875% convertible senior subordinated notes (the "Convertible Notes") that were issued in 2010 and matured in August 2017.

Gain on sale of assets

	2018	2017	2016
	(Dollars in millions)		
Gain on sale of assets	$ 1.4	$ —	$ 4.4

During the year ended December 31, 2018 and 2016, we recognized a gain on the sale of a land parcel and on the sale of buildings, respectively.

Taxes on income from continuing operations

	2018	2017	2016
Effective income tax rate	10.6%	45.5%	3.3%

We generate substantial earnings from our international operations. Most of the international jurisdictions in which we file tax returns historically have had statutory tax rates that are lower than the United States statutory tax rate; as a result, our consolidated effective income tax rate for 2017 (excluding the impact of the TCJA) and earlier years has been substantially below the United States statutory tax rate. The principal international jurisdictions in which the statutory tax rate in 2017 and earlier years is lower than the United States statutory tax rate and from which we derive substantial earnings include Ireland, Bermuda, Luxembourg, Germany and Italy.

Despite the TCJA's reduction of the United States corporate income tax rate, we continue to have a consolidated effective income tax rate that is below the newly enacted statutory tax rate due to the lower tax rates applicable to our foreign operations in many of the relevant international jurisdictions. The principal international jurisdictions in which the statutory tax rate in 2018 is lower than the United States statutory tax rate and from which we derive substantial earnings include Ireland and Bermuda. However, changes to either the currently enacted United States tax rates or international statutory tax rates could affect our effective income tax rate in the future.

Comparison of 2018 and 2017

The effective income tax rate for 2018 was 10.6% compared to 45.5% for 2017. Taxes on income from continuing operations in 2018 were $23.2 million compared to $129.6 million in 2017. The effective income tax rate for 2018 was impacted by the reduction of the United States corporate income tax rate from a maximum of 35% to 21% as a result of the TCJA. Additionally, the effective tax rate for 2018 was impacted by a net excess tax benefit related to share-based compensation and a tax cost associated with a non-deductible contingent consideration expense recognized in connection with an increase in the fair value of the NeoTract contingent consideration liability. See Note 14 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

Comparison of 2017 and 2016

The effective income tax rate in 2017 was 45.5% compared to 3.3% in 2016. Taxes on income from continuing operations in 2017 were $129.6 million compared to $8.1 million in 2016. The effective income tax rate for 2017 was impacted by a net tax expense of $107.9 million resulting from the enactment of the TCJA. The $107.9 million net tax

expense reflects a tax expense of $154.0 million for the deemed repatriation of undistributed foreign earnings, partially offset by a $46.1 million tax benefit resulting from the reassessment and revaluation of the net deferred tax liabilities. Additionally, the effective tax rate for 2017 was impacted by a net excess tax benefit related to share-based compensation and a benefit resulting from the expiration of various statutes of limitation.

Segment Results

Segment Net Revenues

	Year Ended December 31			% Increase/(Decrease)	
	2018	2017	2016	2018 vs 2017	2017 vs 2016
	(Dollars in millions)				
Vascular North America	$ 329.5	$ 313.6	$ 295.2	5.1	6.2
Interventional North America	261.6	220.6	82.4	18.6	167.6
Anesthesia North America	205.1	198.0	198.8	3.6	(0.4)
Surgical North America	166.3	175.2	172.2	(5.1)	1.7
EMEA	603.8	552.7	510.9	9.2	8.2
Asia	286.9	269.2	249.4	6.6	7.9
OEM	206.0	183.0	161.0	12.6	13.7
All other	389.2	234.0	198.1	66.4	18.1
Segment Net Revenues	$ 2,448.4	$ 2,146.3	$ 1,868.0	14.1	14.9

Segment Operating Profit

	Year Ended December 31,			% Increase/(Decrease)	
	2018	2017	2016	2018 vs 2017	2017 vs 2016
	(Dollars in millions)				
Vascular North America	$ 98.5	$ 77.0	$ 77.1	27.9	(0.1)
Interventional North America	62.3	26.0	13.3	139.7	95.8
Anesthesia North America	61.2	62.9	55.6	(2.8)	13.2
Surgical North America	62.9	63.9	56.6	(1.6)	12.9
EMEA	106.1	92.4	84.4	14.8	9.5
Asia	78.1	75.6	75.7	3.3	(0.2)
OEM	50.3	41.6	33.6	21.0	23.6
All other	(29.1)	11.2	26.5	(360.7)	(57.9)
Segment Operating Profit[(1)]	$ 490.3	$ 450.6	$ 422.8	8.8	6.6

(1) See Note 17 to the consolidated financial statements included in this Annual Report on Form 10-K for a reconciliation of segment operating profit to our consolidated income from continuing operations before interest, loss on extinguishment of debt and taxes.

Comparison of 2018 and 2017

Vascular North America

Vascular North America net revenues for the year ended December 31, 2018 increased $15.9 million, or 5.1%, compared to the prior year. The increase is primarily attributable to an $8.0 million increase in sales volumes of existing products, a $5.6 million increase in new product sales and, to a lesser extent, price increases.

Vascular North America operating profit for the year ended December 31, 2018 increased $21.5 million, or 27.9%, compared to the prior year. The increase is primarily attributable to an increase in gross profit resulting from higher sales and lower manufacturing costs as well as lower operating expenses.

Interventional North America

Interventional North America net revenues for the year ended December 31, 2018 increased $41.0 million, or 18.6%, compared to the prior year. The increase is primarily attributable to net revenues of $20.6 million generated by acquired businesses (primarily Vascular Solutions) as well as increases in new product sales and in sales volumes of existing products.

Interventional North America operating profit for the year ended December 31, 2018 increased $36.3 million, or 139.7%, compared to the prior year. The increase is primarily attributable to gross profit generated by acquired businesses (primarily Vascular Solutions). In addition, for the year ended December 31, 2017, Interventional North America gross profit reflected the adverse effect of the step-up in carrying value of inventory recognized in connection with the Vascular Solutions acquisition.

Anesthesia North America

Anesthesia North America net revenues for the year ended December 31, 2018 increased $7.1 million, or 3.6%, compared to the prior year. The increase is primarily attributable to a $5.9 million increase in new product sales as well as an increase in sales volumes of existing products partially offset by price decreases.

Anesthesia North America operating profit for the year ended December 31, 2018 decreased $1.7 million, or 2.8%, compared to the prior year despite an increase in gross profit resulting from higher sales and lower manufacturing costs due to higher research and development expenses. Additionally, in 2017, we recognized a $6.4 million gain due to a favorable ruling in a lawsuit involving an insurance provider.

Surgical North America

Surgical North America net revenues for the year ended December 31, 2018 decreased $8.9 million, or 5.1%, compared to the prior year. The decrease is due to a $10.2 million decline in sales volumes of existing products partially offset by an increase in new product sales.

Surgical North America operating profit for the year ended December 31, 2018 decreased $1.0 million, or 1.6%, compared to the prior year. The decrease was primarily attributable to a decrease in gross profit resulting from lower sales largely offset by lower operating expenses, including a reduction in expenses resulting from a decrease in the estimated fair value of our contingent consideration liabilities.

EMEA

EMEA net revenues for the year ended December 31, 2018 increased $51.1 million, or 9.2%, compared to the prior year. The increase is primarily attributable to favorable fluctuations in foreign currency exchange rates of $24.5 million as well as price increases of $13.8 million.

EMEA operating profit for the year ended December 31, 2018 increased $13.7 million, or 14.8%, compared to the prior year. The increase is primarily attributable to an increase in gross profit reflecting higher sales and favorable fluctuations in foreign currency exchange rates. The increases in gross profit were partially offset by higher operating costs, including selling and amortization expenses.

Asia

Asia net revenues for the year ended December 31, 2018 increased $17.7 million, or 6.6%, compared to the prior year. The increase was primarily attributable to a $9.3 million increase in sales volumes of existing products, a $6.0 million increase in new product sales and net revenues generated by acquired businesses.

Asia operating profit for the year ended December 31, 2018 increased $2.5 million, or 3.3%, compared to the prior year. The increase was primarily attributable to an increase in gross profit resulting from higher sales as well as favorable fluctuations in foreign currency exchange rates, partially offset by unfavorable product mix and higher operating costs.

OEM

OEM net revenues for the year ended December 31, 2018 increased $23.0 million, or 12.6%, compared to the prior year. The increase is primarily attributable to a $16.5 million increase in sales volumes of existing products and an acceleration in the timing of revenue recognition in accordance with newly-adopted accounting guidance.

OEM operating profit for the year ended December 31, 2018 increased $8.7 million, or 21.0%, compared to the prior year. The increase is primarily attributable to an increase in gross profit resulting from higher sales partially offset by higher manufacturing costs.

All other

Net revenues for our other businesses for the year ended December 31, 2018 increased $155.2 million, or 66.4%, compared to the prior year. The increase is primarily attributable to net revenues generated by acquired businesses (principally NeoTract).

Operating profit for our other businesses for the year ended December 31, 2018 decreased $40.3 million, or 360.7%, compared to the prior year. The decrease is primarily attributable to expense resulting from an increase in the estimated fair value of our contingent consideration liabilities and amortization expense, both of which are primarily related to NeoTract, partially offset by gross profit generated by NeoTract.

Comparison of 2017 and 2016

Vascular North America

Vascular North America net revenues for the year ended December 31, 2017 increased $18.4 million, or 6.2%, compared to the prior year. The increase is primarily attributable to a $7.9 million net increase in sales volumes of existing products, a $6.7 million increase in new product sales and price increases.

Vascular North America operating profit for the year ended December 31, 2017 decreased $0.1 million, or 0.1%, compared to the prior year. The decrease is primarily attributable to higher general and administrative expenses, as well as higher research and development expenses. In addition, operating profit in 2016 reflected a benefit resulting from the reversal of contingent consideration liabilities. The decreases were partially offset by an increase in gross profit resulting from an increase in sales, lower manufacturing costs and increases in prices and new product sales.

Interventional North America

Interventional North America net revenues for the year ended December 31, 2017 increased $138.2 million, or 167.6%, compared to the prior year. The increase is primarily attributable to net revenues of $127.9 million generated by Vascular Solutions.

Interventional North America operating profit for the year ended December 31, 2017 increased $12.7 million, or 95.8%, compared to the prior year. The increase is primarily attributable to gross profit generated by Vascular Solutions, which was partially offset by higher operating expenses, including expenses incurred in connection with the acquisition and ongoing operations of Vascular Solutions.

Anesthesia North America

Anesthesia North America net revenues for the year ended December 31, 2017 decreased $0.8 million, or 0.4%, compared to the prior year. The decrease is primarily attributable to a $10.1 million decrease in sales volumes of existing products partially offset by net revenues generated by an acquired business and an increase in new product sales.

Anesthesia North America operating profit for the year ended December 31, 2017 increased $7.3 million, or 13.2%, compared to the prior year. The increase is primarily attributable to a gain of $6.4 million resulting from a favorable ruling in a lawsuit involving an insurance provider.

Surgical North America

Surgical North America net revenues for the year ended December 31, 2017 increased $3.0 million, or 1.7%, compared to the prior year. The increase is primarily attributable to a $3.0 million increase in new product sales and price increases of $2.6 million, partially offset by a $2.8 million decrease in sales volumes of existing products.

Surgical North America operating profit for the year ended December 31, 2017 increased $7.3 million, or 12.9%, compared to the prior year. The increase is primarily attributable to an increase in gross profit resulting from lower manufacturing costs and increases in prices and new product sales, partially offset by sales volume decreases. The increase in operating profit is also attributable to lower expense associated with the revaluation of contingent consideration liabilities.

EMEA

EMEA net revenues for the year ended December 31, 2017 increased $41.8 million, or 8.2%, compared to the prior year. The increase is primarily attributable to net revenues of $20.5 million generated by acquired businesses

(primarily Vascular Solutions), favorable fluctuations in foreign currency exchange rates and an increase in new product sales.

EMEA operating profit for the year ended December 31, 2017 increased $8.0 million, or 9.5%, compared to the prior year. The increase is primarily attributable to gross profit generated by acquired businesses, primarily Vascular Solutions, as well as an increase in gross profit resulting from higher sales. These increases were partially offset by the impact of unfavorable fluctuations in foreign currency exchange rates and higher operating expenses, primarily resulting from costs incurred by Vascular Solutions.

Asia

Asia net revenues for the year ended December 31, 2017 increased $19.8 million, or 7.9%, compared to the prior year. The increase was primarily attributable to net revenues of $7.5 million generated by acquired businesses (primarily Vascular Solutions), as well as increases in sales volumes of existing products, new product sales and price increases. We experienced a decline in sales of certain product lines in China during 2017 as a result of a distributor to direct sales conversion, as we implemented a new structure to support product sales. However, this decline was more than offset by a net increase in sales volumes in the remainder of the Asia segment.

Asia operating profit for the year ended December 31, 2017 decreased $0.1 million, or 0.2%, compared to the prior year. The decrease was primarily attributable to higher selling, general and administrative expenses, including those incurred in connection with the distributor to direct sales conversion and related arbitration in China that was settled in February 2018, costs incurred by Vascular Solutions and unfavorable fluctuations in foreign currency exchange rates. The decreases were partially offset by an increase in gross profit generated by acquired businesses (primarily Vascular Solutions) as well as an increase in gross profit resulting from price increases.

OEM

OEM net revenues for the year ended December 31, 2017 increased $22.0 million, or 13.7%, compared to the prior year. The increase is primarily attributable to a $10.4 million increase in sales volumes of existing products, net revenues of $7.7 million generated by an acquired business and to a lesser extent an increase in new product sales.

OEM operating profit for the year ended December 31, 2017 increased $8.0 million, or 23.6%, compared to the prior year. The increase is primarily attributable to an increase in gross profit resulting from higher sales and gross profit generated by an acquired business. This increase was partially offset by higher operating expenses including those incurred by the acquired business as well as selling expenses.

All other

Net revenues for the other businesses for the year ended December 31, 2017 increased $35.9 million, or 18.1%, compared to the prior year. The increase is primarily attributable to net revenues of $37.1 million generated by NeoTract.

Operating profit for the other businesses for the year ended December 31, 2017 decreased $15.3 million, or 57.9%, compared to the prior year. The decrease is primarily attributable to higher operating expenses resulting from the NeoTract acquisition, including transaction fees and related expenses, which were partially offset by gross profit generated by the NeoTract acquisition.

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Our principal source of liquidity is operating cash flows. In addition to operating cash flows, other significant factors that affect our overall management of liquidity include: capital expenditures, acquisitions, pension funding, dividends, taxes, scheduled principal and interest payments with respect to outstanding indebtedness, adequacy of available bank lines of credit and access to capital markets.

We believe our cash flow from operations, available cash and cash equivalents and borrowings under our revolving credit facility (which is provided for under the Credit Agreement) and accounts receivable securitization facility will enable us to fund our operating requirements, capital expenditures and debt obligations for the next 12 months and the foreseeable future.

Of our $357.2 million of cash and cash equivalents at December 31, 2018, $299.2 million was held at non-United States subsidiaries. We manage our worldwide cash requirements by monitoring the funds available among our subsidiaries and determining the extent to which we can access those funds on a cost effective basis.

The TCJA significantly changes U.S. tax law by, among other things, imposing a one-time repatriation tax on undistributed post-1986 earnings and profits of foreign subsidiaries. Previously, we were not taxed on foreign earnings deemed to be permanently invested overseas. Under the TCJA, we will have to pay $153.8 million over eight years for the deemed repatriation of foreign earnings, regardless of whether such earnings are actually repatriated, of which, we paid $12.6 million during 2018. See Note 14 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information. As a result of the repatriation tax provisions of the TCJA, we anticipate that, generally, we will be able to access cash located at our foreign subsidiaries without incurring any additional U.S. federal income tax liabilities. We are not aware of any other restrictions on repatriation of these funds and, subject to cash payment of additional foreign withholding taxes, these funds could be repatriated, if necessary.

We have not experienced significant payment defaults by our customers and we have sufficient lending commitments in place to enable us to fund our anticipated operating needs. However, as discussed above in "Global Economic Conditions", although there have been recent improvements in certain countries, global financial markets remain volatile and the global credit markets are constrained, which creates risk that our customers and suppliers may be unable to access liquidity. Consequently, we continue to monitor our credit risk, particularly with respect to customers in Greece, Italy, Portugal and Spain, as well as consider other risk mitigation strategies. In December 2018, we sold $12.7 million of receivables payable from publicly funded hospitals in Italy and Portugal for $12.6 million.

As of December 31, 2018 and 2017, our net trade accounts receivable from publicly funded hospitals in Greece, Italy, Portugal and Spain were $13.6 million and $24.7 million, respectively. For the years ended December 31, 2018, 2017 and 2016, net revenues from customers in these countries were approximately 6%, 6% and 7%, respectively, of our total net revenues, and average days that current and long-term trade accounts receivable with respect to these customers were outstanding were 121, 154 and 182 days, respectively. As of December 31, 2018 and 2017, net current and long-term trade accounts receivable from these countries were approximately 11% and 15%, respectively, of our consolidated net current and long-term trade accounts receivable. If economic conditions in these countries deteriorate, we may experience significant credit losses related to the public hospital systems in these countries. Moreover, if global economic conditions generally deteriorate, we may experience further delays in customer payments, reductions in our customers' purchases and higher credit losses, which could have a material adverse effect on our results of operations and cash flows in 2019 and future years. See "Critical Accounting Policies and Estimates" below for additional information regarding the critical accounting estimates related to our accounts receivable.

On October 4, 2018, we executed cross-currency swap agreements with six financial institution counterparties to hedge against the effect of variability in the U.S. dollar to euro exchange rate. Under the terms of the swap agreements, we notionally exchanged $500 million at an interest rate of 4.625% for €433.9 million at an interest rate of 1.942%. The swap agreements, which expire on October 4, 2023, are designated as net investment hedges and require an exchange of the notional amounts upon expiration or the earlier termination of the agreements. We and the counterparties have agreed to effect the exchange through a net settlement. As a result, we may be required to pay (or be entitled to receive) an amount equal to the difference, on the expiration or earlier termination date, between the U.S. dollar equivalent of the €433.9 million notional amount and the $500 million notional amount. If, at the expiration or earlier termination of the swap agreements, the U.S. dollar to euro currency exchange rate has declined by 10% from the rate in effect on October 4, 2018 (at that date, the exchange rate was 1.15 U.S. dollar per euro), we would be required to pay to the counterparties an aggregate of approximately $50 million in respect of the notional settlement. The swap agreements entail risk that the counterparties will not fulfill their obligations under the agreements. However, we believe the risk is reduced because we have entered into separate agreements with six different counterparties, all of whom are large, well-established financial institutions. Based on the U.S. dollar to euro currency exchange rate in effect on October 4, 2018, and assuming exchange rates remain constant throughout the five year term of the swap agreements, we would realize a reduction in annual cash interest paid of $13.4 million.

We may at any time, from time to time, repurchase our outstanding debt securities in open market purchases, via tender offers or in privately negotiated transactions, exchange transactions or otherwise, at such price or prices as we deem appropriate. Such purchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors and may be commenced or suspended at any time.

See "Financing Arrangements" below as well as Note 9 to the consolidated financial statements included in this Annual Report on Form 10-K for further information related to our borrowings.

Cash Flows

The following table provides a summary of our cash flows for the periods presented:

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in millions)		
Cash flows from continuing operations provided by (used in):			
Operating activities	$ 435.1	$ 426.3	$ 410.6
Investing activities	(196.4)	(1,832.9)	(57.0)
Financing activities	(206.4)	1,141.3	(118.7)
Cash flows used in discontinued operations	2.3	(6.4)	(2.1)
Effect of exchange rate changes on cash and cash equivalents	(11.0)	61.5	(27.4)
Increase (decrease) in cash and cash equivalents	$ 23.6	$ (210.2)	$ 205.4

Comparison of 2018 and 2017

Cash Flow from Operating Activities

Net cash provided by operating activities from continuing operations was $435.1 million during 2018 and $426.3 million during 2017. The $8.8 million increase is attributable to favorable operating results partially offset by higher income tax payments in 2018 as compared to 2017 and a net unfavorable impact of changes in working capital. The net unfavorable impact from changes in working capital was due a net increase in inventories and a net increase in accounts receivable, partially offset by an increase in accounts payable, accrued expenses and other liabilities.

The increase in inventories for 2018 was $37.2 million compared to an increase of $22.4 million for 2017. The net increase in inventories is attributable to higher inventory purchases associated with ongoing business growth, primarily within our Interventional Urology business. The increase in accounts receivable for 2018 was $23.4 million compared to an increase of $11.0 million for 2017. The net increase in accounts receivable is attributable to higher net revenues during 2018 and a decrease in receivables outstanding sold during 2018 as compared to 2017. In December 2018, we sold $12.7 million of receivables outstanding with publicly funded hospitals in Italy and Portugal compared to 2017 when we sold $16.1 million of outstanding receivables related to public hospitals in Italy. The increase in accounts payable, accrued expenses and other liabilities for 2018 was $63.4 million compared to an increase of $39.0 million for 2017. The increase is attributable to increased restructuring activity primarily related to the 2018 Footprint realignment plan partially offset by lower payroll related accruals.

Cash Flow from Investing Activities

Net cash used in investing activities from continuing operations was $196.4 million during 2018, which includes a cash outflow for payments related to the acquisition of businesses and intangible assets of $121.0 million and capital expenditures of $80.8 million.

Cash Flow from Financing Activities

Net cash used for financing activities from continuing operations was $206.4 million during 2018, which includes borrowing repayments of $128.5 million, contingent consideration payments of $73.2 million and dividend payments of $62.2 million, partially offset by proceeds from new borrowings of $35.0 million and share based compensation and related tax benefits of $22.7 million.

Comparison of 2017 and 2016

Cash Flow from Operating Activities

Net cash provided by operating activities from continuing operations was $426.3 million during 2017 and $410.6 million during 2016. The $15.7 million increase is attributable to favorable operating results partially offset by a net cash outflow for income taxes resulting primarily from a tax refund received in 2016. Excluding income taxes, the net impact of the working capital changes was consistent in 2017 as compared to 2016; an increase in inventories was

offset by an increase in accounts payable and accrued expenses, and to a lesser extent, a net decrease in prepaid expenses and other current assets. The increase in inventories for the year ended December 31, 2017 was $22.4 million compared to a decrease of $6.4 million for the year ended December 31, 2016. The increase is attributable to inventory purchases to achieve desired safety stock levels as well as inventory from a former Chinese distributor that was returned to us during 2017 in connection with the settlement of an arbitration proceeding between the distributor and us. The net increase in accounts payable and accrued expenses was $39.0 million for the year ended December 31, 2017 as compared to an increase of $15.4 million for the year ended December 31, 2016; the increase is primarily attributable to an increase in payroll and benefit related accruals.

Cash Flow from Investing Activities

Net cash used in investing activities from continuing operations was $1.8 billion during 2017, primarily resulting from $1.8 billion in payments for businesses acquired, principally Vascular Solutions and NeoTract; and capital expenditures of $70.9 million, which were partially offset by proceeds of $6.3 million from the sale of two properties, one of which was a building that had been previously classified as held for sale.

Cash Flow from Financing Activities

Net cash provided by financing activities from continuing operations was $1.1 billion during 2017, primarily resulting from a net increase in borrowings of $1.2 billion. Our borrowings under the Credit Agreement included $1.0 billion to finance the Vascular Solutions acquisition, together with related fees and expenses, and $725 million to finance the NeoTract acquisition. In addition, we sold $500 million in principal amount of our 4.625% senior notes due 2027 (the "2027 Notes"). These increases were partially offset by our repayments of 1.1 billion of borrowings under the Credit Agreement. Additionally, we had a $136.1 million reduction in borrowings under the Convertible Notes resulting from exchange transactions, and payment upon maturity of all remaining Convertible Notes outstanding.

Net cash provided by financing activities from continuing operations was also impacted by dividend payments of $61.2 million and debt issuance and amendment fees of $26.7 million, which included fees paid in connection with our entry into the Credit Agreement, the issuance of the 2027 Notes and a bridge facility and backstop commitment that was put in place to assist with the financing of the Vascular Solutions acquisition, but was never utilized because the required financing was provided under the Credit Agreement.

Financing Arrangements

The following table provides our net debt to total capital ratio:

	2018	2017
	(Dollars in millions)	
Net debt includes:		
Current borrowings	$ 86.6	$ 86.6
Long-term borrowings	2,072.2	2,162.9
Unamortized debt issuance costs	17.7	20.5
Total debt	2,176.5	2,270.0
Less: Cash and cash equivalents	357.2	333.6
Net debt	1,819.3	1,936.4
Total capital includes:		
Net debt	1,819.3	1,936.4
Shareholders' equity	2,540.0	2,430.5
Total capital	$ 4,359.3	$ 4,366.9
Percent of net debt to total capital	41.7%	44.3%

Fixed rate debt comprised 52.8% and 50.7% of total debt at December 31, 2018 and 2017, respectively. The increase in fixed rate borrowings as a percentage of total borrowings as of December 31, 2018 compared to the fixed rate borrowings as of December 31, 2017 is due a decrease in outstanding borrowings under our senior credit facility resulting from debt repayments.

Senior credit facility

On January 20, 2017, we amended and restated our then-existing senior credit agreement by entering into an amended and restated credit agreement (the “Credit Agreement”). The Credit Agreement provides for a five-year revolving credit facility of $1.0 billion and a term loan facility of $750.0 million. The term loan facility and borrowings under the revolving credit facility were used to finance the acquisitions of Vascular Solutions and, subsequently, NeoTract, as described above. The obligations under the Credit Agreement are guaranteed (subject to certain exceptions and limitations) by substantially all of our material domestic subsidiaries and are secured by a lien on substantially all of our and each guarantor's owned assets. The revolving credit facility and the term loan facility will mature on January 20, 2022 and February 17, 2022, respectively. At December 31, 2018, we had $293.0 million in borrowings outstanding and approximately $2.1 million in outstanding standby letters of credit under our $1.0 billion revolving credit facility.

The Credit Agreement contains customary representations and warranties and covenants that, among other things and subject to certain exceptions, place limitations on our ability, and the ability of our subsidiaries, to incur additional indebtedness, create additional liens, enter into a merger, consolidation or amalgamation, dispose of certain assets, make certain investments or acquisitions, pay dividends or make other restricted payments, enter into swap agreements or enter into transactions with affiliates. Additionally, the Credit Agreement contains financial covenants that require us to maintain a consolidated total leverage ratio (generally, Consolidated Total Funded Indebtedness, as defined in the Credit Agreement, on the determination date to Consolidated EBITDA, as defined in the Credit Agreement, for the four most recent fiscal quarters ending on or preceding the date of determination) of not more than 4.50 to 1, a consolidated senior secured leverage ratio (generally, Consolidated Senior Secured Funded Indebtedness, as defined in the Credit Agreement, on the date of determination to Consolidated EBITDA for the four most recent fiscal quarters ending on or preceding the date of determination) of not more than 3.50 to 1 and a consolidated interest coverage ratio (generally, Consolidated EBITDA for the four most recent quarters ending on or preceding the date of determination to Consolidated Interest Expense, as defined in the Credit Agreement, paid in cash for such period) of not less than 3.50 to 1. As of December 31, 2018, we were in compliance with the covenants of our Senior credit facility.

See Note 9 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information regarding the Credit Agreement.

2024, 2026 and 2027 Senior Notes

As of December 31, 2018, the outstanding principal amount of our 5.25% senior notes due 2024 (the "2024 Notes"), our 4.875% senior notes due 2026 (the "2026 Notes") and the 2027 Notes (collectively, the "Senior Notes") was $250.0, $400.0 million and $500.0 million, respectively. The indentures governing the 2024 Notes and 2026 Notes contain covenants that, among other things and subject to certain exceptions, limit or restrict our ability, and the ability of our subsidiaries, to incur additional debt or issue preferred stock or other disqualified stock, create liens, merge, consolidate, or dispose of certain assets pay dividends, make investments or make other restricted payments, or enter into transactions with our affiliates. The indenture governing the 2027 Notes contains covenants that, among other things and subject to certain exceptions, limit or restrict our ability, and the ability of our subsidiaries, to create liens; consolidate, merge or dispose of certain assets; and enter into sale leaseback transactions. The obligations under the Senior Notes are fully and unconditionally guaranteed, jointly and severally, by each of our existing and future 100% owned domestic subsidiaries that are a guarantor or other obligor under the Credit Agreement and by certain of our other 100% owned domestic subsidiaries. As of December 31, 2018, we were in compliance with all of the terms of our Senior Notes.

Accounts receivable securitization

We have an accounts receivable securitization facility under which we sell an undivided interest in domestic accounts receivable for consideration of up to $50.0 million to a commercial paper conduit. As of December 31, 2018, and 2017 we borrowed the maximum amount available of $50.0 million under this facility. This facility is utilized to provide increased flexibility in funding short term working capital requirements. The agreement governing the accounts receivable securitization facility contains certain covenants and termination events. An occurrence of an event of default or a termination event under this facility may give rise to the right of our counterparty to terminate this facility. As of December 31, 2018, we were in compliance with the covenants and none of the termination events had occurred.

For additional information regarding our indebtedness, see Note 9 to the consolidated financial statements included in this Annual Report on Form 10-K.

Contractual Obligations

Contractual obligations at December 31, 2018 are as follows:

		Payments due by period			
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
			(Dollars in thousands)		
Total borrowings	$ 2,176,500	$ 86,625	$ 121,875	$ 818,000	$ 1,150,000
Interest obligations(1)	552,078	100,805	193,220	115,303	142,750
Operating lease obligations	148,160	25,294	44,635	36,863	41,368
Purchase and other obligations(2)	214,365	211,515	2,850	—	—
Tax on deemed repatriation of foreign earnings (3)	141,150	12,274	24,548	35,287	69,041
Pension and other postretirement benefits	51,571	5,597	11,073	11,080	23,821
Total contractual obligations	$ 3,283,824	$ 442,110	$ 398,201	$ 1,016,533	$ 1,426,980

(1) Interest payments on floating rate debt are based on the interest rate in effect on December 31, 2018.

(2) Purchase and other obligations are defined as unconditional commitments to purchase goods or services that are legally binding and that specify all significant terms, including: quantities to be purchased; price provisions; and the approximate timing of the transaction. The amounts include commitments for inventory purchases and capital expenditures (which, at the time we entered into the commitments, did not exceed our projected requirements in the normal course of business) and penalties due upon cancellation of cancellable agreements; the amounts exclude operating lease obligations, which are addressed elsewhere in the table.

(3) As permitted by the TCJA, we have elected to pay the tax in annual installments over eight years.

We recorded a noncurrent liability for uncertain tax positions of $10.7 million and $12.3 million as of December 31, 2018 and 2017, respectively. Due to uncertainties regarding the ultimate resolution of ongoing or future tax examinations, we are not able to reasonably estimate the amount of any income tax payments that will be required to settle uncertain income tax positions or the periods in which any such payments will be made; as a result, these amounts are excluded from the contractual obligations table above.

We recorded contingent consideration liabilities of $304.2 million and $272.1 million as of December 31, 2018 and 2017, respectively, of which $136.9 million and $74.2 million, respectively, were recorded as the current portion of contingent consideration. We expect most of the current portion to be paid during the first quarter 2019 as result of the achievement of certain sales and regulatory goals. Due to uncertainty regarding the timing and amount of future payments related to these liabilities, these amounts are excluded from the contractual obligations table above.

See Note 11, Note 14, and Note 15 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from the amounts derived from those estimates and assumptions.

We have identified the following as critical accounting estimates, which are defined as those that are reflective of significant judgments and uncertainties, are the most pervasive and important to the presentation of our financial condition and results of operations and could potentially result in materially different results under different assumptions and conditions. The following discussion should be considered in conjunction with the description of our accounting policies in Note 1 to the consolidated financial statements in this Annual Report on Form 10-K.

Allowance for Doubtful Accounts

In the ordinary course of business, we grant non-interest bearing trade credit to our customers on normal credit terms. In an effort to reduce our credit risk, we (i) establish credit limits for all of our customer relationships, (ii) perform

ongoing credit evaluations of our customers' financial condition, (iii) monitor the payment history and aging of our customers' receivables, and (iv) monitor open orders against an individual customer's outstanding receivable balance.

An allowance for doubtful accounts is maintained for trade accounts receivable based on the expected collectability of accounts receivable, after considering the Company's historical collection experience, the length of time an account is outstanding, the financial position of the customer and information provided by credit rating services. The adequacy of this allowance is reviewed each reporting period and adjusted as necessary. Our allowance for doubtful accounts was $9.3 million and $10.3 million at December 31, 2018 and 2017, respectively, which constituted 2.4% and 2.8% of gross trade accounts receivable at December 31, 2018 and 2017, respectively.

In light of the volatility in global economic markets in recent years, we have procedures in place within countries where we have collectability concerns to facilitate customer-by-customer risk assessment when estimating the allowance for doubtful accounts. These procedures include monthly credit control committee meetings, at which customer credit risks are identified after review of, among other things, accounts that exceed specified credit limits, payment delinquencies and other customer issues. In addition, with respect to government customers, we evaluate receivables for potential collection risks associated with any limitations on the availability of government funding and reimbursement practices. To reduce risk exposures with respect to certain of our non-government customers, we have instituted procedures that include reducing credit limits and requiring that payments accompany orders. Some of our customers, particularly in Greece, Italy, Spain and Portugal, have extended or delayed payments for products and services already provided, resulting in collectability concerns regarding our accounts receivable from these customers. If the financial condition of these customers or the healthcare systems in these countries deteriorate to the extent that the ability of an increasing number of customers to make payments is uncertain, additional allowances may be required in future periods.

Although we maintain allowances for doubtful accounts to cover the estimated losses which may occur when customers cannot make their required payments, we cannot be assured that the allowances will be sufficient to cover future losses given the volatility in the worldwide economy and the possibility that other, unanticipated events may adversely affect collectability of the accounts. If our allowance for doubtful accounts is insufficient to address receivables we ultimately determine are uncollectible, we would be required to incur additional charges, which could materially adversely affect our results of operations. Moreover, our inability to collect outstanding receivables could adversely affect our financial condition and cash flow from operations.

Distributor Rebates

We offer rebates to certain distributors and record a reserve with respect to the estimated amount of the rebates as a reduction of revenues at the time of sale. In estimating rebates, we consider the lag time between the point of sale and the payment of the distributor's rebate claim, distributor-specific trend analyses, contractual commitments, including stated rebate rates, historical experience and other relevant information. When necessary, we adjust the reserves, with a corresponding adjustment to revenue, to reflect differences between estimated and actual experience. Historical adjustments to recorded reserves have not been significant and we do not expect significant revisions to the estimated rebates in the future. The reserve for estimated rebates was $18.1 million and $12.2 million at December 31, 2018 and 2017, respectively. We expect to pay amounts subject to the reserve as of December 31, 2018 within 90 days subsequent to year-end.

Inventory Utilization

Inventories are valued at the lower of cost or net realizable value. We maintain a reserve for excess and obsolete inventory that reduces the carrying value of our inventories to reflect the diminution of value resulting from product obsolescence, damage or other issues affecting marketability. The reduction in carrying value is equal to the difference between the cost of the inventory and its estimated net realizable value. Factors utilized in the determination of estimated net realizable value and whether a reserve is required include (i) current sales data and historical return rates, (ii) estimates of future demand, (iii) competitive pricing pressures, (iv) new product introductions, (v) product expiration dates, and (vi) component and packaging obsolescence.

The adequacy of the reserve is reviewed each reporting period and adjusted as necessary. We regularly compare inventory quantities on hand against historical usage or forecasts related to specific items in order to evaluate obsolescence and excessive quantities. In assessing historical usage, we also qualitatively assess business trends to evaluate the reasonableness of using historical information in estimating future usage.

Our inventory reserve was $34.9 million and $35.6 million at December 31, 2018 and 2017, respectively, which represents 7.5% and 8.3% of gross inventories at those respective dates.

Long-Lived Assets

We assess the remaining useful life and recoverability of long-lived assets whenever events or circumstances indicate the carrying value of an asset may not be recoverable. For example, such an assessment may be initiated if, as a result of a change in expectations, we believe it is more likely than not that the asset will be sold or disposed of significantly before the end of its useful life or if an adverse change occurs in the business employing the asset. Significant judgments in this area involve determining whether such events or circumstances have occurred and determining the appropriate asset group requiring evaluation. The recoverability evaluation is based on various analyses, including undiscounted cash flow projections, which involve significant management judgment. Any impairment loss, if indicated, equals the amount by which the carrying amount of the asset exceeds the estimated fair value of the asset.

Goodwill and Other Intangible Assets

Intangible assets include indefinite-lived assets (such as goodwill, certain trade names and in-process research and development ("IPR&D")), as well as finite-lived intangibles (such as trade names that do not have indefinite lives, customer relationships, intellectual property, distribution rights and non-competition agreements) and are, generally, obtained through acquisition. Intangible assets acquired in a business combination are measured at fair value and we allocate any excess purchase price over the fair value of the net tangible and intangible assets acquired in a business combination to goodwill.

The costs of finite-lived intangibles are amortized to expense over their estimated useful life. Determining the useful life of an intangible asset requires considerable judgment as different types of intangible assets typically will have different useful lives. Goodwill and other indefinite-lived intangible assets are not amortized; we test these assets annually for impairment during the fourth quarter, using the first day of the quarter as the measurement date, or earlier upon the occurrence of certain events or substantive changes in circumstances that indicate an impairment may have occurred. Such conditions may include an economic downturn in a geographic market or a change in the assessment of future operations. Our impairment testing for goodwill is performed separately from our impairment testing of indefinite-lived intangibles.

Considerable management judgment is necessary in making the assumptions used in the estimated fair value of intangible assets acquired in a business combination and in the goodwill and other indefinite-lived intangible asset impairment analyses, including evaluating the impact of operating and macroeconomic conditions and estimating future cash flows. Assumptions we use in our acquisition date fair value estimates and in our impairment evaluations include the discount rate and forecasted growth rates, which are consistent with our internal projections and operating plans, when applicable. We believe these assumptions and estimates are comparable to those that would be used by other marketplace participants.

Goodwill

Goodwill impairment assessments are performed at a reporting unit level. For purposes of this assessment, a reporting unit is an operating segment, or a business one level below that operating segment. We have ten reporting units. In applying the goodwill impairment test, we may assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. Qualitative factors may include, but are not limited to, macroeconomic conditions, industry conditions, the competitive environment, changes in the market for our products and services, regulatory and political developments, and entity specific factors such as strategies and financial performance. If, after completing the qualitative assessment, we determine it is more likely than not that the fair value of a reporting unit is less than its carrying value, we proceed to a two-step quantitative impairment test, described below. Alternatively, we may test goodwill for impairment through the two-step quantitative impairment test without conducting the qualitative analysis. Under guidance issued by the Financial Accounting Standards Board, the quantitative goodwill impairment test will be simplified, effective for fiscal years beginning after December 15, 2019, subject to optional early adoption. See Note 2 to the consolidated financial statements in this Annual Report on Form 10-K for additional information.

The first step of the two-step impairment test is to compare the fair value of a reporting unit to the carrying value. In performing the first step, we calculate the fair value of the reporting unit using equal weighting of two methods; one

which estimates the discounted cash flows of the reporting unit based on projected earnings in the future (the Income Approach) and one which is based on sales of similar businesses to those of the reporting unit in actual transactions (the Market Approach). If the fair value of the reporting unit exceeds the carrying value, there is no impairment. If the reporting unit carrying value exceeds the fair value, we recognize an impairment loss based on the amount by which the carrying value of goodwill exceeds its implied fair value, which we determine in the second step of the two-step test. The implied fair value of goodwill is determined by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole, as if that reporting unit had just been acquired and the fair value of the individual assets acquired and liabilities assumed were being determined initially.

Determining fair value requires the exercise of significant judgment. The more significant judgments and assumptions used in the Income Approach include (1) the amount and timing of expected future cash flows, which are based primarily on our estimates of future sales, operating income, industry trends and the regulatory environment of the individual reporting units, (2) the expected long-term growth rates for each of our reporting units, which approximate the expected long-term growth rate of the global economy and of the medical device industry, and (3) discount rates that are used to discount future cash flows to their present values, which are based on an assessment of the risk inherent in the future cash flows of the respective reporting units along with various market based inputs. The more significant judgments and assumptions used in the Market Approach include (1) determination of appropriate revenue and EBITDA multiples used to estimate a reporting unit's fair value and (2) the selection of appropriate comparable companies to be used for purposes of determining those multiples. There were no changes to the underlying methods used in 2018 as compared to the valuations of our reporting units in the past several years.

Our expected future growth rates estimated for purposes of the goodwill impairment test are based on our estimates of future sales, operating income and cash flow and are consistent with our internal budgets and business plans, which reflect a modest amount of core revenue growth coupled with the successful launch of new products each year; the effect of these growth indicators more than offset volume losses from products that are expected to reach the end of their life cycle. Changes in assumptions underlying the Income Approach could cause a reporting unit's carrying value to exceed its fair value. While we believe our assumed growth rates of sales and cash flows are reasonable, the possibility remains that the revenue growth of a reporting unit may not be as high as expected, and, as a result, the estimated fair value of that reporting unit may decline. In this regard, if our strategy and new products are not successful and we do not achieve anticipated core revenue growth in the future with respect to a reporting unit, the goodwill in the reporting unit may become impaired and, in such case, we may incur material impairment charges. Moreover, changes in revenue and EBITDA multiples in actual transactions from those historically present could result in an assessment that a reporting unit's carrying value exceeds its fair value, in which case we also may incur material impairment charges.

No impairment was recorded as a result of the annual goodwill impairment testing performed during the fourth quarter 2018.

Other Intangible Assets

Intangible assets are assets acquired that lack physical substance and that meet the specified criteria for recognition apart from goodwill. Management tests indefinite-lived intangible assets for impairment annually, and more frequently if events or changes in circumstances indicate that an impairment may have occurred. Similar to the goodwill impairment test process, we may assess qualitative factors to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying value. If, after completing the qualitative assessment, we determine it is more likely than not that the fair value of the indefinite-lived intangible asset is greater than its carrying amount, the asset is not impaired. If we conclude it is more likely than not that the fair value of the indefinite-lived intangible asset is less than the carrying value, we then proceed to a quantitative impairment test, which consists of a comparison of the fair value of the intangible asset to its carrying amount. Alternatively, we may elect to forgo the qualitative analysis and test the indefinite-lived intangible asset for impairment through the quantitative impairment test.

In connection with intangible assets acquired in a business combination and the quantitative impairment tests, since quoted market prices are seldom available for intangible assets, we utilize several present value techniques to estimate fair value. The fair value of trade names and IPR&D is estimated by the use of a relief from royalty method, a form of income approach that values an intangible asset by estimating the royalties saved through the ownership of an asset. Under this method, an owner of an intangible asset determines the arm's length royalty that likely would have been charged if the owner had to license the asset from a third party. The value of the hypothetical royalty, which is based on the estimated royalty rate applied against forecasted sales, is tax-effected and discounted to present value using a discount rate commensurate with the relative risk of achieving the cash flow attributable to the asset.

Management must estimate the volume of sales, hypothetical royalty rate, discount rate, and terminal growth rate to estimate the hypothetical royalty associated with the asset. Discount rate assumptions are based on an assessment of the risk inherent in the future cash flows generated from the intangible asset. Assumptions about royalty rates are based on the rates at which similar intangible assets are being licensed in the marketplace.

During the year ended December 31, 2018, we recognized a $16.9 million pre-tax ($8.6 million after tax) impairment charge related to the abandonment of certain intellectual property intangible assets. There were no impairment charges recorded for the year ended December 31, 2017. For the year ended December 31, 2016, we recognized a pre-tax IPR&D impairment charge of $41.0 million. See "Restructuring and impairment charges" within "Result of Operations" above as well as Note 5 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information on these charges.

Pensions and Other Postretirement Benefits

We provide a range of benefits to eligible employees and retired employees, including under plans that provide pension and postretirement healthcare benefits. Several statistical and other factors that are designed to project future events are used in calculating the expense and liability related to these plans. These factors include actuarial assumptions about discount rates, expected rates of return on plan assets, compensation increases, turnover rates and healthcare cost trend rates. We review the actuarial assumptions on an annual basis and make modifications to the assumptions based on current rates and trends when appropriate.

Significant differences in our actual experience or significant changes in our assumptions may materially affect our pension and other postretirement obligations and our future expense. The following table shows the sensitivity of plan expenses and benefit obligations to changes in the weighted average assumptions:

	Assumed Discount Rate		Expected Return on Plan Assets	Assumed Healthcare Trend Rate	
	50 Basis Point Increase	50 Basis Point Decrease	50 Basis Point Change	1.0% Increase	1.0% Decrease
	(Dollars in millions)				
Net periodic pension and postretirement healthcare expense	$ 0.2	$ (0.3)	$ 1.9	$ 0.1	$ (0.1)
Projected benefit obligation	$ 19.7	$ (17.0)	N/A	$ 2.4	$ (2.2)

For additional information on assumptions pertaining to pension and other postretirement benefit plans, refer to Note 15 to the consolidated financial statements included in this Annual Report on Form 10-K.

Share-based Compensation

We estimate the fair value of share-based awards on the date of grant and recognize as expense the value of the portion of the award that is ultimately expected to vest over the requisite service periods. Share-based compensation expense related to stock options is measured using a Black-Scholes option pricing model that takes into account subjective and complex assumptions with respect to expected life of options, volatility, risk-free interest rate and expected dividend yield. The expected life of options granted represents the period of time that options are expected to be outstanding, which is derived from the vesting period of the award, as well as historical exercise behavior. Expected volatility is based on a blend of historical volatility and implied volatility derived from publicly traded options to purchase our common stock, which we believe is more reflective of market conditions and a better indicator of expected volatility than solely using historical volatility. The risk-free interest rate is the implied yield currently available on United States Treasury zero-coupon issues with a remaining term equal to the expected life of the option. Share-based compensation expense related to non-vested restricted stock units is measured based on the market price of the underlying stock on the grant date discounted for the risk free interest rate and the present value of expected dividends over the vesting period. Share based compensation expense for 2018, 2017 and 2016 was $22.4 million, $19.4 million and $16.9 million, respectively.

Contingent Consideration Liabilities

In connection with an acquisition, we may be required to pay future consideration that is contingent upon the achievement of specified objectives, such as receipt of regulatory approval, commercialization of a product or achievement of sales targets. As of the acquisition date, we record a contingent liability representing the estimated fair value of the contingent consideration we expect to pay. We determined the fair value of the contingent consideration liability related to the NeoTract acquisition and to our acquisition, in October 2018, of Essential Medical, Inc., which

represented most of our contingent consideration liabilities at December 31, 2018, using a Monte Carlo valuation approach, which simulates future revenues during the earn out-period using management's best estimates. (See Note 4 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information regarding these acquisitions.) We determined the fair value of our other contingent consideration liabilities using a probability-weighted discounted cash flow analysis. Significant judgment is required in determining the assumptions used to calculate the fair value of the contingent consideration. Increases in projected revenues and probabilities of payment may result in significantly higher fair value measurements; decreases in these items may have the opposite effect. Increases in discount rates in the periods prior to payment may result in significantly lower fair value measurements; decreases may have the opposite effect. See Note 11 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

We remeasure our contingent consideration liabilities each reporting period and recognize the change in the liabilities' fair value within selling, general and administrative expenses in our consolidated statement of income. As of December 31, 2018 and 2017, we accrued $304.2 million and $272.1 million of contingent consideration, respectively.

Income Taxes

Our annual provision for income taxes and determination of the deferred tax assets and liabilities require management to assess uncertainties, make judgments regarding outcomes and utilize estimates. The difficulties inherent in such assessments, judgments and estimates are particularly challenging because we conduct a broad range of operations around the world, subjecting us to complex tax regulations in numerous international jurisdictions. As a result, we are at times subject to tax audits, disputes with tax authorities and potential litigation, the outcome of which is uncertain. In connection with its estimates of our tax assets and liabilities, management must, among other things, make judgments about the outcome of these uncertain matters.

Deferred tax assets and liabilities are measured and recorded using currently enacted tax rates that are expected to apply to taxable income in the years in which differences between the financial statement carrying amounts of existing assets and liabilities and their tax bases are recovered or settled. The likelihood of a material change in our expected realization of these assets is dependent on future taxable income, our ability to use foreign tax credit carryforwards and carrybacks, final United States and foreign tax settlements, changes in tax law, and the effectiveness of our tax planning strategies in the various relevant jurisdictions. While management believes that its judgments and interpretations regarding income taxes are appropriate, significant differences in actual experience may require future adjustments to our tax assets and liabilities, which could be material.

In assessing the realizability of our deferred tax assets, we evaluate positive and negative evidence and use judgments regarding past and future events, including results of operations and available tax planning strategies that could be implemented to realize the deferred tax assets. Based on this assessment, we determine when it is more likely than not that all or some portion of our deferred tax assets may not be realized, in which case we apply a valuation allowance to offset the amount of such deferred tax assets. To the extent facts and circumstances change in the future, adjustments to the valuation allowances may be required. The valuation allowance for deferred tax assets of $144.0 million and $104.8 million at December 31, 2018 and 2017, respectively, relates principally to the uncertainty of the utilization of tax loss and credit carryforwards in various jurisdictions.

Significant judgment is required in determining income tax provisions and in evaluating tax positions. We establish additional provisions for income taxes when, despite the belief that tax positions are supportable, there remain certain positions that do not meet the minimum probability threshold, which is a tax position that is more likely than not to be sustained upon examination by the applicable taxing authority. In the normal course of business, we are examined by various federal, state and foreign tax authorities. We regularly assess the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of our provision for income taxes. We adjust the income tax provision, the current tax liability and deferred taxes in any period in which we become aware of facts that necessitate an adjustment. We are currently under examination in Germany. The ultimate outcome of this examination could result in increases or decreases to our recorded tax liabilities, which would affect our financial results. See Note 14 to the consolidated financial statements in this Annual Report on Form 10-K for additional information regarding our uncertain tax positions.

As noted above, the TCJA significantly changes U.S. tax law. As a result of the enactment of the TCJA, our consolidated financial statements as of, and for the year ended December 31, 2017, included provisional amounts with respect to the deemed repatriated earnings and the revaluation of deferred tax assets and liabilities. In our consolidated financial statements for the year ended December 31, 2018, as permitted by SAB 118, we recorded

adjustments to the provisional amounts related to the TCJA included in our December 31, 2017 financial statements. See Note 14 to the consolidated financial statements included in this Annual Report on Form 10-K for additional information.

New Accounting Standards

See Note 2 to the consolidated financial statements included in this Annual Report on Form 10-K for a discussion of recently issued accounting standards, including estimated effects, if any, of the adoption of those standards on our consolidated financial statements.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

Market Risk

We are exposed to certain financial risks, specifically fluctuations in market interest rates, foreign currency exchange rates and, to a lesser extent, commodity prices. We use derivative financial instruments to manage or reduce the impact of some of these risks. We do not enter into derivative instruments for trading purposes. We are also exposed to changes in the market traded price of our common stock as it influences the valuation of stock options and their effect on earnings.

Interest Rate Risk

We are exposed to changes in interest rates as a result of our borrowing activities and our cash balances. The table below provides information regarding the interest rates by year of maturity for our fixed and variable rate debt obligations. Variable interest rates on December 31, 2018 were determined using a base rate of the one-month LIBOR rate plus the applicable spread.

	Year of Maturity						
	2019	2020	2021	2022	2023	Thereafter	Total
	(Dollars in thousands)						
Fixed rate debt	$ —	$ —	$ —	$ —	$ —	$ 1,150,000	$ 1,150,000
Average interest rate	*—%*	*—%*	*—%*	*—%*	*—%*	*4.848%*	*4.848%*
Variable rate debt	$ 86,625	$ 51,562	$ 70,313	$ 818,000	$ —	$ —	$ 1,026,500
Average interest rate	*3.684%*	*4.272%*	*4.272%*	*4.270%*	*—%*	*—%*	*4.221%*

A change of 1.0% in variable interest rates would increase or decrease annual interest expense by $10.3 million based on our outstanding debt as of December 31, 2018.

Foreign Currency Risk

We are exposed to currency fluctuations in connection with transactions, as well as monetary assets and liabilities, denominated in currencies other than the functional currencies of certain subsidiaries.

Forward currency contracts

We enter into forward contracts with several major financial institutions to hedge the risk associated with these foreign currency exposures; these contracts generally involve the purchase or sale, at designated future dates, of specified amounts of a foreign currency while simultaneously committing to an opposite way sale or purchase of a specified amount of U.S. dollars or euros, based on the exchange rate at the time of entry into the contract. The contracts we enter into to hedge transactions denominated in non-functional currencies are designated as cash flow hedges. The contracts to hedge monetary asset and liabilities denominated in non-functional currencies are not designated as cash flow, fair value or net investment hedges. See Note 10 to the consolidated financial statements included in this Annual Report on Form 10-K for information regarding the accounting treatment of designated and non-designated hedge contracts.

The following table provides information regarding our open foreign currency forward contracts at December 31, 2018, which mature during 2019. As of December 31, 2018, the total notional amount for the designated and non-designated contracts, expressed in U.S. dollars, is $115.3 million and $125.9 million, respectively. As of December 31, 2017, the total notional amount for the designated and non-designated contracts, expressed in U.S. dollars, is $88.5 million and $110.6 million, respectively. Forward contract notional amounts presented below are expressed in the stated currencies.

	Buy/(Sell)	
	(in thousands)	
	Designated	Non-designated
Australian dollar	(14,160)	(7,313)
British pound	(7,230)	(11,639)
Canadian dollar	(12,410)	25,992
Chinese renminbi	(98,780)	(183,851)
Czech koruna	409,710	79,761
Euro	9,441	60,994
Indian rupee	—	(862,003)
Japanese yen	(856,750)	(78,828)
Korean won	(4,050,000)	(3,406,493)
Malaysian ringgit	28,490	15,945
Mexican peso	481,020	73,938
Polish zloty	—	(13,160)
Singapore dollar	6,780	—
South African rand	(58,500)	(60,011)
Swiss franc	(4,278)	—
United States dollar	(1,815)	(17,374)
Chilean Peso	—	(3,851,818)
Columbian Peso	—	(10,796,735)
Uruguayan Peso	—	(118,500)

Cross-currency swap agreements

On October 4, 2018, we entered into cross-currency swap agreements with six different financial institution counterparties to hedge against the effect of variability in the U.S. dollar to euro exchange rate. Under the terms of the swap agreements, we notionally exchanged $500.0 million at an annual interest rate of 4.625% for €433.9 million at an annual interest rate of 1.942%. The swap agreements, which expire on October 4, 2023, are designated as net investment hedges and require an exchange of the notional amounts upon expiration or earlier termination of the agreements. We and the counterparties have agreed to effect the exchange through a net settlement.

The interest component of the swap agreements will affect the interest expense recognized within our statement of operations. Based on the U.S. dollar to euro currency exchange rate in effect on October 4, 2018, and assuming the exchange rates remain constant throughout the five year term of the cross-currency swap agreements, we would realize an annual pre-tax net benefit (i.e., a reduction in interest expense as a result of the swap agreements) of $13.4 million, or a total of $67.0 million over the five year term of the swap agreements. A 10% increase or decrease in the U.S. dollar to euro currency exchange rate in effect on October 4, 2018 would result in a change to the annual pre-tax net benefit of approximately $1.0 million.

As described in Note 2 to the consolidated financial statements included in this report, the Financial Accounting Standards Board (“FASB”) issued guidance in August 2017 with the objective of improving the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. As a result of our early adoption of the FASB guidance, and because the swap agreements are designated as net investment hedges, changes in the fair value of the cross-currency swap agreements will be recognized as a component of “Foreign currency translation continuing operations adjustments, net of tax” within “Other comprehensive (loss) income, net of tax” in the consolidated statement of comprehensive income. In this regard, a favorable foreign currency change in the designated investment value of our foreign subsidiaries that use euros as their functional currency generally will be offset by an unfavorable foreign currency change in the swap agreements, and *vice versa*. At October 4, 2018, a 10% fluctuation in the U.S. dollar to euro currency exchange rate would have an approximately $50 million impact on the fair value of the notional amount of the cross-currency swap agreements and an offsetting $50 million impact on the designated net investment value of the foreign subsidiaries. In addition, in the event of a significant decline in the U.S. dollar to euro exchange rate, our payment obligations to the

counterparties could have a material adverse effect on our cash flows. In this regard, if, at the expiration or earlier termination of the swap agreements, the U.S. dollar to euro currency exchange rate has declined by 10% from the rate in effect at October 4, 2018, we would be required to pay approximately $50 million to the counterparties.

The swap agreements entail risk that the counterparties will not fulfill their obligations under the agreements. However, we believe the risk is reduced because we have entered into separate agreements with six different counterparties, all of whom are large, well-established financial institutions.

In the future, we may enter into additional cross-currency swap agreements to further hedge against the effect of variability in the U.S. dollar to euro exchange rate, although there can be no assurances that we will do so.

ITEM 8. ***FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

The financial statements and supplementary data required by this Item are included herein, commencing on page F-1.

ITEM 9. ***CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

None.

ITEM 9A. ***CONTROLS AND PROCEDURES***

(a) Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report are functioning effectively to provide reasonable assurance that the information required to be disclosed by us in reports filed under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure. A controls system cannot provide absolute assurance, however, that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

(b) Management's Report on Internal Control Over Financial Reporting

Our management's report on internal control over financial reporting is set forth on page F-2 of this Annual Report on Form 10-K and is incorporated by reference herein.

(c) Change in Internal Control over Financial Reporting

No change in our internal control over financial reporting occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. ***OTHER INFORMATION***

None.

PART III

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

For the information required by this Item 10 with respect to our Executive Officers, see Part I, Item 1. of this report. For the other information required by this Item 10, see "Election Of Directors," "Nominees for Election to the Board of Directors," "Corporate Governance" and "Section 16(a) Beneficial Ownership Reporting Compliance," in the Proxy Statement for our 2019 Annual Meeting, which information is incorporated herein by reference. The Proxy Statement for our 2019 Annual Meeting will be filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 11. *EXECUTIVE COMPENSATION*

For the information required by this Item 11, see "Compensation Discussion and Analysis," "Compensation Committee Report," and "Executive Compensation" in the Proxy Statement for our 2019 Annual Meeting, which information is incorporated herein by reference.

ITEM 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

For the information required by this Item 12 with respect to beneficial ownership of our common stock, see "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement for our 2019 Annual Meeting, which information is incorporated herein by reference.

The following table sets forth certain information as of December 31, 2018 regarding our equity plans :

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (A))
	(A)	(B)	(C)
Equity compensation plans approved by security holders	1,471,449	$136.62	3,578,241

(1) The number of securities in column (A) include 22,290 shares of common stock underlying performance stock units if maximum performance levels are achieved; the actual number of shares, if any, to be issued with respect to the performance stock units will be based on performance with respect to specified financial and relative stock price measures.

ITEM 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

For the information required by this Item 13, see "Certain Transactions" and "Corporate Governance" in the Proxy Statement for our 2019 Annual Meeting, which information is incorporated herein by reference.

ITEM 14. *PRINCIPAL ACCOUNTING FEES AND SERVICES*

For the information required by this Item 14, see "Audit and Non-Audit Fees" and "Audit Committee Pre-Approval Procedures" in the Proxy Statement for our 2019 Annual Meeting, which information is incorporated herein by reference.

PART IV

ITEM 15. ***EXHIBITS, FINANCIAL STATEMENT SCHEDULES***

(a) Consolidated Financial Statements:

The Index to Consolidated Financial Statements and Schedule is set forth on page F-1 of this Annual Report on Form 10-K.

(b) Exhibits:

The following exhibits are filed as part of, or incorporated by reference into, this report (unless otherwise indicated, the file number with respect to each filed document is 1-5353):

Exhibit No.		Description
*3.1.1	—	Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1.1 to the Company's Form 10-K filed on February 22, 2018).
*3.1.2	—	Amendment to Article Thirteenth of the Company's Certificate of Incorporation (incorporated by reference to Exhibit 3.1.2 to the Company's Form 10-K filed on February 22, 2018).
*3.1.3	—	Amendment to the first paragraph of Article Fourth of the Company's Certificate of Incorporation (incorporated by reference to Proposal 2 of the Company's Proxy Statement filed on March 29, 2007).
*3.2	—	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.2 to the Company's Form 8-K filed on May 7, 2009).
*4.1.1	—	Indenture, dated as of May 21, 2014, among the Company, the Guarantors party thereto and Wells Fargo Bank, N.A., as trustee, relating to the Company's 5.25% Senior Notes due 2024 (incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed on May 22, 2014).
*4.1.2	—	Form of 5.25% Senior Notes due 2024 (incorporated by reference to Exhibit A in Exhibit 4.1 to the Company's Form 8-K filed on May 22, 2014).
*4.2.1	—	Indenture, dated May 16, 2016, by and between the Company and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-3 (File No 333-211276) filed on May 11, 2016).
*4.2.2	—	First Supplemental Indenture, dated May 16, 2016, by and among the Company, the guarantors party thereto and Wells Fargo Bank, National Association, relating to the Company's 4.875% Senior Notes due 2026 (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K, filed with the Securities and Exchange Commission on May 16, 2016).
*4.2.3	—	Form of 4.875% Senior Note due 2026 (included in Exhibit 4.2.2).
*4.2.4	—	Second Supplemental Indenture, dated February 28, 2017, by and among Vascular Solutions, Inc., the Company and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.2.3 to Post-Effective Amendment No. 1 to the Company's Registration Statement on Form S-3 (File No. 33-211276) filed on November 16, 2017).
*4.2.5	—	Third Supplemental Indenture, dated October 19, 2017, by and among NeoTract, Inc., Teleflex Urology Limited, the Company and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.2.4 to Post-Effective Amendment No. 1 to the Company's registration Statement on Form S-3 (File No. 33-211276) filed on November 16, 2017).
*4.3.1	—	Fourth Supplemental Indenture, dated November 20, 2017, by and among the Company, the guarantors party thereto and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K filed on November 20, 2017).
*4.3.2	—	Form of 4.625% Senior Note due 2027 (included in Exhibit 4.3.1).
+*10.1	—	Teleflex Incorporated Retirement Income Plan (formerly known as the Teleflex Incorporated Salaried Employees' Pension Plan), as amended and restated effective January 1, 2014 (incorporated by reference to Exhibit 10.1 to the Company's Form 10-K filed on February 20, 2015).
+*10.2.1	—	Amended and Restated Teleflex Incorporated Deferred Compensation Plan, dated December 26, 2012 (incorporated by reference to Exhibit 10.2 to the Company's Form 10-K filed on February 22, 2013).
+*10.2.2	—	First Amendment to the Teleflex Incorporated Deferred Compensation Plan, dated December 11, 2015 (incorporated by reference to Exhibit 10.2.2 to the Company's Form 10-K filed on February 25, 2016).

Exhibit No.		Description
*10.3.1	—	Amended and Restated Teleflex 401(k) Savings Plan, effective as of January 1, 2014 (incorporated by reference to Exhibit 10.2 to the Company's Form 10-K filed on February 22, 2013).
*10.3.2	—	Special Amendment to Teleflex 401(k) Savings Plan, dated August 12, 2015 (incorporated by reference to Exhibit 10.3.2 to the Company's Form 10-K filed on February 25, 2016).
*10.3.3	—	First Amendment to the Teleflex Incorporated 401(k) Savings Plan, dated December 21, 2016 (incorporated by reference to Exhibit 10.3.3 to the Company's Form 10-K filed on February 22, 2018).
*10.3.4	—	Second Amendment to the Teleflex Incorporated 401(k) Savings Plan, dated December 21, 2016 (incorporated by reference to Exhibit 10.3.4 to the Company's Form 10-K filed on February 22, 2018).
*10.3.5	—	Third Amendment to the Teleflex Incorporated 401(k) Savings Plan, dated November 22, 2017 (incorporated by reference to Exhibit 10.3.5 to the Company's Form 10-K filed on February 22, 2018).
*10.3.6	—	Fourth Amendment to the Teleflex Incorporated 401(k) Savings Plan, dated January 19, 2018 (incorporated by reference to Exhibit 10.3.6 to the Company's Form 10-K filed on February 22, 2018).
10.3.7	—	Fifth Amendment to the Teleflex Incorporated 401(k) Savings Plan, dated March 28, 2018.
+*10.4.1	—	2000 Stock Compensation Plan (incorporated by reference to the Company's Registration Statement on Form S-8 (Registration No. 333-38224), filed on May 31, 2000).
+*10.4.2	—	Amendment, dated March 28, 2012, to 2000 Stock Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed on May 1, 2012).
+*10.5.1	—	2008 Stock Incentive Plan (incorporated by reference to Appendix A to the Company's definitive Proxy Statement for the 2008 Annual Meeting of Stockholders filed on March 21, 2008).
+*10.5.2	—	Amendment, dated March 28, 2012, to 2008 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q filed on May 1, 2012).
*10.5.3	—	Form of Stock Option Agreement for stock options granted on or after January 1, 2013 under the Company's 2008 Stock Incentive Plan (incorporated by reference to Exhibit 10.5.3 to the Company's Form 10-K filed on February 24, 2014).
+*10.5.4	—	Form of Stock Option Agreement for stock options granted to Benson F. Smith under the Company's 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.5.6 to the Company's Form 10-K filed on February 25, 2016).
+*10.5.5	—	Form of Restricted Stock Award Agreement for restricted stock awards granted to Benson F. Smith under the Company's 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.5.7 to the Company's Form 10-K filed on February 25, 2016).
+*10.6	—	Teleflex Incorporated 2016 Executive Incentive Plan (incorporated by reference to Appendix A to the Company's definitive Proxy Statement for the 2016 Annual Meeting of Stockholders filed on March 24, 2016).
+*10.7	—	Teleflex Incorporated 2014 Stock Incentive Plan (incorporated by reference to Appendix A to the Company's definitive Proxy Statement for the 2014 Annual Meeting of Stockholders filed on March 28, 2014).
+*10.8	—	Amended and Restated Consulting Agreement, dated December 14, 2017, between the Company and Benson F. Smith (incorporated by reference to Exhibit 10.8 to the Company's Form 10-K filed on February 22, 2018).
+*10.9	—	Executive Change In Control Agreement, dated March 31, 2017, between the Company and Liam Kelly (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q filed on May 4, 2017).
+*10.10	—	Senior Executive Officer Severance Agreement, dated March 31, 2017, between the Company and Liam Kelly (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed on May 4, 2017).
+*10.11	—	Senior Executive Officer Severance Agreement, dated March 26, 2013, between the Company and Thomas E. Powell (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed on April 30, 2013).
+*10.12	—	Executive Change In Control Agreement, dated March 26, 2013, between the Company and Thomas E. Powell (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed on April 30, 2013).

Exhibit No.		Description
+*10.13.1	—	Contract of Employment, dated September 27, 2011, between the Company and Thomas Anthony Kennedy (incorporated by reference to Exhibit 10.15.1 to the Company's Form 10-K filed on February 20, 2015).
+*10.13.2	—	Letter Agreement, dated April 29, 2013, between the Company and Thomas Anthony Kennedy, relating to Mr. Kennedy's appointment as Senior Vice President, Global Operations (incorporated by reference to Exhibit 10.15.2 to the Company's Form 10-K filed on February 20, 2015).
+*10.14	—	Letter Agreement, dated March 8, 2013, between the Company and Cameron Hicks relating to Mr. Hicks' employment as Vice President, Global Human Resources (incorporated by reference to Exhibit 10.16 to the Company's Form 10-K filed on February 20, 2015).
+*10.15	—	Contract of Employment, dated November 26, 2012, between the Company and Karen Boylan (incorporated by reference to Exhibit 10.17 to the Company's Form 10-K filed on February 20, 2015).
+*10.16	—	Senior Executive Officer Severance Agreement, dated February 17, 2016, between the Company and James J. Leyden (incorporated by reference to Exhibit 10.18 to the Company's Form 10-K filed on February 25, 2016).
+*10.17	—	Executive Change In Control Agreement, dated February 17, 2016, between the Company and James J. Leyden (incorporated by reference to Exhibit 10.19 to the Company's Form 10-K filed on February 25, 2016).
+*10.18	—	Senior Executive Officer Severance Agreement, dated February 17, 2016, between the Company and Cameron P. Hicks (incorporated by reference to Exhibit 10.20 to the Company's Form 10-K filed on February 25, 2016).
+*10.19	—	Executive Change In Control Agreement, dated February 17, 2016, between the Company and Cameron P. Hicks (incorporated by reference to Exhibit 10.21 to the Company's Form 10-K filed on February 25, 2016).
+*10.20	—	Senior Executive Officer Severance Agreement, dated March 31, 2016, between the Company and Tony Kennedy (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed on April 28, 2016).
+*10.21	—	Executive Change In Control Agreement, dated March 31, 2016, between the Company and Tony Kennedy (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed on April 28, 2016).
+*10.22	—	Senior Executive Officer Severance Agreement, dated March 31, 2016, between the Company and Karen Boylan (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q filed on April 28, 2016).
+*10.23	—	Executive Change In Control Agreement, dated March 31, 2016, between the Company and Karen Boylan (incorporated by reference to Exhibit 10.4 to the Company's Form 10-Q filed on April 28, 2016).
*10.24.1	—	Amended and Restated Credit Agreement, dated January 20, 2017, among the Company, JPMorgan Chase Bank, N.A., as administrative agent, Bank of America, N.A. and PNC Bank, National Association, as co-syndication agents, the guarantors party thereto, the lenders party thereto and each other party thereto (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on January 20, 2017).
+*10.25	—	Form of Performance Stock Unit Agreement under the Company's 2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on June 28, 2018).
*14	—	Code of Ethics policy applicable to the Company's Chief Executive Officer and senior financial officers (incorporated by reference to Exhibit 14 of the Company's Form 10-K filed on March 11, 2004).
21	—	Subsidiaries of the Company.
23	—	Consent of Independent Registered Public Accounting Firm.
31.1	—	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Exchange Act.
31.2	—	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Exchange Act.
32.1	—	Certification of Chief Executive Officer pursuant to Rule 13a-14(b) under the Exchange Act.
32.2	—	Certification of Chief Financial Officer pursuant to Rule 13a-14(b) under the Exchange Act.

Exhibit No.		Description
101.1	—	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Statements of Income for the years ended December 31, 2018, December 31, 2017 and December 31, 2016; (ii) the Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, December 31, 2017 and December 31, 2016; (iii) the Consolidated Balance Sheets as of December 31, 2018 and December 31, 2017; (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2018, December 31, 2017 and December 31, 2016; (v) the Consolidated Statements of Changes in Equity for the years ended December 31, 2018, December 31, 2017 and December 31, 2016; and (vi) Notes to Consolidated Financial Statements.

_____

* Each such exhibit has previously been filed with the Securities and Exchange Commission as part of the filing indicated and is incorporated herein by reference.

\+ Indicates management contract or compensatory plan or arrangement required to be filed pursuant to Item 15(b) of this report.

ITEM 16. ***FORM 10-K SUMMARY***

Registrants may voluntarily include a summary of information required by Form 10-K under this Item 16. We have elected not to include such summary information.

SIGNATURES

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

TELEFLEX INCORPORATED

By: /s/ Liam J. Kelly
Liam J. Kelly
President and Chief Executive Officer

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

By: /s/ Liam J. Kelly
Liam J. Kelly
President, Chief Executive Officer and Director
(Principal Executive Officer)

By: /s/ Thomas E. Powell
Thomas E. Powell
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

By: /s/ John R. Deren
John R. Deren
Vice President and Chief Accounting Officer
(Principal Accounting Officer)

By: /s/ George Babich, Jr.
George Babich, Jr.
Director

By: /s/ Andrew A. Krakauer
Andrew A. Krakauer
Director

By: /s/ Candace H. Duncan
Candace H. Duncan
Director

By: /s/ Richard A. Packer
Richard A. Packer
Director

By: /s/ Gretchen R. Haggerty
Gretchen R. Haggerty
Director

By: /s/ Stuart A. Randle
Stuart A. Randle
Director

By: /s/ John C. Heinmiller
John C. Heinmiller
Director

By: /s/ Benson F. Smith
Benson F. Smith
Chairman and Director

By: /s/ Dr. Stephen K. Klasko
Dr. Stephen K. Klasko
Director

Dated: February 21, 2019

TELEFLEX INCORPORATED

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

FINANCIAL STATEMENT SCHEDULE

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Teleflex Incorporated and its subsidiaries (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and Chief Financial Officer and effected by the Company's board of directors, management and other personnel, 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 pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; 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 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the framework established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). As a result of this assessment and based on the criteria in the COSO framework, management has concluded that, as of December 31, 2018, the Company's internal control over financial reporting was effective.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

/s/ Liam J. Kelly	/s/ Thomas E. Powell
Liam J. Kelly	Thomas E. Powell
President and Chief Executive Officer	*Executive Vice President and Chief Financial Officer*

February 21, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Teleflex Incorporated

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the consolidated financial statements, including the related notes and financial statement schedule of Teleflex Incorporated and its subsidiaries (the "Company") as listed in the accompanying index appearing on page F-1 (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing on page F-2. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
February 21, 2019

We have served as the Company's auditor since 1962.

TELEFLEX INCORPORATED
CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,		
	2018	2017	2016
	(Dollars and shares in thousands, except per share)		
Net revenues	$ 2,448,383	$ 2,146,303	$ 1,868,027
Cost of goods sold	1,063,941	974,501	871,827
Gross profit	1,384,442	1,171,802	996,200
Selling, general and administrative expenses	878,688	699,963	563,308
Research and development expenses	106,208	84,770	58,579
Restructuring and impairment charges	79,230	14,790	59,227
Gain on sale of assets	(1,388)	—	(4,367)
Income from continuing operations before interest, loss on extinguishment of debt and taxes	321,704	372,279	319,453
Interest expense	103,020	82,546	54,941
Interest income	(944)	(771)	(474)
Loss on extinguishment of debt	—	5,593	19,261
Income from continuing operations before taxes	219,628	284,911	245,725
Taxes on income from continuing operations	23,196	129,648	8,074
Income from continuing operations	196,432	155,263	237,651
Income (loss) from discontinued operations	5,643	(4,534)	(922)
Tax (benefit) on income (loss) from discontinued operations	1,273	(1,801)	(1,112)
Income (loss) on discontinued operations	4,370	(2,733)	190
Net income	200,802	152,530	237,841
Less: Income from continuing operations attributable to noncontrolling interest	—	—	464
Net income attributable to common shareholders	$ 200,802	$ 152,530	$ 237,377
Earnings per share available to common shareholders:			
Basic:			
Income from continuing operations	$ 4.30	$ 3.45	$ 5.47
Income (loss) on discontinued operations	0.09	(0.06)	0.01
Net income	$ 4.39	$ 3.39	$ 5.48
Diluted:			
Income from continuing operations	$ 4.20	$ 3.33	$ 4.98
Income (loss) on discontinued operations	0.09	(0.06)	—
Net income	$ 4.29	$ 3.27	$ 4.98
Weighted average common shares outstanding:			
Basic	45,689	45,004	43,325
Diluted	46,801	46,664	47,646
Amounts attributable to common shareholders:			
Income from continuing operations, net of tax	$ 196,432	$ 155,263	$ 237,187
Income (loss) from discontinued operations, net of tax	4,370	(2,733)	190
Net income	$ 200,802	$ 152,530	$ 237,377

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

TELEFLEX INCORPORATED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Net income	$ 200,802	$ 152,530	$ 237,841
Other comprehensive income, net of tax:			
Foreign currency:			
Foreign currency translation continuing operations adjustments, net of tax of 157, ($29,448) and $10,977, respectively	(83,889)	173,074	(69,162)
Foreign currency translation, net of tax	(83,889)	173,074	(69,162)
Pension and other postretirement benefits plans:			
Prior service cost recognized in net periodic cost, net of tax of $(23), $(39), and $(20), respectively	71	66	36
Unamortized (loss) gain arising during the period, net of tax of $(447), $1,677, and $1,849, respectively	1,116	(5,419)	(3,255)
Plan amendments, curtailments, and settlements, net of tax of $(137), $74, and $0, respectively	511	(223)	—
Net loss recognized in net periodic cost, net of tax of $(1,588), $(2,457), and $(2,489), respectively	5,231	4,447	4,476
Foreign currency translation, net of tax of $(183), $413, and $(373), respectively	499	(1,083)	1,034
Pension and other postretirement benefits plans adjustment, net of tax	7,428	(2,212)	2,291
Derivatives qualifying as hedges:			
Unrealized gain (loss) on derivatives arising during the period, net of tax $(268), $(631), and $1,359, respectively	2,574	2,775	(3,434)
Reclassification adjustment on derivatives included in net income, net of tax of $163, $83, and $(1,010), respectively	(2,107)	(11)	3,501
Derivatives qualifying as hedges, net of tax	467	2,764	67
Other comprehensive (loss) income, net of tax	(75,994)	173,626	(66,804)
Comprehensive income	124,808	326,156	171,037
Less: comprehensive income attributable to noncontrolling interest	—	—	421
Comprehensive income attributable to common shareholders	$ 124,808	$ 326,156	$ 170,616

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

TELEFLEX INCORPORATED
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2018	2017
	(Dollars and shares in thousands, except per share)	
ASSETS		
Current assets		
Cash and cash equivalents	$ 357,161	$ 333,558
Accounts receivable, net	366,286	345,875
Inventories, net	427,778	395,744
Prepaid expenses and other current assets	72,481	47,882
Prepaid taxes	12,463	5,748
Total current assets	1,236,169	1,128,807
Property, plant and equipment, net	432,766	382,999
Goodwill	2,246,579	2,235,592
Intangibles assets, net	2,325,052	2,383,748
Deferred tax assets	2,446	3,810
Other assets	34,979	46,536
Total assets	$ 6,277,991	$ 6,181,492
LIABILITIES AND EQUITY		
Current liabilities		
Current borrowings	$ 86,625	$ 86,625
Accounts payable	106,709	92,027
Accrued expenses	97,551	96,853
Current portion of contingent consideration	136,877	74,224
Payroll and benefit-related liabilities	104,670	107,415
Accrued interest	6,031	6,165
Income taxes payable	5,943	11,514
Other current liabilities	38,050	9,053
Total current liabilities	582,456	483,876
Long-term borrowings	2,072,200	2,162,927
Deferred tax liabilities	608,221	603,676
Pension and postretirement benefit liabilities	92,914	121,410
Noncurrent liability for uncertain tax positions	10,718	12,296
Noncurrent contingent consideration	167,370	197,912
Other liabilities	204,134	168,864
Total liabilities	3,738,013	3,750,961
Commitments and contingencies		
Shareholders' equity		
Common shares, $1 par value Issued: 2018 — 47,248 shares; 2017 — 46,871 shares	47,248	46,871
Additional paid-in capital	574,761	591,721
Retained earnings	2,427,599	2,285,886
Accumulated other comprehensive loss	(341,085)	(265,091)
	2,708,523	2,659,387
Less: Treasury stock, at cost	168,545	228,856
Total shareholders' equity	2,539,978	2,430,531
Total liabilities and shareholders' equity	$ 6,277,991	$ 6,181,492

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

TELEFLEX INCORPORATED
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Cash flows from operating activities of continuing operations:			
Net income	$ 200,802	$ 152,530	$ 237,841
Adjustments to reconcile net income to net cash provided by operating activities:			
(Income) loss from discontinued operations	(4,370)	2,733	(190)
Depreciation expense	60,494	56,497	54,415
Amortization expense of intangible assets	149,486	98,766	63,491
Amortization expense of deferred financing costs and debt discount	4,734	5,075	10,440
Loss on extinguishment of debt	—	5,593	19,261
Fair value step up of acquired inventory sold	—	10,442	—
Changes in contingent consideration	52,977	3,575	(6,445)
Impairment of long-lived assets	19,110	—	2,356
In-process research and development impairment charge	—	—	41,000
Stock-based compensation	22,438	19,407	16,871
Net gain on sales of businesses and assets	(1,388)	—	(4,367)
Deferred income taxes, net	(6,097)	(41,822)	(29,346)
Other	(18,803)	(18,469)	(13,311)
Changes in operating assets and liabilities, net of effects of acquisitions and disposals:			
Accounts receivable	(23,412)	(11,039)	(11,029)
Inventories	(37,198)	(22,363)	6,408
Prepaid expenses and other current assets	(10,351)	547	(3,613)
Accounts payable, accrued expenses and other liabilities	62,404	39,001	15,422
Income taxes receivable and payable, net	(35,740)	125,828	11,386
Net cash provided by operating activities from continuing operations	435,086	426,301	410,590
Cash flows from investing activities of continuing operations:			
Expenditures for property, plant and equipment	(80,795)	(70,903)	(53,135)
Payments for businesses and intangibles acquired, net of cash acquired	(121,025)	(1,768,284)	(14,040)
Proceeds from sales of businesses and assets	3,878	6,332	10,201
Net interest proceeds on swaps designated as net investment hedges	1,548	—	—
Net cash used in investing activities from continuing operations	(196,394)	(1,832,855)	(56,974)
Cash flows from financing activities of continuing operations:			
Proceeds from new borrowings	35,000	2,463,500	671,700
Reduction in borrowings	(128,500)	(1,239,576)	(714,565)
Debt extinguishment, issuance and amendment fees	(188)	(26,664)	(8,958)
Proceeds from share based compensation plans and the related tax impacts	22,655	5,571	9,068
Payments to noncontrolling interest shareholders	—	—	(464)
Payments for acquisition of noncontrolling interest	—	—	(9,231)
Payments for contingent consideration	(73,235)	(335)	(7,282)
Dividends	(62,165)	(61,237)	(58,960)
Net cash (used in) provided by financing activities from continuing operations	(206,433)	1,141,259	(118,692)
Cash flows from discontinued operations:			
Net cash provided by (used in) operating activities	2,292	(6,416)	(2,110)
Net cash provided by (used in) discontinued operations	2,292	(6,416)	(2,110)
Effect of exchange rate changes on cash and cash equivalents	(10,948)	61,480	(27,391)
Net increase (decrease) in cash and cash equivalents	23,603	(210,231)	205,423
Cash and cash equivalents at the beginning of the year	333,558	543,789	338,366
Cash and cash equivalents at the end of the year	$ 357,161	$ 333,558	$ 543,789
Supplemental cash flow information:			
Cash interest paid	$ 101,790	$ 74,256	$ 44,203
Income taxes paid, net of refunds	$ 65,605	$ 49,144	$ 23,955
Non cash investing and financing activities of continuing operations:			
Property, plant and equipment additions due to build-to-suit lease transactions	$ 29,448	$ —	$ —
Purchases of businesses and related costs	$ 54,696	$ 261,733	$ —
Settlement and exchange of convertible notes with common or treasury stock	$ —	$ 53,207	$ 35,286
Acquisition of treasury stock from settlement and exchange of convertible note hedge and warrants	$ 56,075	$ 141,405	$ 86,046

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

TELEFLEX INCORPORATED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Common Stock		Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Income (loss)	Treasury Stock		Non-controlling Interest	Total Shareholders' Equity
	Shares	Dollars				Shares	Dollars		
	(Dollars and shares in thousands, except per share amounts)								
Balance at December 31, 2015	43,517	$43,517	$ 440,127	$2,016,176	$ (371,124)	1,908	$(119,424)	$ 1,821	$ 2,011,093
Net income				237,377				464	237,841
Cash dividends ($1.36 per share)				(58,960)					(58,960)
Other comprehensive loss					(66,761)			(43)	(66,804)
Distributions to noncontrolling interest shareholders								(464)	(464)
Acquisition of noncontrolling interest			(6,621)		(832)			(1,778)	(9,231)
Settlement of convertible notes	2,168	2,168	(32,004)			(430)	33,132		3,296
Settlement of note hedges associated with convertible notes			86,048			316	(86,046)		2
Reclassification of convertible notes to mezzanine equity			(1,824)						(1,824)
Shares issued under compensation plans	129	129	21,074			(51)	1,289		22,492
Deferred compensation						(2)	76		76
Balance at December 31, 2016	45,814	45,814	506,800	2,194,593	(438,717)	1,741	(170,973)	—	2,137,517
Net income				152,530					152,530
Cash dividends ($1.36 per share)				(61,237)					(61,237)
Other comprehensive loss					173,626				173,626
Settlement of convertible notes	928	928	(48,375)			(503)	52,279		4,832
Settlement of note hedges associated with convertible notes			112,901			516	(112,908)		(7)
Shares issued under compensation plans	129	129	20,395			(48)	2,658		23,182
Deferred compensation						(2)	88		88
Balance at December 31, 2017	46,871	46,871	591,721	2,285,886	(265,091)	1,704	(228,856)	—	2,430,531
Cumulative effect adjustment resulting from the adoption of new accounting standards				3,076					3,076
Net income				200,802					200,802
Cash dividends ($1.36 per share)				(62,165)					(62,165)
Other comprehensive loss					(75,994)				(75,994)
Settlement of warrants			(56,115)			(412)	56,075		(40)
Shares issued under compensation plans	377	377	38,756			(50)	3,766		42,899
Deferred compensation			399			(10)	470		869
Balance at December 31, 2018	47,248	$47,248	$ 574,761	$2,427,599	$ (341,085)	1,232	$(168,545)	$ —	$ 2,539,978

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

Note 1 — Summary of significant accounting policies

Consolidation: The consolidated financial statements include the accounts of Teleflex Incorporated and its subsidiaries (the "Company"). Intercompany transactions are eliminated in consolidation. Investments in affiliates over which the Company has significant influence but not a controlling equity interest, including variable interest entities for which the Company is not the primary beneficiary, are accounted for using the equity method. Investments in affiliates over which the Company does not have significant influence are accounted for using the cost method of accounting. These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP") and reflect management's estimates and assumptions that affect the recorded amounts.

Use of estimates: The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and cash equivalents: All highly liquid debt instruments with an original maturity of three months or less are classified as cash equivalents. The carrying value of cash equivalents approximates the current market value.

Accounts receivable: Accounts receivable represent amounts due from customers related to the sale of products and provision of services. An allowance for doubtful accounts is maintained and represents the Company's estimate of the amount of uncollectible receivables. The allowance is provided at such time as management believes reasonable doubt exists that such balances will be collected within a reasonable period of time. The allowance is based on the Company's historical collection experience with respect to the customer, the length of time an account is outstanding, the financial position of the customer and information provided by credit rating services. In addition, the Company maintains a reserve for returns and allowances based on its historical experience. See Note 10 for information on the Company's concentration of credit risk with respect to trade accounts receivable, as well as the Company's allowance for doubtful accounts.

Inventories: Inventories are valued at the lower of cost or net realizable value. The cost of the Company's inventories is determined using the average cost method. Elements of cost in inventory include raw materials, direct labor, and manufacturing overhead. In estimating net realizable value, the Company evaluates inventory for excess and obsolete quantities based on estimated usage and sales, among other factors.

Property, plant and equipment: Property, plant and equipment are stated at cost, net of accumulated depreciation. Costs incurred to develop internal-use computer software during the application development stage generally are capitalized. Costs of enhancements to internal-use computer software are capitalized, provided that these enhancements result in additional functionality. Other additions and those improvements which increase the capacity or lengthen the useful lives of the assets are also capitalized. Composite useful lives for categories of property, plant and equipment, which are depreciated on a straight-line basis, are as follows: buildings — 30 years; machinery and equipment — 3 to 10 years; computer equipment and software — 3 to 5 years. Leasehold improvements are depreciated over the lesser of the useful lives of the leasehold improvements or the remaining lease term. Repairs and maintenance costs are expensed as incurred.

Goodwill and other intangible assets: Goodwill and other indefinite-lived intangible assets are not amortized but are tested for impairment annually during the fourth quarter or more frequently if events or changes in circumstances indicate that an impairment may exist. Impairment losses, if any, are included in income from operations. The goodwill impairment test is applied to each of the Company's reporting units. For purposes of this assessment, a reporting unit is an operating segment, or a business one level below an operating segment (also known as a component) if discrete financial information is prepared for that business and regularly reviewed by segment management. However, separate components are aggregated as a single reporting unit if they have similar economic characteristics.

In applying the goodwill impairment test, the Company may assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. Qualitative factors may include, but are not limited to, macroeconomic conditions, industry conditions, the competitive environment, changes in the market for the Company's products and services, regulatory and political developments, and entity specific factors

such as strategies and financial performance. If, after completing the qualitative assessment, the Company determines it is more likely than not that the fair value of a reporting unit is less than its carrying value, the Company proceeds to a two-step quantitative impairment test, described below. Alternatively, the Company may elect to bypass the qualitative assessment and perform the two-step quantitative impairment test. The first step of the two-step impairment test is to compare the fair value of a reporting unit to its carrying value. If the reporting unit fair value exceeds the carrying value, there is no impairment. If the reporting unit carrying value exceeds the fair value, the Company would perform the second step of the goodwill impairment test, in which the Company would measure the amount of an impairment loss, if any, based on the amount by which the carrying value of goodwill exceeds its implied fair value. The implied fair value of goodwill is determined by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole, as if that reporting unit had just been acquired and the fair value of the individual assets acquired and liabilities assumed were being determined initially. The Company did not record a goodwill impairment charge for the year ended December 31, 2018.

The Company's intangible assets consist of customer relationships, intellectual property, distribution rights, in-process research and development ("IPR&D"), trade names and non-competition agreements. The Company defines IPR&D as the value of technology acquired for which the related projects have substance and are incomplete. IPR&D acquired in a business acquisition is recognized at fair value and is required be capitalized as an indefinite-lived intangible asset until completion of the IPR&D project or upon abandonment. Upon completion of the development project (generally when regulatory approval to market the product that utilizes the technology is obtained), an impairment assessment is performed prior to amortizing the asset over its estimated useful life. If the IPR&D projects are abandoned, the related IPR&D assets would be written off.

The Company tests its indefinite-lived intangible assets for impairment annually, and more frequently if events or changes in circumstances indicate that an impairment may have occurred. Similar to the goodwill impairment test process, the Company may elect to perform a qualitative assessment. If, after completing the qualitative assessment, the Company determines it is more likely than not that the fair value of the indefinite-lived intangible asset is greater than its carrying amount, the asset is not impaired. If the Company concludes it is more likely than not that the fair value of the indefinite-lived intangible asset is less than the carrying value, the Company then proceeds to a quantitative impairment test, which consists of a comparison of the fair value of the intangible asset to its carrying amount.

For the year ended December 31, 2018, the Company recognized a $16.9 million pre-tax ($8.6 million after tax) impairment charge related to the abandonment of certain intellectual property intangible assets. See Note 8 for further information.

Intangible assets that do not have indefinite lives, consisting of intellectual property, customer relationships, distribution rights, certain trade names and non-competition agreements, are amortized over their estimated useful lives, which are as follows: intellectual property, 5 to 20 years; customer relationships, 8 to 27 years; distribution rights, 10 to 17 years; trade names, 5 to 30 years; non-competition agreements, 1 to 6 years . The weighted average remaining amortization period with respect to the Company's intangible assets is approximately 16 years. The Company periodically evaluates the reasonableness of the useful lives of these assets.

Long-lived assets: The Company assesses the remaining useful life and recoverability of long-lived assets whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. The assessment is based on various analyses, including undiscounted cash flow and profitability projections that incorporate, as applicable, the impact of the asset on the existing business. Therefore, the evaluation involves significant management judgment. Any impairment loss, if indicated, is measured as the amount by which the carrying amount of the asset exceeds the estimated fair value of the asset.

Foreign currency translation: Assets and liabilities of subsidiaries with non-United States dollar denominated functional currencies are translated into United States dollars at the rates of exchange at the balance sheet date; income and expenses are translated at the average rates of exchange prevailing during the year. The translation adjustments are reported as a component of accumulated other comprehensive loss.

Derivative financial instruments: The Company uses derivative financial instruments primarily for purposes of hedging exposures to fluctuations in foreign currency exchange rates. All instruments are entered into for other than trading purposes. All derivatives are recognized on the balance sheet at fair value. Changes in the fair value of derivatives are recorded in the consolidated statement of comprehensive income as other comprehensive income (loss), if the instrument is designated as part of a hedge transaction. Gains or losses on derivative instruments reported in other comprehensive income (loss) are reclassified to the consolidated statement of income in the period in which

earnings are affected by the underlying hedged item. Gains or losses on derivative instruments representing hedge ineffectiveness or hedge components excluded from the assessment of effectiveness, if any, are recognized in the consolidated statement of income for the period in which such gains and losses occur. If the hedging relationship ceases to be highly effective or it becomes probable that an expected transaction will no longer occur, gains or losses on the derivative instrument are recorded in the consolidated statement of income for the period in which either such event occurs. For non-designated derivatives, gains and losses are reported as selling, general and administrative expenses in the consolidated statement of income. Cash flows from derivatives are recognized in the consolidated statements of cash flows in a manner consistent with recognition of the underlying transactions.

Share-based compensation: The Company estimates the fair value of share-based awards on the date of grant using an option pricing model. The value of the portion of the award that is ultimately expected to vest, which is derived, in part, following consideration of estimated forfeitures, is recognized as expense over the requisite service periods. Share-based compensation expense related to stock options is measured using a Black-Scholes option pricing model that takes into account subjective and complex assumptions with respect to the expected life of the options, volatility, risk-free interest rate and expected dividend yield. The expected life of options granted is derived from the vesting period of the award, as well as historical exercise behavior, and represents the period of time that options granted are expected to be outstanding. Expected volatility is based on a blend of historical volatility and implied volatility derived from publicly traded options to purchase the Company's common stock, which the Company believes is more reflective of market conditions and a better indicator of expected volatility than would be the case if the Company only used historical volatility. The risk-free interest rate is the implied yield currently available on United States (or "U.S.") Treasury zero-coupon issues with a remaining term equal to the expected life of the option. Forfeitures are estimated at the time of grant based on management's expectations regarding the extent to which awards ultimately will vest and are adjusted for actual forfeitures when they occur.

Income taxes: The provision for income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred tax assets and liabilities are recognized to reflect the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their tax bases, and to reflect operating loss and tax credit carryforwards. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Provision has been made for income taxes on unremitted earnings of subsidiaries and affiliates, except to the extent that such earnings are deemed to be permanently reinvested.

Significant judgment is required in determining income tax provisions and in evaluating tax positions. The Company establishes additional provisions for income taxes when, despite the belief that tax positions are supportable, there remain certain positions that do not meet the minimum probability threshold, which is a tax position that is more likely than not to be sustained upon examination by the applicable taxing authority. In the normal course of business, the Company and its subsidiaries are examined by various federal, state and foreign tax authorities. The Company regularly assesses the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of its provision for income taxes. Interest accrued with respect to unrecognized tax benefits and income tax related penalties are both included in taxes on income from continuing operations. The Company periodically assesses the likelihood and amount of potential adjustments and adjusts the income tax provision, the current tax liability and deferred taxes in the period in which the facts that give rise to an adjustment become known.

Pensions and other postretirement benefits: The Company provides a range of benefits to eligible employees and retired employees, including under plans that provide pension and postretirement healthcare benefits. The Company records annual amounts relating to these plans based on calculations which include various actuarial assumptions such as discount rates, expected rates of return on plan assets, compensation increases, turnover rates and healthcare cost trend rates. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when appropriate. The effect of the modifications is generally amortized over future periods.

Restructuring costs: Restructuring costs, which include termination benefits, facility closure costs, contract termination costs and other restructuring costs, are recorded at estimated fair value. Other restructuring costs include facility closure, contract termination, employee relocation, equipment relocation and outplacement costs. Key assumptions used in calculating the restructuring costs include the terms of, and payments under, agreements to terminate certain contractual obligations and the timing of reductions in force.

Contingent consideration related to business acquisitions: In connection with business acquisitions, the Company may be required to pay future consideration that is contingent upon the achievement of specified objectives such as

receipt of regulatory approval, commercialization of a product or achievement of sales targets. As of the acquisition date, the Company records a contingent liability representing the estimated fair value of the contingent consideration that it expects to pay. The Company remeasures the fair value of its contingent consideration arrangements each reporting period and, based on new developments, records changes in fair value until either the contingent consideration obligation is satisfied through payment upon the achievement of, or the obligation no longer exists due to the failure to achieve, the specified objectives. The change in the fair value is recorded in selling, general and administrative expenses in the consolidated statement of income. A contingent consideration payment is classified as a financing activity in the consolidated statement of cash flows to the extent it was recorded as a liability as of the acquisition date. Any additional amount paid in excess of the amount initially accrued is classified as an operating activity in the consolidated statement of cash flows.

Revenue recognition: The Company primarily generates revenue from the sale of medical devices including single use disposable devices and, to a lesser extent, reusable devices, instruments and capital equipment. Revenue is recognized when obligations under the terms of a contract with the Company's customer are satisfied; this occurs upon the transfer of control of the products. Generally, transfer of control to the customer occurs at the point in time when the Company's products are shipped from the manufacturing or distribution facility. For the Company's OEM segment, most revenue is recognized over time because the OEM segment generates revenue from the sale of custom products that have no alternative use and the Company has an enforceable right to payment to the extent that performance has been completed. The Company markets and sells products through its direct sales force and distributors to customers within the following end markets: (1) hospitals and healthcare providers; (2) other medical device manufacturers; and (3) home care providers such as pharmacies, which comprised 87%, 9% and 4% of consolidated net revenues, respectively, for the twelve months ended December 31, 2018. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods. With respect to the custom products sold in the OEM segment, revenue is measured using the units produced output method. Payment is generally due 30 days from the date of invoice.

The Company has made the following accounting policy elections and elected to use certain practical expedients, as permitted by the FASB, in applying ASC 606, Revenue from Contracts with Customers: (1) the Company accounts for amounts collected from customers for sales and other taxes, net of related amounts remitted to tax authorities; (2) the Company does not adjust the promised amount of consideration for the effects of a significant financing component because, at contract inception, the Company expects the period between the time when the Company transfers a promised good or service to the customer and the time when the customer pays for that good or service will be one year or less; (3) the Company expenses costs to obtain a contract as they are incurred if the expected period of benefit, and therefore the amortization period, is one year or less; (4) the Company accounts for shipping and handling activities that occur after control transfers to the customer as a fulfillment cost rather than an additional promised service; (5) the Company classifies shipping and handling costs within cost of goods sold; and (6) with respect to the OEM segment, the Company has applied the practical expedient to exclude disclosure of remaining performance obligations as the contracts typically have a term of one year or less.

The amount of consideration the Company receives and revenue the Company recognizes varies as a result of changes in customer sales incentives, including discounts and rebates, and returns offered to customers. The estimate of revenue is adjusted upon the earlier of the following events: (i) the most likely amount of consideration expected to be received changes or (ii) the consideration becomes fixed. The Company's policy is to accept returns only in cases in which the product is defective and covered under the Company's standard warranty provisions. When the Company gives customers the right to return products, the Company estimates the expected returns based on an analysis of historical experience. The reserve for returns and allowances was $4.2 million as of December 31, 2018 and 2017. In estimating customer rebates, the Company considers the lag time between the point of sale and the payment of the customer's rebate claim, customer-specific trend analyses, contractual commitments, including stated rebate rates, historical experience with respect to specific customers (as the Company has a history of providing similar rebates on similar products to similar customers) and other relevant information. The reserve for customer incentive programs, including customer rebates, was $18.1 million and $12.2 million at December 31, 2018 and 2017, respectively. The Company expects the amounts subject to the reserve as of December 31, 2018 to be paid within 90 days subsequent to period-end.

Note 2 — Recently issued accounting standards

In May 2014, the Financial Accounting Standards Board ("FASB"), in a joint effort with the International Accounting Standards Board ("IASB"), issued new accounting guidance to clarify the principles for recognizing revenue. This new guidance, as amended by additional guidance issued in 2015 and 2016, is encompassed in FASB Accounting Standards

Codification Topic 606, Revenue from Contracts with Customers ("ASC 606") and is designed to enhance the comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets, and affects any entity that enters into contracts with customers or enters into contracts for the transfer of nonfinancial assets, unless those contracts are within the scope of other standards. The new guidance establishes principles for reporting information to users of financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The core principle of the new guidance is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods and services. The Company adopted the new standard on January 1, 2018, applying the modified retrospective method to all of its contracts; as a result, the Company recognized the cumulative effect of adopting the guidance as a $1.2 million increase to the Company's opening balance of retained earnings on the adoption date. In addition, in connection with its adoption of the new guidance, the Company reclassified the reserve for product returns from a reduction of receivables to a liability. The reserve for returns and allowances was $4.2 million at December 31, 2018. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations, cash flows and financial position. Additional information and disclosures required by this new standard are contained in Note 3.

In February 2016, the FASB issued guidance that will change the requirements for accounting for leases. Under the new guidance, lessees (including lessees under both leases classified as finance leases, which are to be classified based on criteria similar to that applicable to capital leases under previous guidance, and leases classified as operating leases) will recognize a right-to-use asset and a lease liability on the balance sheet, initially measured as the present value of lease payments under the lease. Under previous guidance, operating leases are not recognized on the balance sheet. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The new guidance must be adopted using a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, subject to certain practical expedients that an entity may elect to apply to the transition.

The Company will adopt the new guidance on January 1, 2019 and will recognize the cumulative effect of initially applying the standard, if any, as an adjustment to the Company's opening balance of retained earnings rather than at the earliest comparative period presented in the financial statements.

As permitted under the new guidance, the Company has made an accounting policy election not to apply the recognition provisions of the new guidance to short term leases (leases with a lease term of 12 months or less that do not include an option to purchase the underlying asset that the lessee is reasonably certain to exercise); instead, the Company will recognize the lease payments for short term leases on a straight-line basis over the lease term.

In addition, the Company has elected to apply certain practical expedients available under the new guidance. As a result, and in connection with the transition to the new guidance, the Company will not reassess (i) whether any expired or existing contracts are or contain leases, (ii) the classification of any expired or existing leases, or (iii) initial direct costs for any existing leases. The Company will apply the practical expedients described above to its entire lease portfolio at the January 1, 2019 adoption date. Furthermore, as permitted under the new guidance, the Company has made, as a practical expedient, an accounting policy election to not separate lease and non-lease components and instead will account for each separate lease component and the non-lease components associated with that lease component as a single lease component.

While the Company continues to assess the effect that the new standard will have on its financial position and results of operations, the Company expects to recognize additional assets and corresponding liabilities on the consolidated balance sheets because it maintains an operating lease portfolio at January 1, 2019, the date of adoption of the new standard. The Company has made substantial progress in implementing a new lease accounting system and updating its controls and procedures to enable the Company to aggregate lease data and improve lease accounting processes in a manner that facilitates financial reporting in accordance with the new guidance. The Company estimates that it will recognize a right-to-use asset and corresponding lease liability of approximately $90 to $110 million upon adoption of the new guidance.

In October 2016, the FASB issued new guidance requiring companies to recognize the income tax effects of intra-entity sales and transfers of assets, other than inventory, in the income statement as income tax expense (or benefit) in the period in which the transfer occurs. Previously, recognition was prohibited until the assets were sold to an outside party or otherwise utilized. The Company adopted the new standard on January 1, 2018, using the modified retrospective method of adoption; as a result, the Company recognized the cumulative effect of adopting the guidance as a $1.8 million increase to the Company's opening balance of retained earnings on the adoption date. The adoption of this

guidance did not have a material impact on the Company's consolidated results of operations, cash flows and financial position.

In January 2017, the FASB issued guidance to simplify the quantitative test for goodwill impairment. Under current guidance, if a reporting unit's carrying value exceeds its fair value, the entity must determine the implied value of goodwill. This determination is made by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole as if the reporting unit had just been acquired. Under the new guidance, a determination of the implied value of goodwill will no longer be required; a goodwill impairment will be equal to the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The revised guidance is effective for fiscal years, and any interim goodwill impairment tests within those fiscal years, beginning after December 15, 2019. Early adoption is permitted for any impairment tests performed after January 1, 2017. The Company is evaluating the impact of the adoption of this guidance, but currently does not anticipate the guidance will have a material impact on its consolidated financial position or results of operations.

In March 2017, the FASB issued guidance for employers that sponsor defined benefit pension or other postretirement benefit plans. The guidance requires that these employers disaggregate specified components of net periodic pension cost and net periodic postretirement benefit cost (collectively, "net benefit cost"). Specifically, the guidance generally requires employers to present in the income statement the service cost component of net benefit cost in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. The Company adopted this guidance on January 1, 2018. The adoption of the guidance did not have a material impact on the consolidated financial statements.

In August 2017, the FASB issued guidance with the objective of improving the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. The new guidance provides for changes to previous designation and measurement guidance for qualifying hedging relationships and to the method of presenting hedge results. In addition, the new guidance includes certain targeted improvements to ease the application of previous guidance related to the assessment of hedge effectiveness. The new guidance is effective for reporting periods beginning after December 15, 2018, but the guidance permits early adoption, and the Company adopted the guidance effective October 1, 2018; the adoption did not result in any cumulative-effect adjustments to retained earnings.

In February 2018, the FASB issued new guidance to address a narrow-scope financial reporting issue that arose as a consequence of United States tax legislation adopted in December 2017 and commonly referred to as the Tax Cuts and Jobs Act ("the TCJA"). Existing guidance requires that deferred tax liabilities and assets be adjusted for a change in tax laws or rates with the effect included in income from continuing operations in the reporting period that includes the enactment date. The guidance is applicable even in situations in which the related income tax effects of items in accumulated other comprehensive income were originally recognized in other comprehensive income (rather than in net income), such as amounts related to benefit plans and hedging activity. As a result, the tax effects of items within accumulated other comprehensive income (referred to as stranded tax effects) do not reflect the appropriate tax rate. The new guidance permits a reclassification of these amounts from accumulated other comprehensive income to retained earnings, thereby eliminating the stranded tax effects. The new guidance also requires certain disclosures about the stranded tax effects. The guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. The new guidance can be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate under the TCJA is recognized. The Company is currently evaluating the impact this guidance will have on its consolidated financial statements.

From time to time, new accounting guidance issued by the FASB or other standard setting bodies is adopted by the Company as of the specified effective date or, when permitted by the guidance and as determined by the Company, as of an earlier date. The Company has assessed recently issued guidance that is not yet effective, except as noted above, and believes the new guidance that it has assessed will not have a material impact on the Company's results of operations, cash flows or financial position.

Note 3 - Net revenues

The following table disaggregates revenue by global product category for the year ended December 31, 2018 and 2017.

	Year Ended December 31	
	2018	2017
	(Dollars in thousands)	
Vascular access	575,327	540,234
Anesthesia	349,370	344,599
Interventional	395,423	324,681
Surgical	358,707	356,156
Interventional urology	196,735	38,957
OEM	205,976	182,967
Other (1)	366,845	358,709
Net revenues (2)(3)	$ 2,448,383	$ 2,146,303

(1) Other revenues in the table above include revenues generated from sales of the Company's respiratory and urology products. For the years ended December 31, 2018 and 2017, the Company reclassified its cardiac products from "Other," as it had been classified in prior interim periods, to the Interventional product category.

(2) The product categories listed above are presented on a global basis; in contrast, the Company's North American reportable segments generally are defined based on the particular products sold by the segments, and its non-North American reportable segments are defined exclusively based on the geographic location of segment operations (with the exception of the Original Equipment and Development Services ("OEM") reportable segment, which operates globally). The Company's EMEA and Asia reportable segments, as well as its Latin America operating segment, include net revenues from each of the product categories listed above.

(3) The methodology used to determine the product revenues included within certain of the product categories listed in the table above differs from the methodology used to classify revenues in our reportable segments, including the similarly named North American reportable segments. The differences are due to the fact that segment classification generally is determined based on the call point within the customer's organization from which the purchase order resulting in the sale originated, while the classification of products within the product categories listed in the table above includes all sales of products within the listed product category, regardless of the call point within the customer's organization from which the sale originated.

Note 4 — Acquisitions

The Company's 2018 acquisitions are described below. With the exception of the distributor to direct sales conversions, the transactions were accounted for as business combinations. The Company accounts for business combinations under the acquisition method of accounting. This method requires the recording of acquired assets, including separately identifiable intangible assets, and assumed liabilities at their respective acquisition date estimated fair values. The results of operations of the acquired businesses and assets are included in the consolidated statements of income from their respective acquisition dates.

On December 20, 2018, the Company acquired certain assets of Specialty Surgical Instrumentation, Inc., which complement the Company's surgical product portfolio. The aggregate consideration transferred for the assets, which principally consisted of customer relationships of $20.0 million, intellectual property of $3.0 million and $10.0 million of goodwill, was $37.0 million. The finite lived intangible assets are being amortized over a useful life of 15 years.

On October 4, 2018, the Company acquired Essential Medical, Inc., a medical device company that developed the MANTA Vascular Closure Device, which is designed for closure of large bore arteriotomies and complements the Company's interventional product portfolio. The fair value of the consideration transferred was $114.7 million, which included an initial payment of $60.4 million and $54.3 million in estimated fair value of contingent consideration. The contingent consideration liability represents the estimated fair value of the Company's obligations, under the acquisition agreement, to make additional payments of up to $100 million if certain sales and regulatory goals are met. Based on the preliminary purchase price allocation, the assets acquired principally consist of $103.2 million of intellectual property, $2.0 million of customer relationship assets and $30.1 million of goodwill. The intangible assets are being amortized over a useful life of 20 years. The fair value of the contingent consideration was estimated using the Monte Carlo valuation approach. See Note 11 for additional information related to the fair value measurement of the contingent consideration. Goodwill arising from the acquisition represents revenue growth attributable to anticipated increased market penetration from acquired products and future customers and is not tax deductible.

On June 21, 2018, the Company acquired certain assets of QT Vascular LTD, a medical device company that developed and marketed coronary balloon catheters, which complement the Company's interventional product portfolio.

The aggregate consideration transferred for the assets, which primarily consisted of intellectual property, was $20.6 million.

During the year ended December 31, 2018, the Company completed several distributor to direct sales conversions. The aggregate consideration transferred by the Company in connection with these transactions was $4.9 million.

Pro forma information for 2018 acquisitions is not presented as the operations of the acquired businesses are not material to the overall operations of the Company.

2017 acquisitions

NeoTract

On October 2, 2017, the Company acquired NeoTract, Inc. ("NeoTract"), a medical device company that developed and commercialized the UroLift System, a minimally invasive medical device for treating lower urinary tract symptoms due to benign prostatic hyperplasia, or BPH. The Company made initial payments of $725.6 million in cash less a favorable working capital adjustment of $1.4 million. Additionally, the estimated fair value of contingent consideration related to NeoTract sales-based milestones as of December 31, 2018 was $234.4 million. The contingent consideration liability represents the estimated fair value of the Company's obligations, under the acquisition agreement, to make additional payments of up to $300 million in the aggregate if specified sales goals through the end of 2020 are achieved. The Company made a payment of $75.0 million during 2018 as a result of the achievement of a sales goal for the period from January 1, 2018 to April 30, 2018. NeoTract financial information is primarily presented within the Interventional Urology North America operating segment, which is included in the "all other" category in the Company's presentation of segment information.

Vascular Solutions, Inc.

On February 17, 2017, the Company acquired Vascular Solutions, a medical device company that developed and marketed products for use in minimally invasive coronary and peripheral vascular procedures. The aggregate consideration paid by the Company in connection with the acquisition was $975.5 million.

Other acquisitions

During the year ended December 31, 2017, we also completed acquisitions related to our anesthesia and respiratory product portfolios and distributor to direct sales conversions. The total fair value of the consideration related to these acquisitions was $80.1 million.

Pro forma combined financial information

The following unaudited pro forma combined financial information for the years ended December 31, 2017 and 2016, respectively, gives effect to the Vascular Solutions and NeoTract acquisitions as if they were completed at the beginning of the earliest period presented. The pro forma information is presented for informational purposes only and is not necessarily indicative of the results of operations that actually would have occurred under the ownership and management of the Company.

	2017	2016
	(unaudited)	
Net revenue	$ 2,255,696	$ 2,084,439
Net income	$ 119,934	$ 106,512
Basic earnings per common share:		
Net income	$ 2.66	$ 2.46
Diluted earnings per common share:		
Net income	$ 2.57	$ 2.24
Weighted average common shares outstanding:		
Basic	45,004	43,325
Diluted	46,664	47,646

The unaudited pro forma combined financial information presented above includes the accounting effects of the Vascular Solutions and NeoTract acquisitions, including, to the extent applicable, amortization charges from acquired intangible assets; adjustments for depreciation of property, plant and equipment; interest expense; and the related tax effects.

Note 5 — Restructuring and impairment charges

The restructuring and impairment charges recognized for the years ended December 31, 2018, 2017, and 2016 consisted of the following:

	2018		
	Termination benefits	Other Costs	Total
	(Dollars in thousands)		
2018 Footprint realignment plan	$ 53,992	$ 1,001	$ 54,993
2016 Footprint realignment plan	2,318	543	2,861
Other restructuring programs (1)	1,502	764	2,266
Total restructuring charges	$ 57,812	$ 2,308	$ 60,120
Asset impairment charges	—	19,110	19,110
Total restructuring and impairment charges	$ 57,812	$ 21,418	$ 79,230

(1) Includes activity related to the 2014 Footprint realignment plan, the 2017 Vascular Solutions integration program, the 2017 EMEA restructuring program and the other 2016 restructuring programs.

	2017		
	Termination benefits	Other Costs	Total
	(Dollars in thousands)		
2017 Vascular Solutions integration program	$ 5,377	$ 118	$ 5,495
2017 EMEA restructuring program	4,921	280	5,201
2016 Footprint realignment plan	1,314	783	2,097
Other restructuring programs (1)	1,704	293	1,997
Total restructuring charges	$ 13,316	$ 1,474	$ 14,790

(1) Includes activity primarily related to the other 2016 restructuring programs, the 2014 Footprint realignment plan and the 2017 Pyng integration program. The Company committed to the 2017 Pyng Integration program, which relates to the integration of Pyng Medical Corp. ("Pyng") into the Company, during the second quarter 2017, following the Company's acquisition of Pyng in April 2017.

	2016		
	Termination benefits	Other Costs	Total
	(Dollars in thousands)		
Other 2016 restructuring programs	$ 2,531	$ 683	$ 3,214
2016 Footprint realignment plan	11,176	1,334	12,510
Other restructuring programs (1)	(477)	624	147
Total restructuring charges	$ 13,230	$ 2,641	$ 15,871
Asset impairment charges	—	43,356	43,356
Total restructuring and impairment charges	$ 13,230	$ 45,997	$ 59,227

(1) Includes activity primarily related to the 2014 Footprint realignment plan and the programs initiated in 2015 that were associated with the reorganization of certain businesses and shared service center functions as well as the consolidation of certain facilities in North America. The 2015 programs have been completed.

2018 Footprint realignment plan

On May 1, 2018, the Company initiated a restructuring plan involving the relocation of certain European manufacturing operations to existing lower-cost locations, the outsourcing of certain of the Company's European distribution operations and related workforce reductions (the "2018 Footprint realignment plan"). These actions are expected to be substantially completed by the end of 2024. The following table provides a summary of the Company's cost estimates by major type of expense associated with the 2018 Footprint realignment plan:

Type of expense	Total estimated amount expected to be incurred
Termination benefits	$60 million to $70 million
Other costs	$2 million to $4 million
Restructuring charges	$62 million to $74 million
Restructuring related charges (1)	$40 million to $59 million
Total restructuring and restructuring related charges	**$102 million to $133 million**

(1) Consists of pre-tax charges related to accelerated depreciation and other costs directly related to the plan, primarily project management costs and costs to transfer manufacturing operations to the new locations, as well as a charge associated with the Company's exit from the facilities that is expected to be imposed by the taxing authority in the affected jurisdiction. Excluding this tax charge, substantially all of the charges are expected to be recognized within costs of goods sold.

The following table summarizes the activity related to the 2018 Footprint realignment plan restructuring reserve:

	Termination benefits	Other Costs	Total
		(Dollars in thousands)	
Balance at December 31, 2017	$ —	$ —	$ —
Subsequent accruals	53,992	1,001	54,993
Cash payments	(3,503)	(1,000)	(4,503)
Foreign currency translation	(2,015)	(1)	(2,016)
Balance at December 31, 2018	$ 48,474	$ —	$ 48,474

The Company recorded restructuring related charges with respect to the 2018 Footprint realignment plan of $4.1 million for the year ended December 31, 2018, within cost of goods sold.

2017 Vascular Solutions integration program

During 2017, the Company committed to a restructuring program related to the integration of Vascular Solutions into Teleflex. As of December 31, 2018 the Company incurred net aggregate restructuring charges under the plan of $6.1 million. The program is substantially complete and as a result, the Company expects future restructuring expenses associated with the program, if any, to be nominal. As of December 31, 2018, the Company has a restructuring reserve of $0.3 million related to this program.

2017 EMEA restructuring program

During 2017, the Company committed to a restructuring program to centralize certain administrative functions in Europe. As of December 31, 2018 the Company incurred net aggregate restructuring charges under the plan of $5.9 million. The program is substantially complete and as a result, the Company expects future restructuring expenses associated with the program, if any, to be nominal. As of December 31, 2018, the Company has a restructuring reserve of $0.8 million related to this program.

2016 Footprint realignment plan

In 2016, the Company initiated a restructuring plan involving the relocation of certain manufacturing operations, the relocation and outsourcing of certain distribution operations and a related workforce reduction at certain of the Company's facilities (the "2016 Footprint realignment plan"). The program is substantially complete and as a result, the Company expects future restructuring expenses associated with the program, if any, to be immaterial.

The following table summarizes the activity related to the 2016 Footprint realignment plan restructuring reserve:

	Termination benefits	Other Costs	Total
		(Dollars in thousands)	
Balance at December 31, 2016	$ 8,135	$ 760	$ 8,895
Subsequent accruals	1,314	783	2,097
Cash payments	(2,096)	(1,218)	(3,314)
Foreign currency translation	(57)	44	(13)
Balance at December 31, 2017	7,296	369	7,665
Subsequent accruals	2,318	543	2,861
Cash payments	(3,954)	(912)	(4,866)
Foreign currency translation	(244)	—	(244)
Balance at December 31, 2018	$ 5,416	$ —	$ 5,416

For the years ended December 31, 2018, 2017, and 2016, the Company also incurred restructuring related costs of $7.1 million, $8.3 million, and $6.4 million, respectively, with respect to the 2016 Footprint realignment plan, the majority of which constituted accelerated depreciation and other costs, which primarily were recognized within cost of goods sold.

As of December 31, 2018, the Company has incurred net aggregate restructuring expenses related to the 2016 Footprint realignment plan of $17.5 million. Additionally, as of December 31, 2018, the Company has incurred net aggregate restructuring related charges in connection with the plan of $21.8 million, which were primarily included in cost of goods sold.

2014 Footprint realignment plan

In April 2014, the Company initiated a restructuring plan (the "2014 Footprint realignment plan") involving the consolidation of operations and a related reduction in workforce at certain facilities, and the relocation of manufacturing operations from certain higher-cost locations to existing lower-cost locations.

During the fourth quarter 2017, the Company entered into an agreement with an alternate provider for the development and supply of a component to be included in certain kits primarily sold by the Company's Vascular North America and Anesthesia North America operating segments. The agreement will result in increased development costs, but is expected to reduce the cost of the component supply, once the supply becomes commercially available, as compared to costs incurred with respect to current suppliers. The Company estimates that it will incur aggregate pre-tax charges in connection with the 2014 Footprint realignment plan of $47 million to $52 million of which an estimated $38 million to $43 million are expected to result in future cash outlays. Additionally, the Company expects that it will incur $24 million to $30 million in aggregate capital expenditures under the plan. The Company expects the program to be substantially complete by the end of 2021.

The following table provides a summary of the Company's cost estimates by major type of expense associated with the 2014 Footprint realignment plan:

Type of expense	Total estimated amount expected to be incurred
Termination benefits	$12 million to $13 million
Other costs	$1 million to $2 million
Restructuring charges	$13 million to $15 million
Restructuring related charges (1)	$34 million to $37 million
	$47 million to $52 million

(1) Consists of accelerated depreciation and other costs directly related to the plan, primarily as a result of the transfer of manufacturing operations to new locations.

The following table summarizes the activity related to the 2014 Footprint realignment plan restructuring reserve:

	Termination benefits	Other Costs	Total
		(Dollars in thousands)	
Balance at December 31, 2016	$ 5,370	$ —	$ 5,370
Subsequent accruals	687	68	755
Cash payments	(2,131)	(68)	(2,199)
Balance at December 31, 2017	3,926	—	3,926
Subsequent accruals	744	86	830
Cash payments	(734)	(86)	(820)
Balance at December 31, 2018	$ 3,936	$ —	$ 3,936

For the years ended December 31, 2018, 2017 and 2016, the Company reported restructuring related costs of $2.2 million, $4.0 million and $8.5 million, respectively, related to this plan within cost of goods sold. These costs related to accelerated depreciation and certain other costs, primarily for the transfer of manufacturing operations from the existing locations to the new locations in connection with the plan.

As of December 31, 2018, the Company has incurred net aggregate restructuring expenses related to the plan of $12.6 million. Additionally, as of December 31, 2018, the Company has incurred net aggregate restructuring related charges in connection with the plan of $29.1 million, which were included in cost of goods sold.

2016 Other restructuring programs

During 2016, the Company commenced restructuring programs involving the consolidation of certain global administrative functions and manufacturing operations. As of December 31, 2018 the Company incurred net aggregate restructuring charges under the programs of $4.2 million. These programs are substantially complete and as a result, the Company expects future restructuring expenses associated with the programs, if any, to be nominal.

As each of the ongoing plans and programs described above progress, management will reevaluate the estimated expenses set forth above, and may revise its estimates, as appropriate, consistent with GAAP.

2019 Footprint realignment plan

In February 2019, the Company initiated a restructuring plan primarily involving the relocation of certain manufacturing operations to existing lower-cost locations and related workforce reductions (the “2019 Footprint realignment plan"). See Note 20 for additional information.

Restructuring Charges by Segment

Restructuring charges by reportable operating segment for the years ended December 31, 2018, 2017, and 2016 are set forth in the following table:

	2018	2017	2016
		(Dollars in thousands)	
Vascular North America	$ 556	$ 2,595	$ 5,843
Interventional North America	900	4,908	459
Anesthesia North America	371	1,262	1,839
Surgical North America	—	—	151
EMEA	55,608	5,722	4,423
OEM	—	—	795
All other	2,685	303	2,361
Total restructuring charges	$ 60,120	$ 14,790	$ 15,871

Impairment Charges

For the year ended December 31, 2018, the Company recorded impairment charges of $19.1 million primarily as a result of its decision to abandon certain intellectual property associated with products that were eliminated from the Company's interventional product portfolio. There were no impairment charges recorded for the year ended December 31, 2017. For the year ended December 31, 2016, the Company recorded $43.4 million of impairment charges, including $41.0 million related to a discontinued IPR&D project and $2.4 million related to two properties that were sold during the first quarter of 2017.

Note 6 — Inventories

Inventories, net at December 31, 2018 and 2017 consist of the following:

	2018	2017
	(Dollars in thousands)	
Raw materials	$ 111,105	$ 98,451
Work-in-process	62,334	62,381
Finished goods	254,339	234,912
Inventories, net	427,778	395,744

Note 7 — Property, plant and equipment

The major classes of property, plant and equipment, at cost, at December 31, 2018 and 2017 are as follows:

	2018	2017
	(Dollars in thousands)	
Land, buildings and leasehold improvements	$ 224,605	$ 207,927
Machinery and equipment	421,873	384,710
Computer equipment and software	137,899	122,890
Construction in progress	105,319	73,920
	889,696	789,447
Less: Accumulated depreciation	(456,930)	(406,448)
Property, plant and equipment, net	$ 432,766	$ 382,999

Note 8 — Goodwill and other intangible assets

Changes in the carrying amount of goodwill, by reportable operating segment, for the years ended December 31, 2018 and 2017 are as follows:

	Vascular North America	Interventional North America	Anesthesia North America	Surgical North America	EMEA	Asia	OEM	All other	Total
	(Dollars in thousands)								
Balance as of December 31, 2016									
Goodwill	$ 485,986	$ 84,615	$ 225,784	$ 250,912	$290,041	$ 138,185	$ 4,883	$ 128,442	$ 1,608,848
Accumulated impairment losses	(219,527)	(5,528)	(84,531)	—	—	—	—	(22,542)	(332,128)
	266,459	79,087	141,253	250,912	290,041	138,185	4,883	105,900	1,276,720
Goodwill related to acquisitions	—	342,901	15,599	—	161,543	59,954	—	313,714	893,711
Translation and other adjustments	(1,590)	11,061	437	—	42,964	11,061	—	1,228	65,161
Balance as of December 31, 2017	$ 264,869	$ 433,049	$ 157,289	$ 250,912	$494,548	$ 209,200	$ 4,883	$ 420,842	$ 2,235,592
Goodwill related to acquisitions	—	27,355	—	2,403	4,730	6,590	—	(413)	40,665
Translation and other adjustments	—	(4,815)	(950)	—	(18,663)	(4,243)	—	(1,007)	(29,678)
Balance as of December 31, 2018	$ 264,869	$ 455,589	$ 156,339	$ 253,315	$480,615	$ 211,547	$ 4,883	$ 419,422	$ 2,246,579

Intangible assets at December 31, 2018 and 2017 consisted of the following:

	Gross Carrying Amount		Accumulated Amortization	
	2018	2017	2018	2017
	(Dollars in thousands)			
Customer relationships	$ 1,030,194	$ 1,023,837	$ (322,972)	$ (281,263)
In-process research and development	28,457	34,672	—	—
Intellectual property	1,363,516	1,287,487	(322,539)	(258,580)
Distribution rights	23,465	23,697	(17,860)	(16,996)
Trade names	565,070	571,510	(36,379)	(22,069)
Non-compete agreements	23,004	23,429	(8,904)	(1,976)
	$ 3,033,706	$ 2,964,632	$ (708,654)	$ (580,884)

As of December 31, 2018, trade names having a carrying value of $233.5 million are considered indefinite-lived. Acquired IPR&D is indefinite-lived until the completion of the related development project, at which point amortization of the carrying value of the technology will commence. See Note 4 for additional details regarding intangible assets acquired during 2018.

For the year ended December 31, 2018, the Company recognized a $16.9 million pre-tax ($8.6 million after tax) impairment charge related to the abandonment of certain intellectual property intangible assets. Refer to Note 5 for additional details.

Amortization expense related to intangible assets was $149.5 million, $98.8 million, and $63.5 million for the years ended December 31, 2018, 2017 and 2016, respectively. Estimated annual amortization expense for each of the five succeeding years is as follows:

	(Dollars in thousands)
2019	$ 150,200
2020	149,500
2021	141,900
2022	136,600
2023	135,100

Note 9 — Borrowings

The Company's borrowings at December 31, 2018 and 2017 were as follows:

	2018	2017
	(Dollars in thousands)	
Senior Credit Facility:		
Revolving credit facility, at a rate of 4.27% at December 31, 2018 and 3.44% at December 31, 2017, due 2022	$ 293,000	$ 349,000
Term loan facility, at a rate of 4.27% at December 31, 2018 and 3.57% at December 31 2017, due 2022	683,500	721,000
5.25% Senior Notes due 2024	250,000	250,000
4.875% Senior Notes due 2026	400,000	400,000
4.625% Senior Notes due 2027	500,000	500,000
Securitization program, at a rate of 3.25% at December 31, 2018 and 2.31% at December 31, 2017	50,000	50,000
	2,176,500	2,270,000
Less: Unamortized debt issuance costs	(17,675)	(20,448)
	2,158,825	2,249,552
Current portion of borrowings	(86,625)	(86,625)
Long-term borrowings	$ 2,072,200	$ 2,162,927

Senior credit facility

On January 20, 2017, the Company amended and restated its then existing senior credit agreement by entering into an Amended and Restated Credit Agreement, which provides for a five year revolving credit facility of $1.0 billion and a term loan facility of $750.0 million (the "Credit Agreement"). The Company's obligations under the Credit Agreement are guaranteed (subject to certain exceptions and limitations) by substantially all of the material domestic subsidiaries of the Company and are secured by a lien on substantially all of the assets owned by the Company and each guarantor. The maturity date of the revolving credit facility under the Credit Agreement is January 20, 2022, and the term loan facility will mature on February 17, 2022.

At the Company's option, loans under the Credit Agreement will bear interest at a rate equal to adjusted LIBOR plus an applicable margin ranging from 1.25% to 2.50% or at an alternate base rate, which generally is defined as the highest of (i) the publicly announced prime rate of JPMorgan Chase Bank, N.A., the administrative agent under the Credit Agreement, (ii) 0.5% above the federal funds rate and (iii) 1% above adjusted LIBOR for a one month interest period, plus an applicable margin ranging from 0.25% to 1.50%, in each case subject to adjustment based on the Company's consolidated total leverage ratio (generally, Consolidated Total Funded Indebtedness, as defined in the Credit Agreement, on the date of determination to Consolidated EBITDA, as defined in the Credit Agreement, for the four most recent fiscal quarters ending on or preceding the date of determination). Overdue loans will bear interest at the rate otherwise applicable to such loans plus 2.00%.

The Credit Agreement contains covenants that, among other things and subject to certain exceptions, place limitations on the Company and its subsidiaries regarding its ability, and the ability of its subsidiaries, to incur additional indebtedness, create additional liens, enter into a merger, consolidation or amalgamation, dispose of certain assets, make certain investments or acquisitions, pay dividends or make other restricted payments, enter into swap agreements or enter into transactions with affiliates. The Company is required to maintain a consolidated total leverage ratio of not more than 4.50 to 1.00 and a consolidated senior secured leverage ratio (generally, Consolidated Senior Secured Funded Indebtedness, as defined in the Credit Agreement, on the date of determination to Consolidated EBITDA for the four most recent quarters ending on or preceding the date of determination) of not more than 3.50 to 1.00. The Company is further required to maintain a consolidated interest coverage ratio (generally, Consolidated EBITDA for the four most recent fiscal quarters ending on or preceding the date of determination to Consolidated Interest Expense, as defined in the Credit Agreement, paid in cash for such period) of not less than 3.50 to 1.00.

As of December 31, 2018 and 2017, the Company had outstanding irrevocable standby letters of credit of approximately $2.1 million and $3.2 million, respectively, with various third parties. The letters of credit reduced the amount of available funds under the revolving credit facility by an equal amount.

5.25% Senior Notes due 2024

On May 21, 2014, the Company issued $250 million of 5.25% Senior Notes due 2024 (which, as originally issued, or in the substantially identical form issued April 2015 in exchange for the originally issued notes (as discussed below), are referred to as the "2024 Notes"). The Company pays interest on the 2024 Notes semi-annually on June 15 and December 15, at a rate of 5.25% per year. The 2024 Notes will mature on June 15, 2024, unless earlier redeemed by the Company at its option, as described below, or purchased by the Company at the holder's option under specified circumstances following a Change of Control or Asset Sale (each as defined in the indenture related to the 2024 Notes).

The Company's obligations under the 2024 Notes are fully and unconditionally guaranteed, jointly and severally, by each of the Company's existing and future 100% owned domestic subsidiaries that is a guarantor or other obligor under the Credit Agreement and by certain of the Company's other 100% owned domestic subsidiaries. The guarantees are subject to certain customary automatic release provisions. See Note 18 for further information regarding the guarantors under the 2024 Notes.

At any time on or after June 15, 2019, the Company may, on one or more occasions, redeem some or all of the 2024 Notes at a redemption price of 102.625% of the principal amount of the 2024 Notes subject to redemption, declining, in annual increments of 0.875%, to 100% of the principal amount on June 15, 2022, plus accrued and unpaid interest. In addition, at any time prior to June 15, 2019, the Company may, on one or more occasions, redeem some or all of the 2024 Notes at a redemption price equal to 100% of the principal amount of the 2024 Notes redeemed, plus a "make-whole" premium and any accrued and unpaid interest. The "make-whole" premium is the greater of (a) 1.0% of the principal amount of the 2024 Notes subject to redemption or (b) the excess, if any, over the principal amount of the 2024 Notes of the present value, on the redemption date, of the sum of (i) the June 15, 2019 optional redemption price plus (ii) all required interest payments on the 2024 Notes through June 15, 2019 (other than accrued and unpaid interest to the redemption date), generally calculated using a discount rate equal to the yield to maturity of U.S. Treasury securities with a constant maturity for the period most nearly equal to the period from the redemption date to June 15, 2019 (unless the period is less than one year, in which case the weekly average yield on traded U.S. Treasury securities adjusted to a constant maturity of one year will be used), plus 50 basis points.

The indenture relating to the 2024 Notes contains covenants that, among other things and subject to certain exceptions, limit or restrict the Company's ability, and the ability of its subsidiaries, to incur additional debt or issue preferred stock or other disqualified stock; create liens; merge, consolidate, or dispose of certain assets; pay dividends make investments or make other restricted payments; or enter into transactions with affiliates.

4.875% Senior Notes due 2026

On May 16, 2016, the Company issued $400.0 million of 4.875% Senior Notes due 2026 (the "2026 Notes"). The Company pays interest on the 2026 Notes semi-annually on June 1 and December 1 at a rate of 4.875% per year. The 2026 Notes mature on June 1, 2026, unless earlier redeemed by the Company at its option, as described below, or purchased by the Company at the holder's option under specified circumstances following a Change of Control or Asset Sale (each as defined in the Indenture related to the 2026 Notes) or upon the Company's election to exercise its optional redemption rights, as described below.

The Company's obligations under the 2026 Notes are fully and unconditionally guaranteed, jointly and severally, by each of the Company's existing and future 100% owned domestic subsidiaries that is a guarantor or other obligor under the Credit Agreement and by certain of the Company's other 100% owned domestic subsidiaries. See Note 18 for further information regarding the guarantors under the 2026 Notes.

At any time on or after June 1, 2021, the Company may, on one or more occasions, redeem some or all of the 2026 Notes at a redemption price of 102.438% of the principal amount of the 2026 Notes subject to redemption, declining, in annual increments of 0.813%, to 100% of the principal amount on June 1, 2024, plus accrued and unpaid interest. In addition, at any time prior to June 1, 2021, the Company may, on one or more occasions, redeem some or all of the 2026 Notes at a redemption price equal to 100% of the principal amount of the 2026 Notes redeemed, plus a "make-whole" premium and any accrued and unpaid interest. The "make-whole" premium is the greater of (a) 1.0% of the principal amount of the 2026 Notes subject to redemption or (b) the excess, if any, over the principal amount of the 2026 Notes of the present value, on the redemption date of the sum of (i) the June 1, 2021 optional redemption price plus (ii) all required interest payments on the 2026 Notes through June 1, 2021 (other than accrued and unpaid interest to the redemption date), generally computed using a discount rate equal to the yield to maturity of U.S. Treasury securities with a constant maturity for the period most nearly equal to the period from the redemption

date to June 1, 2021 (unless the period is less than one year, in which case the weekly average yield on traded U.S. Treasury securities adjusted to a constant maturity of one year will be used), plus 50 basis points.

In addition, at any time prior to June 1, 2019, the Company may, on one or more occasions, redeem up to 40% of the aggregate principal amount of the 2026 Notes, using the proceeds of specified types of Company equity offerings and subject to specified conditions, at a redemption price equal to 104.875% of the principal amount of the Notes redeemed, plus accrued and unpaid interest.

The indenture relating to the 2026 Notes contains covenants that, among other things and subject to certain exceptions, limit or restrict the Company's ability, and the ability of its subsidiaries, to incur additional debt or issue preferred stock or other disqualified stock; create liens; merge, consolidate or dispose of certain assets, make investments or make other restricted payments; or enter into transactions with affiliates.

4.625% Senior Notes due 2027

On November 20, 2017, the Company issued $500.0 million of 4.625% Senior Notes due 2027 (the "2027 Notes"). The Company pays interest on the 2027 Notes semi-annually on May 15 and November 15, commencing on May 15, 2018, at a rate of 4.625% per year. The 2027 Notes mature on November 15, 2027 unless earlier redeemed by the Company at its option, as described below, or purchased by the Company at the holder's option under specified circumstances following a Change of Control or Asset Sale (each as defined in the indenture related to the 2027 Notes), coupled with a downgrade in the ratings of the 2027 Notes, or upon the Company's election to exercise its optional redemption rights, as described below. The Company incurred transaction fees of $7.9 million, including underwriters' discounts and commissions, in connection with the offering of the 2027 Notes, which were recorded on the consolidated balance sheet as a reduction to long-term borrowings and are being amortized over the term of the 2027 Notes. The Company used the net proceeds from the offering to repay borrowings under its revolving credit facility.

The Company's obligations under the 2027 Notes are fully and unconditionally guaranteed, jointly and severally, by each of the Company's existing and future 100% owned domestic subsidiaries that is a guarantor or other obligor under the Credit Agreement and by certain of the Company's other 100% owned domestic subsidiaries. See Note 18 for further information regarding the guarantors under the 2027 Notes.

At any time on or after November 15, 2022, the Company may, on one or more occasions, redeem some or all of the 2027 Notes at a redemption price of 102.313% of the principal amount of the 2027 Notes subject to redemption, declining, in annual increments of 0.771%, to 100% of the principal amount on November 15, 2025, plus accrued and unpaid interest. In addition, at any time prior to November 15, 2022, the Company may, on one or more occasions, redeem some or all of the 2027 Notes at a redemption price equal to 100% of the principal amount of the 2027 Notes redeemed, plus a "make-whole" premium and any accrued and unpaid interest. The "make-whole" premium is the greater of (a) 1.0% of the principal amount of the 2027 Notes subject to redemption or (b) the excess, if any, over the principal amount of the 2027 Notes of the present value, on the redemption date of the sum of (i) the November 15, 2022 optional redemption price plus (ii) all required interest payments on the 2027 Notes through November 15, 2022 (other than accrued and unpaid interest to the redemption date), generally computed using a discount rate equal to the yield to maturity of U.S. Treasury securities with a constant maturity for the period most nearly equal to the period from the redemption date to November 15, 2022 (unless the period is less than one year, in which case the weekly average yield on traded U.S. Treasury securities adjusted to a constant maturity of one year will be used), plus 50 basis points.

In addition, at any time prior to November 15, 2020, the Company may, on one or more occasions, redeem up to 40% of the aggregate principal amount of the 2027 Notes, using the proceeds of specified types of Company equity offerings and subject to specified conditions, at a redemption price equal to 104.625% of the principal amount of the Notes redeemed, plus accrued and unpaid interest.

The indenture relating to the 2027 Notes contains covenants that, among other things and subject to certain exceptions, limit or restrict the Company's ability, and the ability of its subsidiaries, to create liens; merge, consolidate, sell or otherwise dispose of all or substantially all of the Company's assets; or enter into sale leaseback transactions.

Securitization Program

The Company has an accounts receivable securitization facility under which accounts receivable of certain domestic subsidiaries are sold on a non-recourse basis to a special purpose entity ("SPE"), which is a bankruptcy-remote, consolidated subsidiary of Teleflex. Accordingly, the assets of the SPE are not available to satisfy the obligations of Teleflex or any of its subsidiaries. The SPE sells undivided interests in those receivables to an asset backed

commercial paper conduit for consideration of up to $50.0 million. This facility is utilized from time to time to provide increased flexibility in funding short term working capital requirements. The agreement governing the accounts receivable securitization facility contains certain covenants and termination events. An occurrence of an event of default or a termination event under this facility may give rise to the right of its counterparty to terminate this facility. As of December 31, 2018, the Company was in compliance with the covenants, and none of the termination events had occurred. As of December 31, 2018 and 2017, the Company had $50.0 million (the maximum amount available) of outstanding borrowings under its accounts receivable securitization facility.

Fair Value of Long-Term Debt

To determine the fair value of its debt for which quoted prices are not available, the Company uses a discounted cash flow technique that incorporates a market interest yield curve with adjustments for duration, optionality and risk profile. The Company's implied credit rating is a factor in determining the market interest yield curve. The following table provides the fair value of the Company's debt as of December 31, 2018 and 2017, categorized by the level of inputs within the fair value hierarchy used to measure fair value (see Note 11 to the consolidated financial statements for further information):

	Fair value of debt	
	December 31, 2018	December 31, 2017
	(Dollars in thousands)	
Level 2	2,145,473	2,299,942
Total	$ 2,145,473	$ 2,299,942

Debt Maturities

As of December 31, 2018, the aggregate amounts of long-term debt, demand loans and debt under the Company's securitization program that will mature during each of the next four years and thereafter were as follows:

	(Dollars in thousands)
2019	$ 86,625
2020	51,562
2021	70,313
2022	818,000
2023 and thereafter	1,150,000

Note 10 — Financial instruments

Foreign currency forward contracts

The Company uses derivative instruments for risk management purposes. Foreign currency forward contracts designated as cash flows hedges are used to manage foreign currency transaction exposure. Foreign currency forward contracts not designated as hedges for accounting purposes are used to manage exposure related to near term foreign currency denominated monetary assets and liabilities. The Company enters into the non-designated foreign currency forward contracts for periods consistent with its currency translation exposures, which generally approximate one month. For the years ended December 31, 2018 and 2017, the Company recognized losses related to non-designated foreign currency forward contracts of $1.9 million and $2.6 million, respectively.

The total notional amount for all open foreign currency forward contracts designated as cash flow hedges as of December 31, 2018 and 2017 was $115.3 million and $88.5 million, respectively. The total notional amount for all open non-designated foreign currency forward contracts as of December 31, 2018 and 2017 was $125.9 million and $110.6 million, respectively. All open foreign currency forward contracts as of December 31, 2018 have durations of twelve months or less.

Cross-currency interest rate swaps

On October 4, 2018, the Company entered into cross-currency swap agreements with six different financial institution counterparties to hedge against the effect of variability in the U.S. dollar to euro exchange rate. Under the terms of the cross-currency swap agreements, the Company has notionally exchanged $500 million at an annual interest rate of 4.625% for €433.9 million at an annual interest rate of 1.942%. The swap agreements are designated as net investment hedges and expire on October 4, 2023. The cross-currency swaps are marked to market at each

reporting date and any changes in fair value are recognized as a component of Accumulated other comprehensive income (loss) ("AOCI"). For the year ended December 31, 2018, the Company recognized foreign exchange gain of $4.0 million in foreign currency translation adjustments within AOCI related to the cross-currency swaps.

Balance sheet presentation

The following table presents the locations in the consolidated balance sheets and fair value of derivative instruments as of December 31, 2018 and 2017:

	December 31, 2018	December 31, 2017
	Fair Value (Dollars in thousands)	
Asset derivatives:		
Designated foreign currency forward contracts	$ 1,216	$ 914
Non-designated foreign currency forward contracts	106	307
Cross-currency interest rate swap	14,728	—
Prepaid expenses and other current assets	16,050	1,221
Total asset derivatives	16,050	1,221
Liability derivatives:		
Designated foreign currency forward contracts	524	1,373
Non-designated foreign currency forward contracts	264	53
Other current liabilities	788	1,426
Cross-currency interest rate swap	7,793	—
Other liabilities	7,793	—
Total liability derivatives	$ 8,581	$ 1,426

See Note 12 for information on the location and amount of gains and losses attributable to derivatives that were reclassified from AOCI to expense (income), net of tax.

For the years ended December 31, 2018, 2017 and 2016, there was no ineffectiveness related to the Company's hedging derivatives.

Concentration of Credit Risk

Concentrations of credit risk with respect to trade accounts receivable are generally limited due to the Company's large number of customers located in many geographic areas. However, a portion of the Company's trade accounts receivable outside the United States include sales to government-owned or supported healthcare systems in several countries which are subject to payment delays. Payment is dependent upon the creditworthiness of the healthcare systems in those countries and the financial stability of the countries' economies.

Certain of the Company's customers, particularly in Greece, Italy, Portugal and Spain, have extended or delayed payments for products and services already provided, raising collectability concerns regarding the Company's accounts receivable from these customers. As a result, the Company continues to closely monitor the allowance for doubtful accounts with respect to these customers. The following table provides information regarding the Company's allowance for doubtful accounts, the aggregate net current and long-term trade accounts receivable related to customers in Greece, Italy, Spain and Portugal and the percentage of the Company's total net current and long-term trade accounts receivable represented by these customers' trade accounts receivable at December 31, 2018 and 2017:

	December 31, 2018	December 31, 2017
	(Dollars in thousands)	
Allowance for doubtful accounts (1)	$ 9,348	$ 10,255
Current and long-term trade accounts receivable in Greece, Italy, Spain and Portugal (2)	$ 39,026	$ 49,054
Percentage of total net current and long-term trade accounts receivables	11.0%	14.6%

(1) The current portion of the allowance for doubtful accounts was $4.4 million and $3.5 million as of December 31, 2018 and 2017, respectively, and was recognized in accounts receivable, net.

(2) The long-term portion of trade accounts receivable, net from customers in Greece, Italy, Spain and Portugal at December 31, 2018 and 2017 was $2.7 million and $3.3 million, respectively. In December 2018, the Company sold $12.7 million of receivables outstanding with publicly funded hospitals in Italy and Portugal for $12.6 million.

For the years ended December 31, 2018, 2017 and 2016, net revenues from customers in Greece, Italy, Spain and Portugal were $142.7 million, $129.4 million and $125.3 million, respectively.

Note 11 — Fair value measurement

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability, using assumptions that market participants would use in pricing an asset or liability. Under GAAP, there is a three-level hierarchy of the inputs (i.e., assumptions that market participants would use in pricing an asset or liability) used to measure fair value. The categorization within the valuation hierarchy is based on the lowest level of input that is significant to the entire fair value measurement.

The levels of inputs within the hierarchy used to measure fair value are as follows:

Level 1 — inputs to the fair value measurement that are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 — inputs to the fair value measurement 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; inputs other than quoted prices that are observable for the asset or liability; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 — inputs to the fair value measurement that are unobservable inputs for the asset or liability.

The following tables provide information regarding the Company's financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2018 and 2017:

		Basis of fair value measurement		
	December 31, 2018	(Level 1)	(Level 2)	(Level 3)
		(Dollars in thousands)		
Investments in marketable securities	$ 8,671	$ 8,671	$ —	$ —
Derivative assets	16,050	—	16,050	—
Derivative liabilities	8,581	—	8,581	—
Contingent consideration liabilities	304,248	—	—	304,248

		Basis of fair value measurement		
	December 31, 2017	(Level 1)	(Level 2)	(Level 3)
		(Dollars in thousands)		
Investments in marketable securities	$ 9,045	$ 9,045	$ —	$ —
Derivative assets	1,221	—	1,221	—
Derivative liabilities	1,426	—	1,426	—
Contingent consideration liabilities	272,136	—	—	272,136

There were no transfers of financial assets or liabilities among Level 1, Level 2 or Level 3 within the fair value hierarchy during the years ended December 31, 2018 or 2017.

Valuation Techniques

The Company’s financial assets valued based upon Level 1 inputs are comprised of investments in marketable securities held in trust, which are available to satisfy benefit obligations under Company benefit plans and other arrangements. The investment assets of the trust are valued using quoted market prices.

The Company’s financial assets and liabilities valued based upon Level 2 inputs are comprised of foreign currency forward contracts and cross-currency interest rate swap agreements. The Company uses foreign currency forward contracts and cross-currency interest rate swap agreements to manage foreign currency transaction exposure as well

as exposure to foreign currency denominated monetary assets and liabilities. The Company measures the fair value of the foreign currency forward and cross-currency swap agreements by calculating the amount required to enter into offsetting contracts with similar remaining maturities, based on quoted market prices, and taking into account the creditworthiness of the counterparties.

The Company's financial liabilities valued based upon Level 3 inputs are comprised of contingent consideration arrangements pertaining to the Company's acquisitions. See Note 9 for a discussion of the fair value of the Company's borrowings.

Contingent consideration

Contingent consideration liabilities, which primarily consist of revenue-based goals, are remeasured to fair value each reporting period using assumptions including estimated revenues (based on internal operational budgets and long-range strategic plans), discount rates, probability of payment and projected payment dates.

The contingent consideration fair value measurement is based on significant inputs not observable in the market and therefore constitute Level 3 inputs within the fair value hierarchy. The Company determines the fair value of the contingent consideration liabilities using a Monte Carlo simulation (which involves a simulation of future revenues during the earn out-period using management's best estimates) or a probability-weighted discounted cash flow analysis. Increases in projected revenues, estimated cash flows and probabilities of payment may result in significantly higher fair value measurements; decreases in these items may have the opposite effect. Increases in the discount rates in periods prior to payment may result in significantly lower fair value measurements and decreases in the discount rates may have the opposite effect.

The table below provides additional information regarding the valuation technique and inputs used in determining the fair value of contingent consideration.

Contingent Consideration Liability	Valuation Technique	Unobservable Input	Range
Milestone-based payment			
	Discounted cash flow	Discount rate	4.3% - 6.2%
		Projected year of payment	2019 - 2023
Revenue-based			
	Monte Carlo simulation	Revenue volatility	16.1% - 25.0%
		Risk free rate	Cost of debt structure
		Projected year of payment	2019 - 2022
	Discounted cash flow	Discount rate	10.0% - 10.5%
		Projected year of payment	2019 - 2029

The following table provides information regarding changes in the Company's contingent consideration liabilities for the years ended December 31, 2018 and 2017:

	Contingent consideration	
	2018	2017
	(Dollars in thousands)	
Beginning balance – January 1	$ 272,136	$ 7,102
Initial estimate upon acquisition	54,696	261,733
Payments	(75,335)	(335)
Revaluations	52,977	3,575
Translation adjustment	(226)	61
Ending balance – December 31	$ 304,248	$ 272,136

Note 12 — Shareholders' equity

The authorized capital of the Company is comprised of 200 million common shares, $1 par value, and 500,000 preference shares. No preference shares have been outstanding during the last three years.

Basic earnings per share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted earnings per share is computed in the same manner except that the weighted average number of shares is increased to include dilutive securities. The following table provides a reconciliation of basic to diluted weighted average shares outstanding:

	2018	2017	2016
	(Shares in thousands)		
Basic	45,689	45,004	43,325
Dilutive effect of share based awards	970	923	570
Dilutive effect of convertible notes and warrants	142	737	3,751
Diluted	46,801	46,664	47,646

Weighted average shares that were antidilutive and therefore excluded from the calculation of diluted earnings per share were approximately 0.6 million, 0.6 million and 3.4 million for the years ended December 31, 2018, 2017 and 2016, respectively.

In connection with the issuance by the Company in 2010 of $400 million principal amount of convertible notes that matured in August 2017, and as a component of hedging arrangements between the Company and two institutional counterparties, the Company issued warrants to the counterparties, entitling them to purchase Company common stock. At December 31, 2018, all of the warrants either (a) were canceled as a result of warrant unwind agreements between the Company and the counterparties or (b) were exercised by the counterparties.

The following tables provides information relating to the changes in accumulated other comprehensive income (loss), net of tax, for the years ended December 31, 2018 and 2017:

	Cash Flow Hedges	Pension and Other Postretirement Benefit Plans	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
	(Dollars in thousands)			
Balance at December 31, 2016	$ (2,424)	$ (136,596)	$ (299,697)	$ (438,717)
Other comprehensive income (loss) before reclassifications	2,775	(6,725)	173,074	169,124
Amounts reclassified from accumulated other comprehensive income (loss)	(11)	4,513	—	4,502
Net current-year other comprehensive income (loss)	2,764	(2,212)	173,074	173,626
Balance at December 31, 2017	340	(138,808)	(126,623)	(265,091)
Other comprehensive income (loss) before reclassifications	2,574	1,605	(83,889)	(79,710)
Amounts reclassified from accumulated other comprehensive income	(2,107)	5,823	—	3,716
Net current-year other comprehensive (loss) income	467	7,428	(83,889)	(75,994)
Balance at December 31, 2018	$ 807	$ (131,380)	$ (210,512)	$ (341,085)

The following table provides information relating to the losses (gains) recognized in the statements of income including the reclassifications of losses (gains) in accumulated other comprehensive (loss) income into expense/ (income), net of tax, for the years ended December 31, 2018, 2017 and 2016:

	December 31, 2018	December 31, 2017	December 31, 2016
	(Dollars in thousands)		
Losses (gains) on designated foreign exchange forward contracts:			
Cost of goods sold	$ (2,270)	$ (95)	$ 4,511
Total before tax	(2,270)	(95)	4,511
Taxes expense (benefit)	163	84	(1,010)
Net of tax	$ (2,107)	$ (11)	$ 3,501
Losses (gains) on cross-currency swaps (net investment hedge):			
Interest expense	$ (3,277)	$ —	$ —
Total before tax	(3,277)	—	—
Tax expense	754	—	—
Net of tax	$ (2,523)	$ —	$ —
Amortization of pension and other postretirement benefits items:			
Actuarial losses (1)	$ 7,305	$ 6,904	$ 6,965
Prior-service credits (1)	251	105	56
Total before tax	7,556	7,009	7,021
Tax benefit	(1,733)	(2,496)	(2,509)
Net of tax	$ 5,823	$ 4,513	$ 4,512
Impact on income from continuing operations, net of tax	$ 1,193	$ 4,502	$ 8,013

(1) These accumulated other comprehensive (loss) income components are included in the computation of net benefit cost of pension and other postretirement benefit plans (see Note 15 for additional information).

Note 13 — Stock compensation plans

In May of 2014, the stockholders of the Company approved the Teleflex Incorporated 2014 Stock Incentive Plan (the "2014 Plan") which replaced the Company's 2008 Stock Incentive Plan and 2000 Stock Compensation Plan (the "Prior Plans"), under which stock options and restricted stock awards previously were granted. The 2014 Plan provides for several different kinds of awards, including stock options, stock appreciation rights, stock awards and other stock-based awards to directors, officers and key employees. Under the 2014 Plan, the Company is authorized to issue up to 5.3 million shares of common stock, subject to adjustment in accordance with special share counting rules in the 2014 Plan that, among other things, (i) count shares underlying a stock option or stock appreciation right (each, an "option award") as one share and each share underlying any other type of award (a "stock award") as 1.8 shares, (ii) increases the shares the Company is authorized to issue by one or 1.8 shares for each share underlying an option award or stock award, respectively, under the Prior Plans that have been canceled, expired, settled in cash or forfeited after December 31, 2013 and (iii) decrease the number of shares the Company is authorized to issue by one share and 1.8 shares for each share underlying an option award or stock award, respectively, granted under the Prior Plans between January 1, 2014 and the May 2, 2014 adoption of the 2014 Plan by the Company's stockholders. Options granted under the 2014 Plan have an exercise price equal to the closing price of the Company's common stock on the date of the grant. In 2018, the Company granted, under the 2014 Plan, non-qualified options to purchase 155,498 shares of common stock and granted restricted stock units relating to 62,221 shares of common stock under the 2014 Plan. The Company also granted performance share units (“PSUs”), as described in the following paragraph.

On June 22, 2018, the Company granted PSUs to specified senior managers. The PSUs are designed to provide further incentive to the Company’s senior management with respect to achievement of the Company’s long term financial objectives. The PSU component of the equity incentive program is designed to provide shares of Teleflex common stock to the holder based upon the Company’s achievement of certain financial performance criteria during the designated performance period (2018-2020 with respect to the PSUs granted in 2018). The number of shares to be awarded under the PSUs granted in 2018 will be subject to modification based upon the Company’s total stockholder return relative to a designated group of public companies. Assuming target performance is achieved, a total of 8,915

shares of common stock would be issuable in respect of the PSUs granted in 2018, and a maximum of 22,290 shares would be issuable in respect of such PSUs upon achievement of maximum performance levels.

The unrecognized compensation expense for awards granted in 2018 as of the grant date was $27.2 million, which will be recognized over the vesting period of the awards. As of December 31, 2018, 3,578,241 shares were available for future grants under the 2014 Plan.

Share-based compensation expense for 2018, 2017 and 2016 was $22.4 million, $19.4 million and $16.9 million, respectively, and is included in cost of goods sold or selling, general and administrative expenses based on the employees' functional classification. The total income tax benefit recognized for share-based compensation arrangements for 2018, 2017 and 2016 was $20.7 million (inclusive of a $15.9 million net excess tax benefit), $12.8 million (inclusive of a $6.6 million net excess tax benefit) and $5.5 million, respectively.

Option Awards

The fair value of options granted in 2018, 2017 and 2016 was estimated at the date of grant using a Black-Scholes option pricing model. The following weighted-average assumptions were used:

	2018	2017	2016
Risk-free interest rate	2.67%	1.88%	1.30%
Expected life of option	4.98 years	4.94 years	4.91 years
Expected dividend yield	0.54%	0.71%	0.94%
Expected volatility	22.65%	21.74%	21.64%

The following table summarizes the option activity during 2018:

	Shares Subject to Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life In Years	Aggregate Intrinsic Value
				(Dollars in thousands)
Outstanding, beginning of the year	1,708,928	$ 113.49	—	—
Granted	155,498	254.60	—	—
Exercised	(383,198)	80.51	—	—
Forfeited or expired	(9,779)	170.78	—	—
Outstanding, end of the year	1,471,449	136.62	5.7	179,396
Exercisable, end of the year	1,073,198	$ 112.13	5.0	157,070

The weighted average grant date fair value for options granted during 2018, 2017 and 2016 was $58.16, $39.70 and $27.42, respectively. The total intrinsic value of options exercised during 2018, 2017 and 2016 was $69.4 million, $15.7 million and $11.3 million, respectively.

The Company recorded $9.1 million of expense related to options during 2018, which is included in cost of goods sold or selling, general and administrative expenses. As of December 31, 2018, the unamortized share-based compensation cost related to non-vested stock options, net of expected forfeitures, was $9.1 million, which is expected to be recognized over a weighted-average period of 1.7 years. Authorized but unissued shares of the Company's common stock are issued upon exercises of options.

Stock Awards

The fair value of PSUs granted in 2018 was determined using a Monte Carlo simulation valuation model. The grant date fair value for these awards was $284.33.

The fair value for restricted stock units granted in 2018, 2017 and 2016 was estimated at the date of grant based on the market price for the underlying stock on the grant date discounted for the risk free interest rate and the present value of expected dividends over the vesting period. The following weighted-average assumptions were used:

	2018	2017	2016
Risk-free interest rate	2.41%	1.47%	0.94%
Expected dividend yield	0.53%	0.71%	0.93%

The following table summarizes the non-vested restricted stock unit activity during 2018:

	Number of Non-Vested Shares	Weighted Average Grant-Date Fair Value	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
			(In years)	(Dollars in thousands)
Outstanding, beginning of the year	233,742	$ 148.79		
Granted	62,221	250.66		
Vested	(83,396)	125.70		
Forfeited	(10,755)	179.08		
Outstanding, end of the year	201,812	188.10	1.1	$ 52,164

The Company issued 62,221, 82,865 and 93,367 of non-vested restricted stock units in 2018, 2017 and 2016, respectively, the majority of which provide for vesting as to all underlying shares on the third anniversary of the grant date. The weighted average grant-date fair value for non-vested restricted stock units granted during 2018, 2017 and 2016 was $250.66, $187.85 and $142.71, respectively.

The Company recorded $13.3 million of expense related to stock awards during 2018, which is included in cost of goods sold or selling, general and administrative expenses. The unamortized share-based compensation cost related to stock awards granted in 2018, net of estimated forfeitures, was $16.5 million, which is expected to be recognized over a weighted-average period of 1.8 years. The Company uses treasury stock to provide shares of common stock in connection with vesting of the stock awards.

Note 14 — Income taxes

The following table summarizes the components of the provision for income taxes from continuing operations:

	2018	2017	2016
	(Dollars in thousands)		
Current:			
Federal	$ (1,525)	$ 133,621	$ 2,344
State	1,432	5,213	5,230
Foreign	29,353	35,444	28,842
Deferred:			
Federal	(5,124)	(258,247)	(25,141)
State	(5,114)	1,459	(1,837)
Foreign	4,174	212,158	(1,364)
	$ 23,196	$ 129,648	$ 8,074

U.S. tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “TCJA”) was enacted on December 22, 2017. The legislation significantly changed U.S. tax law by, among other things, permanently reducing corporate income tax rates from a maximum of 35% to 21%, effective January 1, 2018; implementing a territorial tax system, by generally providing for, among other things, a dividends received deduction on the foreign source portion of dividends received from a foreign corporation if specified conditions are met; and imposing a one-time repatriation tax on undistributed post-1986 foreign subsidiary earnings and profits, which are deemed repatriated for purposes of the tax.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of U.S. GAAP in situations where a company does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the TCJA. SAB 118 states that in these circumstances, if the company can determine a reasonable estimate for the income tax effects, the SEC staff would not object if the company includes in its financial statements the reasonable estimate it has determined (and the SEC staff also expressed its belief that it would not be appropriate for a company to exclude a reasonable estimate from its financial statements to the extent a reasonable estimate has been determined).

As a result of the TCJA, the Company reassessed and revalued its ending net deferred tax liabilities at December 31, 2017 and recognized a $46.1 million provisional tax benefit in the Company's consolidated statement of income for the year ended December 31, 2017. The Company also recognized a $154.0 million provisional tax expense in the Company's consolidated statement of income for the year ended December 31, 2017, related to the deemed repatriated earnings. The Company expects to pay this tax over an eight-year period.

In accordance with SAB118, during the year ended December 31, 2018, the Company adjusted the provisional amounts for taxes on deemed repatriated earnings and the revaluation of deferred tax assets and liabilities as a result of additional analysis, changes in interpretations and in the Company's assumptions, and the issuance of additional regulatory guidance. As prescribed under SAB 118, these adjustments were identified and recorded as discrete adjustments in the period in which such changes were made. During 2018, the Company recognized a net $2.3 million discrete tax benefit for adjustments to the provisional tax impacts of the TCJA included in the consolidated financial statements for the year ended December 31, 2017. These adjustments included a $0.2 million reduction in the provisional tax on deemed repatriated earnings and a $2.1 million tax benefit from changes in the revaluation of deferred tax assets and liabilities. The Company completed the accounting for these impacts in the fourth quarter 2018.

While the TCJA provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, the global intangible low-taxed income ("GILTI") provisions and the base-erosion and anti-abuse tax ("BEAT") provisions.

The GILTI provisions require the Company to include in its U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary's tangible assets. The Company was subject to incremental U.S. tax of $10.7 million on GILTI income beginning in 2018. The Company elected to account for the GILTI tax in the period in which it is incurred.

The BEAT provisions in the TCJA eliminate the deduction of certain base-erosion payments made to related foreign corporations and impose a minimum tax if greater than regular tax. For the year ended December 31, 2018, the Company was not impacted by the BEAT provisions. The Company may be subject to the BEAT tax in future years.

At December 31, 2018, the cumulative unremitted earnings of subsidiaries outside the United States that are considered non-permanently reinvested and for which taxes have been provided approximated $2.1 billion. At December 31, 2018, the cumulative unremitted earnings of subsidiaries outside the United States that are considered permanently reinvested approximated $0.2 billion. Earnings considered permanently reinvested are expected to be reinvested indefinitely and, as a result, no additional deferred tax liability has been recognized with regard to these earnings. It is not practical to determine the deferred income tax liability on these earnings if, in the future, they are remitted to the United States because the income tax liability to be incurred, if any, is dependent on circumstances existing when remittance occurs.

The following table summarizes the United States and non-United States components of income from continuing operations before taxes:

	2018	2017	2016
	(Dollars in thousands)		
United States	$ 37,201	$ 37,528	$ (29,988)
Other	182,427	247,383	275,713
	$ 219,628	$ 284,911	$ 245,725

Reconciliations between the statutory federal income tax rate and the effective income tax rate are as follows:

	2018	2017	2016
Federal statutory rate	21.0%	35.0%	35.0%
Tax effect of international items	(3.3)	(25.7)	(27.5)
Impacts of the TCJA	(1.0)	37.9	—
Excess tax benefits related to share-based compensation	(7.2)	(2.3)	—
State taxes, net of federal benefit	(0.1)	0.1	0.9
Uncertain tax contingencies	(0.4)	(1.8)	(3.6)
Contingent consideration	5.3	0.4	(1.2)
Intellectual property impairment charge	(2.0)	—	—
Research and development tax credit	(1.6)	(0.8)	(0.6)
Other, net	(0.1)	2.7	0.3
	10.6%	45.5%	3.3%

The effective income tax rate for 2018 was 10.6% compared to 45.5% for 2017. The effective income tax rate for 2018 was impacted by the reduction of the United States corporate income tax rate from a maximum of 35% to 21% as a result of the TCJA. Additionally, the effective tax rate for 2018 was affected by a net excess tax benefit related to share-based compensation and a tax cost associated with a non-deductible contingent consideration expense recognized in connection with an increase in the fair value of the NeoTract contingent consideration liability.

The effective income tax rate for 2017 reflects a net tax expense of $107.9 million resulting from the enactment of the TCJA. The $107.9 million net tax expense reflects a tax expense of $154.0 million for the deemed repatriation of undistributed foreign earnings partially offset by a $46.1 million tax benefit resulting from the reassessment and revaluation of the net deferred tax liabilities. Additionally, the effective tax rate for 2017 was affected by a net excess tax benefit related to share-based compensation and a benefit resulting from the expiration of various statutes of limitation.

The Company and its subsidiaries are routinely subject to examinations by various taxing authorities. In conjunction with these examinations and as a regular practice, the Company establishes and adjusts reserves with respect to its uncertain tax positions to address developments related to those positions. The Company realized a net benefit of approximately $0.8 million and $5.2 million in 2018 and 2017, respectively, as a result of reducing its reserves with respect to uncertain tax positions, principally due to the expiration of a number of applicable statutes of limitations. The Company realized a net benefit of approximately $8.8 million in 2016, as a result of reducing its reserves with respect to uncertain tax positions, principally due to the conclusion of a tax audit in Germany and the expiration of various statutes of limitations.

The following table summarizes significant components of the Company's deferred tax assets and liabilities at December 31, 2018 and 2017:

	2018	2017
	(Dollars in thousands)	
Deferred tax assets:		
Tax loss and credit carryforwards	$ 234,940	$ 210,055
Pension	19,972	28,147
Reserves and accruals	68,767	62,378
Other	3,267	3,619
Less: valuation allowances	(143,971)	(104,799)
Total deferred tax assets	182,975	199,400
Deferred tax liabilities:		
Property, plant and equipment	24,315	22,299
Intangibles — stock acquisitions	541,445	553,245
Unremitted foreign earnings	218,769	223,494
Other	4,221	228
Total deferred tax liabilities	788,750	799,266
Net deferred tax liability	$ (605,775)	$ (599,866)

As a result of enactment of the TCJA, the Company reassessed and revalued its deferred tax positions, resulting in a $46.1 million decrease in the net deferred tax liability at December 31, 2017. Subsequently, in accordance with SAB 118, adjustments were made to the provisional amounts for the revaluation of deferred tax assets and liabilities due to additional analysis. During 2018, the Company recognized a net $2.1 million tax benefit as a result of changes in its revaluation of deferred tax assets and liabilities related to the TCJA. The accounting for these changes was completed in the fourth quarter of 2018.

Under the tax laws of various jurisdictions in which the Company operates, deductions or credits that cannot be fully utilized for tax purposes during the current year may be carried forward, subject to statutory limitations, to reduce taxable income or taxes payable in a future tax year. At December 31, 2018, the tax effect of such carryforwards approximated $234.9 million. Of this amount, $11.0 million has no expiration date, $3.7 million expires after 2018 but before the end of 2023 and $220.2 million expires after 2023. A portion of these carryforwards consists of tax losses and credits obtained by the Company as a result of acquisitions; the utilization of these carryforwards are subject to an annual limitation imposed by Section 382 of the Internal Revenue Code, which limits a company's ability to deduct prior net operating losses following a more than 50 percent change in ownership. It is not expected that the Section 382 limitation will prevent the Company ultimately from utilizing the applicable loss carryforwards. The determination of state net operating loss carryforwards is dependent upon the United States subsidiaries' taxable income or loss, the state's proportion of each subsidiary's taxable net income and the application of state laws, which can change from year to year and impact the amount of such carryforward.

The valuation allowance for deferred tax assets of $144.0 million and $104.8 million at December 31, 2018 and 2017, respectively, relates principally to the uncertainty of the Company's ability to utilize certain deferred tax assets, primarily tax loss and credit carryforwards in various jurisdictions. The valuation allowance was calculated in accordance with applicable accounting standards, which require that a valuation allowance be established and maintained when it is "more likely than not" that all or a portion of deferred tax assets will not be realized.

Uncertain Tax Positions: The following table is a reconciliation of the beginning and ending balances for liabilities associated with unrecognized tax benefits for the years ended December 31, 2018, 2017 and 2016:

	2018	2017	2016
	(Dollars in thousands)		
Balance at January 1	$ 9,336	$ 15,054	$ 34,381
Increase in unrecognized tax benefits related to prior years	—	—	—
Decrease in unrecognized tax benefits related to prior years	—	—	(13,083)
Unrecognized tax benefits related to the current year	899	895	705
Reductions in unrecognized tax benefits due to settlements	—	—	(2,121)
Reductions in unrecognized tax benefits due to lapse of applicable statute of limitations	(1,955)	(6,813)	(4,840)
Increase (decrease) in unrecognized tax benefits due to foreign currency translation	(174)	200	12
Balance at December 31	$ 8,106	$ 9,336	$ 15,054

The total liabilities associated with the unrecognized tax benefits that, if recognized, would impact the effective tax rate for continuing operations, were $4.5 million at December 31, 2018.

The Company accrues interest and penalties associated with unrecognized tax benefits in income tax expense in the consolidated statements of income, and the corresponding liability is included in the consolidated balance sheets. The net interest expense (benefit) and penalties reflected in income from continuing operations for the year ended December 31, 2018 was $0.2 million and $(0.3) million, respectively; for the year ended December 31, 2017 was $0.2 million and $(0.2) million, respectively; and for the year ended December 31, 2016 was $0.2 million and $(0.5) million, respectively. The liabilities in the consolidated balance sheets for interest and penalties at December 31, 2018 were $0.6 million and $2.2 million, respectively, and at December 31, 2017 were $0.6 million and $2.6 million, respectively.

The taxable years for which the applicable statute of limitations remains open by major tax jurisdictions are as follows:

	Beginning	Ending
United States	2015	2018
Canada	2014	2018
China	2013	2018
Czech Republic	2015	2018
France	2016	2018
Germany	2011	2018
India	2002	2018
Ireland	2014	2018
Italy	2014	2018
Malaysia	2014	2018
Singapore	2014	2018

The Company and its subsidiaries are routinely subject to income tax examinations by various taxing authorities. As of December 31, 2018, the most significant tax examination in process is in Germany. The date at which this examination may be concluded and the ultimate outcome of the examination are uncertain. As a result of the uncertain outcome of this ongoing examination, future examinations or the expiration of statutes of limitation, it is reasonably possible that the related unrecognized tax benefits for tax positions taken could materially change from those recorded as liabilities at December 31, 2018. Due to the potential for resolution of certain examinations, and the expiration of various statutes of limitation, it is reasonably possible that the Company's unrecognized tax benefits may change within the next year by a range of zero to $1.6 million.

Note 15 — Pension and other postretirement benefits

The Company has a number of defined benefit pension and postretirement plans covering eligible U.S. and non-U.S. employees. The defined benefit pension plans are noncontributory. The benefits under these plans are based primarily on years of service and employees' pay near retirement. The Company's funding policy for U.S. plans is to contribute annually, at a minimum, amounts required by applicable laws and regulations. Obligations under non-U.S. plans are systematically provided for by depositing funds with trustees or by book reserves. As of December 31, 2018, no further benefits are being accrued under the Company's U.S. defined benefit pension plans and the Company's other postretirement benefit plans, other than certain postretirement benefit plans covering employees subject to a collective bargaining agreement.

The Company and certain of its subsidiaries provide medical, dental and life insurance benefits to pensioners or their survivors. The associated plans are unfunded and approved claims are paid from Company funds.

The following table provides information regarding the components of the net benefit expense (income) of the Company's pension and postretirement benefit plans for the years ended December 31, 2018, 2017 and 2016:

	Pension			Other Benefits		
	2018	2017	2016	2018	2017	2016
	(Dollars in thousands)					
Service cost	$ 1,500	$ 2,887	$ 2,615	$ 50	$ 279	$ 355
Interest cost	14,816	15,137	15,711	1,389	1,577	1,595
Expected return on plan assets	(29,666)	(26,809)	(24,786)	—	—	—
Net amortization and deferral	6,777	6,734	6,567	136	275	454
Curtailments	—	—	—	677	—	—
Settlements	486	—	—	—	—	—
Net benefit expense (income)	$ (6,087)	$ (2,051)	$ 107	$ 2,252	$ 2,131	$ 2,404

Net benefit expense (income) is primarily included in selling, general and administrative expenses within the consolidated statements of income.

The following table provides the weighted average assumptions for United States and foreign plans used in determining net benefit cost:

	Pension			Other Benefits		
	2018	2017	2016	2018	2017	2016
Discount rate	3.6%	4.2%	4.5%	3.6%	4.1%	4.3%
Rate of return	7.8%	8.1%	8.1%			
Initial healthcare trend rate				7.8%	7.9%	8.4%
Ultimate healthcare trend rate				5.0%	5.0%	5.0%

The following table provides summarized information with respect to the Company's pension and postretirement benefit plans, measured as of December 31, 2018 and 2017:

	Pension		Other Benefits	
	2018	2017	2018	2017
	Under Funded		Under Funded	
	(Dollars in thousands)			
Benefit obligation, beginning of year	$ 462,158	$ 430,574	$ 48,903	$ 47,487
Service cost	1,500	2,887	50	279
Interest cost	14,816	15,137	1,389	1,577
Actuarial (gain) loss	(38,446)	31,074	(6,058)	2,278
Currency translation	(1,780)	3,916	—	—
Benefits paid	(19,314)	(19,144)	(2,790)	(3,095)
Medicare Part D reimbursement	—	—	101	80
Plan amendments	157	—	—	297
Curtailments	(162)	—	520	—
Settlements	(1,420)	—	—	—
Administrative costs	(1,039)	(2,286)	—	—
Projected benefit obligation, end of year	416,470	462,158	42,115	48,903
Fair value of plan assets, beginning of year	386,307	340,265		
Actual return on plan assets	(13,275)	53,065		
Contributions	12,687	12,670		
Benefits paid	(19,314)	(19,144)		
Settlements	(1,420)	—		
Administrative costs	(1,039)	(2,286)		
Currency translation	(1,139)	1,737		
Fair value of plan assets, end of year	362,807	386,307		
Funded status, end of year	$ (53,663)	$ (75,851)	$ (42,115)	$ (48,903)

The following table sets forth the amounts recognized in the consolidated balance sheet with respect to the Company's pension and postretirement plans:

	Pension		Other Benefits	
	2018	2017	2018	2017
	(Dollars in thousands)			
Other assets	$ 2,837	$ 1,596	$ —	$ —
Payroll and benefit-related liabilities	(1,729)	(1,767)	(3,972)	(3,173)
Pension and postretirement benefit liabilities	(54,771)	(75,680)	(38,143)	(45,730)
Accumulated other comprehensive loss	205,910	209,365	364	6,715
	$ 152,247	$ 133,514	$ (41,751)	$ (42,188)

The following tables set forth the amounts recognized in accumulated other comprehensive loss with respect to the plans:

	Pension			
	Prior Service Cost	Net (Gain) or Loss	Deferred Taxes	Accumulated Other Comprehensive Loss, Net of Tax
	(Dollars in thousands)			
Balance at December 31, 2016	$ 79	$ 209,706	$ (76,140)	$ 133,645
Reclassification adjustments related to components of Net Periodic Benefit Cost recognized during the period:				
Net amortization and deferral	(28)	(6,706)	2,395	(4,339)
Amounts arising during the period:				
Actuarial changes in benefit obligation	—	4,818	(1,119)	3,699
Impact of currency translation	—	1,496	(413)	1,083
Balance at December 31, 2017	51	209,314	(75,277)	134,088
Reclassification adjustments related to components of Net Periodic Benefit Cost recognized during the period:				
Net amortization and deferral	(17)	(6,760)	1,579	(5,198)
Settlements	—	(486)	83	(403)
Amounts arising during the period:				
Actuarial changes in benefit obligation	—	4,495	(1,012)	3,483
Curtailments	—	(162)	42	(120)
Plan amendments	157	—	(27)	130
Impact of currency translation	—	(682)	183	(499)
Balance at December 31, 2018	$ 191	$ 205,719	$ (74,429)	$ 131,481

	Other Benefits			
	Prior Service Cost	Net (Gain) or Loss	Deferred Taxes	Accumulated Other Comprehensive Loss, Net of Tax
	(Dollars in thousands)			
Balance at December 31, 2016	$ 85	$ 4,330	$ (1,464)	$ 2,951
Reclassification adjustments related to components of Net Periodic Benefit Cost recognized during the period:				
Net amortization and deferral	(77)	(198)	101	(174)
Amounts arising during the period:				
Actuarial changes in benefit obligation	—	2,278	(558)	1,720
Plan amendments	297	—	(74)	223
Balance at December 31, 2017	305	6,410	(1,995)	4,720
Reclassification adjustments related to components of Net Periodic Benefit Cost recognized during the period:				
Net amortization and deferral	(77)	(59)	32	(104)
Curtailments	(157)	—	39	(118)
Amounts arising during the period:				
Actuarial changes in benefit obligation	—	(6,058)	1,459	(4,599)
Balance at December 31, 2018	$ 71	$ 293	$ (465)	$ (101)

The following table provides the weighted average assumptions for United States and foreign plans used in determining benefit obligations:

	Pension		Other Benefits	
	2018	2017	2018	2017
Discount rate	4.3%	3.6%	4.2%	3.6%
Rate of compensation increase	2.6%	2.6%		
Initial healthcare trend rate			7.4%	7.8%
Ultimate healthcare trend rate			5.0%	5.0%

The discount rate represents the interest rate used to determine the present value of future cash flows currently expected to be required to settle the Company's pension and other benefit obligations. The weighted average discount rates for United States pension plans and other benefit plans of 4.43% and 4.22%, respectively, were established by comparing the projection of expected benefit payments to the AA Above Median yield curve as of December 31, 2018. The expected benefit payments are discounted by each corresponding discount rate on the yield curve. For payments beyond 30 years, the Company extends the curve assuming that the discount rate derived in year 30 is extended to the end of the plan's payment expectations. Once the present value of the string of benefit payments is established, the Company determines the single rate on the yield curve that, when applied to all obligations of the plan, will exactly match the previously determined present value.

As part of the evaluation of pension and other postretirement assumptions, the Company applied assumptions for mortality and healthcare cost trends that incorporate generational white and blue collar mortality trends. In determining its benefit obligations, the Company used generational tables that take into consideration increases in plan participant longevity.

The Company's assumption for the expected return on plan assets is primarily based on the determination of an expected return for its current portfolio. This determination is made using assumptions for return and volatility of the portfolio. Asset class assumptions are set using a combination of empirical and forward-looking analysis. To the extent historical results have been affected by unsustainable trends or events, the effects of those trends are quantified and removed. The Company applies a variety of models for filtering historical data and isolating the fundamental characteristics of asset classes. These models provide empirical return estimates for each asset class, which are then reviewed and combined with a qualitative assessment of long term relationships between asset classes before a return estimate is finalized. The qualitative analysis is intended to provide an additional means for addressing the effect of unrealistic or unsustainable short-term valuations or trends, resulting in return levels and behavior the Company believes are more likely to prevail over long periods. Effective in 2018, the Company changed the expected return on plan assets of the United States pension plans from 8.25% to 8.0% due to modifications to the investment strategy in order to gradually reduce portfolio risk.

An increase in the assumed healthcare trend rate of 1% would increase the benefit obligation at December 31, 2018 by $2.4 million and would increase the 2018 benefit expense by $0.1 million. Decreasing this assumed rate by 1% would decrease the benefit obligation at December 31, 2018 by $2.2 million and would decrease the 2018 benefit expense by $0.1 million.

The accumulated benefit obligation for all United States and foreign defined benefit pension plans was $415.9 million and $461.6 million for 2018 and 2017, respectively. All of the Company's pension plans had accumulated benefit obligations in excess of their respective plan assets as of December 31, 2018 and 2017, with the exception of one foreign plan that had plan assets of $2.8 million and $1.6 million in excess of the accumulated benefit obligation as of December 31, 2018 and 2017, respectively.

The Company's investment objective is to achieve an enhanced long-term rate of return on plan assets, subject to a prudent level of portfolio risk, for the purpose of enhancing the availability of benefits for participants. These investments are primarily comprised of equity and fixed income mutual funds. The Company's other investments are largely comprised of a hedge fund of funds and a structured credit fund. The equity funds are diversified in terms of domestic and international equity securities, as well as small, middle and large capitalization stocks. The Company's target allocation percentage is as follows: equity securities (40%); fixed-income securities (50%) and other securities (10%). Equity funds are held for their expected return over inflation. Fixed-income funds are held for diversification relative to equities and as a partial hedge of interest rate risk with respect to plan liabilities. The other investments are

held to further diversify assets within the plans and are designed to provide a mix of equity and bond like return with a bond like risk profile. The plans may also hold cash to meet liquidity requirements. Actual performance may not be consistent with the respective investment strategies. Investment risks and returns are measured and monitored on an ongoing basis through annual liability measurements and investment portfolio reviews to determine whether the asset allocation targets continue to represent an appropriate balance of expected risk and reward.

The following table provides the fair values of the Company's pension plan assets at December 31, 2018 by asset category:

		Fair Value Measurements		
Asset Category (a)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(Dollars in thousands)		
Cash	$ 627	$ 627	—	—
Money market funds	7	7	—	—
Equity securities:				
Managed volatility (b)	71,306	71,306	—	—
United States small/mid-cap equity (c)	15,379	15,379	—	—
World Equity (excluding United States) (d)	24,589	24,589	—	—
Common Equity Securities – Teleflex Incorporated	30,216	30,216	—	—
Fixed income securities:				
Intermediate duration fund (e)	26,958	26,958	—	—
Long duration bond fund (f)	90,661	90,661	—	—
Corporate bond fund (g)	12,162	12,162	—	—
Global credit fund (h)	647	647	—	—
Emerging markets debt fund (i)	7,923	7,923	—	—
Corporate, government and foreign bonds	30,418	30,418	—	—
Asset backed – home loans	367	—	$ 367	—
Other types of investments:				
Multi asset funds (j)	6,905	3,676	3,229	—
Contract with insurance company (k)	10,092	—	—	$ 10,092
Other	5	—	—	5
Total investments at fair value	$ 328,262	$ 314,569	$ 3,596	$ 10,097
Investments measured at net asset value (l)	34,545			
Total	$ 362,807			

The following table provides the fair values of the Company's pension plan assets at December 31, 2017 by asset category:

		Fair Value Measurements		
Asset Category (a)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(Dollars in thousands)		
Cash	$ 1,324	$ 1,324	—	—
Money market funds	51	51	—	—
Equity securities:				
Managed volatility (b)	79,964	79,964	—	—
United States small/mid-cap equity (c)	19,239	19,239	—	—
World Equity (excluding United States) (d)	32,294	32,294	—	—
Common Equity Securities – Teleflex Incorporated	29,087	29,087	—	—
Diversified Global	6,353	6,353	—	—
Fixed income securities:				
Intermediate duration fund (e)	23,378	23,378	—	—
Long duration bond fund (f)	94,623	94,623	—	—
Corporate bond fund (g)	12,420	12,420	—	—
Emerging markets debt fund (i)	9,184	9,184	—	—
Corporate, government and foreign bonds	2,024	2,024	—	—
Asset backed – home loans	454	—	$ 454	—
Other types of investments:				
Multi asset funds (j)	11,114	6,187	4,927	
Other	5	—	—	$ 5
Total investments at fair value	$ 321,514	$ 316,128	$ 5,381	$ 5
Investments measured at Net asset value (l)	64,793			
Total	$ 386,307			

(a) Information on asset categories described in notes (b)-(k) is derived from prospectuses and other material provided by the respective funds comprising the respective asset categories.

(b) This category comprises mutual funds that invest in securities of United States and non-United States companies of all capitalization ranges that exhibit relatively low volatility.

(c) This category comprises a mutual fund that invests at least 80% of its net assets in equity securities of small and mid-sized companies. The fund invests in common stocks or exchange traded funds holding common stock of United States companies with market capitalizations in the range of companies in the Russell 2500 Index.

(d) This category comprises a mutual fund that invests at least 80% of its net assets in equity securities of foreign companies. These securities may include common stocks, preferred stocks, warrants, exchange traded funds based on an international equity index, derivative instruments whose value is based on an international equity index and derivative instruments whose value is based on an underlying equity security or a basket of equity securities. The fund invests in securities of foreign issuers located in developed and emerging market countries. However, the fund will not invest more than 35% of its assets in the common stocks or other equity securities of issuers located in emerging market countries.

(e) This category comprises a mutual fund that invests in instruments or derivatives having economic characteristics similar to fixed income securities. The fund invests in investment grade fixed income instruments, including United States and foreign corporate obligations, fixed income securities issued by sovereigns or agencies in both developed and emerging foreign markets, debt obligations issued by governments or other municipalities, and securities issued or guaranteed by the United States Government and its agencies. The fund will seek to maintain an effective average duration between three and ten years, and uses derivative instruments, including interest rate swap agreements and credit default swaps, for the purpose of managing the overall duration and yield curve exposure of the Fund's portfolio of fixed income securities.

(f) This category comprises a mutual fund that invests in instruments or derivatives having economic characteristics similar to fixed income securities. The fund invests in investment grade fixed income instruments, including securities issued or guaranteed by the United States Government and its agencies and instrumentalities, corporate bonds, asset-backed securities, exchange traded funds, mortgage-backed securities and collateralized mortgage-backed securities. The fund invests primarily in long duration government and corporate fixed income securities, and uses derivative instruments, including interest rate swap agreements and Treasury futures contracts, for the purpose of managing the overall duration and yield curve exposure of the Fund's portfolio of fixed income securities.

(g) This category comprises funds that invest primarily in higher-yielding fixed income securities, including corporate bonds and debentures, convertible and preferred securities and zero coupon obligations.

(h) This category comprises a fund that invests primarily in a range of debt securities, including those issued by governments, institutions, or companies from a number of countries.

(i) This category comprises a mutual fund that invests at least 80% of its net assets in fixed income securities of emerging market issuers, primarily in United States dollar-denominated debt of foreign governments, government-related and corporate issuers in emerging market countries and entities organized to restructure the debt of those issuers.

(j) This category comprises funds that may invest in equities, bonds, or derivatives.

(k) This category comprises the asset established out of an agreement to purchase a bulk-annuity policy from an insurer to fully cover the liabilities for members of the pension plan. The asset value is based on the fair value of the contract as determined by the insurance company using inputs that are not observable.

(l) This category comprises pooled institutional investments, primarily collective investment trusts. These funds are not listed on an exchange or traded in an active market and these investments are valued using their net asset value, which is generally based on the underlying asset values of the pooled investments held in the trusts. This category comprises the following funds:

- a fund that invests primarily in collateralized debt obligations and other structured credit vehicles and may include fixed income securities, loan participations, credit-linked notes, medium-term notes, pooled investment vehicles and derivative instruments.
- a hedge fund that invests in various other hedge funds.
- funds that invest in underlying funds that acquire, manage, and dispose of real estate properties, with a focus on properties in the U.S. and the UK markets.

The Company's contributions to United States and foreign pension plans during 2019 are expected to be approximately $12.7 million. Contributions to postretirement healthcare plans during 2019 are expected to be approximately $4.0 million.

The following table provides information about the Company's expected benefit payments under its U.S. and foreign plans for each of the five succeeding years and the aggregate of the five years thereafter, net of the annual average Medicare Part D subsidy of approximately $0.2 million:

	Pension	Other Benefits
	(Dollars in thousands)	
2019	$ 20,852	$ 3,972
2020	21,023	4,024
2021	21,795	3,893
2022	22,658	4,015
2023	23,161	3,795
Years 2024 — 2028	124,927	15,241

The amounts in AOCI expected to be recognized into net periodic benefit cost over the next fiscal year for the Company's pension and postretirement benefit plans are $6.8 million and $0.1 million, respectively.

The Company maintains a number of defined contribution savings plans covering eligible United States and non-United States employees. The Company partially matches employee contributions. Costs related to these plans were $15.6 million, $12.5 million and $12.0 million for 2018, 2017 and 2016, respectively.

Note 16 — Commitments and contingent liabilities

Operating leases: The Company uses various leased facilities and equipment in its operations. The lease terms for these leased assets vary depending on the terms of the applicable lease agreement. At December 31, 2018, the Company had no residual value guarantees related to its operating leases.

Future minimum lease payments as of December 31, 2018 under noncancellable operating leases are as follows:

	Future Lease Payments (Dollars in thousands)
2019	$ 25,294
2020	23,216
2021	21,419
2022	19,460
2023	17,403
2024 and thereafter	41,368

Rental expense under operating leases was $38.1 million, $36.2 million and $34.0 million in 2018, 2017 and 2016, respectively.

Environmental: The Company is subject to contingencies as a result of environmental laws and regulations that in the future may require the Company to take further action to correct the effects on the environment of prior disposal practices or releases of chemical or petroleum substances by the Company or other parties. Much of this liability results from the U.S. Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, the U. S. Resource Conservation and Recovery Act and similar state laws. These laws require the Company to undertake certain investigative and remedial activities at sites where the Company conducts or once conducted operations or at sites where Company-generated waste was disposed.

Remediation activities vary substantially in duration and cost from site to site. The nature of these activities, and their associated costs, depend on the mix of unique site characteristics, evolving remediation technologies, the regulatory agencies involved and their enforcement policies, as well as the presence or absence of other potentially responsible parties. At December 31, 2018 and 2017, the Company has recorded $0.8 million and $1.0 million, respectively, in accrued liabilities and $5.6 million and $5.8 million, respectively in other liabilities relating to these matters. Considerable uncertainty exists with respect to these liabilities, and if adverse changes in circumstances occur, potential liability may exceed the amount accrued as of December 31, 2018. The time frame over which the accrued amounts may be paid out, based on past history, is estimated to be 10-15 years.

Litigation: The Company is a party to various lawsuits and claims arising in the normal course of business. These lawsuits and claims include actions involving product liability, intellectual property, employment, environmental and other matters. As of December 31, 2018 and 2017, the Company has recorded accrued liabilities of $0.6 million and $3.8 million, respectively, in connection with such contingencies, representing its best estimate of the cost within the range of estimated possible losses that will be incurred to resolve these matters.

Based on information currently available, advice of counsel, established reserves and other resources, the Company does not believe that the outcome of any outstanding litigation and claims is likely to be, individually or in the aggregate, material to its business, financial condition, results of operations or liquidity. However, in the event of unexpected further developments, it is possible that the ultimate resolution of these matters, or other similar matters, if unfavorable, may be materially adverse to the Company's business, financial condition, results of operations or liquidity. Legal costs such as outside counsel fees and expenses are charged to selling, general and administrative expenses in the period incurred.

Tax audits and examinations: The Company and its subsidiaries are routinely subject to tax examinations by various tax authorities. As of December 31, 2018, the most significant tax examination in process is in Germany. The Company may establish reserves with respect to uncertain tax positions, after which it adjusts the reserves to address developments with respect to its uncertain tax positions, including developments in this tax examination. Accordingly, developments in tax audits and examinations, including resolution of uncertain tax positions, could result in increases or decreases to the Company's recorded tax liabilities, which could impact the Company's financial results.

Other: The Company has various purchase commitments for materials, supplies and items of permanent investment incident to the ordinary conduct of business. On average, such commitments are not at prices in excess of current market prices.

Note 17 — Business segments and other information

An operating segment is a component of the Company (a) that engages in business activities from which it may earn revenues and incur expenses, (b) whose operating results are regularly reviewed by the Company's chief operating decision maker to make decisions about resources to be allocated to the segment and to assess its performance, and (c) for which discrete financial information is available. The Company does not evaluate its operating segments using discrete asset information.

The Company has seven reportable segments: Vascular North America, Interventional North America, Anesthesia North America, Surgical North America, Europe, Middle East and Africa ("EMEA"), Asia and Original Equipment and Development Services ("OEM"). In connection with the presentation of segment information, the Company presents certain operating segments, including the Interventional Urology North America, Respiratory North America and Latin America operating segments, in the "all other" category because separate information with regard to each of these operating segments is not material.

The Company's reportable segments, other than the OEM segment, design, manufacture and distribute medical devices primarily used in critical care and surgical applications and generally serve two end markets: hospitals and healthcare providers, and home health. The products of these segments are most widely used in the acute care setting for a range of diagnostic and therapeutic procedures and in general and specialty surgical applications. The Company's OEM segment designs, manufactures and supplies devices and instruments for other medical device manufacturers.

The following tables present the Company's segment results for the years ended December 31, 2018, 2017 and 2016:

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Vascular North America	$ 329,473	$ 313,618	$ 295,206
Interventional North America	261,645	220,611	82,431
Anesthesia North America	205,064	197,982	198,772
Surgical North America	166,267	175,216	172,223
EMEA	603,813	552,722	510,934
Asia	286,895	269,208	249,416
OEM	205,976	182,967	160,990
All other	389,250	233,979	198,055
Net revenues	$ 2,448,383	$ 2,146,303	$ 1,868,027

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Vascular North America	$ 98,505	$ 77,036	$ 77,122
Interventional North America	62,242	25,972	13,264
Anesthesia North America	61,159	62,901	55,544
Surgical North America	62,934	63,931	56,608
EMEA	106,090	92,430	84,392
Asia	78,135	75,637	75,770
OEM	50,294	41,578	33,641
All other	(29,042)	11,142	26,486
Total segment operating profit [1]	490,317	450,627	422,827
Unallocated expenses [2]	(168,613)	(78,348)	(103,374)
Income from continuing operations before interest, loss on extinguishment of debt and taxes	$ 321,704	$ 372,279	$ 319,453

(1) Segment operating profit includes segment net revenues from external customers reduced by its standard cost of goods sold, adjusted for fixed manufacturing cost absorption variances, selling, general and administrative expenses, research and development expenses and an allocation of corporate expenses. Corporate expenses are allocated among the segments in proportion to the respective amounts of one of several items (such as sales, numbers of employees, and amount of time spent), depending on the category of expense involved.

(2) Unallocated expenses primarily include manufacturing variances, with the exception of fixed manufacturing cost absorption variances, restructuring and impairment charges and gain on sale of assets.

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Vascular North America	$ 27,535	$ 31,058	$ 35,117
Interventional North America	34,127	29,108	6,993
Anesthesia North America	10,162	8,573	10,932
Surgical North America	8,321	8,694	10,459
EMEA	47,171	34,322	30,505
Asia	12,917	11,868	11,275
OEM	8,610	8,337	8,404
All other	65,871	28,378	14,661
Consolidated depreciation and amortization	$ 214,714	$ 160,338	$ 128,346

During the first quarter 2019, the Company changed its segment presentation as a result of a change in the manner in which the chief operating decision maker (the Chief Executive Officer) reviews financial information for purposes of assessing business performance and allocating resources. The Company now has four segments: Americas, EMEA, Asia and OEM. See Note 20 for additional information.

Geographic data

The following tables provide total net revenues and total net property, plant and equipment by geographic region for the years ended December 31, 2018, 2017 and 2016:

	Year Ended December 31,		
	2018	2017	2016
	(Dollars in thousands)		
Net revenues (based on the Company's selling location):			
United States	$ 1,449,426	$ 1,254,825	$ 1,018,786
Europe	671,264	591,370	567,320
Asia and Asia Pacific	234,090	220,110	208,841
All other	93,603	79,998	73,080
	$ 2,448,383	$ 2,146,303	$ 1,868,027
Net property, plant and equipment:			
United States	$ 258,415	$ 216,568	$ 167,167
Malaysia	51,952	43,730	31,415
Ireland	41,223	43,867	36,569
Czech Republic	34,833	35,715	30,843
All other	46,343	43,119	36,905
	$ 432,766	$ 382,999	$ 302,899

Note 18 — Condensed consolidating guarantor financial information

The 2024 Notes, 2026 Notes and 2027 Notes (collectively, the "Senior Notes") are issued by Teleflex Incorporated (the “Parent Company”), and payment of the Parent Company's obligations under the Senior Notes are guaranteed, jointly and severally, by certain of the Parent Company’s subsidiaries (each, a “Guarantor Subsidiary” and collectively, the “Guarantor Subsidiaries”). The 2024 Notes, 2026 Notes and 2027 Notes are guaranteed by the same Guarantor Subsidiaries. The guarantees are full and unconditional, subject to certain customary release provisions. Each Guarantor Subsidiary is directly or indirectly 100% owned by the Parent Company. The Company’s condensed consolidating statements of income and comprehensive income and condensed consolidating statements of cash flows for the years ended December 31, 2018, 2017 and 2016 and condensed consolidating balance sheets as of December 31, 2018 and 2017 provide consolidated information for:

a. Parent Company, the issuer of the guaranteed obligations;

b. Guarantor Subsidiaries, on a combined basis;

c. Non-Guarantor Subsidiaries (i.e., those subsidiaries of the Parent Company that have not guaranteed payment of the Senior Notes), on a combined basis; and

d. Parent Company and its subsidiaries on a consolidated basis.

The same accounting policies as described in Note 1 are used by the Parent Company and each of its subsidiaries in connection with the condensed consolidating financial information, except for the use of the equity method of accounting to reflect ownership interests in subsidiaries, which are eliminated upon consolidation.

Consolidating entries and eliminations in the following condensed consolidated financial statements represent adjustments to (a) eliminate intercompany transactions between or among the Parent Company, the Guarantor Subsidiaries and the Non-Guarantor Subsidiaries, (b) eliminate the investments in subsidiaries and (c) record consolidating entries.

In 2018, a Guarantor Subsidiary merged with and into Parent; the transaction is reflected as of the beginning of the earliest period presented in the condensed consolidating financial statements.

TELEFLEX INCORPORATED AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

	Year Ended December 31, 2018				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net revenues	$ —	$ 1,584,650	$ 1,287,944	$ (424,211)	$ 2,448,383
Cost of goods sold	—	886,161	596,985	(419,205)	1,063,941
Gross profit	—	698,489	690,959	(5,006)	1,384,442
Selling, general and administrative expenses	50,866	514,598	313,895	(671)	878,688
Research and development expenses	1,482	73,067	31,659	—	106,208
Restructuring and impairment charges	—	20,639	58,591	—	79,230
Gain on sale of assets	—	(1,388)	—	—	(1,388)
(Loss) income from continuing operations before interest and taxes	(52,348)	91,573	286,814	(4,335)	321,704
Interest, net	95,173	4,796	2,107	—	102,076
(Loss) income from continuing operations before taxes	(147,521)	86,777	284,707	(4,335)	219,628
(Benefit) taxes on (loss) income from continuing operations	(53,401)	34,591	42,241	(235)	23,196
Equity in net income of consolidated subsidiaries	291,572	220,718	637	(512,927)	—
Income from continuing operations	197,452	272,904	243,103	(517,027)	196,432
Operating income from discontinued operations	4,363	—	1,280	—	5,643
Tax on income from discontinued operations	1,013	—	260	—	1,273
Income from discontinued operations	3,350	—	1,020	—	4,370
Net income	200,802	272,904	244,123	(517,027)	200,802
Other comprehensive loss	(75,994)	(80,030)	(80,512)	160,542	(75,994)
Comprehensive income	$ 124,808	$ 192,874	$ 163,611	$ (356,485)	$ 124,808

	Year Ended December 31, 2017				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net revenues	$ —	$ 1,368,149	$ 1,177,247	$ (399,093)	$ 2,146,303
Cost of goods sold	—	778,153	594,527	(398,179)	974,501
Gross profit	—	589,996	582,720	(914)	1,171,802
Selling, general and administrative expenses	47,412	408,811	243,544	196	699,963
Research and development expenses	1,009	57,614	26,147	—	84,770
Restructuring charges	—	8,971	5,819	—	14,790
(Loss) income from continuing operations before interest, loss on extinguishment of debt and taxes	(48,421)	114,600	307,210	(1,110)	372,279
Interest, net	99,371	(21,153)	3,557	—	81,775
Loss on extinguishment of debt	5,593	—	—	—	5,593
(Loss) income from continuing operations before taxes	(153,385)	135,753	303,653	(1,110)	284,911
(Benefit) taxes on (loss) income from continuing operations	(110,921)	(20,333)	261,386	(484)	129,648
Equity in net income of consolidated subsidiaries	197,727	25,500	(3,135)	(220,092)	—
Income from continuing operations	155,263	181,586	39,132	(220,718)	155,263
Operating loss from discontinued operations	(4,534)	—	—	—	(4,534)
Benefit on loss from discontinued operations	(1,801)	—	—	—	(1,801)
Loss from discontinued operations	(2,733)	—	—	—	(2,733)
Net income	152,530	181,586	39,132	(220,718)	152,530
Other comprehensive income	173,626	158,490	198,453	(356,943)	173,626
Comprehensive income	$ 326,156	$ 340,076	$ 237,585	$ (577,661)	$ 326,156

	Year Ended December 31, 2016				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net revenues	$ —	$ 1,112,464	$ 1,124,958	$ (369,395)	$ 1,868,027
Cost of goods sold	—	652,442	588,110	(368,725)	871,827
Gross profit	—	460,022	536,848	(670)	996,200
Selling, general and administrative expenses	43,602	328,263	191,916	(473)	563,308
Research and development expenses	547	33,080	24,952	—	58,579
Restructuring and impairment charges	173	50,183	8,871	—	59,227
Gain on sale of assets	(2,707)	(155)	(1,505)	—	(4,367)
(Loss) income from continuing operations before interest, loss on extinguishment of debt and taxes	(41,615)	48,651	312,614	(197)	319,453
Interest, net	61,374	(11,009)	4,102	—	54,467
Loss on extinguishment of debt	19,261	—	—	—	19,261
(Loss) income from continuing operations before taxes	(122,250)	59,660	308,512	(197)	245,725
(Benefit) taxes on (loss) income from continuing operations	(44,674)	12,954	39,875	(81)	8,074
Equity in net income of consolidated subsidiaries	315,396	243,987	528	(559,911)	—
Income from continuing operations	237,820	290,693	269,165	(560,027)	237,651
Operating (loss) income from discontinued operations	(1,300)	—	378	—	(922)
Tax benefit on (loss) income from discontinued operations	(857)	—	(255)	—	(1,112)
(Loss) income from discontinued operations	(443)	—	633	—	190
Net income	237,377	290,693	269,798	(560,027)	237,841
Less: Income from continuing operations attributable to noncontrolling interests	—	—	464	—	464
Net income attributable to common shareholders	237,377	290,693	269,334	(560,027)	237,377
Other comprehensive loss attributable to common shareholders	(66,761)	(76,098)	(80,700)	156,798	(66,761)
Comprehensive income attributable to common shareholders	$ 170,616	$ 214,595	$ 188,634	$ (403,229)	$ 170,616

TELEFLEX INCORPORATED AND SUBSIDIARIES
CONDENSED CONSOLIDATING BALANCE SHEETS

	December 31, 2018				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
ASSETS					
Current assets					
Cash and cash equivalents	$ 49,523	$ 1,757	$ 305,881	$ —	$ 357,161
Accounts receivable, net	5,885	54,013	301,054	5,334	366,286
Accounts receivable from consolidated subsidiaries	32,036	1,043,573	350,162	(1,425,771)	—
Inventories, net	—	266,073	192,659	(30,954)	427,778
Prepaid expenses and other current assets	30,458	9,673	28,237	4,113	72,481
Prepaid taxes	7,029	—	5,434	—	12,463
Total current assets	124,931	1,375,089	1,183,427	(1,447,278)	1,236,169
Property, plant and equipment, net	3,385	253,037	176,344	—	432,766
Goodwill	—	1,254,848	991,731	—	2,246,579
Intangibles assets, net	90	1,277,462	1,047,500	—	2,325,052
Investments in affiliates	5,984,566	1,672,908	20,257	(7,677,731)	—
Deferred tax assets	—	—	4,822	(2,376)	2,446
Notes receivable and other amounts due from consolidated subsidiaries	2,337,737	2,523,156	13,242	(4,874,135)	—
Other assets	17,180	5,776	12,023	—	34,979
Total assets	$ 8,467,889	$ 8,362,276	$ 3,449,346	$(14,001,520)	$ 6,277,991
LIABILITIES AND EQUITY					
Current liabilities					
Current borrowings	$ 36,625	$ —	$ 50,000	$ —	$ 86,625
Accounts payable	3,448	62,764	40,497	—	106,709
Accounts payable to consolidated subsidiaries	1,058,008	278,715	89,048	(1,425,771)	—
Accrued expenses	5,659	41,883	50,009	—	97,551
Current portion of contingent consideration	—	106,514	30,363	—	136,877
Payroll and benefit-related liabilities	17,156	44,982	42,532	—	104,670
Accrued interest	5,995	—	36	—	6,031
Income taxes payable	—	—	5,943	—	5,943
Other current liabilities	843	34,916	2,291	—	38,050
Total current liabilities	1,127,734	569,774	310,719	(1,425,771)	582,456
Long-term borrowings	2,072,200	—	—	—	2,072,200
Deferred tax liabilities	87,671	257,522	265,404	(2,376)	608,221
Pension and postretirement benefit liabilities	49,290	27,454	16,170	—	92,914
Noncurrent liability for uncertain tax positions	801	7,212	2,705	—	10,718
Notes payable and other amounts due to consolidated subsidiaries	2,451,784	2,222,580	199,771	(4,874,135)	—
Noncurrent contingent consideration	—	131,563	35,807	—	167,370
Other liabilities	138,431	8,204	57,499		204,134
Total liabilities	5,927,911	3,224,309	888,075	(6,302,282)	3,738,013
Total shareholders' equity	2,539,978	5,137,967	2,561,271	(7,699,238)	2,539,978
Total liabilities and shareholders' equity	$ 8,467,889	$ 8,362,276	$ 3,449,346	$(14,001,520)	$ 6,277,991

	December 31, 2017				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
ASSETS					
Current assets					
Cash and cash equivalents	$ 37,803	$ 8,933	$ 286,822	$ —	$ 333,558
Accounts receivable, net	2,414	57,818	280,980	4,663	345,875
Accounts receivable from consolidated subsidiaries	14,478	1,177,246	343,115	(1,534,839)	—
Inventories, net	—	245,533	176,490	(26,279)	395,744
Prepaid expenses and other current assets	14,874	9,236	19,790	3,982	47,882
Prepaid taxes	—	—	5,748	—	5,748
Total current assets	69,569	1,498,766	1,112,945	(1,552,473)	1,128,807
Property, plant and equipment, net	2,088	213,663	167,248	—	382,999
Goodwill	—	1,246,144	989,448	—	2,235,592
Intangibles assets, net	—	1,355,275	1,028,473	—	2,383,748
Investments in affiliates	5,806,244	1,674,077	19,620	(7,499,941)	—
Deferred tax assets	—	—	6,071	(2,261)	3,810
Notes receivable and other amounts due from consolidated subsidiaries	2,452,101	2,231,832	—	(4,683,933)	—
Other assets	31,173	6,397	8,966	—	46,536
Total assets	$ 8,361,175	$ 8,226,154	$ 3,332,771	$ (13,738,608)	$ 6,181,492
LIABILITIES AND EQUITY					
Current liabilities					
Current borrowings	$ 36,625	$ —	$ 50,000	$ —	$ 86,625
Accounts payable	4,269	46,992	40,766	—	92,027
Accounts payable to consolidated subsidiaries	1,211,568	261,121	62,150	(1,534,839)	—
Accrued expenses	17,957	31,827	47,069	—	96,853
Current portion of contingent consideration	—	74,224	—	—	74,224
Payroll and benefit-related liabilities	21,145	44,009	42,261	—	107,415
Accrued interest	6,133	—	32	—	6,165
Income taxes payable	4,352	—	7,162	—	11,514
Other current liabilities	1,461	3,775	3,817	—	9,053
Total current liabilities	1,303,510	461,948	253,257	(1,534,839)	483,876
Long-term borrowings	2,162,927	—	—	—	2,162,927
Deferred tax liabilities	88,512	265,426	251,999	(2,261)	603,676
Pension and postretirement benefit liabilities	70,860	32,750	17,800	—	121,410
Noncurrent liability for uncertain tax positions	1,117	8,196	2,983	—	12,296
Notes payable and other amounts due to consolidated subsidiaries	2,155,146	2,320,611	208,176	(4,683,933)	—
Noncurrent contingent consideration	—	186,923	10,989	—	197,912
Other liabilities	148,572	7,850	12,442	—	168,864
Total liabilities	5,930,644	3,283,704	757,646	(6,221,033)	3,750,961
Total shareholders' equity	2,430,531	4,942,450	2,575,125	(7,517,575)	2,430,531
Total liabilities and shareholders' equity	$ 8,361,175	$ 8,226,154	$ 3,332,771	$ (13,738,608)	$ 6,181,492

TELEFLEX INCORPORATED AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2018				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net cash (used in) provided by operating activities from continuing operations	$ (196,727)	$ 470,972	$ 319,693	$ (158,852)	$ 435,086
Cash flows from investing activities of continuing operations:					
Expenditures for property, plant and equipment	(1,881)	(40,399)	(38,515)	—	(80,795)
Payments for businesses and intangibles acquired, net of cash acquired	(100)	(35,606)	(85,319)	—	(121,025)
Proceeds from sale of assets	28,239	3,878	—	(28,239)	3,878
Net interest proceeds on swaps designated as net investment hedges	1,548	—	—	—	1,548
Investments in affiliates	—	(5,700)	—	5,700	—
Net cash provided by (used in) investing activities from continuing operations	27,806	(77,827)	(123,834)	(22,539)	(196,394)
Cash flows from financing activities of continuing operations:					
Proceeds from new borrowings	35,000	—	—	—	35,000
Reduction in borrowings	(128,500)	—	—	—	(128,500)
Debt extinguishment, issuance and amendment fees	(188)	—	—	—	(188)
Proceeds from share based compensation plans and the related tax impacts	22,655	—	—	—	22,655
Payments for contingent consideration	—	(73,235)	—	—	(73,235)
Proceeds from issuance of shares	—	—	5,700	(5,700)	—
Dividends	(62,165)	—	—	—	(62,165)
Intercompany transactions	314,386	(322,363)	(20,262)	28,239	—
Intercompany dividends paid	—	(4,723)	(154,129)	158,852	—
Net cash provided by (used in) financing activities from continuing operations	181,188	(400,321)	(168,691)	181,391	(206,433)
Cash flows from discontinued operations:					
Net cash provided by operating activities	(547)	—	2,839	—	2,292
Net cash provided by discontinued operations	(547)	—	2,839	—	2,292
Effect of exchange rate changes on cash and cash equivalents	—	—	(10,948)	—	(10,948)
Net increase (decrease) in cash and cash equivalents	11,720	(7,176)	19,059	—	23,603
Cash and cash equivalents at the beginning of the year	37,803	8,933	286,822	—	333,558
Cash and cash equivalents at the end of the year	$ 49,523	$ 1,757	$ 305,881	$ —	$ 357,161

	Year Ended December 31, 2017				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net cash (used in) provided by operating activities from continuing operations	$ (50,585)	$ 223,373	$ 315,431	$ (61,918)	$ 426,301
Cash flows from investing activities of continuing operations:					
Expenditures for property, plant and equipment	(240)	(34,912)	(35,751)	—	(70,903)
Payments for businesses and intangibles acquired, net of cash acquired	(975,524)	(725,554)	(67,206)	—	(1,768,284)
Proceeds from sale of assets	464,982	—	6,332	(464,982)	6,332
Investments in affiliates	—	(5,900)	—	5,900	—
Net cash used in investing activities from continuing operations	(510,782)	(766,366)	(96,625)	(459,082)	(1,832,855)
Cash flows from financing activities of continuing operations:					
Proceeds from new borrowings	2,463,500	—	—	—	2,463,500
Reduction in borrowings	(1,239,576)	—	—	—	(1,239,576)
Debt extinguishment, issuance and amendment fees	(26,664)	—	—	—	(26,664)
Proceeds from share based compensation plans and related tax impacts	5,571	—	—	—	5,571
Payments for contingent consideration	—	(335)	—	—	(335)
Proceeds from issuance of shares	—	—	5,900	(5,900)	—
Dividends	(61,237)	—	—	—	(61,237)
Intercompany transactions	(550,579)	551,230	(465,633)	464,982	—
Intercompany dividends paid	—	—	(61,918)	61,918	—
Net cash provided by (used in) financing activities from continuing operations	591,015	550,895	(521,651)	521,000	1,141,259
Cash flows from discontinued operations:					
Net cash used in operating activities	(6,416)	—	—	—	(6,416)
Net cash used in discontinued operations	(6,416)	—	—	—	(6,416)
Effect of exchange rate changes on cash and cash equivalents	—	—	61,480	—	61,480
Net increase (decrease) in cash and cash equivalents	23,232	7,902	(241,365)	—	(210,231)
Cash and cash equivalents at the beginning of the year	14,571	1,031	528,187	—	543,789
Cash and cash equivalents at the end of the year	$ 37,803	$ 8,933	$ 286,822	$ —	$ 333,558

	Year Ended December 31, 2016				
	Parent Company	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Condensed Consolidated
	(Dollars in thousands)				
Net cash (used in) provided by operating activities from continuing operations	$ (85,088)	$ 169,400	$ 328,553	$ (2,275)	$ 410,590
Cash flows from investing activities of continuing operations:					
Expenditures for property, plant and equipment	(279)	(24,753)	(28,103)	—	(53,135)
Payments for businesses and intangibles acquired, net of cash acquired	—	(10,305)	(50,572)	46,837	(14,040)
Proceeds from sale of businesses and assets	5,607	49,571	1,860	(46,837)	10,201
Investments in affiliates	—	(5,600)	—	5,600	—
Net cash provided by (used in) investing activities from continuing operations	5,328	8,913	(76,815)	5,600	(56,974)
Cash flows from financing activities of continuing operations:					
Proceeds from new borrowings	665,000	—	6,700	—	671,700
Reduction in borrowings	(714,565)	—	—	—	(714,565)
Debt extinguishment, issuance and amendment fees	(8,958)	—	—	—	(8,958)
Proceeds from share based compensation plans and the related tax impacts	9,068	—	—	—	9,068
Payments to noncontrolling interest shareholders	—	—	(464)	—	(464)
Payments for acquisition of noncontrolling interest	—	—	(9,231)	—	(9,231)
Payments for contingent consideration	—	(7,282)	—	—	(7,282)
Proceeds from issuance of shares	—	—	5,600	(5,600)	—
Dividends	(58,960)	—	—	—	(58,960)
Intercompany transactions	183,244	(170,000)	(13,244)	—	—
Intercompany dividends paid	—	—	(2,275)	2,275	—
Net cash provided by (used in) financing activities from continuing operations	74,829	(177,282)	(12,914)	(3,325)	(118,692)
Cash flows from discontinued operations:					
Net cash used in operating activities	(2,110)	—	—	—	(2,110)
Net cash used in discontinued operations	(2,110)	—	—	—	(2,110)
Effect of exchange rate changes on cash and cash equivalents	—	—	(27,391)	—	(27,391)
Net (decrease) increase in cash and cash equivalents	(7,041)	1,031	211,433	—	205,423
Cash and cash equivalents at the beginning of the year	21,612	—	316,754	—	338,366
Cash and cash equivalents at the end of the year	$ 14,571	$ 1,031	$ 528,187	$ —	$ 543,789

Note 19 — Discontinued Operations

The results of the Company's discontinued operations for the years ended December 31, 2018, 2017 and 2016 were as follows:

	2018	2017	2016
	(Dollars in thousands)		
Other (gains) expenses (1)	$ (5,643)	$ 4,534	$ 922
Income (loss) from discontinued operations before income taxes	5,643	(4,534)	(922)
Tax (expense) benefit on loss from discontinued operations	(1,273)	1,801	1,112
Income (loss) from discontinued operations	$ 4,370	$ (2,733)	$ 190

(1) Includes expenses and recoveries associated with divested businesses.

Note 20 — Subsequent events

Segment change

During the first quarter 2019, the chief operating decision maker, or CODM, (the CEO) changed the manner in which he reviews financial information for purposes of assessing business performance and allocating resources by focusing on the geographic location of all non-OEM operations. As a result, the Company changed its segment presentation. Specifically, the Vascular North America, Interventional North America, Anesthesia North America, Surgical North America, Interventional Urology North America, Respiratory North America and Latin America operating segments were combined into a new Americas segment. The Company now has four segments: Americas, EMEA, Asia and OEM.

2019 Footprint realignment plan

In February 2019, the Company initiated a restructuring plan primarily involving the relocation of certain manufacturing operations to existing lower-cost locations and related workforce reductions (the “2019 Footprint realignment plan"). These actions commenced in the first quarter 2019 and are expected to be substantially completed during 2022. The following table provides a summary of the Company’s cost estimates by major type of expense associated with the 2019 Footprint realignment plan:

Type of expense	Total estimated amount expected to be incurred
Termination benefits	$19 million to $23 million
Other costs (1)	$1 million to $2 million
Restructuring charges	$20 million to $25 million
Restructuring related charges (2)	$36 million to $45 million
Total restructuring and restructuring related charges	**$56 million to $70 million**

(1) Includes contract termination costs as well as facility closure and other exit costs (employee and equipment relocation costs and outplacement).

(2) Consists of estimated pre-tax charges related to costs directly related to the plan, primarily costs to transfer manufacturing operations to the new locations as well as accelerated depreciation of $3.0 million to $4.0 million. Most of the charges are expected to be recognized within costs of goods sold.

The Company estimates $53 million to $66 million of the restructuring and restructuring related charges will result in future cash outlays. Additionally, the Company expects that it will incur $29 million to $35 million in aggregate capital expenditures under the plan. The Company expects to incur most of these charges and cash outlays prior to 2021.

As the 2019 Footprint realignment plan progresses, management will reevaluate the estimated expenses and charges set forth above, and may revise its estimates, as appropriate, consistent with GAAP.

QUARTERLY DATA (UNAUDITED)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(Dollars in thousands, except per share)			
2018:				
Net revenues	$ 587,230	$ 609,866	$ 609,672	$ 641,615
Gross profit	331,270	344,778	342,573	365,821
Income from continuing operations before interest, loss on extinguishment of debt and taxes	86,843	33,490	82,105	119,266
Income (loss) from continuing operations	54,931	(2,552)	56,540	87,513
Income (loss) from discontinued operations	1,253	56	(16)	3,077
Net income (loss)	56,184	(2,496)	56,524	90,590
Net income (loss) attributable to common shareholders	56,184	(2,496)	56,524	90,590
Earnings per share available to common shareholders — basic[(1)]:				
Income (loss) from continuing operations	$ 1.21	$ (0.06)	$ 1.23	$ 1.90
Income from discontinued operations	0.03	0.01	—	0.07
Net income (loss)	$ 1.24	$ (0.05)	$ 1.23	$ 1.97
Earnings per share available to common shareholders — diluted[(1)]:				
Income (loss) from continuing operations	$ 1.18	$ (0.06)	$ 1.21	$ 1.87
Income from discontinued operations	0.02	0.01	—	0.06
Net income (loss)	$ 1.20	$ (0.05)	$ 1.21	$ 1.93
2017:				
Net revenues	$ 487,881	$ 528,613	$ 534,703	$ 595,106
Gross profit	255,560	290,284	295,227	330,731
Income from continuing operations before interest, loss on extinguishment of debt and taxes	60,819	110,202	110,354	90,904
Income from continuing operations	40,349	78,363	79,398	(42,847)
(Loss) income from discontinued operations	(179)	(360)	(2,383)	189
Net income (loss)	40,170	78,003	77,015	(42,658)
Net income (loss) attributable to common shareholders	40,170	78,003	77,015	(42,658)
Earnings per share available to common shareholders — basic[(1)]:				
Income (loss) from continuing operations	$ 0.90	$ 1.74	$ 1.76	$ (0.95)
Loss from discontinued operations	(0.01)	(0.01)	(0.05)	—
Net income (loss)	$ 0.89	$ 1.73	$ 1.71	$ (0.95)
Earnings per share available to common shareholders — diluted[(1)]:				
Income (loss) from continuing operations	$ 0.87	$ 1.67	$ 1.70	$ (0.92)
(Loss) income from discontinued operations	(0.01)	—	(0.05)	0.01
Net income (loss)	$ 0.86	$ 1.67	$ 1.65	$ (0.91)

(1) Each quarter is calculated as a discrete period; the sum of the four quarters may not equal the calculated full year amount.

TELEFLEX INCORPORATED
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS
(Dollars in thousands)

ALLOWANCE FOR DOUBTFUL ACCOUNTS

	Balance at Beginning of Year	Additions Charged to Income	Accounts Receivable Write-offs	Translation and Other	Balance at End of Year
December 31, 2018	$ 10,255	$ 2,521	$ (2,601)	$ (827)	$ 9,348
December 31, 2017	$ 8,636	$ 1,949	$ (596)	$ 266	$ 10,255
December 31, 2016	$ 8,026	$ 2,156	$ (862)	$ (684)	$ 8,636

INVENTORY RESERVE

	Balance at Beginning of Year	Additions Charged to Income	Inventory Write-offs	Translation and Other	Balance at End of Year
December 31, 2018					
Raw material	$ 6,093	$ 4,028	$ (1,899)	$ 348	$ 8,570
Work-in-process	3,089	702	(1,097)	60	2,754
Finished goods	26,426	15,295	(17,390)	(781)	23,550
	$ 35,608	$ 20,025	$ (20,386)	$ (373)	$ 34,874
December 31, 2017					
Raw material	$ 6,555	$ 1,552	$ (2,317)	$ 303	$ 6,093
Work-in-process	2,853	306	(127)	57	3,089
Finished goods	26,950	8,662	(10,259)	1,073	26,426
	$ 36,358	$ 10,520	$ (12,703)	$ 1,433	$ 35,608
December 31, 2016					
Raw material	$ 7,577	$ 1,446	$ (1,645)	$ (823)	$ 6,555
Work-in-process	3,139	(76)	(213)	3	2,853
Finished goods	25,800	12,909	(11,150)	(609)	26,950
	$ 36,516	$ 14,279	$ (13,008)	$ (1,429)	$ 36,358

DEFERRED TAX ASSET VALUATION ALLOWANCE

	Balance at Beginning of Year	Additions Charged to Expense	Reductions Credited to Expense	Translation and Other	Balance at End of Year
December 31, 2018	$ 104,799	$ 43,361	$ (2,871)	$ (1,318)	$ 143,971
December 31, 2017	$ 104,520	$ 4,657	$ (5,745)	$ 1,367	$ 104,799
December 31, 2016	$ 103,475	$ 2,046	$ (725)	$ (276)	$ 104,520

TELEFLEX INCORPORATED
NON-GAAP RECONCILIATIONS

REVENUE GROWTH

2018 GAAP Revenue Growth	**14.1%**
Foreign Currency	1.4%
2018 Constant Currency Revenue Growth	**12.7%**

OPERATING MARGIN RECONCILIATION

(dollars in thousands)

		2018
Income from continuing operations before interest and taxes	$	321,704
Income from continuing operations before interest and taxes margin		13.1%
Restructuring, restructuring related and impairment items (A)	$	93,957
Acquisition, integration and divestiture related items (B)	$	60,321
Other items (C)	$	2,907
Intangible amortization expense	$	149,486
Adjusted income from continuing operations before interest and taxes	$	628,375
Adjusted income from continuing operations before interest and taxes margin		25.7%
Revenue	$	2,448,383

(A) = Restructuring programs involve discrete initiatives designed to, among other things, consolidate or relocate manufacturing, administrative and other facilities, outsource distribution operations, improve operating efficiencies and integrate acquired businesses. Depending on the specific restructuring program involved, our restructuring charges may include employee termination, contract termination, facility closure, employee relocation, equipment relocation, outplacement and other exit costs associated with the restructuring program. Restructuring related charges are directly related to our restructuring programs and consist of facility consolidation costs, including accelerated depreciation expense related to facility closures, costs to transfer manufacturing operations between locations, and retention bonuses offered to certain employees as an incentive for them to remain with our company after completion of the restructuring program. Impairment charges do not directly affect our liquidity, but could have a material adverse effect on our reported financial results. For the twelve months ended December 31, 2018, pre-tax restructuring related charges were $14.7 million.

(B) = Acquisition and integration expenses are incremental charges, other than restructuring or restructuring related expenses, that are directly related to specific business or asset acquisition transactions. These charges may include, among other things, professional, consulting and other fees; systems integration costs; legal entity restructuring expense; inventory step-up amortization (amortization, through cost of goods sold, of the increase in fair value of inventory resulting from a fair value calculation as of the acquisition date); fair value adjustments to contingent consideration liabilities; and bridge loan facility and backstop financing fees in connection with facilities that ultimately were not utilized. Divestiture related activities involve specific business or asset sales. Depending primarily on the terms of the divestiture transaction, the carrying value of the divested business or assets on our financial statements and other costs we incur as a direct result of the divestiture transaction, we may recognize a gain or loss in connection with the divestiture related activities. For the twelve months ended December 31, 2018, these charges were primarily related to contingent consideration liabilities and our acquisition of NeoTract.

(C) = These are discrete items that occur sporadically and can affect period-to-period comparisons. For the twelve months ended December 31, 2018, other items included the reversal of previously recognized income due to distributor acquisitions related to Vascular Solutions, losses associated with settlement of litigation relating to an intellectual property matter, expenses associated with a franchise tax audit, and relabeling costs. In addition, other items included a charge we incurred, as a result of the Tax Cuts and Jobs Act, on our consolidated operations.

TELEFLEX INCORPORATED
NON-GAAP RECONCILIATIONS

ADJUSTED EARNINGS PER SHARE
(dollars in millions, except per share)

	2015	2016	2017	2018
Amounts attributable to common shareholders:	**$ 236.0**	**$ 237.2**	**$ 155.3**	**$ 196.4**
income (loss) from continuing operations, net of tax	**$ 4.91**	**$ 4.98**	**$ 3.33**	**$ 4.20**
Restructuring and other impairment charges, net of tax	$ 4.9	$ 39.3	$ 20.3	$ 82.3
	$ 0.10	$ 0.83	$ 0.44	$ 1.76
Gain/(loss) on sales of businesses and assets, net of tax	$ 0.0	$ 0.0	$ 0.0	$ (1.0)
	$ 0.00	$ 0.00	$ 0.00	$ (0.02)
Loss on extinguishment of debt, net of tax	$ 6.6	$ 12.2	$ 3.5	$ 0.0
	$ 0.14	$ 0.26	$ 0.08	$ 0.00
Losses and other charges, net of tax	$ 0.4	$ 4.9	$ 37.4	$ 63.4
	$ 0.01	$ 0.11	$ 0.80	$ 1.35
Amortization of debt discount on convertible notes, net of tax	$ 8.4	$ 4.5	$ 0.6	$ 0.0
	$ 0.17	$ 0.10	$ 0.01	$ 0.00
Intangible amortization expense, net of tax	$ 45.8	$ 47.4	$ 71.1	$ 122.9
	$ 0.95	$ 0.99	$ 1.52	$ 2.63
Tax Adjustment, net of tax	$ (19.0)	$ (10.7)	$ 101.4	$ (0.6)
	$ (0.39)	$ (0.23)	$ 2.17	$ (0.01)
Shares due to Teleflex under note hedge	$ 0.0	$ 0.0	$ 0.0	$ 0.0
	$ 0.44	$ 0.31	$ 0.05	$ 0.00
Adjusted income from continuing operations, net of tax	**$ 283.2**	**$ 334.8**	**$ 389.5**	**$ 463.5**
Adjusted earnings per share from continuing operations	**$ 6.33**	**$ 7.34**	**$ 8.40**	**$ 9.90**

Note: GAAP results represent amounts per Form 10K for the year referenced.

BOARD OF DIRECTORS

LISTED IN ORDER OF ELECTION

BENSON F. SMITH
Retired Chief Executive Officer
Teleflex Incorporated
Chairman of the Board

GEORGE BABICH, JR. *1
Retired President and
Chief Executive Officer
Checkpoint Systems, Inc.
Lead Director
Compensation Committee Chair

STEPHEN K. KLASKO, M.D. *2
President and CEO
Thomas Jefferson University
and Jefferson Health

STUART A. RANDLE *1, 2
Retired Chief Executive Officer
Ivenix, Inc.
Nominating and Governance
Commitee Chair

CANDACE H. DUNCAN *3
Retired Managing Partner
KPMG LLP
Audit Committee Chair

GRETCHEN R. HAGGERTY *3
Retired Executive Vice President
and Chief Financial Officer
United States Steel Corp.

RICHARD A. PACKER *2
Primary Executive Director
Asahi Kasei

ANDREW A. KRAKAUER *1
Retired Chief Executive Officer
Cantel Medical Corp.

LIAM J. KELLY
President and
Chief Executive Officer

JOHN C. HEINMILLER *3
Retired Executive Vice President
St. Jude Medical

*Board Committees
1 Compensation
2 Nominating and Governance
3 Audit

EXECUTIVE LEADERSHIP

LIAM J. KELLY
President and
Chief Executive Officer

THOMAS E. POWELL
Executive Vice President and
Chief Financial Officer

DAVE AMERSON
President and General Manager,
Interventional Urology

PETRO BARCHUK
Vice President,
Financial Planning and Analysis

KAREN BOYLAN
Vice President, Global Strategic
Projects

GWEN CHAPMAN
Vice President,
Chief Compliance Officer

JOHN DEREN
Vice President,
Chief Accounting Officer

JEAN-LUC DIANDA
President, EMEA
and Global Urology

MICHAEL DIGIUSEPPE
Vice President and
General Manager,
Respiratory Division and
Corporate Accounts

TIMOTHY DUFFY
Vice President,
Chief Information Officer

JAKE ELGUICZE
Treasurer and Vice President,
Investor Relations

JAMES FERGUSON
President and General Manager,
Surgical and Latin America

MICHELLE FOX
Vice President,
Clinical and Medical Affairs

SUNNY GOH
President, APAC

MARIE HENDRIXSON
Vice President,
Internal Audit

CAMERON HICKS
Vice President, Global
Human Resources and
Employee Communications

TIM KELLEHER
President and
General Manager, OEM

MEGAN KNESTRICK
Vice President,
Strategic Initiatives

BERT LANE
Vice President,
Global Logistics and Distribution

JAMES J. LEYDEN
Vice President,
General Counsel and Secretary

JUSTIN MCMURRAY
President and General Manager,
Anesthesia and Emergency
Medicine

JAKE NEWMAN
Vice President and General
Manager, Vascular

DANIEL PRICE
Vice President,
Commercial Finance

STEW STRONG
President and General Manager,
Interventional

GWEN WATANABE
Vice President, Global Corporate
Development, Strategy and
Strategic Partnerships

ED WEIDNER
Vice President, Customer
Experience and Commercial
Operations

JAY WHITE
President, The Americas

MARIO WIJKER
Vice President, Global Quality
Assurance and Regulatory Affiars

GREGG WINTER
Vice President, Tax

JAMES WINTERS
Vice President, Manufacturing

INVESTOR INFORMATION

ANNUAL MEETING

The annual meeting of shareholders will take place at 11:00 a.m. on May 3, 2019 at:

Teleflex Incorporated
550 East Swedesford Road
Wayne, Pennsylvania 19087

INVESTOR INFORMATION

Market and ownership
of common stock:
New York Stock Exchange
Trading symbol: TFX

INVESTOR RELATIONS

Investors, analysts and others seeking information about the company should contact:

Jake Elguicze
Teleflex Incorporated
(610) 948-2836
jake.elguicze@teleflex.com
www.teleflex.com

A copy of the Annual Report as filed with the Securities and Exchange Commission on Form 10-K, interim reports on Form 10-Q, and current reports on Form 8-K can be accessed on the Investor page of the company's website or can be mailed upon request.

TRANSFER AGENT AND REGISTRAR

Questions concerning transfer requirements, lost certificates, dividends, duplicate mailings, change of address, or other stockholder matters should be addressed to:

American Stock Transfer & Trust Company
6201 15th Ave
Brooklyn, New York 11219
(800) 937-5449 (toll free)

DIVIDEND REINVESTMENT

Teleflex Incorporated offers a dividend reinvestment and direct stock purchase and sale plan. For enrollment information, please contact American Stock Transfer & Trust Company, Dividend Reinvestment Department, 1-877-842-1572 (toll free).

CODE OF ETHICS AND BUSINESS GUIDELINES

All Teleflex businesses around the world share a common Code of Ethics, which guides the way we conduct business. The Code is available on the Teleflex website at www.teleflex.com.

CERTIFICATIONS

The certifications by the Chief Executive Officer and the Chief Financial Officer of Teleflex Incorporated required under Section 302 of the Sarbanes-Oxley Act of 2002 have been filed as exhibits to Teleflex Incorporated's 2018 Annual Report on Form 10-K. In addition, in May 2018, the Chief Executive Officer of Teleflex Incorporated certified to the New York Stock Exchange ("NYSE") that he is not aware of any violation by the Company of NYSE corporate governance listing standards, as required by Section 303A.12(a) of the NYSE Corporate Governance Rules.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania

FORWARD-LOOKING STATEMENTS

In accordance with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, the company notes that certain statements contained in this report are forward-looking in nature.These forward-looking statements include matters such as business strategies, market potential, product deployment, future financial performance and other future oriented matters. Such matters inherently involve many risks and uncertainties. For additional information, please refer to the company's Securities and Exchange Commission filings and the Form 10-K included in the Annual Report.

OUR CORE VALUES

Teleflex

CORPORATE HEADQUARTERS

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