STRYKER CORP
Form 10-K
February 07, 2019

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

FORM 10-K

[X] 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

Commission file number: 000-09165

STRYKER CORPORATION
(Exact name of registrant as specified in its charter)

Michigan	38-1239739
(State of incorporation)	(I.R.S. Employer Identification No.)
2825 Airview Boulevard Kalamazoo, Michigan	49002
(Address of principal executive offices)	(Zip Code)

(269) 385-2600
(Registrant’s telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Stock, $.10 par value	New York Stock Exchange
Floating Rate Notes due 2020	New York Stock Exchange
1.125% Notes due 2023	New York Stock Exchange
2.125% Notes due 2027	New York Stock Exchange
2.625% Notes due 2030	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 [X] NO [ ]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES [ ] NO [X]

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 and 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 [X] NO [ ]

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES [X] NO [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of 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 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 [X] Accelerated filer [ ] Emerging growth company [ ]
Non-accelerated filer [ ] Small reporting 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 [X]
The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately $58,918,371,156 at June 30, 2018. There were 372,664,636 shares outstanding of the registrant's common stock, $.10 par value, on January 31, 2019.
DOCUMENTS INCORPORATED BY REFERENCE
Portions of the proxy statement to be filed with the U.S. Securities and Exchange Commission relating to the 2019 Annual Meeting of Shareholders (the 2019 proxy statement) are incorporated by reference into Part III.

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PART I

ITEM 1. BUSINESS.

Stryker Corporation (Stryker or the Company) is one of the world's leading medical technology companies and, together with its customers, is driven to make healthcare better. The Company offers innovative products and services in Orthopaedics, Medical and Surgical, and Neurotechnology and Spine that help improve patient and hospital outcomes.

Our core values guide our behaviors and actions and are fundamental to how we execute our mission.

Stryker was incorporated in Michigan in 1946 as the successor company to a business founded in 1941 by Dr. Homer H. Stryker, a prominent orthopaedic surgeon and the inventor of several medical products. Our products are sold in over 80 countries through company-owned subsidiaries and branches, as well as third-party dealers and distributors, and include implants used in joint replacement and trauma surgeries; surgical equipment and surgical navigation systems; endoscopic and communications systems; patient handling, emergency medical equipment and intensive care disposable products; neurosurgical, neurovascular and spinal devices; as well as other products used in a variety of medical specialties. In the United States most of our products are marketed directly to doctors, hospitals and other healthcare facilities.

As used herein, and except where the context otherwise requires, "Stryker," "we," "us," and "our" refer to Stryker Corporation and its consolidated subsidiaries.

Business Segments and Geographic Information

We segregate our operations into three reportable business segments: Orthopaedics, MedSurg and Neurotechnology and Spine. Financial information regarding our reportable business segments and certain geographic information is included under "Consolidated Results of Operations" in Item 7 of this report and Note 14 to our Consolidated Financial Statements.

Net Sales by Reportable Segment

	2018		2017		2016	
Orthopaedics	$4,991	37 %	$4,713	38 %	$4,422	39 %
MedSurg	6,045	44	5,557	45	4,894	43
Neurotechnology and Spine	2,565	19	2,174	17	2,009	18
Total	$13,601	100%	$12,444	100%	$11,325	100%

Orthopaedics

Orthopaedics products consist primarily of implants used in hip and knee joint replacements and trauma and extremities surgeries. We bring patients and physicians advanced implant designs and specialized instrumentation that make orthopaedic surgery and recovery simpler, faster and more effective. We support surgeons with the technology and services they need as they develop new surgical techniques. The Mako Robotic-Arm Assisted Surgical System was designed to help surgeons provide patients with a personalized surgical experience based on their specific diagnosis and anatomy. The Mako System currently offers three applications supporting Partial Knee, Total Hip and Total Knee procedures.

Stryker is one of four leading global competitors for joint replacement and trauma and extremities products; the other three being Zimmer Biomet Holdings, Inc. (Zimmer), DePuy Synthes (a Johnson & Johnson company) and Smith & Nephew plc (Smith & Nephew).

Composition of Orthopaedics Net Sales

	2018		2017		2016	
Knees	$1,701	34 %	$1,595	34 %	$1,490	34 %
Hips	1,336	27	1,303	28	1,283	29
Trauma and Extremities	1,580	32	1,478	31	1,364	31
Other	374	7	337	7	285	6
Total	$4,991	100%	$4,713	100%	$4,422	100%

MedSurg

MedSurg products include surgical equipment and navigation systems (Instruments), endoscopic and communications systems (Endoscopy), patient handling, emergency medical equipment and intensive care disposable products (Medical), reprocessed and remanufactured medical devices (Sustainability) and other medical device products used in a variety of medical specialties.

Stryker is one of five leading global competitors in Instruments; the other four being Zimmer, Medtronic plc., Johnson & Johnson and ConMed Linvatec, Inc. (a subsidiary of CONMED Corporation). In Endoscopy we compete with Smith & Nephew, ConMed Linvatec, Arthrex, Inc., Karl Storz GmbH & Co., Olympus Optical Co. Ltd. and STERIS plc. In Medical our primary competitors are Hill-Rom Holdings, Inc., Zoll Medical Corporation, Medline Industries and Koninklijke Philips N.V.

Composition of MedSurg Net Sales

	2018		2017		2016	
Instruments	$1,822	30 %	$1,678	30 %	$1,553	32 %
Endoscopy	1,846	31	1,652	30	1,470	30
Medical	2,118	35	1,969	35	1,633	33
Sustainability	259	4	258	5	238	5
Total	$6,045	100 %	$5,557	100 %	$4,894	100 %

In 2017 Instruments launched System 8, the next generation of power tools comprised of a sagittal saw, reciprocating saw, rotary drill and sternum saw. The new power tools offer improved ergonomics, a quick and efficient keyless chuck system preventing loosening through a secondary locking mechanism and advanced material and coating to prevent sticking and slipping. In addition, the handpieces are built to be actively washed and temporarily submerged prior to sterilization.

Neurotechnology and Spine

Neurotechnology and Spine products include neurosurgical, neurovascular, and spinal implant devices. Our neurotechnology offering includes products used for minimally invasive endovascular techniques; a comprehensive line of products for traditional brain and open skull based surgical procedures; orthobiologic and biosurgery products, including synthetic bone grafts and vertebral augmentation products; and minimally invasive products for the treatment of acute ischemic and hemorrhagic stroke. Our spinal implant offering includes cervical, thoracolumbar and interbody systems used in spinal injury, deformity and degenerative therapies.

Dollar amounts in millions except per share amounts or as otherwise specified. 1

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Stryker is one of five leading global competitors in Neurotechnology; the other four being Medtronic, Johnson & Johnson, Terumo Corporation and Penumbra, Inc. Stryker is one of five leading global competitors in Spine; the other four being Medtronic Sofamor Danek, Inc. (a subsidiary of Medtronic), DePuy Synthes, Nuvasive, Inc. and Globus Medical, Inc.

Composition of Neurotechnology and Spine Net Sales

	2018		2017		2016	
Neurotechnology	$1,737	68 %	$1,423	65 %	$1,255	62 %
Spine	828	32	751	35	754	38
Total	$2,565	100%	$2,174	100%	$2,009	100%

In 2017 the New England Journal of Medicine published the results of the DAWN Trial, the first to provide compelling evidence in treating late window and wake-up stroke patients with mechanical thrombectomy. The purpose of the study is to demonstrate superior clinical outcomes at 90 days with Trevo™ Retriever plus medical management compared to medical management alone in appropriately selected stroke patients treated six to 24 hours after last seen well (for cases of unknown time of onset). The Trevo™ Retriever's indication within the DAWN Trial, for use in patients treated six to 24 hours after last seen well, is currently under an Investigational Device Exemption (IDE), and the submission for expanding the indication for the later time window is pending.

Raw Materials and Inventory

Raw materials essential to our business are generally readily available from multiple sources; however, certain of our raw materials are currently sourced from single suppliers. Substantially all products we manufacture are stocked in inventory, while certain MedSurg products are assembled to order.

Patents and Trademarks

Patents and trademarks are significant to our business to the extent that a product or an attribute of a product represents a unique design or process. Patent protection of such products restricts competitors from duplicating these unique designs and features. We seek to obtain patent protection on our products whenever appropriate for protecting our competitive advantage. On December 31, 2018 we owned approximately 3,068 United States patents and approximately 4,716 international patents.

Seasonality

Our business is generally not seasonal in nature; however, the number of orthopaedic implant surgeries is typically lower in the summer months, and sales of capital equipment are generally higher in the fourth quarter.

Competition

In each of our product lines we compete with local and global companies. The development of new and innovative products is important to our success in all areas of our business. Competition in research involving the development and improvement of new and existing products and processes is particularly significant. The competitive environment requires substantial investments in continuing research and maintaining sales forces.

We believe our commitment to innovation, quality and service and our reputation differentiates us in the highly competitive product categories in which we operate and enables us to compete effectively. We believe that our competitive position in the future will depend to a large degree on our ability to develop new products and make improvements to existing products.

Regulation

Our businesses are subject to varying degrees of governmental regulation in the countries in which we operate, and the general trend is toward increasingly stringent regulation.

In the United States the Medical Device Amendments of 1976 to the Federal Food, Drug and Cosmetic Act and its subsequent amendments and the regulations issued and proposed thereunder provide for regulation by the FDA of the design, manufacture and marketing of medical devices, including most of our products. Many of our new products fall into FDA classifications that require notification submitted as a 510(k) and review by the FDA before we begin marketing them. Certain of our products require extensive clinical testing, consisting of safety and efficacy studies, followed by pre-market approval (PMA) applications for specific surgical indications. Certain of our products also fall under the FDA's drug classification, as well as other FDA classifications.

The FDA's Quality System regulations set forth standards for our product design and manufacturing processes, require the maintenance of certain records and provide for inspections of our facilities by the FDA. There are also certain requirements of state, local and foreign governments that must be complied with in the manufacture and marketing of our products.

The member states of the European Union (EU) adopted the European Medical Device Directives, which form a single set of medical device regulations for all EU member countries. These regulations require companies that wish to manufacture and distribute medical devices in EU member countries to meet certain quality system requirements and obtain CE marking for their products. We have authorization to apply the CE marking to substantially all of our products. In addition, the EU enacted the EU Medical Device Regulation (EU MDR) in May 2017 with an effective date of May 2020, which imposes stricter requirements for the marketing and sale of medical devices, including in the areas of clinical evaluation requirements, quality systems, labeling and post-market surveillance. Finally, we are required to comply with the unique regulatory requirements of each of the countries in Europe and other countries, including China, in which we market our products.

Initiatives to limit the growth of general healthcare expenses and hospital costs are ongoing in the markets in which we do business. These initiatives are sponsored by government agencies, legislative bodies and the private sector and include price regulation and competitive pricing. It is not possible to predict at this time the long-term impact of such cost containment measures on our future business. In addition, business practices in the healthcare industry are scrutinized, particularly in the United States, by federal and state government agencies. The resulting investigations and prosecutions carry the risk of significant civil and criminal penalties.

Environment

We are subject to various rules and regulation in the United States and internationally related to the protection of human health and the environment. Our operations involve the use of substances regulated under environmental laws, primarily in manufacturing and sterilization processes. We believe our policies, practices and procedures are properly designed to comply, in all material respects, with applicable environmental laws and regulations. We do not expect compliance with these requirements to have a material effect on purchases of property, plant and equipment, cash flows, net earnings or competitive position.

Employees

On December 31, 2018 we had approximately 36,000 employees globally.

Executive Officers
As of January 31, 2019

Name	Age	Title	First Became an Executive Officer
Kevin A. Lobo	53	Chairman and Chief Executive Officer	2011
Yin C. Becker	55	Vice President, Communications, Public Affairs and Corporate Marketing	2016
William E. Berry Jr.	53	Vice President, Corporate Controller and Principal Accounting Officer	2014
Glenn S. Boehnlein	57	Vice President, Chief Financial Officer	2016
M. Kathryn Fink	49	Vice President, Chief Human Resources Officer	2016
Michael D. Hutchinson	48	Vice President, Chief Legal Officer	2014
Viju Menon	51	Group President, Global Quality and Operations	2018
Katherine A. Owen	48	Vice President, Strategy and Investor Relations	2007
Bijoy S.N. Sagar	50	Vice President, Chief Digital Technology Officer	2014
Timothy J. Scannell	54	President and Chief Operating Officer	2008

Each of our executive officers was elected by our Board of Directors to serve in the office indicated until the first meeting of the Board of Directors following the annual meeting of shareholders in 2019 or until a successor is chosen and qualified or until his or her resignation or removal. Each of our executive officers held the position above or served Stryker in various executive or administrative capacities for at least five years, except for Mr. Menon and Mr. Sagar. Prior to joining Stryker in April 2018, Mr. Menon held various senior supply chain leadership roles with Verizon Communications Inc. for the previous eight years, most recently as the Chief Supply Chain Officer. Prior to joining Stryker in May 2014, Mr. Sagar served as the Chief Information Officer for Merck Millipore, and before that as Global Head of Information Systems and a member of the divisional board for the chemicals division of Merck KGaA.

Available Information

Our main corporate website address is www.stryker.com. Copies of our filings with the United States Securities and Exchange Commission (SEC) are available free of charge on our website within the "Investors Relations" section as soon as reasonably practicable after having been electronically filed or furnished to the SEC. All SEC filings are also available at the SEC's website at www.sec.gov.

ITEM 1A. RISK FACTORS.

This report contains statements that are not historical facts and are considered "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on current projections about operations, industry conditions, financial condition and liquidity. Words that identify forward-looking statements include words such as "may," "could," "will," "should," "possible," "plan," "predict," "forecast," "potential," "anticipate," "estimate," "expect," "project," "intend," "believe," "may impact," "on track," "goal," "strategy" and words and terms of similar substance used in connection with any discussion of future operating or financial performance, an acquisition or our businesses. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Those statements are not guarantees and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results could differ materially and

adversely from these forward-looking statements. Some important factors that could cause our actual results to differ from our expectations in any forward-looking statements include the risks discussed below.

Our operations and financial results are subject to various risks and uncertainties discussed below that could materially and adversely affect our business, cash flows, financial condition and results of operations. Additional risks and uncertainties not currently known to us or that we currently deem not to be material may also materially and adversely affect our business, cash flows, financial condition or results of operations.

LEGAL AND REGULATORY RISKS

Current economic and political conditions make tax rules in jurisdictions subject to significant change: Our future results of operations could be affected by changes in the effective tax rate as a result of changes in tax laws, regulations and judicial rulings. In December 2017, the Tax Cuts and Jobs Act of 2017 was signed into law in the United States. We are continuing to evaluate the impact of tax reform as new guidance and regulations are published. In addition, further changes in the tax laws of foreign jurisdictions could arise, including as a result of the base erosion and profit shifting (BEPS) project undertaken by the Organisation for Economic Cooperation and Development (OECD). The OECD, which represents a coalition of member countries, has issued recommendations that, in some cases, would make substantial changes to numerous long-standing tax positions and principles. These contemplated changes, to the extent adopted by OECD members and/or other countries, could increase tax uncertainty and may adversely affect our provision for income taxes.

The impact of United States healthcare reform legislation on our business remains uncertain: In 2010 the Patient Protection and Affordable Care Act (ACA) was enacted. While the provisions of the ACA are intended to expand access to health insurance coverage and improve the quality of healthcare over time, other provisions of the legislation, including Medicare provisions aimed at decreasing costs, comparative effectiveness research, an independent payment advisory board and pilot programs to evaluate alternative payment methodologies, are having a meaningful effect on the way healthcare is developed and delivered and could have a significant effect on our business. Among other things, the ACA imposed a 2.3 percent excise tax on medical devices that applies only to United States sales, which are a majority of our medical device sales. Congress suspended the excise tax for 2016 and 2017. The suspension was once again upheld in January 2018 for two years. If the excise tax is not repealed or further suspended, the tax will adversely impact future results of operations after the current suspension expires in December 2019. We also face uncertainties that might result from modification or repeal of any of the provisions of the ACA, including as a result of current and future executive orders and legislative actions. We cannot predict what other healthcare programs and regulations will ultimately be implemented at the federal or state level or the effect of any future legislation or regulation in the United States may have on our business.

We are subject to extensive governmental regulation relating to the manufacturing, labeling and marketing of our products: The manufacturing, labeling and marketing of our products are subject to extensive and evolving regulations and rigorous regulatory enforcement by the FDA, European Union (EU), the Safe Food and Drug Administration (SFDA) in China, and other governmental authorities in the United States and internationally. The process of obtaining regulatory approvals to market a medical device can be costly and time consuming and approvals might not be granted timely. We have ongoing responsibilities under the laws and regulations applicable to the manufacturing of products within our facilities and those contracted by third parties that are subject to periodic inspections by the FDA and other governmental authorities to determine compliance with the quality system, medical device reporting regulations and other requirements. Costs to comply with regulations, including the EU Medical Device Regulation enacted by the EU in May 2017 and effective in May 2020, and the regulatory laws established by the SFDA in China, and costs associated with remediation can be significant. If we fail to comply with applicable regulatory requirements, we may be subject to a range of sanctions, including substantial fines, warning letters that require corrective action, product seizures, recalls, the suspension of product manufacturing, revocation of approvals, exclusion from future participation in government healthcare programs, substantial fines and criminal prosecution.

We are subject to federal, state and foreign healthcare regulations, including anti-bribery and anti-corruption laws, and could face substantial penalties if we fail to comply with such regulations and laws: The relationships that we and our distributors and others that market our products have with healthcare professionals, such as physicians and hospitals, are subject to scrutiny under various state and federal laws often referred to collectively as healthcare fraud and abuse laws. In addition, the United States and foreign government regulators have increased the enforcement of the Foreign Corrupt Practices Act and other anti-bribery laws. We also must comply with a variety of other laws that protect the privacy of individually identifiable healthcare information and impose extensive tracking and reporting related to all transfers of value provided to certain healthcare professionals. These laws and regulations are broad in scope and are subject to evolving interpretation and we have in the past been, and in the future could be, required to incur substantial costs to monitor compliance or to alter our practices. Violations of these laws may be punishable by criminal or civil sanctions, including substantial fines, imprisonment of current or former employees and exclusion from participation in governmental healthcare programs.

We are subject to data privacy and protection regulations and laws globally, and could face substantial penalties if we fail to comply with such regulations and laws: We are subject to a variety of laws and regulations globally regarding privacy, data protection, and data security, including those related to the collection, storage, handling, use, disclosure, transfer, and security of personal data. For example, Europe's General Data Protection Regulation (GDPR), which became effective in May 2018, applies to all of our activities related to products and services that we offer to EU customers and employees. The GDPR established new requirements regarding the handling of personal data and includes significant penalties for non-compliance (including possible fines of up to 4% of total company revenue). Other governmental authorities around the world are considering similar types of legislative and regulatory proposals concerning data protection, which could impose significant limitations and increase our cost of providing our products and services where we process end user personal data. These laws and regulations are broad in scope and are subject to evolving interpretation and we have in the past been, and in the future could be, required to incur substantial costs to monitor compliance or to alter our practices.

We may be adversely affected by product liability claims, unfavorable court decisions or legal settlements: We are exposed to potential product liability risks inherent in the design, manufacture and marketing of medical devices, many of which are implanted in the human body for long periods of time or indefinitely. We are currently defendants in a number of product liability matters,

including those relating to our Rejuvenate and ABGII Modular-Neck hip stems and LFIT Anatomic CoCr V40 Femoral Heads discussed in Note 7 to our Consolidated Financial Statements. These matters are subject to many uncertainties and outcomes are not predictable. In addition, we may incur significant legal expenses regardless of whether we are found to be liable. We are self-insured for product liability-related claims and expenses.

Intellectual property litigation and infringement claims could cause us to incur significant expenses or prevent us from selling certain of our products: The medical device industry is characterized by extensive intellectual property litigation and, from time to time, we are the subject of claims of infringement or misappropriation. Regardless of outcome, such claims are expensive to defend and divert management and operating personnel from other business issues. A successful claim or claims of patent or other intellectual property infringement against us could result in payment of significant monetary damages and/or royalty payments or negatively impact our ability to sell current or future products in the affected category.

Dependence on patent and other proprietary rights and failing to protect such rights or to be successful in litigation related to such rights may impact offerings in our product portfolios: Our long-term success largely depends on our ability to market technologically competitive products. If we fail to obtain or maintain adequate intellectual property protection, it could allow others to sell products that directly compete with proprietary features in our product portfolio. Also, our issued patents may be subject to claims challenging their validity and scope and raising other issues. In addition, currently pending or future patent applications may not result in issued patents.

MARKET RISKS

We have exposure to exchange rate fluctuations on cross border transactions and translation of local currency results into United States Dollars: We report our financial results in United States Dollars and approximately 30% of our net sales are denominated in foreign currencies, including the Australian Dollar, British Pound, Euro and Japanese Yen. Cross border transactions with external parties and intercompany relationships result in increased exposure to foreign currency exchange effects. While we use derivative instruments to manage the impact of currency exchange, our hedging strategies may not be successful, and our unhedged exposures continue to be subject to currency fluctuations. In addition, the weakening or strengthening of the United States Dollar results in favorable or unfavorable translation effects when the results of our foreign locations are translated into United States Dollars.

Additional capital that we may require in the future may not be available to us or may only be available to us on unfavorable terms: Our future capital requirements will depend on many factors, including operating requirements, current and future acquisitions and the need to refinance existing debt. Our ability to issue additional debt or enter into other financing arrangements on acceptable terms could be adversely affected by our debt levels, unfavorable changes in economic conditions or uncertainties that affect the capital markets. Changes in credit ratings issued by nationally recognized credit rating agencies could also adversely affect our access to and cost of financing. Higher borrowing costs or the inability to access capital markets could adversely affect our ability to support future growth and operating requirements.

BUSINESS AND OPERATIONAL RISKS

We are subject to cost containment measures in the United States and other countries resulting in pricing pressures: Initiatives to limit the growth of general healthcare expenses and hospital costs are ongoing in the markets in which we do business. These initiatives are sponsored by government agencies, legislative bodies and the private sector and include price regulation and competitive pricing. Pricing pressure has also increased due to continued consolidation among healthcare providers, trends toward managed care, the shift toward governments becoming the primary payers of healthcare expenses, reduction in reimbursement levels and medical procedure volumes and government laws and regulations relating to sales and promotion, reimbursement and pricing generally.

We operate in a highly competitive industry in which competition in the development and improvement of new and existing products is significant: The markets in which we compete are highly competitive. New products and surgical procedures are introduced on an ongoing basis and our present or future products could be rendered obsolete or uneconomical by technological advances by our competitors, who may respond more quickly to new or emerging technologies, undertake more extensive marketing campaigns, have greater financial, marketing and other resources or be more successful in attracting potential customers, employees and strategic partners.

We may be unable to maintain adequate working relationships with healthcare professionals: We seek to maintain close working relationships with respected physicians and medical personnel in hospitals and universities who assist in product research and development. We rely on these professionals to assist us in the development and improvement of proprietary products. If we are unable to maintain these relationships, our ability to develop, market and sell new and improved products could be adversely affected.

We are subject to additional risks associated with our extensive international operations: We develop, manufacture and distribute our products globally. Our international operations are subject to additional risks and potential costs, including changes in reimbursement, changes in regulatory requirements, differing local product preferences and product requirements, diminished protection of intellectual property in some countries, trade protection measures and import or export licensing requirements, difficulty in staffing and managing foreign operations, and political and economic instability. Our business could be adversely impacted if we are unable to successfully manage these and other risks of international operations in an increasingly volatile environment.

We may be unable to capitalize on previous or future acquisitions: In addition to internally developed products, we invest in new products and technologies through acquisitions. Such investments are inherently risky, and we cannot guarantee that any acquisition will be successful or will not have a material unfavorable impact on us. The risks include the activities required and resources allocated to integrate new businesses, diversion of management time that could adversely affect management's ability to focus on other projects, the inability to realize the expected benefits, savings or synergies from the acquisition, the loss of key personnel and exposure to unexpected liabilities of acquired companies. In addition, we cannot be certain that the businesses we acquire will become or remain profitable.

We may incur goodwill impairment charges related to one or more of our business units: We perform our annual impairment test for goodwill in the fourth quarter of each year, or more frequently if indicators are present or changes in circumstances suggest that impairment may exist. In evaluating the potential for impairment we make assumptions regarding revenue projections, growth rates, cash flows, tax rates and discount rates. These assumptions are uncertain and by nature may vary from actual results. A significant

reduction in the estimated fair values could result in impairment charges.

We could be negatively impacted by future changes in the allocation of income to each of the income tax jurisdictions in which we operate: We operate in multiple income tax jurisdictions both in the United States and internationally. Accordingly, our management must determine the appropriate allocation of income to each jurisdiction based on current interpretations of complex income tax regulations. Income tax authorities regularly perform audits of our income tax filings. Income tax audits associated with the allocation of income and other complex issues, including inventory transfer pricing and cost sharing, product royalty and foreign branch arrangements, may require an extended period of time to resolve and may result in significant income tax adjustments.

We could experience a failure of a key information technology system, process or site or a breach of information security, including a cybersecurity breach or failure of one or more key information technology systems, networks, processes, associated sites or service providers: We rely extensively on information technology (IT) systems to conduct business. In addition, we rely on networks and services, including internet sites, cloud and SaaS solutions, data hosting and processing facilities and tools and other hardware, software and technical applications and platforms, some of which are managed, hosted, provided and/or used by third-parties or their vendors, to assist in conducting our business. Numerous and evolving cybersecurity threats pose potential risks to the security of our IT systems, networks and product offerings, as well as the confidentiality, availability and integrity of our data. A security breach, whether of our products, of our customers' network security and systems or of third-party hosting services, could impact the use of such products and the security of information stored therein. While we have made investments seeking to address these threats, including monitoring of networks and systems, hiring of experts, employee training and security policies for employees and third-party providers, the techniques used in these attacks change frequently and may be difficult to detect for periods of time and we may face difficulties in anticipating and implementing adequate preventative measures. If our IT systems are damaged or cease to function properly, the networks or service providers we rely upon fail to function properly, or we or one of our third-party providers suffer a loss or disclosure of our business or stakeholder information due to any number of causes ranging from catastrophic events or power outages to improper data handling or security breaches and our business continuity plans do not effectively address these failures on a timely basis, we may be exposed to reputational, competitive and business harm as well as litigation and regulatory action.

An inability to successfully manage the implementation of our new global enterprise resource planning (ERP) system could adversely affect our operations and operating results: We are in the process of implementing a new global ERP system. This system will replace many of our existing operating and financial systems. Such an implementation is a major undertaking, both financially and from a management and personnel perspective. Any disruptions, delays or deficiencies in the design and implementation of our new ERP system could adversely affect our ability to process orders, ship products, provide services and customer support, send invoices and track payments, fulfill contractual obligations or otherwise operate our business.

We may be unable to attract and retain key employees: Our sales, technical and other key personnel play an integral role in the development, marketing and selling of new and existing products. If we are unable to recruit, hire, develop and retain a talented, competitive work force, we may not be able to meet our strategic business objectives.

Interruption of manufacturing operations could adversely affect our business: We and our suppliers have manufacturing sites all over the world; however, the manufacturing of certain of our product lines is concentrated in one or more plants or geographic regions. Orthopaedics has principal manufacturing and distribution facilities in the United States in New Jersey, Pennsylvania and Florida and outside the United States in China, Ireland, Netherlands, Switzerland, Germany and the United Kingdom. MedSurg has principal manufacturing and distribution facilities in the United States in Michigan, California, Illinois, Indiana, Washington, Florida and Texas and outside the United States in Ireland, Germany, Mexico, Puerto Rico, Switzerland, Turkey, France and the United Kingdom. Neurotechnology and Spine has principal manufacturing and distribution facilities in Illinois, Indiana, Utah, Pennsylvania and California and outside the United States in China, Ireland, France, Switzerland and Netherlands. Damage to these facilities as a result of natural disasters or otherwise, as well as issues in our manufacturing arising from a failure to follow specific internal protocols and procedures, compliance concerns relating to the quality systems regulation, equipment breakdown or malfunction or other factors, could adversely affect the availability of our products. In the event of an interruption in manufacturing, we may be unable to move quickly to alternate means of producing affected products to meet customer demand. In the event of a significant interruption, we may experience lengthy delays in resuming production of affected products due to the need for regulatory approvals. We may experience loss of market share, additional expense and harm to our reputation.

We use a variety of raw materials, components or devices in our global supply chains, production and distribution processes; significant shortages or price increases could increase our operating costs, require significant capital expenditures, or adversely impact the competitive position of our products: Our reliance on certain suppliers to secure raw materials, components and finished devices exposes us to product shortages and unanticipated increases in prices. In addition, several raw materials, components, and finished devices are procured from a sole-source due to the quality considerations, unique intellectual property considerations or constraints associated with regulatory requirements. If sole-source suppliers are acquired or were unable or unwilling to deliver these materials, we may not be able to manufacture or have available one or more products during such period of unavailability and our business could suffer. In certain cases we may not be able to establish additional or replacement suppliers for such materials in a timely or cost effective manner, largely as a result of FDA and other regulations that require, among other things, validation of materials and components prior to their use in our products.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We have approximately 23 company-owned and 273 leased locations worldwide including 43 manufacturing locations. We believe that our properties are in good operating condition and adequate for the manufacture and distribution of our products. We do not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

ITEM 3. LEGAL PROCEEDINGS.

We are involved in various proceedings, legal actions and claims arising in the normal course of business, including proceedings related to product, labor and intellectual property, and the matters described in more detail in Note 7 to our Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

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

Our common stock is traded on the New York Stock Exchange under the symbol SYK.

Our Board of Directors considers payment of cash dividends at its quarterly meetings. On January 31, 2019 there were 2,729 shareholders of record of our common stock.

We did not repurchase any shares in the three months ended December 31, 2018 and the total dollar value of shares that could be acquired under our authorized repurchase program at December 31, 2018 was $1,340.

We issued 150 shares of our common stock in the fourth quarter of 2018 as performance incentive awards. These shares were not registered under the Securities Act of 1933 based on the conclusion that the awards would not be events of sale within the meaning of Section 2(a)(3) of the Act.

The following graph compares our total returns (including reinvestments of dividends) against the Standard & Poor's (S&P) 500 Index and the S&P 500 Health Care Index. The graph assumes $100 (not in millions) invested on December 31, 2013 in our common stock and each of the indices.

Company / Index	2013	2014	2015	2016	2017	2018
Stryker Corporation	$100.00	$127.41	$127.44	$166.51	$217.86	$223.13
S&P 500 Index	$100.00	$113.69	$115.26	$129.05	$157.22	$150.33
S&P 500 Health Care Index	$100.00	$125.34	$133.97	$130.37	$159.15	$169.44

ITEM 6. SELECTED FINANCIAL DATA.

Statement of Earnings Data	2018	2017	2016	2015	2014
Net sales	$13,601	$12,444	$11,325	$9,946	$9,675
Cost of sales	4,663	4,264	3,821	3,333	3,310
Gross profit	$8,938	$8,180	$7,504	$6,613	$6,365
Research, development and engineering expenses	862	787	715	625	614
Selling, general and administrative expenses	5,099	4,552	4,137	3,610	3,547
Recall charges, net of insurance proceeds	23	173	158	296	761
Amortization of intangible assets	417	371	319	210	188
Total operating expenses	$6,401	$5,883	$5,329	$4,741	$5,110
Operating income	$2,537	$2,297	$2,175	$1,872	$1,255
Other income (expense), net	(181)	(234)	(254)	(137)	(95)
Earnings before income taxes	$2,356	$2,063	$1,921	$1,735	$1,160
Income taxes	(1,197)	1,043	274	296	645
Net earnings	$3,553	$1,020	$1,647	$1,439	$515
Net earnings per share of common stock:					
Basic net earnings per share of common stock	$9.50	$2.73	$4.40	$3.82	$1.36
Diluted net earnings per share of common stock	$9.34	$2.68	$4.35	$3.78	$1.34
Dividends declared per share of common stock	$1.93	$1.745	$1.565	$1.415	$1.26
Balance Sheet Data					
Cash, cash equivalents and current marketable securities	$3,699	$2,793	$3,384	$4,079	$5,000
Accounts receivable, less allowance	2,332	2,198	1,967	1,662	1,572
Inventories	2,955	2,465	2,030	1,639	1,588
Property, plant and equipment, net	2,291	1,975	1,569	1,199	1,098
Total assets	27,229	22,197	20,435	16,223	17,258
Accounts payable	646	487	437	410	329
Total debt	9,859	7,222	6,914	3,998	3,952
Shareholders’ equity	$11,730	$9,980	$9,550	$8,511	$8,595
Cash Flow Data					
Net cash provided by operating activities	$2,610	$1,559	$1,915	$981	$1,858
Purchases of property, plant and equipment	572	589	490	270	233
Depreciation	306	271	227	187	190
Acquisitions, net of cash acquired	2,451	831	4,332	153	916
Amortization of intangible assets	417	371	319	210	188
Dividends paid	703	636	568	521	462
Repurchase of common stock	$300	$230	$13	$700	$100
Other Data					
Number of shareholders of record	2,732	2,850	3,010	3,118	3,305
Approximate number of employees	36,000	33,000	33,000	27,000	26,000

Dollar amounts in millions except per share amounts or as otherwise specified. 7

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

Overview of 2018

Our goal is to achieve sales growth at the high-end of the medical technology (MedTech) industry and maintain our capital allocation strategy that prioritizes: (1) Acquisitions, (2) Dividends and (3) Share repurchases.

In 2018 we achieved reported net sales growth of 9.3%. Excluding the impact of acquisitions and the adoption of Accounting Standards Update 2014-9, Revenue From Contracts with Customers, as well as related amendments, sales grew 7.9% in constant currency. We reported net earnings of $3,553 and net earnings per diluted share of $9.34. Excluding the impact of certain items, we achieved adjusted net earnings of $2,779 and growth of 12.6% in adjusted net earnings per diluted share[(1)].

We continued our capital allocation strategy by investing $2,451 in acquisitions, paying $703 in dividends to our shareholders and using $300 for share repurchases.

In November 2018 we completed the acquisition of K2M Group Holdings, Inc. (K2M) for $27.50 per share, or an aggregate purchase price of approximately $1,380. K2M is a global leader of complex spine and minimally invasive solutions focused on achieving three-dimensional Total Body Balance. K2M is part of our Spine business within Neurotechnology and Spine.

In February 2018 we completed the acquisition of Entellus Medical, Inc. (Entellus) for $24.00 per share, or an aggregate purchase price of $697, net of cash acquired. Entellus is focused on delivering superior patient and physician experiences through products designed for the minimally invasive treatment of various ear, nose and throat (ENT) disease states. Entellus is part of our Neurotechnology business within Neurotechnology and Spine.

In March 2018 we issued $600 of senior unsecured notes with a coupon of 3.650% due on March 7, 2028. In April 2018 we repaid $600 of our senior unsecured notes with a coupon of 1.300%. In November 2018 we issued: €300 of senior unsecured notes with a floating interest rate (Three Month EURIBOR plus 28 bps) due on November 30, 2020, €550 of senior unsecured notes with a fixed interest rate of 1.125% due on November 30, 2023, €750 of senior unsecured notes with a fixed interest rate of 2.125% due on November 30, 2027, and €650 of senior unsecured notes with a fixed interest rate of 2.625% due on November 30, 2030. Refer to Note 10 to our Consolidated Financial Statements for further information.

In December 2018 the transfer of certain intellectual properties between tax jurisdictions resulted in a $1.5 billion non-cash tax benefit and a corresponding $1.5 billion deferred tax asset. The benefit of the transaction will be realized as a reduction of cash paid for taxes over a period of nine years and a corresponding charge to tax expense, which consistent with the benefit recognized in 2018 will also be adjusted out of reported net earnings going forward in our non-GAAP financial measure.

[(1)] Refer to "Non-GAAP Financial Measures" for a discussion of non-GAAP financial measures used in this report and a reconciliation to the most directly comparable GAAP financial measure.

CONSOLIDATED RESULTS OF OPERATIONS

				Percent Net Sales			Percentage Change	
	2018	2017	2016	2018	2017	2016	Current Year End	Prior Year End
Net sales	$13,601	$12,444	$11,325	100.0 %	100.0 %	100.0 %	9.3 %	9.9 %
Gross profit	8,938	8,180	7,504	65.7	65.7	66.3	9.3	9.0
Research, development and engineering expenses	862	787	715	6.3	6.3	6.3	9.5	10.1
Selling, general and administrative expenses	5,099	4,552	4,137	37.5	36.6	36.5	12.0	10.0

Recall charges, net of insurance proceeds	23	173	158	0.2	1.4	1.4	(86.7)	9.5
Amortization of intangible assets	417	371	319	3.1	3.0	2.8	12.4	16.3
Other income (expense), net	(181)	(234)	(254)	(1.3)	(1.9)	(2.2)	(22.6)	(7.9)
Income taxes	(1,197)	1,043	274				(214.8)	280.7
Net earnings	$3,553	$1,020	$1,647	26.1 %	8.2 %	14.5 %	248.3 %	(38.1)%
Net earnings per diluted share	$9.34	$2.68	$4.35				248.5 %	(38.4)%
Adjusted net earnings per diluted share[(1)]	$7.31	$6.49	$5.80				12.6 %	11.9 %

Geographic and Segment Net Sales				Percentage Change			
				Current Year End		Prior Year End	
	2018	2017	2016	As Reported	Constant Currency	As Reported	Constant Currency
Geographic:							
United States	$9,848	$9,059	$8,230	8.7 %	8.7 %	10.1 %	10.1 %
International	3,753	3,385	3,095	10.9	9.7	9.4	9.0
Total	$13,601	$12,444	$11,325	9.3 %	9.0 %	9.9 %	9.8 %
Segment:							
Orthopaedics	$4,991	$4,713	$4,422	5.9 %	5.4 %	6.6 %	6.5 %
MedSurg	6,045	5,557	4,894	8.8	8.7	13.6	13.4
Neurotechnology and Spine	2,565	2,174	2,009	18.0	17.4	8.2	8.3
Total	$13,601	$12,444	$11,325	9.3 %	9.0 %	9.9 %	9.8 %

Dollar amounts in millions except per share amounts or as otherwise specified. 8

Supplemental Net Sales Growth Information

			Percentage Change							Percentage Change				
					United States	International						United States	International	
	2018	2017	As Reported	Constant Currency	As Reported	As Reported	Constant Currency	2017	2016	As Reported	Constant Currency	As Reported	As Reported	Constant Currency
Orthopaedics:														
Knees	$1,701	$1,595	6.6 %	6.3 %	6.4 %	7.3 %	5.7 %	$1,595	$1,490	7.0 %	6.9 %	7.4 %	5.9 %	5.5 %
Hips	1,336	1,303	2.5	2.1	2.2	3.1	2.0	1,303	1,283	1.6	1.8	2.0	0.9	1.4
Trauma and Extremities	1,580	1,478	6.9	6.2	5.4	9.7	7.4	1,478	1,364	8.3	8.2	11.0	3.8	3.5
Other	374	337	11.0	11.0	8.7	21.3	21.3	337	285	18.0	17.6	17.9	18.6	16.4
	$4,991	$4,713	5.9 %	5.4 %	5.2 %	7.3 %	5.7 %	$4,713	$4,422	6.6 %	6.5 %	7.8 %	4.0 %	3.8 %
MedSurg:														
Instruments	$1,822	$1,678	8.6 %	8.4 %	9.2 %	6.4 %	6.0 %	$1,678	$1,553	8.1 %	8.0 %	8.1 %	7.9 %	7.5 %
Endoscopy	1,846	1,652	11.7	11.9	11.0	14.4	14.7	1,652	1,470	12.4	12.0	14.2	6.3	5.0
Medical	2,118	1,969	7.6	7.5	6.9	9.9	9.4	1,969	1,633	20.5	20.4	17.7	31.4	30.4
Sustainability	259	258	0.4	0.1	—	100.0	19.5	258	238	8.9	8.9	8.9	26.2	24.4
	$6,045	$5,557	8.8 %	8.7 %	8.4 %	10.2 %	10.0%	$5,557	$4,894	13.5 %	13.4 %	13.2 %	15.1%	14.1%
Neurotechnology and Spine:														
Neurotechnology	$1,737	$1,423	22.1%	21.4%	23.9%	18.9 %	17.2%	$1,423	$1,255	13.4 %	13.4 %	11.2 %	17.4%	17.3%
Spine	828	751	10.3	9.9	6.9	20.8	19.1	751	754	(0.4)	(0.4)	(0.6)	0.1	0.2
	$2,565	$2,174	18.0%	17.4%	17.3%	19.4 %	17.6%	$2,174	$2,009	8.2 %	8.3 %	6.3 %	12.4%	12.4%
Total	$13,601	$12,444	9.3 %	9.0 %	8.7 %	10.9 %	9.7 %	$12,444	$11,325	9.9 %	9.8 %	10.1 %	9.4 %	9.0 %

Consolidated Net Sales

Consolidated net sales in 2018 increased 9.3% as reported and 9.0% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.3%. Excluding the 1.9% impact of acquisitions and the 0.9% impact from the adoption of a new revenue recognition standard (ASC 606), net sales increased in constant currency by 9.3% from increased unit volume partially offset by 1.4% due to lower prices. The unit volume increase was primarily due to higher shipments of medical, instruments, endoscopy, neurotechnology, knees, and trauma and extremities products.

Consolidated net sales in 2017 increased 9.9% as reported and 9.8% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.1%. Excluding the 2.7% impact of acquisitions, net sales increased in constant currency by 8.2% from increased unit volume partially offset by 1.1% due to lower prices. The unit volume increase was primarily due to higher shipments of neurotechnology, endoscopy, knees, trauma and extremities and instruments products.

Orthopaedics Net Sales

Orthopaedics net sales in 2018 increased 5.9% as reported and 5.4% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.5%. Excluding the 0.5% impact from the adoption of ASC 606, net sales increased in constant currency by 8.1% from increased unit volume partially offset by 2.2% due to lower prices. The unit volume increase was primarily due to higher shipments of knees and trauma and extremities products.

Orthopaedics net sales in 2017 increased 6.6% as reported and 6.5% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.1%. Excluding the 0.3% impact of acquisitions, net sales increased in constant currency by 8.6% from increased unit volume partially offset by 2.4% due to lower prices. The unit volume increase was primarily due to higher shipments of knees and trauma and extremities products.

MedSurg Net Sales

MedSurg net sales in 2018 increased 8.8% as reported and 8.7% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.1%. Excluding the 1.4% impact of

acquisitions and the 1.3% impact from the adoption of ASC 606, net sales increased in constant currency by 9.3% from increased unit volume partially offset by 0.7% due to lower prices. The unit volume increase was primarily due to higher shipments of medical, instruments, and endoscopy products.

MedSurg net sales in 2017 increased 13.6% as reported and 13.4% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.2%. Excluding the 5.6% impact of acquisitions, net sales increased in constant currency by 7.5% from increased unit volume and 0.2% due to higher prices. The unit volume increase was primarily due to higher shipments of endoscopy, instruments and medical products.

Neurotechnology and Spine Net Sales

Neurotechnology and Spine net sales in 2018 increased 18.0% as reported and 17.4% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.6%. Excluding the 7.4% impact of acquisitions and the 0.6% impact from adoption of ASC 606, net sales in constant currency increased by 12.2% from increased unit volume partially offset by 1.6% due to lower prices. The unit volume increase was primarily due to higher shipments of neurotechnology products.

Neurotechnology and Spine net sales in 2017 increased 8.2% as reported and 8.3% in constant currency, as foreign currency exchange rates impacted net sales nominally. Excluding the 0.7% impact of acquisitions, net sales in constant currency increased by 9.1% from increased unit volume partially offset by 1.5% due to lower prices. The unit volume increase was primarily due to higher shipments of neurotechnology products.

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We adopted Accounting Standards Update 2014-09, Revenue From Contracts with Customers, as well as related amendments (ASC 606), issued by the Financial Accounting Standards Board on a modified retrospective basis, effective January 1, 2018. Refer to Note 1 and Note 2 to our Consolidated Financial Statements for further information.

The following sales growth data and subsequent analysis have been presented to supplement our discussion and analysis of net sales by quantifying and excluding the impact of the adoption of ASC 606 for our businesses, which related primarily to the reclassification of certain costs previously presented as selling, general and administrative expenses to net sales.

	Full Year							
			Percentage Change		Percentage Change Excluding ASC 606 Impact			
							International	
	2018	2017	As Reported	Excluding ASC 606 Impact	Constant Currency	United States	Excluding ASC 606 Impact	Constant Currency
Orthopaedics:								
Knees	$1,701	$1,595	6.6 %	7.0 %	6.7 %	6.9 %	7.4 %	6.1 %
Hips	1,336	1,303	2.5	2.8	2.3	2.5	3.3	2.2
Trauma and Extremities	1,580	1,478	6.9	7.8	7.0	6.5	10.1	7.8
Other	374	337	11.0	10.8	11.0	8.6	20.9	21.5
	$4,991	$4,713	5.9 %	6.4 %	5.9 %	5.8 %	7.6 %	6.1 %
MedSurg:								
Instruments	$1,822	$1,678	8.6 %	10.2 %	10.0 %	11.2 %	6.9 %	6.2 %
Endoscopy	1,846	1,652	11.7	12.1	12.3	11.5	14.3	14.9
Medical	2,118	1,969	7.6	9.1	9.0	8.8	10.2	9.6
Sustainability	259	258	0.4	3.1	3.1	3.0	19.7	19.5
	$6,045	$5,557	8.8 %	10.1 %	10.0 %	10.0 %	10.4 %	10.1 %
Neurotechnology and Spine:								
Neurotechnology	$1,737	$1,423	22.1 %	22.8 %	22.1 %	25.0 %	19.1 %	17.3 %
Spine	828	751	10.3	10.7	10.3	7.2	21.5	19.8
	$2,565	$2,174	18.0 %	18.6 %	18.0 %	18.1 %	19.7 %	17.9 %
Total	$13,601	$12,444	9.3 %	10.2 %	9.8 %	9.8 %	11.1 %	9.9 %

Consolidated Net Sales (Excluding ASC 606 Impact)

Consolidated net sales increased 10.2% in 2018 and 9.8% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.4%. Excluding the 1.9% impact of acquisitions net sales in constant currency increased by 9.3% from unit volume partially offset by 1.4% due to lower prices. The unit volume increase was primarily due to higher shipments of medical, instruments, endoscopy, neurotechnology, knees, and trauma and extremities products.

Orthopaedics Net Sales (Excluding ASC 606 Impact)

Orthopaedics net sales increased 6.4% in 2018 and 5.9% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.5%. Net sales in constant currency increased by 8.1% from unit volume partially offset by 2.2% due to lower prices. The unit volume increase was primarily due to higher shipments of knee and trauma and extremities products.

MedSurg Net Sales (Excluding ASC 606 Impact)

MedSurg net sales increased 10.1% in 2018 and 10.0% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.1%. Excluding the 1.4% impact of acquisitions net sales in constant currency increased by 9.3% from unit volume partially offset by 0.7% due to lower prices. The unit volume increase was primarily due to higher shipments of medical, instruments, and endoscopy products.

Neurotechnology and Spine Net Sales (Excluding ASC 606 Impact)

Neurotechnology and Spine net sales increased 18.6% in 2018 and 18.0% in constant currency, as foreign currency exchange rates positively impacted net sales by 0.6%. Excluding the 7.4% impact of acquisitions net sales in constant currency increased by 12.2% from unit volume partially offset by 1.6% due to lower prices. The unit volume increase was primarily due to higher shipments of neurotechnology products.

Gross Profit

Gross profit in 2018 as a percentage of net sales of 65.7% was consistent with 2017. Excluding the impact of the items noted below, gross profit decreased to 66.0% from 66.4% in 2017 primarily due to the impact of adopting ASC 606 and by lower selling prices.

Gross profit as a percentage of net sales decreased to 65.7% in 2017 from 66.3% in 2016. Excluding the impact of the items noted below, gross profit decreased to 66.4% from 66.7% in 2016 primarily due to the impact of hurricanes, unfavorable mix and inflation, partially offset by higher sales volumes, increased productivity and favorable impact of foreign currency exchange.

				Percent Net Sales		
	2018	2017	2016	2018	2017	2016
Reported	$8,938	$8,180	$7,504	65.7%	65.7%	66.3%
Inventory stepped up to fair value	16	22	36	0.1	0.2	0.3
Restructuring-related and other charges	27	57	15	0.2	0.4	—
Medical device regulations	2	—	—	—	—	—
Adjusted	$8,983	$8,259	$7,555	66.0%	66.3%	66.7%

Research, Development and Engineering Expenses

Research, development and engineering expenses represented 6.3% of net sales in 2018, 2017 and 2016. Projects to develop new products, investments in new technologies and recent acquisitions contributed to the spending levels.

Dollar amounts in millions except per share amounts or as otherwise specified. 10

Selling, General and Administrative Expenses

Selling, general and administrative expenses as a percentage of net sales in 2018 increased to 37.5% from 36.6% in 2017. Excluding the impact of the items noted below, expenses decreased to 33.9% in 2018 from 34.8% in 2017 primarily due to leverage from higher sales volumes, the favorable impact from the adoption of ASC 606 and continued focus on our operating expense improvement initiatives, partially offset by the leverage from recent acquisitions.

Selling, general and administrative expenses as a percentage of net sales in 2017 increased to 36.6% from 36.5% in 2016. Excluding the impact of certain items noted below, selling, general and administrative expenses as a percentage of sales decreased in 2017. This reflects favorable leverage from higher sales volumes and continued focus on operating expense improvement initiatives, including leverage from our recent acquisitions, partially offset by the unfavorable impact of foreign currency exchange.

				Percent Net Sales		
	2018	2017	2016	2018	2017	2016
Reported	$5,099	$4,552	$4,137	37.5 %	36.6 %	36.5 %
Other acquisition and integration-related	(108)	(42)	(95)	(0.9)	(0.4)	(0.8)
Restructuring-related and other charges	(192)	(137)	(110)	(1.4)	(1.1)	(1.0)
Regulatory and legal matters	(185)	(39)	12	(1.4)	(0.3)	0.1
Adjusted	$4,614	$4,334	$3,944	33.9 %	34.8 %	34.8 %

Recall Charges, Net of Insurance Proceeds

Recall charges, net of insurance proceeds, were $23, $173 and $158 in 2018, 2017 and 2016. Charges were primarily due to the disclosed Rejuvenate and ABGII Modular-Neck hip stems and LFIT V40 femoral head voluntary recalls. Refer to Note 7 to our Consolidated Financial Statements for further information.

Amortization of Intangible Assets

Amortization of intangible assets was $417, $371 and $319 in 2018, 2017 and 2016. The increase in 2018 and 2017 was due to acquisitions. Refer to Notes 6 and 8 to our Consolidated Financial Statements for further information.

Other Income (Expense), Net

Other income (expense), net was ($181), ($234) and ($254) in 2018, 2017 and 2016. The decrease in 2018 was primarily due to an increase in interest income due to higher interest rates partially offset by higher interest expense due to higher interest rates and higher debt outstanding. Refer to Note 10 to our Consolidated Financial Statements for further information.

Income Taxes

Our effective tax rate was (50.8)%, 50.6% and 14.3% for 2018, 2017 and 2016. The effective income tax rate for 2018 reflects the tax effect related to the transfer of intellectual properties between tax jurisdictions, the continuing impact of complying with the Tax Cuts and Jobs Act of 2017 (the Tax Act), and continued lower effective income tax rates as a result of our European operations.

The effective income tax rate for 2017 reflects compliance with the Tax Act offset by lower effective income tax rates as a result of our European operations. The effective income tax rate for 2016 reflects lower effective income tax rates as a result of our European operations.

Net Earnings

Net earnings in 2018 increased to $3,553 or $9.34 per diluted share from $1,020 or $2.68 per diluted share in 2017 and $1,647 or $4.35 per diluted share in 2016. The impact of foreign currency exchange rates reduced net earnings per diluted share by approximately $0.06, $0.07 and $0.11 in 2018, 2017 and 2016.

				Percent Net Sales		
	2018	2017	2016	2018	2017	2016
Reported	$3,553	$1,020	$1,647	26.1 %	8.2 %	14.5 %
Inventory stepped up to fair value	9	20	23	0.1	0.2	0.2
Other acquisition and integration-related	90	31	77	0.7	0.2	0.7
Amortization of intangible assets	338	250	221	2.5	2.0	2.0

Restructuring-related and other charges	179	155	98	1.3	1.2	0.9
Medical device regulations	10	—	—	0.1	—	—
Recall-related matters	18	131	127	0.1	1.1	1.1
Regulatory and legal matters	141	25	(7)	1.0	0.2	(0.1)
Tax matters	(1,559)	833	8	(11.5)	6.7	0.1
Adjusted	$2,779	$2,465	$2,194	20.4 %	19.8 %	19.4 %

Non-GAAP Financial Measures

We supplement the reporting of our financial information determined under accounting principles generally accepted in the United States (GAAP) with certain non-GAAP financial measures, including percentage sales growth excluding the impact of the adoption of ASC 606; percentage sales growth in constant currency; percentage sales growth in constant currency and excluding the impact of the adoption of ASC 606; percentage organic sales growth; adjusted gross profit; adjusted selling, general and administrative expenses; adjusted amortization of intangible assets; adjusted operating income; adjusted effective income tax rate; adjusted net earnings; and adjusted net earnings per diluted share (Diluted EPS). We believe these non-GAAP financial measures provide meaningful information to assist investors and shareholders in understanding our financial results and assessing our prospects for future performance. Management believes percentage sales growth in constant currency and the other adjusted measures described above are important indicators of our operations because they exclude items that may not be indicative of or are unrelated to our core operating results and provide a baseline for analyzing trends in our underlying businesses. Management uses these non-GAAP financial measures for reviewing the operating results of reportable business segments and analyzing potential future business trends in connection with our budget process and bases certain management incentive compensation on these non-GAAP financial measures. To measure percentage sales growth in constant currency, we remove the impact of changes in foreign currency exchange rates that affect the comparability and trend of sales. Percentage sales growth in constant currency is calculated by translating current and prior year results at the same foreign currency exchange rate. To measure percentage organic sales growth, we remove the impact of changes in foreign currency exchange rates, acquisitions and the impact of the adoption of ASC 606, which affect the comparability and trend of sales. Percentage organic sales growth is calculated by translating current year results at prior year average foreign currency exchange rates excluding the impact of acquisitions and the adoption of ASC 606. To measure earnings performance on a consistent and comparable basis, we exclude certain items that affect the comparability of operating results and the trend of earnings. These adjustments are irregular in timing and may not be indicative of our past and future performance. The following are examples of the types of adjustments that may be included in a period:

1. Acquisition and integration-related costs. Costs related to integrating recently acquired businesses and specific costs

Dollar amounts in millions except per share amounts or as otherwise specified. 11

(e.g., inventory step-up and deal costs) related to the consummation of the acquisition process.
2. Amortization of purchased intangible assets. Periodic amortization expense related to purchased intangible assets.
3. Restructuring-related and other charges. Costs associated with the termination of sales relationships in certain countries, workforce reductions, elimination of product lines, weather-related asset impairments and associated costs and other restructuring-related activities.
4. Medical Device Regulations. Costs specific to updating our quality system, product labeling, asset write-offs and product remanufacturing to comply with the medical device reporting regulations and other requirements of the European Union and China regulations for medical devices.
5. Recall-related matters. Our best estimate of the minimum of the range of probable loss to resolve the Rejuvenate, LFIT V40 and other product recalls.
6. Regulatory and legal matters. Our best estimate of the minimum of the range of probable loss to resolve certain regulatory matters and other legal settlements.
7. Tax matters. Charges represent the impact of accounting for certain significant and discrete tax items, including adjustments related to the Tax Act.

Because non-GAAP financial measures are not standardized, it may not be possible to compare these financial measures with other companies' non-GAAP financial measures having the same or similar names. These adjusted financial measures should not be considered in isolation or as a substitute for reported sales growth, gross profit, selling, general and administrative expenses, amortization of intangible assets, operating income, effective income tax rate, net earnings and net earnings per diluted share, the most directly comparable GAAP financial measures. These non-GAAP financial measures are an additional way of viewing aspects of our operations when viewed with our GAAP results and the reconciliations to corresponding GAAP financial measures at the end of the discussion of Consolidated Results of Operations below. We strongly encourage investors and shareholders to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure.
The weighted-average diluted shares outstanding used in the calculation of non-GAAP net earnings per diluted share are the same as those used in the calculation of reported net earnings per diluted share for the respective period.

Reconciliation of the Most Directly Comparable GAAP Financial Measure to Non-GAAP Financial Measure

2018	Gross Profit	Selling, General & Administrative Expenses	Amortization of Intangible Assets	Operating Income	Net Earnings	Effective Tax Rate	Diluted EPS
Reported	$8,938	$ 5,099	$ 417	$ 2,537	$ 3,553	(50.8)%	$9.34
Acquisition and integration-related charges:							
Inventory stepped up to fair value	16	—	—	15	9	0.2	0.02
Other acquisition and integration-related	—	(108)	—	108	90	—	0.24
Amortization of purchased intangible assets	—	—	(417)	417	338	0.4	0.89
Restructuring-related and other charges	27	(192)	—	220	179	0.1	0.47
Medical device regulations	2	—		12	10	—	0.03
Recall-related matters	—	—	—	23	18	—	0.05
Regulatory and legal matters	—	(185)	—	185	141	0.6	0.37
Tax Matters	—	—	—	—	(1,559)	66.2	(4.10)
Adjusted	$8,983	$ 4,614	$ —	$ 3,517	$ 2,779	16.7 %	$7.31

2017	Gross Profit	Selling, General & Administrative Expenses	Amortization of Intangible Assets	Operating Income	Net Earnings	Effective Tax Rate	Diluted EPS

Reported	$8,180	$ 4,552	$ 371	$ 2,297	$ 1,020	50.6 %	$ 2.68
Acquisition and integration-related charges:							
Inventory stepped up to fair value	22	—	—	22	20	(0.1)	0.05
Other acquisition and integration-related	—	(42)	—	42	31	0.2	0.09
Amortization of purchased intangible assets	—	—	(371)	371	250	3.0	0.67
Medical device regulations	—	—	—	—	—	—	—
Restructuring-related and other charges	57	(137)	—	194	155	0.4	0.41
Recall-related matters	—	—	—	173	131	0.7	0.34
Regulatory and legal matters	—	(39)	—	39	25	0.4	0.06
Tax Matters	—	—	—	—	833	(39.6)	2.19
Adjusted	$8,259	$ 4,334	$ —	$ 3,138	$ 2,465	15.6 %	$ 6.49

Dollar amounts in millions except per share amounts or as otherwise specified. 12

2016	Gross Profit	Selling, General & Administrative Expenses	Amortization of Intangible Assets	Operating Income	Net Earnings	Effective Tax Rate	Diluted EPS
Reported	$7,504	$ 4,137	$ 319	$ 2,175	$ 1,647	14.3 %	$ 4.35
Acquisition and integration-related charges:							
Inventory stepped up to fair value	36	—	—	36	23	0.4	0.06
Other acquisition and integration-related	—	(95)	—	95	77	0.1	0.20
Amortization of purchased intangible assets	—	—	(319)	319	221	2.2	0.59
Restructuring-related and other charges	15	(110)	—	125	98	0.3	0.26
Medical device regulations	—	—	—	—	—	—	—
Recall-related matters	—	—	—	158	127	0.1	0.34
Regulatory and legal matters	—	12	—	(12)	(7)	(0.2)	(0.02)
Tax Matters	—	—	—	—	8	0.1	0.02
Adjusted	$7,555	$ 3,944	$ —	$ 2,896	$ 2,194	17.3 %	$ 5.80

FINANCIAL CONDITION AND LIQUIDITY

	2018	2017	2016
Net cash provided by operating activities	$2,610	$1,559	$1,915
Net cash used in investing activities	(2,857)	(1,613)	(4,191)
Net cash provided by (used in) financing activities	1,329	(794)	2,258
Effect of exchange rate changes	(8)	74	(45)
Change in cash and cash equivalents	$1,074	$(774)	$(63)

We believe our financial condition continues to be of high quality, as evidenced by our ability to generate substantial cash from operations and to readily access capital markets at competitive rates. Operating cash flow provides the primary source of cash to fund operating needs and capital expenditures. Excess operating cash is used first to fund acquisitions to complement our portfolio of businesses. Other discretionary uses include dividends and share repurchases. We supplement operating cash flow with debt to fund our activities as necessary. Our overall cash position reflects our strong business results and a global cash management strategy that takes into account liquidity management, economic factors and tax considerations.

Operating Activities

Cash provided by operations was $2,610, $1,559, and $1,915 in 2018, 2017 and 2016. The increase was primarily due to lower recall-related payments, higher net earnings and cash receipts related to contracts with customers for unsatisfied performance obligations (partially due to the adoption of ASC 606) and cash receipts from an interest rate hedge settlement, partially offset by payments related to the Tax Cuts and Jobs Act of 2017. The net of accounts receivable, inventory and accounts payable resulted in the consumption of $329, $461, and $507 of cash in 2018, 2017 and 2016.

Investing Activities

Cash used in investing activities was ($2,857), ($1,613) and ($4,191) in 2018, 2017 and 2016. The increase in cash used in 2018 was primarily due to increased payments for acquisitions, primarily the $697 acquisition of Entellus and $1,400 acquisition of K2M. In 2017 we acquired NOVADAQ and certain other businesses and related assets. In 2016 the primary acquisitions were Sage and Physio.

Financing Activities

Cash provided by (used in) financing activities was $1,329, ($794), and $2,258 in 2018, 2017 and 2016. The increase in cash provided was primarily due to higher net borrowings, primarily the issuance of €2,250 of senior unsecured notes, partially offset by $70 higher repurchases of our common stock and a $67 increase in dividends paid.

We maintain debt levels that we consider appropriate after evaluating a number of factors including cash requirements for ongoing operations, investment and financing plans (including acquisitions and share repurchase activities) and overall cost of capital. Refer to Note 10 to our Consolidated Financial Statements for further information.

	2018	2017	2016
Dividends paid per common share	$1.88	$1.70	$1.52
Total dividends paid to common shareholders	$703	$636	$568
Total amount paid to repurchase common stock	$300	$230	$13
Shares of repurchased common stock (in millions)	1.9	1.9	0.1

Liquidity

Cash, cash equivalents and marketable securities were $3,699 and $2,793, and our current assets exceeded current liabilities by $4,926 and $4,508 on December 31, 2018 and 2017. We anticipate being able to support our short-term liquidity and operating needs from a variety of sources, including cash from operations, commercial paper and existing credit lines. We raised funds in the capital markets in 2018 and may continue to do so from time to time. We continue to have strong investment-grade short-term and long-term debt ratings that we believe should enable us to refinance our debt as needed.

We have existing credit facilities should additional funds be required. We have a borrowing capacity available under our main credit facility of $1,500. The amount of commercial paper we have issuable under the commercial paper program is $1,500.

Our cash, cash equivalents and marketable securities held in locations outside the United States was approximately 25% and 62% on December 31, 2018 and 2017. We intend to use this cash to expand operations organically and through acquisitions.

Guarantees and Other Off-Balance Sheet Arrangements

We do not have guarantees or other off-balance sheet financing arrangements, including variable interest entities, of a magnitude that we believe could have a material impact on our financial condition or liquidity.

CONTRACTUAL OBLIGATIONS AND FORWARD-LOOKING CASH REQUIREMENTS

As further described in Note 7 to our Consolidated Financial Statements, in 2018 we recorded charges to earnings related to the Rejuvenate and ABG II and LFIT Anatomic CoCr V40 Femoral Heads recall matters. Recorded charges represent the minimum of the range of probable cost to resolve these matters. The final outcome of these matters is dependent on many variables that are difficult to predict. The ultimate cost to entirely resolve these matters may be materially different than the amount of the current estimates and could have a material adverse effect on our financial position, results of operations and cash flows. We are not able to reasonably estimate the future periods in which payments will be made.

As further described in Note 11 to our Consolidated Financial Statements, on December 31, 2018 we had a reserve for uncertain income tax positions of $528. Due to uncertainties regarding the ultimate resolution of income tax audits, we are not able to reasonably estimate the future periods in which any income tax payments to settle these uncertain income tax positions will be made.

As further described in Note 12 to our Consolidated Financial Statements, on December 31, 2018 our defined benefit pension plans were underfunded by $359, of which approximately $336 related to plans outside the United States. Due to the rules affecting tax-deductible contributions in the jurisdictions in which the plans are offered and the impact of future plan asset performance, changes in interest rates and potential changes in legislation in the United States and other foreign jurisdictions, we are not able to reasonably estimate the amounts that may be required to fund defined benefit pension plans.

Contractual Obligations

	Total	2019	2020 - 2021	2022 - 2023	After 2023
Total debt	9,952	1,373	1,594	630	6,355
Interest payments	3,408	281	496	455	2,176
Unconditional purchase obligations	1,411	1,306	80	13	12
Operating leases	342	107	92	54	89
United States Tax Cuts and Jobs Act Transition Tax	748	48	132	187	381
Other	123	10	15	5	93
Total	$15,984	$3,125	$2,409	$1,344	$9,106

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing our financial statements in accordance with generally accepted accounting principles, there are certain accounting policies, which may require substantial judgment or estimation in their application. We believe these accounting policies and the others set forth in Note 1 to our Consolidated Financial Statements are critical to understanding our results of operations and financial condition. Actual results could differ from our estimates and assumptions, and any such differences could be material to our results of operations and financial condition.

Inventory Reserves

We maintain reserves for excess and obsolete inventory resulting from the potential inability to sell certain products at prices in excess of current carrying costs. We make estimates regarding the future recoverability of the costs of these products and record provisions based on historical experience, expiration of sterilization dates and expected future trends. If actual product life cycles, product demand or acceptance of new product introductions are less favorable than projected by management, additional inventory write downs may be required, which could unfavorably affect future operating results.

Income Taxes

Our annual tax rate is determined based on our income, statutory tax rates and the tax impacts of items treated differently for tax purposes than for financial reporting purposes. Tax law requires certain items be included in the tax return at different times than the items are reflected in the financial statements. Some of these differences are permanent, such as expenses that are not deductible in our tax return, and some differences are temporary and reverse over time, such as depreciation expense. These temporary differences create deferred tax assets and liabilities. Deferred tax assets generally represent the tax effect of items that can be used as a tax deduction or credit in future years for which we have already recorded the tax benefit in our income statement. Deferred tax liabilities generally represent tax expense recognized in our financial statements for which payment was deferred, the tax effect of expenditures for which a deduction was taken in our tax

return but has not yet been recognized in our financial statements or assets recorded at fair value in business combinations for which there was no corresponding tax basis adjustment.

Inherent in determining our annual tax rate are judgments regarding business plans, tax planning opportunities and expectations about future outcomes. Realization of certain deferred tax assets is dependent upon generating sufficient taxable income in the appropriate jurisdiction prior to the expiration of the carryforward periods. Although realization is not assured, management believes it is more likely than not that our deferred tax assets, net of valuation allowances, will be realized.

We operate in multiple jurisdictions with complex tax policy and regulatory environments. In certain of these jurisdictions, we may take tax positions that management believes are supportable but are potentially subject to successful challenge by the applicable taxing authority. These differences of interpretation with the respective governmental taxing authorities can be impacted by the local economic and fiscal environment. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. We review these tax uncertainties in light of changing facts and circumstances, such as the progress of tax audits, and adjust them accordingly. We have a number of audits in process in various jurisdictions. Although the resolution of these tax positions is uncertain, based on currently available information, we believe that it is more likely than not that the ultimate outcomes will not have a material adverse effect on our financial position, results of operations or cash flows.

Due to the number of estimates and assumptions inherent in calculating the various components of our tax provision, certain changes or future events, such as changes in tax legislation, geographic mix of earnings, completion of tax audits or earnings repatriation plans, could have an impact on those estimates and our effective tax rate.

Acquisitions, Goodwill and Intangibles, and Long-Lived Assets

Our financial statements include the operations of an acquired business starting from the completion of the acquisition. In addition, the assets acquired and liabilities assumed are recorded on the date of acquisition at their respective estimated fair values, with any excess of the purchase price over the estimated fair values of the net assets acquired recorded as goodwill.

Significant judgment is required in estimating the fair value of intangible assets and in assigning their respective useful lives. Accordingly, we typically obtain the assistance of third-party valuation specialists for significant items. The fair value estimates are based on available historical information and on future expectations and assumptions deemed reasonable by management but are inherently uncertain. We typically use an income method to estimate the fair value of intangible assets, which is based on forecasts of the expected future cash flows attributable to the respective assets. Significant estimates and assumptions inherent in the valuations reflect a consideration of other marketplace participants and include the amount and timing of future cash flows (including expected growth rates and profitability), the underlying product or technology life cycles, the economic barriers to entry and the discount rate applied to the cash flows. Unanticipated market or macroeconomic events and circumstances may occur that could affect the accuracy or validity of the estimates and assumptions.

Determining the useful life of an intangible asset also requires judgment. With the exception of certain trade names, the majority of our acquired intangible assets (e.g., certain trademarks or brands, customer and distributor relationships, patents and technologies) are expected to have determinable useful lives. Our assessment as to the useful lives of these intangible assets is based on a number of factors including competitive environment, market share, trademark, brand history, underlying product life cycles, operating plans and the macroeconomic environment of the countries in which the trademarked or branded products are sold. Our estimates of the useful lives of determinable-lived intangibles are primarily based on these same factors. Determinable-lived intangible assets are amortized to expense over their estimated useful life.

In some of our acquisitions, we acquire in-process research and development (IPRD) intangible assets. For acquisitions accounted for as business combinations IPRD is considered to be an indefinite-lived intangible asset until the research is completed (then it becomes a determinable-lived intangible asset) or determined to have no future use (then it is impaired). For asset acquisitions IPRD is expensed immediately unless there is an alternative future use.

The value of indefinite-lived intangible assets and goodwill is not amortized but is tested at least annually for impairment. Our impairment testing for goodwill is performed separately from our impairment testing of indefinite-lived intangibles. We perform our annual impairment test for goodwill in the fourth quarter of each year. We consider qualitative indicators of the fair value of a reporting unit when it is unlikely that a reporting unit has impaired goodwill. In certain circumstances, we also use a discounted cash flow analysis that requires certain assumptions and estimates be made regarding market conditions and our future profitability. In those circumstances we test goodwill for impairment by reviewing the book value compared to the fair value at the reporting unit level. We test individual indefinite-lived intangibles by reviewing the individual book values compared to the fair value. We determine the fair value of our reporting units and indefinite-lived intangible assets based on the income approach. Under the income approach, we calculate the fair value of our reporting units and indefinite-lived intangible assets based on the present value of estimated future cash flows. Considerable management judgment is necessary to evaluate the impact of operating and macroeconomic changes and to estimate future cash flows to measure fair value. Assumptions used in our impairment evaluations, such as forecasted growth rates and cost of capital, are consistent with internal projections and operating plans. We believe such assumptions and estimates are also comparable to those that would be used by other marketplace participants.

We did not recognize any impairment charges for goodwill in the years presented, as our annual impairment testing indicated that all reporting unit goodwill fair values exceeded their respective recorded values. Future changes in the judgments, assumptions and estimates that are used in our impairment testing for goodwill and indefinite-lived intangible assets, including discount and tax rates and future cash flow projections, could result in significantly different estimates of the fair values. A significant reduction in the estimated fair values could result in impairment charges that could materially affect our results of operations.

We review our other long-lived assets for indicators of impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The evaluation is performed at the lowest level of identifiable cash flows, which is at the individual asset level or the asset group level. The undiscounted cash flows expected to be generated by the related assets are estimated over their useful life based on updated projections. If the evaluation indicates that the carrying amount of the assets may not be recoverable, any potential impairment is measured based upon the fair value of the related assets or asset group as determined by an appropriate market appraisal or other valuation technique. Assets classified as held for sale, if any, are recorded at the lower of carrying amount or fair value less costs to sell.

Legal and Other Contingencies

We are involved in various ongoing proceedings, legal actions and claims arising in the normal course of business, including proceedings related to product, labor and intellectual property, and other matters that are more fully described in Note 7 to our Consolidated Financial Statements. The outcomes of these matters will generally not be known for prolonged periods of time. In certain of the legal proceedings, the claimants seek damages, as well as other compensatory and equitable relief, that could result in the payment of significant claims and settlements and/or the imposition of injunctions or other equitable relief. For legal matters for which management had sufficient information to reasonably estimate our future obligations, a liability representing management's best estimate of the probable loss, or the minimum of the range of probable losses when a best estimate within the range is not known, for the resolution of these legal matters is recorded. The estimates are based on consultation with legal counsel, previous settlement experience and settlement strategies. If actual outcomes are less favorable than those projected by management, additional expense may be incurred, which could unfavorably affect future operating results. We are currently self-insured for product liability-related claims and expenses. The ultimate cost to us with respect to product liability claims could be materially different than the amount of the current estimates and accruals and could have a material adverse effect on our financial position, results of operations and cash flows.

NEW ACCOUNTING PRONOUNCEMENTS

Refer to Note 1 to our Consolidated Financial Statements for further information.

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

We sell our products globally and, as a result, our financial results could be significantly affected by factors such as weak economic conditions or changes in foreign currency exchange rates. Our operating results are primarily exposed to changes in exchange rates among the United States Dollar, European currencies, in particular the Euro, Swiss Franc and the British Pound, the Japanese Yen, the Australian Dollar and the Canadian Dollar. We develop and manufacture products in the United States, Canada, China, France, Germany, Ireland, Japan, Mexico, Puerto Rico, Sweden, Switzerland and Turkey and incur costs in the applicable local currencies. This global deployment of facilities serves to partially mitigate the impact of currency exchange rate changes on our cost of sales. Refer to Notes 1, 4 and 5 to our Consolidated Financial Statements for information regarding our use of derivative instruments to mitigate these risks. A hypothetical 10% change in foreign currencies relative to the United States Dollar would change the December 31, 2018 fair value of these instruments by approximately $334.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Stryker Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Stryker Corporation and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of earnings and comprehensive income, shareholder's equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 7, 2019 expressed an unqualified opinion thereon.

Adoption of ASU No. 2016-16

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for the income tax consequences of intercompany transfers of assets other than inventory in 2018 due to the adoption of Accounting Standards Update (ASU) No. 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory.

Basis for Opinion

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

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 1974

Grand Rapids, Michigan

February 7, 2019

Stryker Corporation and Subsidiaries

CONSOLIDATED STATEMENTS OF EARNINGS

	2018	2017	2016
Net sales	$13,601	$12,444	$11,325
Cost of sales	4,663	4,264	3,821
Gross profit	$8,938	$8,180	$7,504
Research, development and engineering expenses	862	787	715
Selling, general and administrative expenses	5,099	4,552	4,137
Recall charges, net of insurance proceeds	23	173	158
Amortization of intangible assets			