ANNUAL REPORT

Fiscal Year 2018

Medtronic

2018 LETTER TO SHAREHOLDERS

Dear Shareholder,

As outlined in our Mission, Medtronic serves a unique and important purpose in improving the health of millions of people around the world – using technology to alleviate pain, restore health, and extend life. To fulfill this shared purpose, we must be the industry leader in technology. Technology to improve lives is where everything begins at Medtronic. It is what has driven our company over the past 69 years, and it continues to be the core strategy of our company today.

Technology to improve lives is also what will drive value for our shareholders going forward. It is in our DNA – and more importantly – we're getting even better at it by allocating capital efficiently across our businesses. We are committed to bringing resources to bear across the technology landscape in a strategic and impactful fashion. This is the most important thing we do, and it is my number one focus. When we get technology right, everything else follows.

In many ways, fiscal year 2018 was a challenging year – but it was also a rewarding one. Our ability to overcome multiple challenges reflects the dedication of our more than 86,000 employees around the world, each of whom make a difference to benefit patients and fulfill the Medtronic Mission.

In FY18, together with our physician partners, our technology and associated therapies improved the lives of more than 71 million people – more than two people every second. We have a focused approach to further refine our technology leadership to improve the lives of even more people in the years ahead, while delivering enhanced value to you, our shareholders.

OUR COMMITMENT AS THE TECHNOLOGY LEADER

To lead in technology, Medtronic must lead in all three areas of technology: *innovation, invention,* and *disruption*. We balance our investments across these three areas to drive future growth, protect our businesses, and advance the standard of care. And, we invest differently depending on where a technology sits in its lifecycle. Our ability to accelerate access to life-saving technologies has an enormous impact on the lives of patients who need it.

Continuous *innovation* provides the base. We are committed to staying ahead of our competition by enhancing technology to improve clinical outcomes and economic value for patients, providers, and payers. This is not about iteration for iteration's sake – rather, Medtronic is constantly innovating with a clear goal of generating better outcomes and better value.

Invention requires that we create new therapies and develop new markets—something that Medtronic has been doing for decades, and something we believe we are better at today than at any time in our past. Examples include the recent success of products such as the Solitaire™ revascularization therapy to retrieve clots and restore blood flow for patients experiencing acute ischemic stroke, and the Reveal LINQ™ insertable cardiac monitor, which collects heart rhythm data for physicians to determine underlying conditions that require treatment.

Medtronic is also focused on *disruption* of our existing markets. An example of this is our development and introduction of the world's smallest pacemaker, the Micra™ transcatheter pacing system, which is delivered directly into the right ventricle of the heart using a minimally invasive procedure. We are still in the early phases of this journey, and we believe strongly that Micra™ has the potential to revolutionize the entire pacemaker market – one that was previously viewed as mature.

When we develop new markets or disrupt existing ones, we create significant new growth drivers for the company and dramatically increase our competitive advantage, while establishing new standards of care for patients. We have an incredibly robust technology pipeline across all three areas of technology development, the best in our company's history. We are excited by what we are bringing to market today, in the near future, and what we continue to invest in for the long-term. We spend more than $2 billion a year on R&D to invest in the platforms that will sustain our growth into the future and further advance our position as the technology leader in healthcare.

OUR GLOBALIZATION & ECONOMIC VALUE STRATEGIES ACCELERATE GROWTH

When we lead in technology – when we *innovate, invent,* and *disrupt* – our other growth strategies, globalization and economic value, further enhance our growth profile and increase our competitiveness. They create long-term avenues for growth and widen the distance between us and the competition.

Let's start with globalization, where our ability to improve access to our technologies in emerging markets has been a strong contributor to our growth. We grew our emerging market business 13 percent on a comparable, constant currency basis in FY18, and emerging markets now represent 15 percent of our overall sales. The strength of our performance in emerging markets reflects our diversification, with multiple geographies and multiple growth drivers contributing. Medtronic is much more sophisticated in our approach to emerging markets than we were even five years ago, and we are much better at understanding and executing locally in markets around the world.

Another area where we leverage our position as the leader in continuous innovation is through the development of new business models that focus on the economic value and improved patient outcomes of our technology. These new business models are important because they align incentives to the specific value we create, both by improving patient outcomes as well as delivering cost efficiencies to healthcare systems. Importantly, they also drive improved market share and deliver incremental growth.

For our hospital customers, in particular, we provide a line of sight for how their costs are reduced through new business models; it is a method through which they can realize the full economic value of our technology. These programs, like those that include our TYRX™ infection control products in our Cardiac Rhythm & Heart Failure business, also provide distinct value for patients and payers by reducing overall costs and improving outcomes for patients meaningfully.

OUR FOCUS ON EXECUTION TO DRIVE CONSISTENT PERFORMANCE

Next, let's turn to the financials. FY18 revenue of $29.953 billion grew 5 percent on a comparable, constant currency basis. FY18 non-GAAP diluted earnings per share grew 9 percent on a comparable basis, or 10 percent on a comparable, constant currency basis. The second half of the year was particularly strong, overcoming several first half challenges – including an IT disruption, multiple hurricanes, wildfires in Santa Rosa, and supply constraints in Diabetes. We delivered on our revenue and EPS guidance we established at the start of the year. We also continued to drive margin expansion, reduced debt leverage, and returned $4.3 billion to shareholders in the form of dividends and share repurchases.

We followed our FY18 full year performance with strong first quarter fiscal year 2019 results, completing three consecutive quarters of 6.5 percent or greater organic revenue growth. This growth includes expanding our markets and driving share gains across multiple businesses and geographies. We know how important it is to consistently execute and it is a major focus for the company. Looking ahead, we feel good about the growth opportunities and our competitive position in our markets. Driving operating margin and free cash flow are also critically important areas of focus, and we plan to execute consistently here as well.

OUR COMMITMENT TO CREATING LONG-TERM SHAREHOLDER VALUE

The message underlying all our strategies is our commitment to creating shareholder value. We are doing this by leading in technology and allocating capital efficiently across our businesses. We are also creating shareholder value by driving operating leverage through our Enterprise Excellence program. Finally, we are improving our cash flow conversion, creating additional capital that can be returned to shareholders as well as reinvested in technology to drive future growth.

We also reached an important milestone in cost management by achieving our commitment of $850 million in Covidien cost synergies ahead of schedule in January 2018. We have now transitioned our specific cost management efforts to achieving Enterprise Excellence, which leverages the full size, scale and breadth of our organization to improve our effectiveness and drive sustained productivity. Successfully executing on these initiatives is the basis for margin expansion, as well as to enable further investment in increased R&D, fueling our long-term growth.

Another strong area of focus for me, our management team, and our entire organization is free cash flow. We have yet to deliver on the promise of strong free cash generation from the combined Medtronic and Covidien organization; however, we have taken meaningful steps to improve. First, we have made free cash flow a key performance metric for all employees who participate in our annual incentive program. As an organization, we are focused on improving our working capital metrics and reducing one-time impacts to our free cash flow. We expect to achieve free cash flow conversion of 80 percent on our non-GAAP net income over the next two to three years, putting us above our peer average. This requires a culture shift in the company, but I am confident in our ability to achieve it.

With respect to capital allocation, we remain committed to returning a minimum of 50 percent of our free cash flow to you, our shareholders. Our primary method of return is through dividends. We target roughly a 40 percent payout ratio and expect to grow our dividend every year with earnings. We are proud of the fact that we have grown our dividend for the past 41 years and are part of the elite S&P 500 Dividend Aristocrats.

We paid down a significant amount of debt in fiscal year 2018, and are comfortable with our current debt leverage, such that further debt paydown is no longer a priority. We are actively looking to supplement our organic growth with mergers and acquisitions, focusing on tuck-in acquisitions that can leverage our scale and resources, including manufacturing, regulatory affairs, and commercial distribution. That said, we are extremely disciplined when evaluating merger and acquisition opportunities. Any deal must fit strategically and meet the right financial benchmarks; we also ensure that we have the internal management bandwidth to execute the integration. To the extent there are periods of time where there are fewer opportunities for disciplined tuck-ins, we will return cash to our shareholders through share repurchases. We do not intend to stockpile cash on our balance sheet.

Finally, our capital allocation strategy reflects a keen focus on improving our return on invested capital, which constitutes one-third of management's long-term incentive plan, with the remainder split between revenue growth and total shareholder return.

To accomplish our goals, the senior leadership team and I realize the importance of an inclusive and diverse global workforce, which accelerates innovation and business performance. We have diversity and inclusion goals that we regularly measure ourselves against and formally hold our management team accountable for achieving. We are on track to exceed our 2020 goals for inclusive and diverse representation across all leadership levels. I am particularly proud of our four Diversity Networks and 13 Employee Resource Groups with 115+ global hubs, which help to foster an inclusive culture and diverse perspectives across the business. Nearly 16,000 employees in 60

countries participate in these networks and ERGs, contributing a broad range of talent and experience. This creates a vibrant workplace with a sense of belonging while offering unique insights to best serve customers and patients.

Before closing, it is important to share our philosophy on strong corporate governance. We seek to maximize our Board of Directors' engagement. Our Board is deeply involved with providing strategic oversight for the company. At each of our quarterly meetings, the Board reviews the strategies of our business groups and global regions in detail. Our Board also regularly visits Medtronic facilities and our customers in markets around the world. At each Board meeting, we make a point of bringing managers and leaders within our organization to engage with the Board and present on specific topics that allow directors to go deep in areas of strategic importance. These activities are designed to give the Board the insights it needs to provide detailed advice and oversight of our strategic initiatives.

All of these initiatives are squarely focused on driving long-term value for our shareholders. We know there is much work to be done, but we are excited about the future—our direction is clear, our technology pipeline is robust, and our team has never been stronger.

GOING FURTHER, TOGETHER TO ADVANCE OUR MISSION

In closing, I would like to circle back to where we started—the Medtronic Mission. At its core, the Medtronic Mission states that we are a technology company that aims to improve outcomes. This alone is a noble sense of purpose, but our Mission is much more.

Our Mission inspires us to improve the lives of millions of people around the world. It defines our strategy to *innovate, invent,* and *disrupt*, with a clear goal of improving outcomes. And it calls upon us to be a leader and partner in finding ways to better serve our customers, employees, communities, and you, our shareholders. When we adhere to this shared sense of purpose, we cannot go wrong.

From the time I joined Medtronic as CEO in 2011, I have been truly honored to lead this organization of highly talented and dedicated employees who are working to advance our Mission. Yet looking to our future, I have never been more excited about our technology, our strategy and the impact we can make in taking healthcare Further, Together with our partners around the world.

Sincerely,

Omar Ishrak

Chairman and Chief Executive Officer

Reconciliations of Non-GAAP and Other Financial Measures

The Shareholder Letter set forth in this Annual Report includes financial measures that are not prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP). Management believes that such non-GAAP financial measures provide useful information to investors regarding the underlying business trends and performance of Medtronic's ongoing operations. Investors should consider non-GAAP measures set forth in the Shareholder Letter to be in addition to, and not as a substitute for, financial performance measures prepared in accordance with U.S. GAAP. In addition, such non-GAAP financial measures may not be the same as, or similar to, measures presented by other companies. Reconciliations of the non-GAAP financial measures referenced in the Shareholder Letter to the most directly comparable GAAP financial measures are included in the following financial schedules.

References throughout the Shareholder Letter to organic growth exclude the impact of material acquisitions, divestitures, and currency. References to comparable growth rates exclude the impact of material divestitures, and references to comparable, constant currency growth rates exclude the impact of material divestitures and currency.

MEDTRONIC PLC
WORLD WIDE REVENUE: GEOGRAPHIC[1] - FY18
(UNAUDITED)

	REPORTED				COMPARABLE CONSTANT CURRENCY	
(in millions)	FY18	FY17	Growth	Currency Impact[2]	Revised[3] FY17	Growth
U.S.	$ 5,681	$ 5,454	4%	$ 0	$ 5,454	4%
Non-U.S. Developed	3,790	3,393	12	177	3,393	6
Emerging Markets	1,883	1,651	14	38	1,651	12
Cardiac & Vascular Group	**11,354**	**10,498**	**8**	**215**	**10,498**	**6**
U.S.	3,804	5,049	(25)	0	3,781	1
Non-U.S. Developed	3,378	3,479	(3)	122	3,178	2
Emerging Markets	1,534	1,391	10	25	1,296	16
Minimally Invasive Therapies Group	**8,716**	**9,919**	**(12)**	**147**	**8,255**	**4**
U.S.	5,164	5,012	3	0	5,012	3
Non-U.S. Developed	1,720	1,588	8	68	1,588	4
Emerging Markets	859	766	12	17	766	10
Restorative Therapies Group	**7,743**	**7,366**	**5**	**85**	**7,366**	**4**
U.S.	1,226	1,148	7	0	1,148	7
Non-U.S. Developed	739	625	18	44	625	11
Emerging Markets	175	154	14	3	154	12
Diabetes Group	**2,140**	**1,927**	**11**	**47**	**1,927**	**9**
U.S.	15,875	16,663	(5)	0	15,395	3
Non-U.S. Developed	9,627	9,085	6	411	8,784	5
Emerging Markets	4,451	3,962	12	83	3,867	13
TOTAL	**$ 29,953**	**$ 29,710**	**1%**	**$ 494**	**$ 28,046**	**5%**

(1) U.S. includes the United States and U.S. territories. Non-U.S. developed markets include Japan, Australia, New Zealand, Korea, Canada, and the countries of Western Europe. Emerging Markets include the countries of the Middle East, Africa, Latin America, Eastern Europe, and the countries of Asia that are not included in the non-U.S. developed markets, as previously defined.

(2) The currency impact to revenue measures the change in revenue between current and prior year periods using constant exchange rates.

(3) Revised revenue excludes revenue related to the divested Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses for the second, third, and fourth quarters of fiscal year 2017.

MEDTRONIC PLC
GAAP TO NON-GAAP RECONCILIATIONS - FY18
(UNAUDITED)

(in millions, except per share data)	Fiscal year ended April 27, 2018							
	Net Sales	Cost of Products Sold	Gross Margin Percent	Operating Profit	Operating Profit Percent	Income Before Income Taxes	Net Income attributable to Medtronic	Diluted EPS [1]	Effective Tax Rate
GAAP	$ 29,953	$ 9,055	69.8%	$ 6,651	22.2%	$ 5,675	$ 3,104	$ 2.27	45.5%
Non-GAAP Adjustments:									
Restructuring and associated costs[2]	—	(40)	0.1	107	0.4	107	87	0.06	18.7
Acquisition-related items	—	(28)	0.1	132	0.4	132	90	0.07	31.8
Debt redemption premium[3]	—	—	—	—	—	38	26	0.02	31.6
Divestiture-related items[4]	—	—	—	115	0.4	115	103	0.08	10.4
Certain litigation charges	—	—	—	61	0.2	61	53	0.04	13.1
Investment loss[5]	—	—	—	—	—	227	228	0.17	(0.4)
IPR&D impairment	—	—	—	46	0.1	46	41	0.03	10.9
Gain on sale of businesses[6]	—	—	—	(697)	(2.3)	(697)	(697)	(0.51)	—
Hurricane Maria[7]	—	(17)	0.1	34	0.1	34	33	0.02	2.9
Special charge[8]	—	—	—	80	0.3	80	54	0.04	32.5
Amortization of intangible assets	—	—	—	1,823	6.1	1,823	1,501	1.10	17.7
Certain tax adjustments, net[9]	—	—	—	—	—	—	1,907	1.39	—
Non-GAAP	$ 29,953	$ 8,970	70.1%	$ 8,352	27.9%	$ 7,641	$ 6,530	$ 4.77	14.7%
Currency impact	(494)	(148)	—	75	0.7			0.04	
CURRENCY ADJUSTED	**$ 29,459**	**$ 8,822**	**70.1%**	**$ 8,427**	**28.6%**			**$ 4.81**	

(in millions, except per share data)	Fiscal year ended April 28, 2017							
	Net Sales	Cost of Products Sold	Gross Margin Percent	Operating Profit	Operating Profit Percent	Income Before Income Taxes	Net Income attributable to Medtronic	Diluted EPS [1]	Effective Tax Rate
GAAP	$ 29,710	$ 9,291	68.7%	$ 5,330	17.9%	$ 4,602	$ 4,028	$ 2.89	12.6%
Non-GAAP Adjustments:									
Impact of inventory step-up[10]	—	(38)	0.1	38	0.1	38	24	0.02	36.8
Special charge[8]	—	—	—	100	0.3	100	63	0.05	37.0
Restructuring charges, net	—	(10)	—	373	1.3	373	272	0.20	27.1
Certain litigation charges	—	—	—	300	1.0	300	190	0.14	36.7
Acquisition-related items	—	(10)	—	230	0.8	230	156	0.11	32.2
Amortization of intangible assets	—	—	—	1,980	6.7	1,980	1,460	1.05	26.3
Certain tax adjustments, net[11]	—	—	—	—	—	—	202	0.15	—
NON-GAAP[12]	**$ 29,710**	**$ 9,233**	**68.8%**	**$ 8,351**	**28.1%**	**$ 7,623**	**$ 6,395**	**$ 4.60**	**16.2%**

(1) The data in this schedule has been intentionally rounded to the nearest $0.01 and, therefore, may not sum.

(2) Associated costs include costs incurred as a direct result of the restructuring program, such as salaries for employees supporting the program and consulting expenses.

(3) The charge, included within *interest expense, net* in our consolidated statements of income, was recognized in connection with the early redemption of approximately $1.2 billion of Medtronic Inc. senior notes.

(4) The transaction expenses incurred in connection with the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

(5) The charge was recognized in connection with the impairment of certain cost and equity method investments.

(6) The gain on the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

(7) The charges represent idle facility costs, asset write-downs, and humanitarian efforts related to Hurricane Maria.

(8) The charge represents a contribution to the Medtronic Foundation.

(9) The net charge primarily relates to the impact of U.S. tax reform, inclusive of the transition tax, remeasurement of deferred tax assets and liabilities, and the decrease in the U.S. statutory tax rate. Additionally, the net charge includes the impacts from the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses, and the net tax cost associated with an internal reorganization, which were partially offset by the tax effects from the intercompany sale of intellectual property.

(10) The charge represents the amortization of the step-up in fair value of inventory acquired in connection with the HeartWare acquisition.

(11) The net charge primarily relates to the tax effect from the recognition of the outside basis of certain subsidiaries which were included in the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses completed during the second quarter of fiscal year 2018, along with certain tax charges recorded in connection with the redemption of an intercompany minority interest, and the resolution of various tax matters from prior periods.

(12) The growth rates referenced in the shareholder letter utilize the revised baselines for full year FY18 financial results, which represent management's best estimate to exclude the impact of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency divestiture to Cardinal Health, as disclosed in the Form 8-K issued on May 15, 2018.

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

FORM 10-K

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the fiscal year ended April 27, 2018.

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the transition period from _____ to _____
Commission File No. 1-36820

Medtronic®

MEDTRONIC PUBLIC LIMITED COMPANY

(Exact name of registrant as specified in its charter)

IRELAND	**98-1183488**
(Jurisdiction of incorporation)	*(I.R.S. Employer Identification No.)*
20 On Hatch, Lower Hatch Street Dublin 2, Ireland	
(Address of principal executive office)	
+353 1 438-1700	
(Registrant's telephone number)	

SECURITIES REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:	
Title of each class	Name of each exchange on which registered
Ordinary shares, par value $0.0001 per share	**New York Stock Exchange, Inc.**

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:
None

Indicate by check mark	YES	NO
• if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.	☑	☐
• if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act.	☐	☑
• whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.	☑	☐
• whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).	☑	☐
• if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.	☑	
• 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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.		
Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐		
• If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.		☐
• whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).	☐	☑

Aggregate market value of voting and non-voting common equity of Medtronic plc held by non-affiliates of the registrant as of October 27, 2017, based on the closing price of $81.30, as reported on the New York Stock Exchange: approximately $110.0 billion. Number of Ordinary Shares outstanding on June 20, 2018: 1,351,709,097

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its 2018 Annual General Meeting are incorporated by reference into Part III hereof.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, and other written reports of Medtronic public limited company, organized under the laws of Ireland (together with its consolidated subsidiaries, Medtronic, the Company, or we, us, or our), and oral statements made by or with the approval of one of the Company's executive officers from time to time, may include "forward-looking" statements. All statements other than statements of historical fact contained in this Annual Report on Form 10-K, including statements regarding our future results of operations and financial position, business strategy and plans, objectives of management for future operations and current expectations or forecasts of future results, are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. Our forward-looking statements may include statements related to our growth and growth strategies, developments in the markets for our products, therapies and services, financial results, product development launches and effectiveness, research and development strategy, regulatory approvals, competitive strengths, restructuring and cost-saving initiatives, intellectual property rights, litigation and tax matters, government investigations, mergers and acquisitions, divestitures, market acceptance of our products, therapies and services, accounting estimates, financing activities, ongoing contractual obligations, working capital adequacy, value of our investments, our effective tax rate, our expected returns to shareholders, and sales efforts. In some cases, such statements may be identified by the use of terminology such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "looking ahead," "may," "plan," "possible," "potential," "project," "should," "will," and similar words or expressions. Forward-looking statements in this Annual Report include, but are not limited to, statements regarding our ability to drive long-term shareholder value, development and future launches of products and continued or future acceptance of products, therapies and services in our segments; expected timing for completion of research studies relating to our products; market positioning and performance of our products, including stabilization of certain product markets; divestitures and the potential benefits thereof; the costs and benefits of integrating previous acquisitions; anticipated timing for United States (U.S.) Food and Drug Administration (FDA) and non-U.S. regulatory approval of new products; increased presence in new markets, including markets outside the U.S.; changes in the market and our market share; acquisitions and investment initiatives, as well as integration of acquired companies into our operations; the resolution of tax matters; the effectiveness of our development activities in reducing patient care costs and hospital stay lengths; our approach towards cost containment; our expectations regarding health care costs, including potential changes to reimbursement policies and pricing pressures; our expectations regarding changes to patient standards of care; our ability to identify and maintain successful business partnerships; the elimination of certain positions or costs related to restructuring initiatives; outcomes in our litigation matters and government investigations; general economic conditions; the adequacy of available working capital and our working capital needs; our payment of dividends and redemption of shares; the continued strength of our balance sheet and liquidity; our accounts receivable exposure; and the potential impact of our compliance with governmental regulations and accounting guidance.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K and are subject to a number of risks, uncertainties and assumptions described in the "Risk Factors" section and elsewhere in this Annual Report on Form 10-K. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. One must carefully consider forward-looking statements and understand that such forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, and involve a variety of risks and uncertainties, known and unknown, including, among others, those discussed in the sections entitled "Government Regulation and Other Considerations" within "Item 1. Business" and "Item 1A. Risk Factors" in this Annual Report on Form 10-K, as well as those related to:

- competition in the medical device industry;
- reduction or interruption in our supply;
- quality problems, liquidity shortfalls;
- decreasing prices and pricing pressure;
- fluctuations in currency exchange rates;
- changes in applicable tax rates;
- positions taken by taxing authorities;
- adverse regulatory action;
- delays in regulatory approvals;
- litigation results;
- self-insurance;
- commercial insurance;
- health care policy changes;
- international operations;
- cybersecurity incidents;
- failure to complete or achieve the intended benefits of acquisitions or divestitures; or
- disruption of our current plans and operations.

Consequently, no forward-looking statement may be guaranteed and actual results may vary materially from those projected in the forward-looking statements. We intend to take advantage of the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995 regarding our forward-looking statements, and are including this sentence for the express purpose of enabling us to use the protections of the safe harbor with respect to all forward-looking statements. While we may elect to update these forward-looking statements at some point in the future, whether as a result of any new information, future events, or otherwise, we have no current intention of doing so except to the extent required by applicable law.

PART I

Item 1 Business

OVERVIEW

Medtronic plc, headquartered in Dublin, Ireland, is among the world's largest medical technology, services, and solutions companies - alleviating pain, restoring health, and extending life for millions of people around the world. Medtronic was founded in 1949 and today serves hospitals, physicians, clinicians, and patients in more than 150 countries worldwide. We remain committed to a mission written by our founder in 1960 that directs us "to contribute to human welfare by the application of biomedical engineering in the research, design, manufacture, and sale of products to alleviate pain, restore health, and extend life."

With innovation and market leadership, we have pioneered advances in medical technology in all of our businesses. Our commitment to enhance our offerings by developing and acquiring new products, wrap-around programs, and solutions to meet the needs of a broader set of stakeholders is driven by the following primary strategies:

- Therapy Innovation: Delivering a strong launch cadence of meaningful therapies and procedures.
- Globalization: Addressing the inequity in health care access globally, primarily in emerging markets.
- Economic Value: Becoming a leader in value-based health care by offering new services and solutions to improve outcomes and efficiencies, lower costs by reducing hospitalizations, improve remote clinical management, and increase patient engagement.

Our primary customers include hospitals, clinics, third-party health care providers, distributors, and other institutions, including governmental health care programs and group purchasing organizations (GPOs).

Medtronic plc is the successor to Medtronic, Inc., a Minnesota corporation. Medtronic, Inc. and Covidien plc (Covidien) were combined under and became subsidiaries of Medtronic plc on January 26, 2015.

On July 29, 2017, we completed the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. Among the product lines included in the divestiture were the dental and animal health, chart paper, wound care, incontinence, electrodes, SharpSafety, thermometry, perinatal protection, blood collection, compression, and enteral feeding offerings. Prior to the divestiture, these businesses were included within the Minimally Invasive Therapies Group segment.

We have four operating and reportable segments that primarily develop, manufacture, distribute, and sell device-based medical therapies and services. Our segments and their portion of our total reported net sales for fiscal year 2018 of $30.0 billion are as follows:

- **Cardiac and Vascular Group** ($11.4 billion)
- **Minimally Invasive Therapies Group** ($8.7 billion)
- **Restorative Therapies Group** ($7.7 billion)
- **Diabetes Group** ($2.1 billion)

For more information regarding our segments, please see Note 21 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

CARDIAC AND VASCULAR GROUP

The Cardiac and Vascular Group is made up of the Cardiac Rhythm & Heart Failure, Coronary & Structural Heart, and Aortic & Peripheral Vascular divisions. The primary medical specialists who use our Cardiac and Vascular products include electrophysiologists, implanting cardiologists, heart failure specialists, cardiovascular, cardiothoracic, and vascular surgeons, and interventional cardiologists and radiologists.

Cardiac Rhythm & Heart Failure

Our Cardiac Rhythm & Heart Failure division develops, manufactures, and markets products for the diagnosis, treatment, and management of heart rhythm disorders and heart failure. Our products include implantable devices, leads and delivery systems, products for the treatment of atrial fibrillation (AF), products designed to reduce surgical site infections, information systems for the management of patients with Cardiac Rhythm & Heart Failure devices, ventricular assist systems, and an integrated health solutions business. Principal products and services offered include:

- Implantable cardiac pacemakers including the Azure, Adapta, Advisa MRI SureScan, and Micra Transcatheter Pacing System, which is leadless and does not have a subcutaneous device pocket like a conventional pacemaker.
- Implantable cardioverter defibrillators (ICDs), including the Visia AF and Evera MRI SureScan, which is paired with the reliable Sprint Quattro Secure lead, the only defibrillator lead with more than 12 years of proven performance with active monitoring.
- Implantable cardiac resynchronization therapy devices (CRT-Ds and CRT-Ps) including the Claria/Amplia/Compia family of MRI Quad CRT-D SureScan systems and the Percepta/Serena/Solara family of MRI Quad CRT-P SureScan systems. The Claria CRT-D MRI and Percepta CRT-P MRI devices feature EffectivCRT, which is an algorithm that verifies left ventricular pacing effectiveness and automatically tailors the therapy to individual patients, and the AdaptivCRT algorithm, which reduces a patient's odds of a 30-day heart failure readmission and has demonstrated a reduction in AF risk compared to echo-optimized biventricular pacing.
- AF ablation products including the Arctic Front Advance Cardiac Cryoballoon System, which includes the Arctic Front Advance ST Cryoablation Catheter, designed for pulmonary vein isolation in the treatment of patients with drug refractory paroxysmal AF and the second-generation Phased RF System, PVAC Gold, which uses duty cycled, phased radio frequency energy for the treatment of symptomatic paroxysmal persistent and long- standing persistent AF.
- Insertable cardiac monitor systems including the Reveal LINQ, which is used to record the heart's electrical activity before, during, and after transient symptoms such as syncope (i.e., fainting) and palpitations to assist in diagnosis.
- Mechanical circulatory support products including miniaturized implantable heart pumps, or ventricular assist devices, patient accessories and surgical tools to treat patients suffering from advanced heart failure.
- TYRX products including the Absorbable Antibacterial Envelope and the TYRX Neuro Absorbable Antibacterial Envelope, which are designed to stabilize electronic implantable devices and help prevent infection associated with implantable pacemakers, defibrillators, and spinal cord neurostimulators.
- Remote monitoring services and patient-centered software to enable efficient care coordination and specialized telehealth nurse support as well as services related to hospital operational efficiency.

Coronary & Structural Heart

Our Coronary & Structural Heart division includes therapies to treat coronary artery disease and heart valve disorders. Our products include coronary stents and related delivery systems, including a broad line of balloon angioplasty catheters, guide catheters, guide wires, diagnostic catheters, and accessories as well as products for the repair and replacement of heart valves, perfusion systems, positioning and stabilization systems for beating heart revascularization surgery, and surgical ablation products. Principal products and services offered include:

- CoreValve family of aortic valves, including our second-generation recapturable TCV system, CoreValve Evolut R, and our third-generation system, CoreValve Evolut PRO.
- Percutaneous Coronary Intervention stent products including our Resolute Integrity and Resolute Onyx drug-eluting stent systems.
- Surgical valve replacement and repair products for damaged or diseased heart valves, including both tissue and mechanical valves, blood-handling products that form a circulatory support system to maintain and monitor blood circulation and coagulation status, oxygen supply, and body temperature during arrested heart surgery, and surgical ablation systems and positioning and stabilization technologies.

Aortic & Peripheral Vascular

Our Aortic & Peripheral Vascular division is comprised of a comprehensive line of products and therapies to treat aortic disease (such as aneurysms, dissections, and transections) as well as peripheral vascular disease, and venous disease. Our products include endovascular stent graft systems, peripheral drug coated balloons, stent and angioplasty systems, and carotid embolic protection systems for the treatment of vascular disease outside the heart, and products for superficial and deep venous disease. Principal products and services offered include:

- Endovascular stent grafts and accessories including the Endurant Abdominal Aortic Aneurysm Stent Graft System family of products, the Valiant Captivia Thoracic Aortic Aneurysm stent graft system, and the Heli-FX EndoAnchor System.
- Percutaneous angioplasty balloons including the IN.PACT family of drug-coated balloons, vascular stents, such as the Protégé and Everflex self-expanding stents and Visi-Pro balloon expandable stents, directional atherectomy products, such as the HawkOne plaque excision system, and other procedure support tools.
- Products to treat superficial venous diseases in the lower extremities including the ClosureFast RF ablation system and the VenaSeal medical adhesive closure system.

MINIMALLY INVASIVE THERAPIES GROUP

The Minimally Invasive Therapies Group is made up of the Surgical Innovations and Respiratory, Gastrointestinal, & Renal divisions. Products and therapies of this group are used primarily by hospitals, physicians' offices, ambulatory care centers, and other alternate site healthcare providers. While less frequent, some products and therapies are also used in home settings.

Surgical Innovations

Our Surgical Innovations division develops, manufactures, and markets advanced and general surgical products including surgical stapling devices, vessel sealing instruments, wound closure, electrosurgery products, hernia mechanical devices, mesh implants, and gynecology products and therapies to treat diseases and conditions that are typically, but not exclusively, addressed by surgeons. Principal products and services offered include:

- Advanced stapling products, including the Tri-Staple technology platform for endoscopic stapling, including the Endo GIA reloads and reinforced reloads with Tri-Staple Technology and the Endo GIA ultra universal stapler, the Signia and iDrive powered stapling systems, the LigaSure vessel sealing system with nano-coating, and the Sonicision cordless ultrasonic dissection system.
- Electrosurgical hardware and instruments, including the Valleylab FT10 energy platform, and the Force TriVerse electrosurgical pencil.
- Products designed for the treatment of hernias, including the AbsorbaTack absorbable mesh fixation device for hernia repair, the Symbotex composite mesh for surgical laparoscopic and open ventral hernia repair, and Parietex ProGrip, a self-gripping, biocompatible solution for inguinal hernias.

Respiratory, Gastrointestinal, & Renal

Our Respiratory, Gastrointestinal, & Renal division develops, manufactures, and markets products in the emerging fields of minimally invasive gastrointestinal diagnostics and therapies, respiratory monitoring, airway management and ventilation therapies, and for the treatment of renal disease. Principal products and services offered include:

- Gastrointestinal and endoscopy products, including the PillCam COLON, the Emprint ablation system with Thermosphere Technology, the HET Bipolar System, the Cool-tip radiofrequency ablation system, the Barrx platform with the Barrx 360 Express catheter, and the HALO ablation catheters for treatment of Barrett's esophagus.
- Airway, ventilation, and inhalation therapies products, including the Puritan Bennett 980 ventilator, the Newport e360 and HT70 ventilators, the TaperGuard Evac tube, Shiley Endotracheal Tubes, Shiley Tracheostomy Tubes, and DAR Filters.
- Products focused on patient monitoring, including the Capnostream with Microstream technology capnography monitors, the Nellcor Bedside SpO2 patient monitoring system, the Bispectral Index (BIS) brain monitoring technology, and the INVOS Cerebral/Somatic Oximeter.
- Products providing solutions for the treatment of renal disease, including Palindrome, Mahurkar and Mahurkar Elite Dialysis Access Catheters for renal therapy, and other products designed for use in treatment of both acute and chronic renal failure conditions.

RESTORATIVE THERAPIES GROUP

The Restorative Therapies Group is made up of the Spine, Brain, Specialty Therapies and Pain Therapies divisions. The primary medical specialists who use the products of this group include spinal surgeons, neurosurgeons, neurologists, pain management specialists, anesthesiologists, orthopedic surgeons, urologists, colorectal surgeons, urogynecologists, interventional radiologists, and ear, nose, and throat specialists.

Spine

Our Spine division develops, manufactures, and markets a comprehensive line of medical devices and implants used in the treatment of the spine and musculoskeletal system. Our Spine division also provides biologic solutions for the orthopedic and dental markets and, in concert with our Neurosurgery business, offers unique and highly differentiated imaging, navigation, power instruments, nerve monitoring, and Mazor robotics integrated for our spine procedures. Principal products and services offered include:

- Products to treat a variety of conditions affecting the spine, including degenerative disc disease, spinal deformity, spinal tumors, fractures of the spine, and stenosis. These products include our CD HORIZON SOLERA and LEGACY Systems, and the CAPSTONE, CLYDESDALE, and ELEVATE interbody spacers.
- Products that facilitate less invasive thoracolumbar surgeries, including the CD HORIZON VOYAGER, SOLERA SEXTANT and LONGITUDE Percutaneous Fixation Systems.
- Products to treat conditions in the cervical region of the spine, including the ZEVO and ATLANTIS VISION ELITE Anterior Cervical Plate Systems, the VERTEX SELECT Reconstruction System, and the PRESTIGE and BRYAN Cervical Artificial Discs.
- Biologic solutions products, including our INFUSE Bone Graft (InductOs in the European Union (E.U.)), which contains a recombinant human bone morphogenetic protein, rhBMP-2, for certain spinal, trauma, and oral maxillofacial applications. Demineralized Bone Matrix products, including MagniFuse, Grafton/Grafton Plus, and PROGENIX, and the MASTERGRAFT family of synthetic bone graft products - Matrix, Putty, and Granules.

Brain Therapies

Our Brain Therapies division develops, manufactures, and markets an integrated portfolio of devices and therapies for the treatment of neurological disorders and diseases, as well as surgical technologies designed to improve the precision and workflow of neuro procedures. Principal products and services offered include:

- Neurovascular products to treat diseases of the vasculature in and around the brain. This includes coils, neurovascular stents, and flow diversion products, as well as access and delivery products to support procedures. Products also include the Pipeline Flex Embolization Devices, endovascular treatments for large or giant wide-necked brain aneurysms, the portfolio of Solitaire revascularization devices for treatment of acute ischemic stroke, and a portfolio of access catheters.
- Brain modulation products, including those for the treatment of the disabling symptoms of Parkinson's disease, essential tremor, refractory epilepsy (outside the U.S.), severe, treatment- resistant obsessive compulsive disorder (approved under a Humanitarian Device Exemption (HDE) in the U.S.), and chronic, intractable primary dystonia (approved under a HDE in the U.S.). Specifically, this includes our family of Activa Neurostimulators, including Activa SC (single-channel primary cell battery), Activa PC (dual channel primary cell battery), and Activa RC (dual channel rechargeable battery).
- Neurosurgery products, including platform technologies and implant therapies. Our StealthStation S8 Navigation System and O-arm Imaging System are both platforms used in cranial, spinal, sinus, and orthopedic procedures. Our Midas Rex Surgical Drills are used in cranial, spinal, and orthopedic procedures. Our CSF Management Portfolio is used in treating hydrocephalus and other conditions impacting the intracranial pressure, and our Visualase MRI-guided laser ablation is used in cranial procedures. The Mazor X robotic guidance systems are used in robot-assisted spine procedures under an exclusive worldwide distributor agreement with Mazor Robotics.

Specialty Therapies

Our Specialty Therapies division develops, manufactures, and markets products and therapies to treat diseases of the ear, nose and throat (ENT), help control the systems of overactive bladder, (non-obstructive) urinary retention, and chronic fecal incontinence. Additionally, our Specialty Therapies division includes products in the emerging field of transformative solutions surgical incision technology, as well as the haemostatic sealing of soft tissue and bone. Principal products and services offered include:

- Pelvic health and gastric therapies products, including InterStim, a neurostimulator, to help control the systems of overactive bladder, (non-obstructive) urinary retention, and chronic fecal incontinence. Our percutaneous tibial neuromodulation uses the NURO device for the treatment of overactive bladder and associated symptoms of urinary urge incontinence, urinary urgency, and urinary frequency. The Enterra gastric neurostimulator is approved as a humanitarian device and is used for the treatment of chronic, intractable nausea and vomiting due to gastroparesis.
- ENT products, including the Straightshot M5 Microdebrider Handpiece, the IPC system, NIM Nerve Monitoring Systems, ENT Navigation System, as well as products for hearing restoration and obstructive sleep apnea.
- Transformative solutions products, including our PEAK Surgery System and Aquamantys System. Our PEAK Surgery System is a tissue dissection system that consists of the PEAK PlasmaBlade and PULSAR Generator and is cleared for use in a variety of settings, including plastic reconstructive surgery, general surgery, and certain conditions of ENT. Our Aquamantys System uses patented transcollation technology to provide haemostatic sealing of soft tissue and bone and is cleared for use in a variety of surgical procedures, including orthopedic surgery, spine, solid organ resection and thoracic procedures.

Pain Therapies

Our Pain Therapies division develops, manufactures, and markets spinal cord stimulation systems, implantable drug infusion systems for chronic pain, as well as interventional products. Principal products and services offered include:

- Spinal cord stimulation products for chronic pain, including rechargeable and non-rechargeable devices and a large selection of leads used to treat chronic back and/or limb pain. This includes systems with SureScan MRI Technology and the Evolve workflow algorithm, including the Intellis (rechargeable) SureScan MRI. Products also include our RestoreSensor (rechargeable) SureScan MRI, with its proprietary AdaptiveStim technology.
- Implantable drug infusion systems, including our SynchroMed II Implantable Infusion System, that deliver small quantities of drug directly into the intrathecal space surrounding the spinal cord.
- Interventional products, including the Xpander II Balloon Kyphoplasty system, the Kyphon-V vertebroplasty system and the OsteoCool RF Tumor ablation system.

DIABETES GROUP

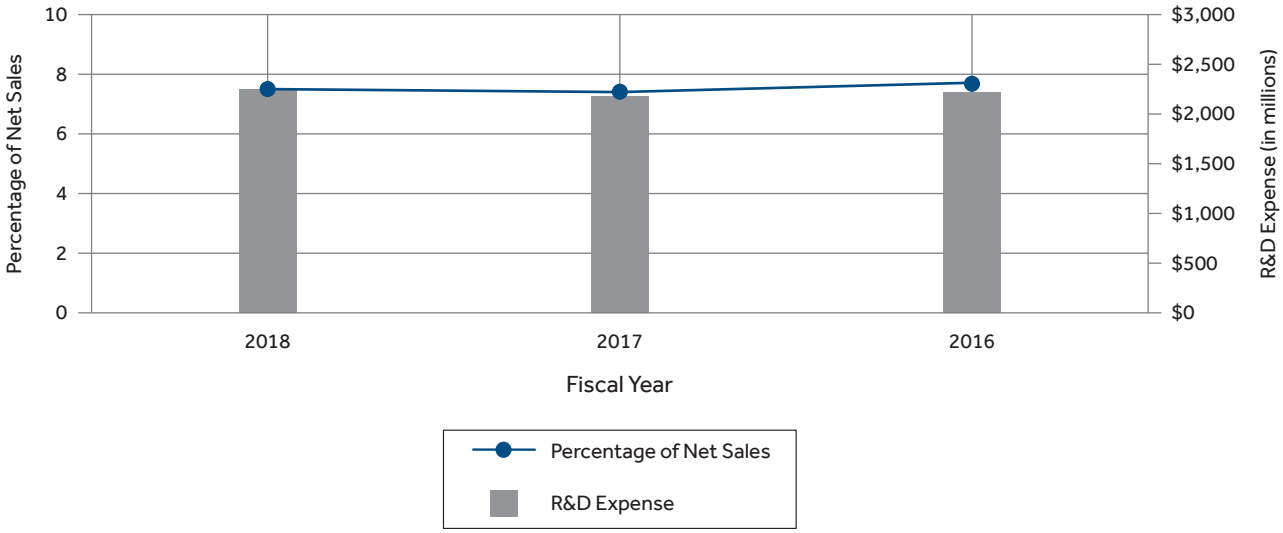
The Diabetes Group develops, manufactures, and markets products and services for the management of Type I and Type II diabetes. The primary medical specialists who use and/or prescribe our Diabetes products are endocrinologists and primary care physicians. Principal products and services offered include:

- Insulin pumps, including the MiniMed 670G system, featuring the first hybrid closed loop system in the world and the most advanced SmartGuard algorithm. The MiniMed 640G system, offered outside the U.S., is an integrated system with the Enhanced Enlite CGM sensor that features SmartGuard technology, which automatically suspends insulin delivery when sensor glucose levels are predicted to approach a low limit and then resumes insulin delivery once levels recover.
- Continuous glucose monitoring (CGM) systems, including the Guardian Connect standalone CGM system and the iPro2 professional CGM, is a product worn by patients to capture glucose data that is later uploaded in a physician's office to reveal glucose patterns and potential problems, such as hyperglycemic and hypoglycemic episodes.
- Therapy management software, including CareLink software for patients and for healthcare professionals, with advanced web technology to help patients and their health care providers control their diabetes and improve engagement.

OTHER FACTORS IMPACTING OUR OPERATIONS

Research and Development

The chart below illustrates our research and development (R&D) expense and R&D expense as a percentage of net sales during fiscal years 2018, 2017, and 2016:



The markets in which we participate are subject to rapid technological advances. Constant improvement of existing products and introduction of new products are necessary to maintain market leadership. Our R&D efforts are directed toward maintaining or achieving technological leadership in each of the markets we serve in order to help ensure that patients using our devices and therapies receive the most advanced and effective treatment possible. We remain committed to developing technological enhancements and new indications for existing products, and less invasive and new technologies for new and emerging markets to address unmet patient needs. That commitment leads to our initiation and participation in many clinical trials each fiscal year as the demand for clinical and economic evidence remains high. Furthermore, our development activities are intended to help reduce patient care costs and the length of hospital stays in the future. We have not engaged in significant customer or government-sponsored research.

Our R&D activities include improving existing products and therapies, expanding their indications and applications for use, and developing new therapies and procedures. We continue to focus on optimizing innovation, improving our R&D productivity, driving growth in emerging markets, clinical evidence generation, and assessing our R&D programs based on their ability to deliver economic value to our customers.

Intellectual Property

We rely on a combination of patents, trademarks, tradenames, copyrights, trade secrets, and non-disclosure and non-competition agreements to establish and protect our proprietary technology. In addition, we have entered into exclusive and non-exclusive licenses relating to a wide array of third-party technologies. In the aggregate, these intellectual property assets and licenses are of material importance to our business; however, we believe that no single patent, technology, trademark, intellectual property asset or license is material in relation to any segment of our business or to our business as a whole.

We operate in an industry characterized by extensive patent litigation. Patent litigation may result in significant damage awards and injunctions that could prevent the manufacture and sale of affected products or result in significant royalty payments in order to continue selling the products. At any given time, we are involved as both a plaintiff and a defendant in a number of patent infringement actions, the outcomes of which may not be known for prolonged periods of time. For additional information, see Note 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Sales and Distribution

We sell most of our medical devices and therapies through direct sales representatives in the U.S. and a combination of direct sales representatives and independent distributors in markets outside the U.S. For certain portions of our business, we also sell through distributors in the U.S. Our medical supplies products are used primarily in hospitals, surgi-centers and alternate care facilities, such as home care and long-term care facilities, and are marketed to materials managers, GPOs and integrated delivery networks (IDNs) primarily through third-party distributors, although we also have direct sales representatives. We often negotiate with GPOs and IDNs, which enter into supply contracts for the benefit of their member facilities. Our four largest markets are the U.S., Western Europe, Japan, and China. Emerging markets are an area of increasing focus and opportunity, as we believe they remain under-penetrated.

Our marketing and sales strategy is focused on rapid, cost-effective delivery of high-quality products to a diverse group of customers worldwide. To achieve this objective, we organize our marketing and sales teams around physician specialties. This focus enables us to develop highly knowledgeable and dedicated sales representatives who are able to foster strong relationships with physicians and other customers and enhance our ability to cross-sell complementary products.

We are not dependent on any single customer for more than 10 percent of our total net sales.

Competition, Industry and Cost Containment

We compete in both the therapeutic and diagnostic medical markets in more than 150 countries throughout the world. These markets are characterized by rapid change resulting from technological advances and scientific discoveries. Our product lines face a mix of competitors ranging from large manufacturers with multiple business lines to small manufacturers offering a limited selection of products. In addition, we face competition from providers of other medical therapies, such as pharmaceutical companies.

Major shifts in industry market share have occurred in connection with product problems, physician advisories, safety alerts, and publications about our products, reflecting the importance of product quality, product efficacy and quality systems in the medical device industry. In the current environment of managed care, economically motivated customers, consolidation among health care providers, increased competition, and declining reimbursement rates, we have been increasingly required to compete on the basis of price. In order to continue to compete effectively, we must continue to create or acquire advanced technology, incorporate this technology into proprietary products, obtain regulatory approvals in a timely manner, maintain high- quality manufacturing processes, and successfully market these products.

Government and private sector initiatives to limit the growth of health care costs, including price regulation, competitive pricing, bidding and tender mechanics, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements are continuing in many countries where we do business, including the U.S. These changes put increased emphasis on the delivery of more cost- effective medical devices and therapies. Government programs, including Medicare and Medicaid, private health care insurance and managed-care plans have attempted to control costs by limiting the amount of reimbursement they will pay for particular procedures or treatments, tying reimbursement to outcomes, shifting to population health management, and other mechanisms. Hospitals, which purchase implants, are also seeking to reduce costs through a variety of mechanisms, including, for example, centralized purchasing, and in some cases, limiting the number of vendors that may participate in the purchasing program. Hospitals are also aligning interests with physicians through employment and other arrangements, such as gainsharing, where a hospital agrees with physicians to share any realized cost savings resulting from changes in practice patterns such as device standardization. This has created an increasing level of price sensitivity among customers for our products.

Worldwide Operations

Our global operations are accompanied by certain financial and other risks. Relationships with customers and effective terms of sale vary by country. Exchange rate fluctuations may affect revenues, earnings, and cash flows from operations. We use operational and economic hedges, as well as derivative contracts, to manage the impact of currency exchange rate changes on earnings and cash flow. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and Note 9 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Net sales and property, plant, and equipment attributable to significant geographic areas are presented in Note 21 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Production and Availability of Raw Materials

We manufacture products at manufacturing facilities located in various countries throughout the world. We purchase many of the components and raw materials used in manufacturing our products from numerous suppliers in various countries. Certain components and raw materials are available only from a sole supplier. We work closely with our suppliers to help ensure continuity of supply while maintaining high quality and reliability. Generally, we have been able to obtain adequate supplies of such raw materials and components. However, due to the U.S. FDA's manufacturing requirements, we may not be able to quickly establish additional or replacement sources for certain components or materials if we experience a sudden or unexpected reduction or interruption in supply and are unable to develop alternative sources.

For additional information related to our manufacturing facilities refer to "Item 2. Properties" in this Annual Report on Form 10-K.

Quality Management and Product Liability

Our business success depends on the quality of our products, and we have global processes, procedures and programs, including our "Quality Begins with Me" program, that are intended to help us maintain the highest possible level of quality in all products. We operate in an industry susceptible to significant product liability claims. These claims may be brought by individuals seeking relief on their own behalf or purporting to represent a class.

Working Capital

Our goal is to carry sufficient levels of inventory to meet the product delivery needs of our customers. We also provide payment terms to customers in the normal course of business and rights to return product under warranty to meet the operational demands of our customers.

Employees

On April 27, 2018, we employed more than 86,000 full-time employees. Our employees are vital to our success. We believe we have been successful in attracting and retaining qualified personnel in a highly competitive labor market due to our competitive compensation and benefits and our rewarding work environment.

Seasonality

Worldwide sales do not reflect a significant degree of seasonality. However, the number of medical procedures incorporating Medtronic products is generally lower during summer months due to summer vacation schedules in the northern hemisphere, particularly in European countries.

Government Regulation

Our operations and products are subject to extensive regulation by numerous government agencies, including the U.S. FDA, European regulatory authorities such as the Medicines and Healthcare Products Regulatory Agency in the United Kingdom (U.K.) and the Federal Institute for Drugs and Medical Devices in Germany, the China Food and Drug Administration (CFDA), and other government agencies inside and outside the U.S. To varying degrees, each of these agencies requires us to comply with laws and regulations governing the development, testing, manufacturing, labeling, marketing, distribution and post- marketing surveillance of our products. Our business is also affected by patient privacy laws and government payer cost containment initiatives, as well as environmental health and safety laws and regulations.

Product Approval and Monitoring

Many countries where we sell medical devices subject such medical devices and technologies to their own approval and other regulatory requirements regarding performance, safety, and quality of our products. Authorization to commercially distribute a new medical device in the U.S. is generally obtained in one of two ways. The first, known as pre-market notification or the 510(k) process, requires us to demonstrate that our new medical device is substantially equivalent to a legally marketed medical device. The second, more rigorous process, known as pre-market approval, requires us to independently demonstrate that a medical device is safe and effective for its intended use. This process is generally much more time-consuming and expensive than the 510(k) process.

In the E.U., a single regulatory approval process exists, and conformity with the legal requirements is represented by the CE Mark. To obtain a CE Mark, defined products must meet minimum standards of performance, safety, and quality (i.e., the essential requirements), and then, according to their classification, comply with one or more of a selection of conformity assessment routes. The competent authorities of the E.U. countries separately regulate the clinical research for medical devices and the market surveillance of products once they are placed on the market. A new Medical Device Regulation was published by the E.U. in 2017 which will impose significant additional premarket and postmarket requirements. The regulation has a three-year implementation period to May 2020. After that time, medical devices marketed in the E.U. will require certification according to these new requirements, except that devices with valid CE certificates, issued pursuant to the Medical Device Directives before May 2020, can be placed on the market until May 2024.

The global regulatory environment is increasingly stringent and unpredictable. Several countries that did not have regulatory requirements for medical devices have established such requirements in recent years, and other countries have expanded, or plan to expand, their existing regulations. While harmonization of global regulations has been pursued, requirements continue to differ significantly among countries. We expect this global regulatory environment will continue to evolve, which could impact the cost, the time needed to approve, and ultimately, our ability to maintain existing approvals or obtain future approvals for our products. Regulations of the U.S. FDA and other regulatory agencies in and outside the U.S. impose extensive compliance and monitoring obligations on our business. These agencies review our design and manufacturing practices, labeling, record keeping, and manufacturers' required reports of adverse experiences and other information to identify potential problems with marketed

medical devices. We are also subject to periodic inspections for compliance with applicable quality system regulations, which govern the methods used in, and the facilities and controls used for, the design, manufacture, packaging, and servicing of finished medical devices intended for human use. In addition, the U.S. FDA and other regulatory bodies, both in and outside the U.S. (including the Federal Trade Commission, the Office of the Inspector General of the Department of Health and Human Services, the U.S. Department of Justice, and various state Attorneys General), monitor the promotion and advertising of our products. Any adverse regulatory action, depending on its magnitude, may limit our ability to effectively market and sell our products, limit our ability to obtain future premarket approvals or result in a substantial modification to our business practices and operations. For additional information, see "Item 1A. Risk Factors" *We are subject to costly and complex laws and governmental regulations and any adverse regulatory action may materially adversely affect our financial condition and business operations*.

In April 2015, we entered into a consent decree with the U.S. FDA relating to our Pain Therapies division's SynchroMed drug infusion system and the Neuromodulation quality system. The consent decree requires us to complete certain corrections and enhancements to the SynchroMed pump and the Neuromodulation quality system. The consent decree's limitations on our ability to manufacture and distribute the SynchroMed drug infusion system were lifted by the U.S. FDA in September 2017. Following the successful completion of the required third-party expert audits, and in coordination with the FDA, the consent decree will be vacated. The Company must undergo third-party audits and submit audit reports to the U.S. FDA through 2020.

In June 2016, TYRX received a Warning Letter from the U.S. FDA following an inspection at the TYRX facility in Monmouth Junction, New Jersey. The U.S. FDA completed its follow up inspection to the Warning Letter in March 2018 and issued a 483 with observations, although the U.S. FDA noted in its closing meeting that there had been significant improvements made since the prior inspection. We continue to make progress on our commitments and continuously report the progress to the U.S. FDA. In June 2014, HeartWare Inc. received a Warning Letter from the U.S. FDA following an inspection at the HeartWare facility in Miami Lakes, Florida. We acquired HeartWare in August 2016, and have been implementing actions and process improvements to address the items in the Warning Letter. Upon completing implementation of actions and process improvements to address the items in the Warning Letters and reinspection by the U.S. FDA, we expect that the TYRX and HeartWare Warning Letters will be lifted.

Trade Regulations

The movement of products, services, and investment across borders subject us to extensive trade regulations. A variety of laws and regulations in the countries in which we transact business apply to the sale, shipment and provision of goods, services and technology across borders. These laws and regulations govern, among other things, our import, export and other business activities. We are also subject to the risk that these laws and regulations could change in a way that would expose us to additional costs, penalties or liabilities. Some governments also impose economic sanctions against certain countries, persons or entities. In addition to our need to comply with such regulations in connection with our direct activities, we also sell and provide goods, technology and services to agents, representatives and distributors who may export such items to customers and end- users. If we, or the third parties through which we do business, are not in compliance with applicable import, export control or economic sanctions laws and regulations, we may be subject to civil or criminal enforcement action, and varying degrees of liability. Such actions may disrupt or delay sales of our products or services or result in restrictions on our distribution and sales of products or services that may materially impact our business.

Anti-Boycott Laws

Under U.S. laws and regulations, U.S. companies and their subsidiaries and affiliates outside the U.S. are prohibited from participating or agreeing to participate in unsanctioned foreign boycotts in connection with certain business activities, including the sale, purchase, transfer, shipping or financing of goods or services within the U.S. or between the U.S. and countries outside of the U.S. If we, or certain third parties through which we sell or provide goods or services, violate anti-boycott laws and regulations, we may be subject to civil or criminal enforcement action and varying degrees of liability.

Data Privacy and Security Laws and Regulations

As a business with a significant global footprint, compliance with evolving regulations and standards in data privacy and cybersecurity has resulted, and may continue to result, in increased costs, new compliance challenges, and the threat of increased regulatory enforcement activity. Our business relies on the secure electronic transmission, storage and hosting of sensitive information, including personal information, protected health information, financial information, intellectual property and other sensitive information related to our customers and workforce.

For example, in the U.S., the collection, maintenance, protection, use, transmission, disclosure and disposal of certain personal information and the security of medical devices are regulated at the U.S. federal and state, international and industry levels. U.S. federal and state laws protect the confidentiality of certain patient health information, including patient medical records, and restrict the use and disclosure of patient health information by health care providers. Privacy and Security Rules under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended, and the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH), govern the use, disclosure, and security of protected health information by "Covered Entities," (which are health care providers that submit electronic claims, health plans, and health care clearinghouses) and by their "Business Associates" (which is anyone that performs a service on behalf of a Covered Entity involving the use or disclosure of protected health information and is not a member of the Covered Entity's workforce). Rules under HIPAA and HITECH include specific security standards and breach notification requirements. The U.S. Department of Health and Human Services (HHS) (through the Office of Civil Rights) has direct enforcement authority against Covered Entities and Business Associates with regard to both the Security and Privacy Rules, including civil and criminal liability. With the exception of certain of its operations in its Diabetes and care management services businesses, Medtronic is generally

not a Covered Entity. Medtronic also operates as a Business Associate to Covered Entities in a limited number of instances. There are comparable state laws governing the use and protection of personal health information by health care providers, and Medtronic may be subject to these laws in certain of its businesses.

In addition to the regulation of personal health information, a number of states have also adopted laws and regulations that may affect our privacy and data security practices for other kinds of personally identifiable information, such as state laws that govern the use, disclosure and protection of sensitive personal information, such as social security numbers, or that are designed to protect credit card account data. State consumer protection laws may also establish privacy and security standards for use and management of personally identifiable information, including information related to consumers and care providers.

Outside the U.S., we are impacted by the privacy and data security requirements at the international, national and regional level, and on an industry specific basis. We serve customers in more than 150 countries. Legal requirements in these countries relating to the collection, storage, handling and transfer of personal data and potentially intellectual property continue to evolve with increasingly strict enforcement regimes. More privacy and security laws and regulations are being adopted, and more are being enforced, with potential for significant financial penalties. In the E.U., increasingly stringent data protection and privacy rules that will have substantial impact on the use of patient data across the healthcare industry became effective in May 2018. The new E.U. General Data Protection Regulation (GDPR) applies uniformly across the E.U. and includes, among other things, a requirement for prompt notice of data breaches to data subjects and supervisory authorities in certain circumstances and significant fines for non-compliance. The GDPR also requires companies processing personal data of individuals residing in the E.U. to comply with E.U. privacy and data protection rules.

Because the laws and regulations continue to expand, differ from jurisdiction to jurisdiction, and are subject to evolving (and at times inconsistent) governmental interpretation, compliance with these laws and regulations may require significant additional cost expenditures or changes in products or business that increase competition or reduce revenue. Noncompliance could result in the imposition of fines, penalties, or orders to stop noncompliant activities.

Regulations Governing Reimbursement

The delivery of our devices is subject to regulation by HHS and comparable state and non-U.S. agencies responsible for reimbursement and regulation of health care items and services. U.S. laws and regulations are imposed primarily in connection with the Medicare and Medicaid programs, as well as the government's interest in regulating the quality and cost of health care. Other governments also impose regulations in connection with their health care reimbursement programs and the delivery of health care items and services.

U.S. federal health care laws apply when we or customers submit claims for items or services that are reimbursed under Medicare, Medicaid, or other federally-funded health care programs, including laws related to kickbacks, false claims, self-referrals and health care fraud. There are often similar state false claims, anti-kickback, and anti-self-referral and insurance laws that apply to state-funded Medicaid and other health care programs and private third- party payers. In some circumstances, insurance companies can attempt to bring a private cause of action against a manufacturer for a pattern of causing false claims to be filed under the federal Racketeer Influenced and Corrupt Organizations Act, or RICO. In addition, as a manufacturer of U.S. FDA-approved devices reimbursable by federal healthcare programs, we are subject to the Physician Payments Sunshine Act, which requires us to annually report certain payments and other transfers of value we make to U.S.-licensed physicians or U.S. teaching hospitals. Any failure to comply with these laws and regulations could subject us or our officers and employees to criminal and civil financial penalties.

Implementation of further legislative or administrative reforms to reimbursement systems, or adverse decisions relating to our products by administrators of these systems in coverage or reimbursement, could significantly reduce reimbursement or result in the denial of coverage, which could have an impact on the acceptance of and demand for our products and the prices that our customers are willing to pay for them. Further, as a result of the Patient Protection and Affordable Care Act (the "ACA"), the U.S. is implementing value-based payment methodologies and seeking to create alternate payment models, such as bundled payments, to continue to drive improved value.

Environmental Health and Safety Laws

We are also subject to various environmental health and safety laws and regulations both within and outside the U.S. Like other companies in our industry, our manufacturing and other operations involve the use and transportation of substances regulated under environmental health and safety laws including those related to the transportation of hazardous materials.

Available Information

We maintain a website at www.medtronic.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (Exchange Act) are made available under the "About Medtronic - Investors" caption and "Financial Information - SEC Filings" subcaption of our website free of charge as soon as reasonably practicable after we electronically file them with, or furnish them to, the Securities and Exchange Commission (SEC).

Information relating to our corporate governance, including our Principles of Corporate Governance, Code of Conduct (including our Code of Ethics for Senior Financial Officers), Code of Business Conduct and Ethics for Members of the Board of Directors, and information concerning our executive officers, directors and Board committees (including committee charters) is available through our website at www.medtronic.com under the "About Medtronic - Corporate Governance" caption. Information relating to transactions in Medtronic securities by directors and officers is available through our website at www.medtronic.com under the "About Medtronic - Investors" caption and the "Financial Information - SEC Filings" subcaption.

The information listed above may also be obtained upon request from the Medtronic Investor Relations Department, 710 Medtronic Parkway, Minneapolis, MN 55432 USA.

Our website and the information contained on or connected to our website are not incorporated by reference into this Form 10-K.

The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The public may obtain any documents that we file with the SEC at http://www.sec.gov. We file annual reports, quarterly reports, proxy statements, and other documents with the SEC under the Exchange Act. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 800-SEC-0330.

Item 1A Risk Factors

Investing in our securities involves a variety of risks and uncertainties, known and unknown, including, among others, those discussed below. Each of the following risks should be carefully considered, together with all the other information included in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes and in our other filings with the SEC. Furthermore, additional risks and uncertainty not presently known to us or that we currently believe to be immaterial may also adversely affect our business. Our business, financial condition, operating results, cash flow and prospects could be materially and adversely affected by any of these risks or uncertainties.

RISKS RELATING TO THE COMPANY

We operate in a highly competitive industry and we may be unable to compete effectively.

We compete in both the therapeutic and diagnostic medical markets in more than 150 countries throughout the world. These markets are characterized by rapid change resulting from technological advances and scientific discoveries. In the product lines in which we compete, we face a range of competitors from large companies with multiple business lines to small, specialized manufacturers that offer a limited selection of niche products. Development by other companies of new or improved products, processes, technologies, or the introduction of reprocessed products or generic versions when our proprietary products lose their patent protection may make our existing or planned products less competitive. In addition, we face competition from providers of alternative medical therapies, such as pharmaceutical companies.

We believe our ability to compete depends upon many factors both within and beyond our control, including:

- product performance and reliability,
- product technology and innovation,
- product quality and safety,
- breadth of product lines,
- product support services,
- customer support,
- cost-effectiveness and price, and
- reimbursement approval from health care insurance providers.

Competition may increase as additional companies enter our markets or modify their existing products to compete directly with ours. In addition, academic institutions, governmental agencies and other public and private research organizations also may conduct research, seek patent protection and establish collaborative arrangements for discovery, research, clinical development and marketing of products similar to ours. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring necessary product technologies. From time to time we have lost, and may in the future lose, market share in connection with product problems, physician advisories, safety alerts and publications about our products, which highlights the importance of product quality, product efficacy and quality systems to our business. In the current environment of managed care, consolidation among health care providers, increased competition, and declining reimbursement rates, we have been increasingly required to compete on the basis of price. Further, our continued growth and success depend on our ability to develop, acquire and market new and differentiated products, technologies and intellectual property, and as a result we also face competition for marketing, distribution, and collaborative development agreements, establishing relationships with academic and research institutions and licenses to intellectual property. In order to continue to compete effectively, we must continue to create, invest in or acquire advanced technology, incorporate this technology into our proprietary products, obtain regulatory approvals in a timely manner, and manufacture and successfully market our products. Given these factors, we cannot guarantee that we will be able to compete effectively or continue our level of success.

Reduction or interruption in supply or other manufacturing difficulties may adversely affect our manufacturing operations and related product sales.

The manufacture of our products requires the timely delivery of sufficient amount of quality components and materials and is highly exacting and complex, due in part to strict regulatory requirements. We manufacture the majority of our products at numerous manufacturing facilities worldwide. We purchase many

of the components and raw materials used in manufacturing these products from numerous suppliers in various countries. We have generally been able to obtain adequate supplies of such raw materials and components. However, for reasons of quality assurance, cost effectiveness, or availability, certain components and raw materials used in our products are obtained from a sole supplier. Although we work closely with our suppliers to try to ensure continuity of supply while maintaining high quality and reliability, the supply of these components and raw materials may be interrupted or insufficient. In addition, due to the stringent regulations and requirements of regulatory agencies, including the U.S. FDA, regarding the manufacture of our products, we may not be able to quickly establish additional or replacement sources. Furthermore, the prices of commodities and other materials used in our products, which are often volatile and outside of our control, could adversely impact our supply. We use resins, other petroleum-based materials and pulp as raw materials in some of our products, and the prices of oil and gas also significantly affect our costs for freight and utilities. A reduction or interruption in supply, and an inability to develop alternative sources for such supply, could adversely affect our ability to manufacture our products in a timely or cost-effective manner and could result in lost sales.

Other disruptions in the manufacturing process or product sales and fulfillment systems for any reason, including equipment malfunction, failure to follow specific protocols and procedures, defective raw materials, natural disasters such as hurricanes, tornadoes or wildfires, and other environmental factors, could lead to launch delays, product shortage, unanticipated costs, lost revenues and damage to our reputation. For example, in June 2017 we experienced a global information technology systems interruption that affected our customer ordering, distribution, and manufacturing processes. Furthermore, any failure to identify and address manufacturing problems prior to the release of products to our customers could result in quality or safety issues.

In addition, several of our key products are manufactured at a particular manufacturing facility, with limited alternate facilities. If an event occurs that results in damage to one or more of such facilities, such as the damage caused by Hurricane Maria in Puerto Rico in September 2017, we may be unable to manufacture the relevant products at the previous levels or at all. Because of the time required to approve and license a manufacturing facility, a third-party manufacturer may not be available on a timely basis to replace production capacity in the event manufacturing capacity is lost.

We are subject to costly and complex laws and governmental regulations and any adverse regulatory action may materially adversely affect our financial condition and business operations.

Our medical devices and technologies, as well as our business activities, are subject to a complex set of regulations and rigorous enforcement, including by the U.S. FDA, U.S. Department of Justice, Health and Human Services-Office of the Inspector General, and numerous other federal, state, and non-U.S. governmental authorities. To varying degrees, each of these agencies requires us to comply with laws and regulations governing the development, testing, manufacturing, labeling, marketing and distribution of our products. As a part of the regulatory process of obtaining marketing clearance for new products and new indications for existing products, we conduct and participate in numerous clinical trials with a variety of study designs, patient populations, and trial endpoints. Unfavorable or inconsistent clinical data from existing or future clinical trials or the market's or U.S. FDA's perception of this clinical data, may adversely impact our ability to obtain product approvals, our position in, and share of, the markets in which we participate, and our business, financial condition, results of operations and cash flows. We cannot guarantee that we will be able to obtain or maintain marketing clearance for our new products or enhancements or modifications to existing products, and the failure to maintain approvals or obtain approval or clearance could have a material adverse effect on our business, results of operations, financial condition and cash flows. Even if we are able to obtain approval or clearance, it may:

- take a significant amount of time,
- require the expenditure of substantial resources,
- involve stringent clinical and pre-clinical testing, as well as increased post-market surveillance,
- involve modifications, repairs or replacements of our products, and
- limit the proposed uses of our products.

Both before and after a product is commercially released, we have ongoing responsibilities under U.S. FDA and other applicable non-U.S. government agency regulations. For instance, many of our facilities and procedures and those of our suppliers are also subject to periodic inspections by the U.S. FDA to determine compliance with applicable regulations. The results of these inspections can include inspectional observations on U.S. FDA's Form-483, warning letters, or other forms of enforcement. If the U.S. FDA were to conclude that we are not in compliance with applicable laws or regulations, or that any of our medical products are ineffective or pose an unreasonable health risk, the U.S. FDA could ban such medical products, detain or seize adulterated or misbranded medical products, order a recall, repair, replacement, or refund of such products, refuse to grant pending pre-market approval applications or require certificates of non-U.S governments for exports, and/or require us to notify health professionals and others that the devices present unreasonable risks of substantial harm to the public health. The U.S. FDA and other non-U.S. government agencies may also assess civil or criminal penalties against us, our officers or employees and impose operating restrictions on a company-wide basis. The U.S. FDA may also recommend prosecution to the U.S. Department of Justice. Any adverse regulatory action, depending on its magnitude, may restrict us from effectively marketing and selling our products and limit our ability to obtain future pre-market clearances or approvals, and could result in a substantial modification to our business practices and operations. Furthermore, we occasionally receive subpoenas or other requests for information from state and federal governmental agencies, and while these investigations typically relate primarily to financial arrangements with health care providers, regulatory compliance and product promotional practices, we cannot predict the timing, outcome or impact of any such investigations. Any adverse outcome in one or more of these investigations could include the commencement of civil and/or criminal proceedings, substantial fines, penalties, and/or

administrative remedies, including exclusion from government reimbursement programs and/or entry into Corporate Integrity Agreements (CIAs) with governmental agencies. In addition, resolution of any of these matters could involve the imposition of additional, costly compliance obligations. These potential consequences, as well as any adverse outcome from government investigations, could have a material adverse effect on our business, results of operations, financial condition, and cash flows.

In addition, the U.S. FDA has taken the position that device manufacturers are prohibited from promoting their products other than for the uses and indications set forth in the approved product labeling, and any failure to comply could subject us to significant civil or criminal exposure, administrative obligations and costs, and/or other potential penalties from, and/or agreements with, the federal government.

Governmental regulations outside the U.S. have, and may continue to, become increasingly stringent and common. In the European Union, for example, a new Medical Device Regulation was published in 2017 which, when it enters into full force in 2020, will include significant additional premarket and post-market requirements. Penalties for regulatory non-compliance could be severe, including fines and revocation or suspension of a company's business license, mandatory price reductions and criminal sanctions. Future laws and regulations may have a material adverse effect on us.

Our failure to comply with laws and regulations relating to reimbursement of health care goods and services may subject us to penalties and adversely impact our reputation, business, results of operations, financial condition and cash flows.

Our devices, products and therapies are purchased principally by hospitals or physicians that typically bill various third-party payers, such as governmental programs (e.g., Medicare, Medicaid and comparable non-U.S. programs), private insurance plans and managed care plans, for the healthcare services provided to their patients. The ability of our customers to obtain appropriate reimbursement for products and services from third-party payers is critical because it affects which products customers purchase and the prices they are willing to pay. As a result, our devices, products and therapies are subject to regulation regarding quality and cost by HHS, including the Centers for Medicare & Medicaid Services (CMS), as well as comparable state and non-U.S. agencies responsible for reimbursement and regulation of health care goods and services, including laws and regulations related to kickbacks, false claims, self-referrals and health care fraud. Many states have similar laws that apply to reimbursement by state Medicaid and other funded programs as well as in some cases to all payers. In certain circumstances, insurance companies can attempt to bring a private cause of action against a manufacturer for causing a false claim to be filed under the federal Racketeer Influenced and Corrupt Organizations Act. In addition, as a manufacturer of U.S. FDA-approved devices reimbursable by federal healthcare programs, we are subject to the Physician Payments Sunshine Act, which requires us to annually report certain payments and other transfers of value we make to U.S.-licensed physicians or U.S. teaching hospitals. Any failure to comply with these laws and regulations could subject us or our officers and employees to criminal and civil financial penalties.

We are also subject to risks relating to changes in government and private medical reimbursement programs and policies, and changes in legal regulatory requirements in the U.S. and around the world. Implementation of further legislative or administrative reforms to these reimbursement systems, or adverse decisions relating to coverage of or reimbursement for our products by administrators of these systems, could have an impact on the acceptance of and demand for our products and the prices that our customers are willing to pay for them.

We are substantially dependent on patent and other proprietary rights and failing to protect such rights or to be successful in litigation related to our rights or the rights of others may result in our payment of significant monetary damages and/or royalty payments, negatively impact our ability to sell current or future products, or prohibit us from enforcing our patent and other proprietary rights against others.

We are substantially dependent on patent and other proprietary rights and rely on a combination of patents, trade secrets, and non-disclosure and non-competition agreements to protect our proprietary intellectual property. We also operate in an industry characterized by extensive patent litigation. Patent litigation can result in significant damage awards and injunctions that could prevent our manufacture and sale of affected products or require us to pay significant royalties in order to continue to manufacture or sell affected products. At any given time, we are generally involved as both a plaintiff and a defendant in a number of patent infringement actions, the outcomes of which may not be known for prolonged periods of time. While it is not possible to predict the outcome of patent litigation, it is possible that the results of such litigation could require us to pay significant monetary damages and/or royalty payments, negatively impact our ability to sell current or future products, or prohibit us from enforcing our patent and proprietary rights against others, any of which could have a material adverse impact on our business, results of operations, financial condition, and cash flows.

While we intend to defend against any threats to our intellectual property, our patents, trade secrets or other agreements may not adequately protect our intellectual property. Further, pending patent applications may not result in patents being issued to us, patents issued to or licensed by us may be challenged or circumvented by competitors and such patents may be found invalid, unenforceable or insufficiently broad to protect our technology or provide us with any competitive advantage. Third parties could obtain patents that may require us to negotiate licenses to conduct our business, and these licenses may not be available on reasonable terms or at all. We also rely on non-disclosure and non-competition agreements with certain employees, consultants and other parties to protect, in part, trade secrets and other proprietary rights. We cannot be certain that these agreements will not be breached, that we will have adequate

remedies for any breach, that others will not independently develop substantially equivalent proprietary information, or that third parties will not otherwise gain access to our trade secrets or proprietary knowledge.

In addition, the laws of certain countries in which we market some of our products do not protect our intellectual property rights to the same extent as the laws of the U.S., which could make it easier for competitors to capture market position in those countries. Competitors also may harm our sales by designing products that mirror the capabilities of our products or technology without infringing our intellectual property rights. If we are unable to protect our intellectual property in these countries, it could have a material adverse effect on our business, results of operations, financial condition, and cash flows.

Quality problems and product liability claims could lead to recalls or safety alerts, reputational harm, adverse verdicts or costly settlements, and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Quality is extremely important to us and our customers due to the serious and costly consequences of product failure, and our business exposes us to potential product liability risks that are inherent in the design, manufacture, and marketing of medical devices. In addition, many of our products are often used in intensive care settings with seriously ill patients and some of the medical devices we manufacture and sell are designed to be implanted in the human body for long periods of time or indefinitely. Component failures, manufacturing defects, design flaws, off-label use, or inadequate disclosure of product-related risks or product-related information with respect to our products could result in an unsafe condition or injury to, or death of, a patient. These problems could lead to recall of, or issuance of a safety alert relating to, our products, and could result in product liability claims and lawsuits, including class actions, which could ultimately result, in certain cases, in the removal from the body of such products and claims regarding costs associated therewith. Due to the strong name recognition of the Medtronic and Covidien brands, a material adverse event involving one of our products could result in reduced market acceptance and demand for all products within that brand, and could harm our reputation and ability to market products in the future.

Strong product quality is critical to the success of our goods and services. If we fail to meet these standards and our products are the subject of recalls or safety alerts, our reputation could be damaged, we could lose customers and our revenue and results of operations could decline. Our success also can depend on our ability to manufacture to exact specification precision-engineered components, subassemblies and finished devices from multiple materials. If our components fail to meet these standards or fail to adapt to evolving standards, our reputation, competitive advantage and market share could be harmed. In certain situations, we may undertake a voluntary recall of products or temporarily shut down production lines based on performance relative to our own internal safety and quality monitoring and testing data.

Any of the foregoing problems, including future product liability claims or recalls, regardless of their ultimate outcome, could harm our reputation and have a material adverse effect on our business, results of operations, financial condition and cash flows.

Our research and development efforts rely upon investments and investment collaborations, and we cannot guarantee that any previous or future investments or investment collaborations will be successful.

Our mission is to provide a broad range of therapies to restore patients to fuller, healthier lives, which requires a wide variety of technologies, products and capabilities. The rapid pace of technological development in the medical industry and the specialized expertise required in different areas of medicine make it difficult for one company alone to develop a broad portfolio of technological solutions. In addition to internally generated growth through our research and development efforts, historically we have relied, and expect to continue to rely, upon investments and investment collaborations to provide us access to new technologies both in areas served by our existing businesses as well as in new areas.

We expect to make future investments where we believe that we can stimulate the development or acquisition of new technologies and products to further our strategic objectives and strengthen our existing businesses. Investments and investment collaborations in and with medical technology companies are inherently risky, and we cannot guarantee that any of our previous or future investments or investment collaborations will be successful or will not materially adversely affect our business, results of operations, financial condition and cash flows.

Health care policy changes may have a material adverse effect on us.

In response to perceived increases in health care costs in recent years, there have been and continue to be proposals by the federal government, state governments, regulators and third-party payers to control these costs and, more generally, to reform the health care system, including U.S. health care reform legislation. Certain of these proposals could, among other things, limit the prices we are able to charge for our products or the amounts of reimbursement available for our products and could limit the acceptance and availability of our products. The adoption of some or all of these proposals could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Our insurance program may not be adequate to cover future losses.

We have elected to self-insure most of our insurable risks across the Company, and we made this decision based on cost and availability factors in the insurance marketplace. We manage and maintain a portion of our self-insured program through a wholly-owned captive insurance company. We continue to maintain a directors and officers liability insurance policy with a third-party insurer that provides coverage for the directors and officers of the Company. We continue to monitor the insurance marketplace

to evaluate the value of obtaining insurance coverage for other categories of losses in the future. Although we believe, based on historical loss trends, that our self-insurance program accruals and our existing insurance coverage will be adequate to cover future losses, historical trends may not be indicative of future losses. The absence of third-party insurance coverage for other categories of losses increases our exposure to unanticipated claims and these losses could have a material adverse impact on our business, results of operations, financial condition and cash flows.

If we experience decreasing prices for our goods and services and we are unable to reduce our expenses, there may be a material adverse effect on our business, results of operations, financial condition and cash flows.

We have experienced, and may continue to experience, decreasing prices for our goods and services due to pricing pressure from managed care organizations and other third-party payers on our customers, increased market power of our customers as the medical device industry consolidates and increased competition among medical engineering and manufacturing services providers. If the prices for our goods and services decrease and we are unable to reduce our expenses, our business, results of operations, financial condition and cash flows will be adversely affected.

We are subject to a variety of risks associated with global operations that could adversely affect our profitability and operating results.

We develop, manufacture, distribute and sell our products globally. Operations in countries outside of the U.S. are accompanied by certain risks. We intend to continue to expand our operations and to pursue growth opportunities outside the U.S., especially in emerging markets, which could expose us to additional and greater risks. Our profitability and global operations are, and will continue to be, subject to a number of risks and potential costs, including:

- fluctuations in currency exchange rates,
- healthcare reform legislation,
- the need to comply with different regulatory regimes worldwide that are subject to change and that could restrict our ability to manufacture and sell our products,
- local product preferences and product requirements,
- longer-term receivables than are typical in the U.S.,
- trade protection measures, tariffs and other border taxes, and import or export licensing requirements,
- less intellectual property protection in some countries outside the U.S. than exists in the U.S.,
- different labor regulations and workforce instability,
- political and economic instability,
- the expiration and non-renewal of foreign tax rulings and/or grants,
- potentially negative consequences from changes in or interpretations of tax laws, and
- economic instability and inflation, recession or interest rate fluctuations.

On June 23, 2016, the U.K. held a referendum in which voters approved an exit from the E.U., commonly referred to as "Brexit". As a result of the referendum, it is expected that the British government will begin negotiating the terms of the U.K.'s future relationship with the E.U. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and E.U. countries and increased regulatory complexities. Similarly, from time to time proposals are made in the U.S. to significantly change existing trade agreements and relationships between the U.S. and other countries, although we cannot currently predict whether or how these changes will be implemented. Changes to trade policy may adversely affect our business, results of operations, financial condition and cash flows.

In addition, a significant amount of our trade receivables are with national health care systems in many countries. Repayment of these receivables is dependent upon the political and financial stability of those countries. In light of these global economic fluctuations, we continue to monitor the creditworthiness of customers. Failure to receive payment of all or a significant portion of these receivables could adversely affect our business, results of operations, financial condition and cash flows.

Finally, changes in currency exchange rates may impact the reported value of our revenues, expenses, and cash flows. We cannot predict changes in currency exchange rates, the impact of exchange rate changes, nor the degree to which we will be able to manage the impact of currency exchange rate changes.

The failure to comply with anti-bribery laws could materially adversely affect our business and result in civil and/or criminal sanctions.

The U.S. Foreign Corrupt Practices Act (FCPA) and similar anti- bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. government officials for the purpose of obtaining or retaining business. Because of the predominance of government-administered healthcare systems in many jurisdictions around the world, many of our customer relationships outside of the U.S. are with governmental entities and are therefore potentially subject to such laws. We also participate in public-private partnerships and other commercial and policy arrangements with governments around the globe.

Global enforcement of anti-corruption laws has increased substantially in recent years, with more frequent voluntary self-disclosures by companies, aggressive investigations and enforcement proceedings by U.S. and non-U.S. governmental agencies, and assessment of significant fines and penalties against companies and individuals. Our international operations create the risk of unauthorized payments or offers of payments by one of our employees, consultants, sales agents, or distributors. It is our policy to implement safeguards to educate our employees and agents on these legal requirements and prohibit improper practices. However, existing safeguards and any future improvements may not always be effective, and our employees, consultants, sales agents or distributors may engage in conduct for which we could be held responsible. In addition, the government may seek to hold us liable for FCPA violations committed by companies in which we invest or that we acquire. Any alleged or actual violations of these

regulations may subject us to government scrutiny, criminal or civil sanctions and other liabilities, including exclusion from government contracting, and could disrupt our business, adversely affect our reputation and result in a material adverse effect on our business, results of operations, financial condition and cash flows.

Laws and regulations governing international business operations could adversely impact our business.

The U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC), and the Bureau of Industry and Security at the U.S. Department of Commerce (BIS), administer certain laws and regulations that restrict U.S. persons and, in some instances, non-U.S. persons, in conducting activities, transacting business with or making investments in certain countries, governments, entities and individuals subject to U.S. economic sanctions. Our international operations subject us to these laws and regulations, which are complex, restrict our business dealings with certain countries and individuals, and are constantly changing. Further restrictions may be enacted, amended, enforced or interpreted in a manner that materially impacts our operations.

From time to time, certain of our subsidiaries have limited business dealings in countries subject to comprehensive sanctions, including Iran, Sudan, Syria, Cuba and the region of Crimea. Certain of our subsidiaries sell medical devices, and may provide related services, to distributors and other purchasing bodies in such countries. These business dealings represent an insignificant amount of our consolidated revenues and income, but expose us to a heightened risk of violating applicable sanctions regulations. Violations of these regulations are punishable by civil penalties, including fines, denial of export privileges, injunctions, asset seizures, debarment from government contracts and revocations or restrictions of licenses, as well as criminal fines and imprisonment. We have established policies and procedures designed to assist with our compliance with such laws and regulations. However, there can be no assurance that our policies and procedures will prevent us from violating these regulations in every transaction in which we may engage, and such a violation could adversely affect our reputation, business, financial condition, results of operations and cash flows.

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

Many health care industry companies, including health care systems, distributors, manufacturers, providers, and insurers, are consolidating or have formed strategic alliances. As the health care industry consolidates, competition to provide goods and services to industry participants will become more intense. Further, this consolidation creates larger enterprises with greater negotiating power, which they can use to negotiate price concessions. If we must reduce our prices because of industry consolidation, or if we lose customers as a result of consolidation, our business, financial condition, results of operations and cash flows could be adversely affected.

Health care industry cost-containment measures could result in reduced sales of our medical devices and medical device components.

Most of our customers, and the health care providers to whom our customers supply medical devices, rely on third-party payers, including government programs and private health insurance plans, to reimburse some or all of the cost of the procedures in which medical devices that incorporate components we manufacture or assemble are used. The continuing efforts of governmental authorities, insurance companies and other payers of health care costs to contain or reduce these costs could lead to patients being unable to obtain approval for payment from these third-party payers. If third-party payer payment approval cannot be obtained by patients, sales of finished medical devices that include our components may decline significantly and our customers may reduce or eliminate purchases of our components. The cost-containment measures that health care providers are instituting, both in the U.S. and outside of the U.S., could harm our ability to operate profitably. For example, managed care organizations have successfully negotiated volume discounts for pharmaceuticals, and GPOs and IDNs have also concentrated purchasing decisions for some customers, which has led to downward pricing pressure for medical device companies, including us.

We are subject to environmental laws and regulations and the risk of environmental liabilities, violations and litigation.

We are subject to numerous U.S. federal, state, local and non-U.S. environmental, health and safety laws and regulations concerning, among other things, the health and safety of our employees, the generation, storage, use and transportation of hazardous materials, emissions or discharges of substances into the environment, investigation and remediation of hazardous substances or materials at various sites, chemical constituents in medical products and end-of-life disposal and take-back programs for medical devices. Our operations involve the use of substances subject to these laws and regulations, primarily those used in manufacturing and sterilization processes. If we violate these environmental laws and regulations, we could be fined, criminally charged or otherwise sanctioned. Furthermore, environmental laws outside of the U.S. are becoming more stringent, resulting in increased costs and compliance burdens.

In addition, certain environmental laws assess liability on current or previous owners or operators of real property for the costs of investigation, removal or remediation of hazardous substances or materials at their properties or at properties which they have disposed of hazardous substances. In addition to cleanup actions brought by governmental authorities, private parties could bring personal injury or other claims due to the presence of, or exposure to, hazardous substances. The ultimate cost of site cleanup and timing of future cash outflows is difficult to predict, given the uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations, and alternative cleanup methods.

The costs of complying with current or future environmental protection and health and safety laws and regulations, or liabilities arising from past or future releases of, or exposures to, hazardous substances, may exceed our estimates, or have a material adverse effect on our business, results of operations, financial condition, and cash flows.

The continuing development of many of our products depends upon us maintaining strong relationships with health care professionals.

If we fail to maintain our working relationships with health care professionals, many of our products may not be developed and marketed in line with the needs and expectations of the professionals who use and support our products, which could cause a decline in our earnings and profitability. The research, development, marketing and sales of many of our new and improved products depends on our maintaining working relationships with health care professionals. We rely on these professionals to provide us with considerable knowledge and experience regarding the development, marketing and sale of our products. Physicians assist us as researchers, marketing and product consultants, inventors and public speakers. If we are unable to maintain strong relationships with these professionals, the development and marketing of our products could suffer, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We rely on the proper function, security and availability of our information technology systems and data to operate our business, and a breach, cyber-attack or other disruption to these systems or data could materially and adversely affect our business, results of operations, financial condition, cash flows, reputation or competitive position.

We are increasingly dependent on sophisticated information technology systems to operate our business, including to process, transmit and store sensitive data, and many of our products and services include integrated software and information technology that collects data regarding patients or connects to our systems. Like other large multi-national corporations, we could experience, and in the past have experienced, attempted or actual interference with the integrity of, and interruptions in, our technology systems, as well as data breaches, such as cyber-attacks, malicious intrusions, breakdowns, interference with the integrity of our products and data or other significant disruptions. Furthermore, we rely on third-party vendors to supply and/or support certain aspects of our information technology systems. These third-party systems could also become vulnerable to cyber-attack, malicious intrusions, breakdowns, interference or other significant disruptions, and may contain defects in design or manufacture or other problems that could result in system disruption or compromise the information security of our own systems. In addition, we continue to grow in part through new business acquisitions and, as a result, may face risks associated with defects and vulnerabilities in their systems, or difficulties or other breakdowns or disruptions in connection with the integration of the acquisitions into our information technology systems.

Our worldwide operations mean that we are subject to laws and regulations, including data protection and cybersecurity laws and regulations, in many jurisdictions. The variety of U.S. and international privacy and cybersecurity laws and regulations impacting our operations are described in "Item 1. Business" - Other Factors Impacting Our Operations - Data Privacy and Cybersecurity Laws and Regulations. For example, in the E.U. the Data Protection Directive requires us to manage individually identifiable information in the E.U., and the new General Data Protection Regulation may impose fines of up to four percent of our global revenue in the event of violations occurring after its implementation in May 2018. Furthermore, there has been a developing trend of civil lawsuits and class actions relating to breaches of consumer data held by large companies or incidents arising from other cyber-attacks. Any data security breaches, cyber-attacks, malicious intrusions or significant disruptions could result in actions by regulatory bodies and/or civil litigation, any of which could materially and adversely affect our business, results of operations, financial condition, cash flows, reputation or competitive position.

In addition, our information technology systems require an ongoing commitment of significant resources to maintain, protect, and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving legal and regulatory standards, the increasing need to protect patient and customer information, changes in the techniques used to obtain unauthorized access to data and information systems, and the information technology needs associated with our changing products and services. There can be no assurance that our process of consolidating, protecting, upgrading and expanding our systems and capabilities, continuing to build security into the design of our products, and developing new systems to keep pace with continuing changes in information processing technology will be successful or that additional systems issues will not arise in the future.

If our information technology systems, products or services or sensitive data are compromised, patients or employees could be exposed to financial or medical identity theft or suffer a loss of product functionality, and we could lose existing customers, have difficulty attracting new customers, have difficulty preventing, detecting, and controlling fraud, be exposed to the loss or misuse of confidential information, have disputes with customers, physicians, and other health care professionals, suffer regulatory sanctions or penalties under federal laws, state laws, or the laws of other jurisdictions, experience increases in operating expenses or an impairment in our ability to conduct our operations, incur expenses or lose revenues as a result of a data privacy breach, product failure, information technology outages or disruptions, or suffer other adverse consequences including lawsuits or other legal action and damage to our reputation.

Our substantial leverage and debt service obligations could adversely affect our business.

At April 27, 2018, we had approximately $2.1 billion of current debt obligations and $23.7 billion of long-term debt outstanding. We may also incur additional indebtedness in the future. Our

substantial indebtedness could have adverse consequences, including:

- making it more difficult for us to satisfy our financial obligations,
- increasing our vulnerability to adverse economic, regulatory and industry conditions, and placing us at a disadvantage compared to our competitors that are less leveraged,
- limiting our ability to compete and our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate,
- limiting our ability to borrow additional funds for working capital, capital expenditures, acquisitions and general corporate or other purposes, and
- exposing us to greater interest rate risk since the interest rate on borrowings under our floating rate notes and revolving credit facility is variable.

Our debt service obligations require us to use a portion of our operating cash flow to pay interest and principal on indebtedness instead of for other corporate purposes, including funding future expansion of our business, acquisitions, and ongoing capital expenditures, which could impede our growth. If our operating cash flow and capital resources are insufficient to service our debt obligations, we may be forced to sell assets, seek additional equity or debt financing or restructure our debt, which could harm our long-term business prospects. Our failure to comply with the terms of our revolving credit facility and other indebtedness could result in an event of default which, if not cured or waived, could result in the acceleration of all of our debt.

Failure to integrate acquired businesses into our operations successfully could adversely affect our business.

As part of our strategy to develop and identify new products and technologies, we have made several significant acquisitions in recent years, and may make additional acquisitions in the future. Our integration of the operations of acquired businesses requires significant efforts, including the coordination of information technologies, research and development, sales and marketing, operations, manufacturing, and finance. These efforts result in additional expenses and involve significant amounts of management's time that cannot then be dedicated to other projects. Our failure to manage and coordinate the growth of acquired companies successfully could also have an adverse impact on our business. In addition, we cannot be certain that the businesses we acquire will become profitable or remain so. Factors that will affect the success of our acquisitions include:

- the presence or absence of adequate internal controls and/or significant fraud in the financial systems of acquired companies,
- our ability or inability to integrate information technology systems of acquired companies in a secure and reliable manner,
- adverse developments arising out of investigations by governmental entities of the business practices of acquired companies, including potential FCPA liability,
- any decrease in customer loyalty and product orders caused by dissatisfaction with the combined companies' product lines and sales and marketing practices, including price increases,
- our ability to retain key employees, and
- the ability to achieve synergies among acquired companies, such as increasing sales of the integrated company's products, achieving cost savings, and effectively combining technologies to develop new products.

We also could experience negative effects on our business, financial condition, results of operations and cash flows from acquisition-related charges, amortization of intangible assets and asset impairment charges. These effects, individually or in the aggregate, could cause a deterioration of our credit rating and result in increased borrowing costs and interest expense.

Changes in tax laws or exposure to additional income tax liabilities could have a material impact on our business, results of operations, financial condition and cash flows.

We are subject to income taxes, as well as non-income based taxes, in the U.S., Ireland, and various other jurisdictions in which we operate. The tax laws in the U.S., Ireland and other countries in which we and our affiliates do business could change on a prospective or retroactive basis, and any such changes could materially adversely affect our business and our effective tax rate. For example, on December 22, 2017, the U.S. enacted comprehensive tax legislation, commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"), which resulted in a significant charge to tax expense during our quarter ending January 2018 associated with the U.S. taxation of accumulated foreign earnings as well as the requirement to revalue U.S. deferred tax assets and liabilities resulting from the reduction in the U.S. corporate tax rate.

Certain elements of the Tax Act impact fiscal year 2018 while other portions of the legislation are not effective until future fiscal years. The U.S. Treasury has issued additional guidance subsequent to the enactment of the Tax Act, and we expect ongoing guidance to be provided which could change the impact on our tax reserves. We made reasonable estimates of the effect of the Tax Act and recorded provisional amounts in the financial statements for fiscal year 2018. Additional guidance, as well as future changes to these rules, may result in adjustments to these estimates which could materially affect our financial results.

In 2013, the Organization for Economic Cooperation and Development (OECD) published an action plan called Base Erosion and Profit Shifting (BEPS) with a view to tackling perceived tax abuse and inconsistency between taxing authorities and their approach to International tax matters. The final BEPS Action report was published in October 2015 and subsequently many taxing authorities have adopted the guidelines provided within their local laws. The EU expanded upon these guidelines with Anti-Tax Avoidance Directives (ATAD) to be applied by its member states. We continue to monitor any and all changes to local country legislation resulting from this guidance. One specific change is a requirement for increased disclosures of financial information on a local and global basis. This information could lead to disagreements between jurisdictions associated with the proper allocation of profits between such jurisdictions.

We are subject to ongoing tax audits in the various jurisdictions in which we operate. Tax authorities may disagree with certain positions we have taken and assess additional taxes. We regularly assess the likely outcomes of these audits in order to determine

the appropriateness of our tax provision. However, there can be no assurance that we will accurately predict the outcomes of these audits, and the actual outcomes of these audits could have a material impact on our business, financial condition, results of operations, and cash flows.

We have recorded reserves for potential payments of tax to various tax authorities related to uncertain tax positions. However, the calculation of such tax liabilities involves the application of complex tax regulations in many jurisdictions. Therefore, any dispute with a tax authority may result in a payment that is significantly different from current estimates. If payment of these amounts ultimately proves to be less than the recorded amounts, the reversal of the liabilities generally would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. If our estimate of tax liabilities proves to be less than the amount for which it is ultimately liable, we would incur additional charges, and such charges could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

The Medtronic, Inc. tax court proceeding outcome could have a material adverse impact on our financial condition.

In March 2009, the IRS issued its audit report for Medtronic Inc. for fiscal years 2005 and 2006. Medtronic, Inc. reached agreements with the IRS on some, but not all matters related to these fiscal years. The remaining unresolved issue for fiscal years 2005 and 2006 relates to the allocation of income between Medtronic, Inc. and its wholly-owned subsidiary operating in Puerto Rico, which is one of our key manufacturing sites. An adverse outcome in this matter could materially and adversely affect our business, financial condition, results of operations and cash flows. See Note 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Future potential changes to the U.S. tax laws could result in us being treated as a U.S. corporation for U.S. federal tax purposes, and the IRS may not agree with the conclusion that we should be treated as a foreign corporation for U.S federal income tax purposes.

Because Medtronic plc is organized under the laws of Ireland, we would generally be classified as a foreign corporation under the general rule that a corporation is considered tax resident in the jurisdiction of its organization or incorporation for U.S. federal income tax purposes. Even so, the IRS may assert that we should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal income tax purposes pursuant to Section 7874 of the U.S. Internal Revenue Code of 1986, as amended (the Code).

Under Section 7874 of the Code, if Medtronic Inc.'s shareholders immediately prior to the Covidien transaction held 80% or more of the vote or value of our shares by reason of holding stock in Medtronic, Inc. immediately after the transaction (the ownership test), and our expanded affiliated group after the transaction did not have substantial business activities in Ireland relative to its worldwide activities (the substantial business activities test), we would have been treated as a U.S. corporation for U.S. federal income tax purposes. Based on the rules for determining share ownership under Section 7874 of the Code, Medtronic, Inc.'s shareholders received approximately 70% of our ordinary shares (by both vote and value) by reason of holding stock in Medtronic, Inc. Therefore, under current law, we should not be treated as a U.S. corporation for U.S. federal income tax purposes. However, there is limited guidance regarding the application of Section 7874, including the application of the ownership test. If we were to be treated as a U.S. corporation for federal tax purposes, we could be subject to substantially greater U.S. tax liability than currently contemplated as a non-U.S. corporation.

Legislative or other governmental action relating to the denial of U.S. federal or state governmental contracts to U.S. companies that redomicile abroad could adversely affect our business.

Various U.S. federal and state legislative proposals that would deny governmental contracts to U.S. companies that move their corporate location abroad may affect us. We are unable to predict the likelihood that, or final form in which, any such proposed legislation might become law, the nature of the regulations that may be promulgated under any future legislative enactments, or the effect such enactments and increased regulatory scrutiny may have on our business.

RISKS RELATING TO OUR JURISDICTION OF INCORPORATION

We are incorporated in Ireland, and Irish law differs from the laws in effect in the U.S. and may afford less protection to holders of our securities.

Our shareholders may have more difficulty protecting their interests than would shareholders of a corporation incorporated in a jurisdiction of the United States. It may not be possible to enforce court judgments obtained in the U.S. against us in Ireland based on the civil liability provisions of the U.S. federal or state securities laws. In addition, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liabilities provisions of the U.S. federal or state securities laws or hear actions against us or those persons based on those laws. We have been advised that the U.S. currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters.

Therefore, a final judgment for the payment of money rendered by any U.S. federal or state court based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Ireland.

As an Irish company, we are governed by the Irish Companies Act 2014, which differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of our securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in the U.S.

As an Irish public limited company, certain capital structure decisions require shareholder approval, which may limit Medtronic's flexibility to manage its capital structure.

Under Irish law, our authorized share capital can be increased by an ordinary resolution of our shareholders and the directors may issue new ordinary or preferred shares up to a maximum amount equal to the authorized but unissued share capital, without shareholder approval, once authorized to do so by our articles of association or by an ordinary resolution of our shareholders. Additionally, subject to specified exceptions, Irish law grants statutory preemption rights to existing shareholders where shares are being issued for cash consideration but allows shareholders to disapply such statutory preemption rights either in our articles of association or by way of special resolution. Such disapplication can either be generally applicable or be in respect of a particular allotment of shares. Accordingly, our articles of association contain, as permitted by Irish company law, provisions authorizing the board to issue new shares, and to disapply statutory preemption rights. The authorization of the directors to issue shares and the disapplication of statutory preemption rights must both be renewed by the shareholders at least every five years, and we cannot provide any assurance that these authorizations will always be approved, which could limit our ability to issue equity and thereby adversely affect the holders of our securities.

A transfer of our shares, other than ones effected by means of the transfer of book-entry interests in the Depository Trust Company, may be subject to Irish stamp duty.

Transfers of our shares effected by means of the transfer of book entry interests in the Depository Trust Company (DTC) will not be subject to Irish stamp duty. However, if a shareholder holds our shares directly rather than beneficially through DTC, any transfer of shares could be subject to Irish stamp duty (currently at the rate of 1% of the higher of the price paid or the market value of the shares acquired). Payment of Irish stamp duty is generally a legal obligation of the transferee. The potential for stamp duty could adversely affect the price of shares.

In certain limited circumstances, dividends we pay may be subject to Irish dividend withholding tax and dividends received by Irish residents and certain other shareholders may be subject to Irish income tax.

In certain limited circumstances, dividend withholding tax (currently at a rate of 20%) may arise in respect of dividends paid on our shares. A number of exemptions from dividend withholding tax exist such that shareholders resident in the U.S. and other specified countries may be entitled to exemptions from dividend withholding tax.

Shareholders resident in the U.S. that hold their shares through DTC will not be subject to dividend withholding tax, provided the addresses of the beneficial owners of such shares in the records of the brokers holding such shares are recorded as being in the U.S. (and such brokers have further transmitted the relevant information to a qualifying intermediary appointed by us). However, other shareholders may be subject to dividend withholding tax, which could adversely affect the price of their shares.

Shareholders entitled to an exemption from Irish dividend withholding tax on dividends received from us will not be subject to Irish income tax in respect of those dividends unless they have some connection with Ireland other than their shareholding in our Company (for example, they are resident in Ireland). Shareholders who receive dividends subject to Irish dividend withholding tax generally have no further liability to Irish income tax on those dividends.

Our shares received by means of a gift or inheritance could be subject to Irish capital acquisitions tax.

Irish capital acquisitions tax (CAT) could apply to a gift or inheritance of our shares irrespective of the place of residence, ordinary residence or domicile of the parties. This is because our shares will be regarded as property situated in Ireland. The person who receives the gift or inheritance has primary liability for CAT. Gifts and inheritances passing between spouses are exempt from CAT. Children have a tax-free threshold which Irish Revenue typically updates annually in respect of taxable gifts or inheritances received from their parents.

Item 1B Unresolved Staff Comments

None.

Item 2 Properties

Medtronic's principal executive office is located in Dublin, Ireland and is leased by the Company, while its main operational offices are located in the Minneapolis, Minnesota metropolitan area and are owned by the Company.

The Company's total manufacturing and research space is approximately 10 million square feet. Approximately 36 percent of the manufacturing and research facilities are owned by Medtronic and the balance is leased. The following is a summary of the Company's largest manufacturing and research facilities by location:

Location Country or State	Square Feet *(in thousands)*
Connecticut	1,098
China	985
Minnesota	969
Puerto Rico	831
Mexico	762
California	495
Italy	454
Ireland	446
Texas	431
Dominican Republic	304
Arizona	294
Switzerland	283
Colorado	276

Medtronic also maintains sales and administrative offices in the U.S. at 12 locations in 10 states and outside the U.S. at 168 locations in 70 countries. Most of these locations are leased. The Company is using substantially all of its currently available productive space to develop, manufacture, and market products. The Company's facilities are well-maintained, suitable for their respective uses, and adequate for current needs.

Item 3 Legal Proceedings

A discussion of the Company's legal proceedings is contained in Note 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Item 4 Mine Safety Disclosures

Not applicable.

PART II

Item 5 Market for Medtronic's Common Equity, Related Shareholder Matters, and Issuer Purchases of Equity Securities

The Company's ordinary shares are listed on the New York Stock Exchange under the symbol "MDT."

The following table provides information about the shares repurchased by the Company during the fourth quarter of fiscal year 2018:

Fiscal Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as a Part of Publicly Announced Program	Maximum Approximate Dollar Value of Shares that may yet be Purchased Under the Program
1/27/2018-2/23/2018	232,323	$ 86.09	232,323	$ 4,166,826,968
2/24/2018-3/30/2018	1,007,445	79.58	1,007,445	4,086,673,551
3/31/2018-4/27/2018	1,270,691	78.70	1,270,691	3,986,698,992
TOTAL	**2,510,459**	**$ 79.74**	**2,510,459**	**$ 3,986,698,992**

In June 2015, the Company's Board of Directors authorized, subject to the ongoing existence of sufficient distributable reserves, the repurchase of 80 million of the Company's ordinary shares. As authorized by the Board of Directors, the Company's share repurchase program expires when the total number of authorized shares have been repurchased. This repurchase authorization was replaced in June 2017 with the repurchase authorization described below. As such, the maximum number of shares that may yet be purchased under the June 2015 share repurchase program is no longer applicable to the repurchase program in place.

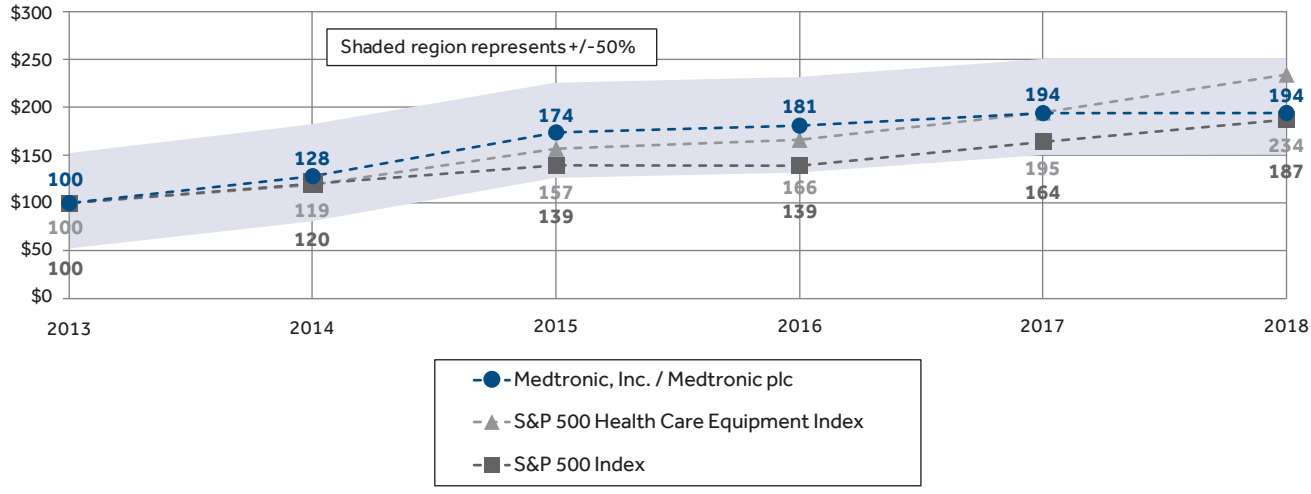
In June 2017, the Company's Board of Directors authorized the repurchase of $5.0 billion of the Company's ordinary shares. This authorization replaces the June 2015 authorization described above. There is no specific time-period associated with this repurchase authorization.

On June 20, 2018, there were approximately 29,965 shareholders of record of the Company's ordinary shares. Ordinary cash dividends declared and paid totaled 46.0 cents per share for each quarter of fiscal year 2018 and 43.0 cents per share for each quarter of fiscal year 2017. The following prices are the high and low market sales quotations per share of the Company's ordinary shares for the fiscal years and quarters indicated:

Fiscal year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2018 High	$ 89.72	$ 85.07	$ 87.93	$ 87.30
2018 Low	81.50	76.52	77.06	76.41
2017 High	89.27	88.65	85.09	84.00
2017 Low	78.63	80.71	69.35	74.27

STOCK PERFORMANCE GRAPH

The following graph compares the cumulative total shareholder return on Medtronic's ordinary shares with the cumulative total shareholder return on the Standard & Poor's (S&P) 500 Index and the S&P 500 Health Care Equipment Index for the last five fiscal years. The graph assumes that $100 was invested at market close on April 26, 2013 in Medtronic's ordinary shares, the S&P 500 Index, and the S&P 500 Health Care Equipment Index and that all dividends were reinvested.



Company/Index	April 2013	April 2014	April 2015	April 2016	April 2017	April 2018
Medtronic, Inc. / Medtronic plc	$ 100.00	$ 128.10	$ 173.85	$ 180.96	$ 194.03	$ 194.16
S&P 500 Index	100.00	120.27	139.48	139.05	163.96	187.24
S&P 500 Health Care Equipment Index	100.00	119.09	156.85	166.19	194.71	234.34

For information on the Company's equity compensation plans, see "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters" in this Annual Report on Form 10-K.

IRISH RESTRICTIONS ON IMPORT AND EXPORT OF CAPITAL

Except as indicated below, there are no restrictions on non-residents of Ireland dealing in Irish domestic securities, which includes ordinary shares of Irish companies. Except as indicated below, dividends and redemption proceeds also continue to be freely transferable to non-resident holders of such securities. The Financial Transfers Act, 1992, provides that the Irish Minister for Finance can make provision for the restriction of financial transfers between Ireland and other countries. For the purposes of this Act, "financial transfers" include all transfers which would be movements of capital or payments within the meaning of the treaties governing the EU if they had been made between Member States of the EU. This Act has been used by the Minister for Finance to implement European Council Directives, which provide for the restriction of financial transfers to certain countries, organizations and people including the Al-Qaeda network and the Taliban, Afghanistan, Belarus, Burma (Myanmar), Democratic People's Republic of Korea, Democratic Republic of Congo, Egypt, Eritrea, Iran, Iraq, Ivory Coast, Lebanon, Liberia, Libya, Republic of Guinea, Somalia, Sudan, Syria, Tunisia and Ukraine.

Any transfer of, or payment in respect of, a share or interest in a share involving the government of any country that is currently the subject of United Nations sanctions, any person or body controlled by any of the foregoing, or by any person acting on behalf of the foregoing, may be subject to restrictions pursuant to such sanctions as implemented into Irish law.

IRISH TAXES APPLICABLE TO U.S. HOLDERS

Dividends paid by Medtronic will generally be subject to Irish dividend withholding tax at the standard rate of income tax (currently 20 percent) unless an exemption applies.

Dividends paid to U.S. residents will not be subject to Irish dividend withholding tax provided that:

- in the case of a beneficial owner of Medtronic shares held in the Depository Trust Company (DTC), the address of the beneficial owner in the records of his or her broker is in the United States and this information is provided by the broker to the Company's qualifying intermediary; or

- in the case of a record owner, the record owner has provided to the Company's transfer agent a valid U.S Certification of Residence (Form 6166) or valid Irish Non-Resident Form V2.

Irish income tax may also arise with respect to dividends paid on Medtronic's ordinary shares. A U.S. resident who meets one of the exemptions from dividend withholding tax described above and who does not hold Medtronic shares through a branch or agency in Ireland through which a trade is carried on generally will not have any Irish income tax liability on a dividend paid by Medtronic. In addition, if a U.S. shareholder is subject to the dividend withholding tax, the withholding payment discharges any Irish income tax liability, provided the shareholder furnishes to the Irish Revenue authorities a statement of the dividend withholding tax imposed.

While the U.S./Ireland Double Tax Treaty contains provisions regarding withholding, due to the wide scope of the exemptions from dividend withholding tax available under Irish domestic law, it would generally be unnecessary for a U.S. resident shareholder to rely on the treaty provisions.

Item 6 Selected Financial Data

Our fiscal year-end is the last Friday in April, and therefore, the total weeks in a fiscal year fluctuates between 52 and 53 weeks. Fiscal years 2018, 2017, 2015, and 2014 were 52-week years. Fiscal year 2016 was a 53-week year, with the additional week occurring in the first quarter. The table below illustrates operating results and other selected financial data for fiscal years 2014 to 2018:

	Fiscal Year				
(in millions, except per share data and additional information)	**2018**	**2017**	**2016**	**2015[1]**	**2014**
Operating Results:					
Net sales	$ 29,953	$ 29,710	$ 28,833	$ 20,261	$ 17,005
Cost of products sold	9,055	9,291	9,142	6,309	4,333
Research and development expense	2,253	2,193	2,224	1,640	1,477
Selling, general, and administrative expense	9,974	9,711	9,469	6,904	5,847
Amortization of intangible assets	1,823	1,980	1,931	733	349
Restructuring charges, net	30	363	290	237	78
Acquisition-related items	104	220	283	550	117
Certain litigation charges	61	300	26	42	770
Divestiture-related items	114	—	—	—	—
Gain on sale of businesses	(697)	—	—	—	—
Special charge (gain), net	80	100	—	(38)	40
Other expense, net	505	222	107	118	181
Operating profit	6,651	5,330	5,361	3,766	3,813
Operating profit margin percent	22.2%	17.9%	18.6%	18.6%	22.4%
Investment loss	227	—	70	—	—
Interest expense, net	749	728	955	280	108
Income before income taxes	5,675	4,602	4,336	3,486	3,705
Income tax provision	2,580	578	798	811	640
Net income	3,095	4,024	3,538	2,675	3,065
Net loss attributable to noncontrolling interests	9	4	—	—	—
Net income attributable to Medtronic	$ 3,104	$ 4,028	$ 3,538	$ 2,675	$ 3,065
Per Ordinary Share:					
Basic - Net income attributable to Medtronic	$ 2.29	$ 2.92	$ 2.51	$ 2.44	$ 3.06
Diluted - Net income attributable to Medtronic	2.27	2.89	2.48	2.41	3.02
Cash dividends declared per ordinary share	1.84	1.72	1.52	1.22	1.12
Financial Position at Fiscal Year-end:					
Working capital[2]	$ 12,896	$ 10,272	$ 16,391	$ 21,627	$ 15,607
Current ratio[2][3]	2.3:1.0	1.7:1.0	3.3:1.0	3.3:1.0	3.8:1.0
Total assets[2]	91,393	99,857	99,685	106,726	37,984
Long-term debt	23,699	25,921	30,109	33,752	10,315
Shareholders' equity[2]	50,720	50,208	51,977	53,144	19,357
Additional Information:					
Full-time employees at year-end	86,368	91,267	88,063	85,573	43,305
Full-time equivalent employees at year-end	98,003	102,688	98,017	92,500	49,247

(1) Covidien plc was acquired on January 26, 2015. As such, for the fiscal year ended April 24, 2015, the results of operations of Covidien are reflected in Medtronic's results of operations for only the fourth quarter due to the timing of the acquisition, which affects comparability.

(2) Amounts and ratios have been immaterially revised as necessary for prior periods, as discussed in Note 1 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

(3) The ratio of current assets to current liabilities. The current ratio at April 28, 2017 excludes current assets and current liabilities held for sale.

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

The following discussion and analysis provides information management believes to be relevant to understanding the financial condition and results of operations of the Company. You should read this discussion and analysis along with our consolidated financial statements and related notes thereto at April 27, 2018 and April 28, 2017 and for each of the three fiscal years ended April 27, 2018 (fiscal year 2018), April 28, 2017 (fiscal year 2017), and April 29, 2016 (fiscal year 2016), which are presented within "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K. Our fiscal year-end is the last Friday in April, and therefore, the total weeks in a fiscal year fluctuates between 52 and 53 weeks. Fiscal years 2018 and 2017 were 52-week years. Fiscal year 2016 was a 53-week year, with the additional week occurring in the first quarter.

Throughout this Management's Discussion and Analysis, we present certain financial measures that we use to evaluate the operational performance of the Company and as a basis for strategic planning; however, such financial measures are not presented in our financial statements prepared in accordance with generally accepted accounting principles in the U.S. (U.S. GAAP). These financial measures are considered "non-GAAP financial measures" and are intended to supplement, and should not be considered as superior to, financial measures presented in accordance with U.S. GAAP. We generally use non-GAAP financial measures to facilitate management's review of the operational performance of the Company and as a basis for strategic planning. We believe that non-GAAP financial measures provide information useful to investors in understanding the Company's underlying operational performance and trends and may facilitate comparisons with the performance of other companies in the medical technologies industry.

As presented in the GAAP to Non-GAAP Reconciliations section below, our non-GAAP financial measures exclude the impact of certain charges or gains that contribute to or reduce earnings and that may affect financial trends, and include certain charges or benefits that result from transactions or events that we believe may or may not recur with similar materiality or impact to our operations in future periods (Non-GAAP Adjustments).

In the event there is a Non-GAAP Adjustment recognized in our operating results, the tax cost or benefit attributable to that item is separately calculated and reported. Because the effective rate can be significantly impacted by the Non-GAAP Adjustments that take place during the period, we often refer to our tax rate using both the effective rate and the non-GAAP nominal tax rate (Non-GAAP Nominal Tax Rate). The Non-GAAP Nominal Tax Rate is calculated as the income tax provision, adjusted for the impact of Non-GAAP Adjustments, as a percentage of income before income taxes, excluding Non-GAAP Adjustments.

Free cash flow is a non-GAAP financial measure calculated by subtracting property, plant, and equipment additions from operating cash flows.

Refer to the "GAAP to Non-GAAP Reconciliations," "Income Taxes," and "Free Cash Flow" sections for reconciliations of the non-GAAP financial measures to their most directly comparable financial measures prepared in accordance with U.S. GAAP.

EXECUTIVE LEVEL OVERVIEW

Medtronic is among the world's largest medical technology, services, and solutions companies - alleviating pain, restoring health, and extending life for millions of people around the world. Our primary products include those for cardiac rhythm disorders, cardiovascular disease, advanced and general surgical care, respiratory and monitoring solutions, renal care, neurological disorders, spinal conditions and musculoskeletal trauma, urological and digestive disorders, and ear, nose, and throat and diabetes conditions.

The table below presents net income attributable to Medtronic and diluted earnings per share for fiscal years 2018, 2017, and 2016:

	Fiscal Year			Percent Change	
(in millions, except per share data)	2018	2017	2016	2018	2017
Net income attributable to Medtronic	$ 3,104	$ 4,028	$ 3,538	(23)%	14%
Diluted earnings per share	$ 2.27	$ 2.89	$ 2.48	(21)%	17%

Diluted earnings per share (EPS) for fiscal year 2018 as compared to fiscal year 2017 was unfavorably affected by the net $2.4 billion tax charge related to the enactment of U.S. comprehensive tax legislation, commonly referred to as the Tax Cuts and Jobs Act (the Tax Act), which had a significant effect on the income tax provision in fiscal year 2018. Further, diluted EPS for fiscal year 2018 was unfavorably affected by an investment loss related to the impairment of certain cost and equity method investments of $227 million, along with impairments of IPR&D of $68 million.

Additionally, for fiscal year 2018, diluted EPS was unfavorably affected by the July 29, 2017 sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses within the Minimally Invasive Therapies Group. Net sales of these businesses for fiscal years 2018 and 2017 were $0.6 billion and $2.4 billion, respectively. For fiscal year 2018, diluted EPS was partially offset by a $697 million gain on the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

Diluted EPS for fiscal year 2017 as compared to 2016 was favorably affected by the recognition of certain tax adjustments of $417 million, including a charge of $442 million in fiscal year 2016 primarily related to the U.S. income tax expense resulting from our completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by our U.S. controlled non-U.S. subsidiaries, partially offset by a benefit related to the establishment of a deferred tax asset on the tax basis in excess of book basis of a wholly owned U.S. subsidiary of which we disposed. Further, diluted EPS was also affected by a $226 million charge in fiscal year 2016 related to the recognition of the fair value step-up of acquired Covidien inventory.

GAAP to Non-GAAP Reconciliations

The tables below present reconciliations of our Non-GAAP financial measures to the most directly comparable financial measures prepared in accordance with U.S. GAAP for fiscal years 2018, 2017, and 2016:

	Fiscal year ended April 27, 2018				
(in millions, except per share data)	Income Before Income Taxes	Income Tax Provision (Benefit)	Net Income Attributable to Medtronic	Diluted EPS[1]	Effective Tax Rate
GAAP	$ 5,675	$ 2,580	$ 3,104	$ 2.27	45.5%
Non-GAAP Adjustments:					
Restructuring and associated costs[2]	107	20	87	0.06	18.7
Acquisition-related items	132	42	90	0.07	31.8
Debt redemption premium[3]	38	12	26	0.02	31.6
Divestiture-related items[4]	115	12	103	0.08	10.4
Certain litigation charges	61	8	53	0.04	13.1
Investment loss[5]	227	(1)	228	0.17	(0.4)
IPR&D impairment	46	5	41	0.03	10.9
Gain on sale of businesses[6]	(697)	—	(697)	(0.51)	—
Hurricane Maria[7]	34	1	33	0.02	2.9
Special charge[8]	80	26	54	0.04	32.5
Amortization of intangible assets	1,823	322	1,501	1.10	17.7
Certain tax adjustments, net[9]	—	(1,907)	1,907	1.39	—
NON-GAAP	**$ 7,641**	**$ 1,120**	**$ 6,530**	**$ 4.77**	**14.7%**

	Fiscal year ended April 28, 2017				
(in millions, except per share data)	Income Before Income Taxes	Income Tax Provision (Benefit)	Net Income Attributable to Medtronic	Diluted EPS[1]	Effective Tax Rate
GAAP	$ 4,602	$ 578	$ 4,028	$ 2.89	12.6%
Non-GAAP Adjustments:					
Restructuring charges, net	373	101	272	0.20	27.1
Acquisition-related items	230	74	156	0.11	32.2
Certain litigation charges	300	110	190	0.14	36.7
Special charge[8]	100	37	63	0.05	37.0
Impact of inventory step-up[10]	38	14	24	0.02	36.8
Amortization of intangible assets	1,980	520	1,460	1.05	26.3
Certain tax adjustments, net[11]	—	(202)	202	0.15	—
NON-GAAP	**$ 7,623**	**$ 1,232**	**$ 6,395**	**$ 4.60**	**16.2%**

(in millions, except per share data)	Fiscal year ended April 29, 2016				
	Income Before Income Taxes	Income Tax Provision (Benefit)	Net Income Attributable to Medtronic	Diluted EPS[1]	Effective Tax Rate
GAAP	$ 4,336	$ 798	$ 3,538	$ 2.48	18.4%
Non-GAAP Adjustments:					
Restructuring charges, net	299	78	221	0.15	26.1
Acquisition-related items	283	71	212	0.15	25.1
Debt tender premium	183	65	118	0.08	35.5
Certain litigation charges	26	9	17	0.01	34.6
Investment loss[12]	70	26	44	0.03	37.1
Impact of inventory step-up[13]	226	61	165	0.12	27.0
Loss on previously held forward starting interest rate swaps	45	16	29	0.02	35.6
Amortization of intangible assets	1,931	464	1,467	1.03	24.0
Certain tax adjustments, net[14]	—	(417)	417	0.29	—
NON-GAAP	**$ 7,399**	**$ 1,171**	**$ 6,228**	**$ 4.37**	**15.8%**

(1) Amounts in this column have been intentionally rounded to the nearest $0.01 and, therefore, may not sum.

(2) Associated costs include costs incurred as a direct result of the restructuring program, such as salaries for employees supporting the program and consulting expenses.

(3) The charge, included within *interest expense, net* in our consolidated statements of income, was recognized in connection with the early redemption of approximately $1.2 billion of Medtronic Inc. senior notes.

(4) The transaction expenses incurred in connection with the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

(5) The charge was recognized in connection with the impairment of certain cost and equity method investments.

(6) The gain on the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

(7) The charges represent idle facility costs, asset write-downs, and humanitarian efforts related to Hurricane Maria.

(8) The charge represents a contribution to the Medtronic Foundation.

(9) The net charge primarily relates to the impact of U.S. tax reform, inclusive of the transition tax, remeasurement of deferred tax assets and liabilities, and the decrease in the U.S. statutory tax rate. Additionally, the net charge includes the impacts from the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses, and the tax cost associated with an internal reorganization, which were partially offset by the tax effects from the intercompany sale of intellectual property.

(10) The charge represents the amortization of step-up in fair value of inventory acquired in connection with the HeartWare acquisition.

(11) The net charge primarily relates to the tax effect from the recognition of the outside basis of certain subsidiaries which were included in the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses completed during the second quarter of fiscal year 2018, along with certain tax charges recorded in connection with the redemption of an intercompany minority interest, and the resolution of various tax matters from prior periods.

(12) The charge represents the impairment of a debt investment.

(13) The charge represents the amortization of step-up in fair value of inventory acquired in connection with the Covidien acquisition.

(14) The net charge primarily relates to U.S. income tax expense resulting from our completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by Medtronic's U.S.-controlled non-U.S. subsidiaries, partially offset by a benefit related to the establishment of a deferred tax asset on the tax basis in excess of book basis of a wholly owned U.S. subsidiary of which we disposed.

NET SALES

Segment and Division

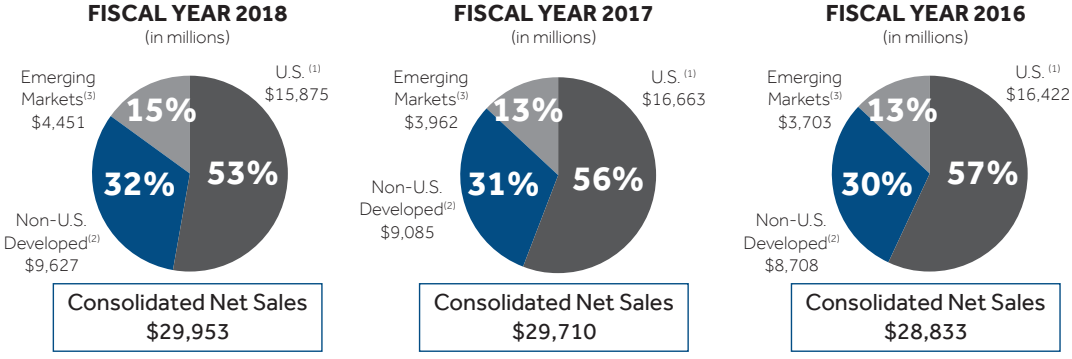
The table below illustrates net sales by segment and division for fiscal years 2018, 2017, and 2016:

	Net Sales by Fiscal Year			Percent Change	
(in millions)	2018	2017	2016	2018	2017
Cardiac Rhythm & Heart Failure	$ 5,947	$ 5,649	$ 5,465	5%	3%
Coronary & Structural Heart	3,562	3,113	3,093	14	1
Aortic & Peripheral Vascular	1,845	1,736	1,638	6	6
Cardiac and Vascular Group	11,354	10,498	10,196	8	3
Surgical Innovations[1]	5,537	5,145	4,851	8	6
Respiratory, Gastrointestinal, & Renal[1]	3,179	4,774	4,712	(33)	1
Minimally Invasive Therapies Group	8,716	9,919	9,563	(12)	4
Spine	2,668	2,641	2,629	1	—
Brain Therapies	2,354	2,098	1,980	12	6
Specialty Therapies	1,556	1,491	1,419	4	5
Pain Therapies	1,165	1,136	1,182	3	(4)
Restorative Therapies Group	7,743	7,366	7,210	5	2
Diabetes Group	2,140	1,927	1,864	11	3
TOTAL	**$ 29,953**	**$ 29,710**	**$ 28,833**	**1 %**	**3%**

(1) During the second quarter of fiscal year 2018, the Surgical Solutions and Patient Monitoring & Recovery divisions of the Minimally Invasive Therapies Group were realigned into the Surgical Innovations and Respiratory, Gastrointestinal, & Renal divisions. Refer to the "Minimally Invasive Therapies Group" discussion within this Management's Discussion and Analysis for more information on the composition of the Surgical Innovations and Respiratory, Gastrointestinal, & Renal divisions.

For fiscal year 2018, total net sales were unfavorably affected by the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses within the Minimally Invasive Therapies Group which closed on the first day of the second quarter of fiscal year 2018. Our performance continues to be fueled by our three growth strategies: therapy innovation, globalization, and economic value. We are creating competitive advantages and capitalizing on the long-term trends in healthcare: namely the desire to improve clinical outcomes, the growing demand for expanded access to care, and the optimization of cost and efficiency within healthcare systems. In our therapy innovation growth strategy, we continue to see clear acceleration in our innovation cycle, with several meaningful new product launches during fiscal year 2018 across all of our segments. We advanced a pipeline of groundbreaking medical technology, and we are creating new markets, disrupting existing markets, and leading in several of the fastest growth markets. In globalization, net sales in emerging markets grew 12% during fiscal year 2018 as compared to fiscal year 2017. Our consistent emerging market performance continues to benefit from geographic diversification, with strong, balanced results around the world. In our third growth strategy, economic value, we continue to execute our value-based healthcare signature programs and aggressively develop unique, value-based healthcare solutions that directly link our therapies to improving outcomes across each of our segments. We remain focused on leading the shift to healthcare payment systems that reward value and improved patient outcomes over volume.

Segment and Market Geography



The tables below include net sales by market geography for each of our segments for fiscal years 2018, 2017, and 2016:

(in millions)	U.S.[1] Fiscal Year 2018	U.S.[1] Fiscal Year 2017	U.S.[1] % Change	Non-U.S. Developed Markets[2] Fiscal Year 2018	Non-U.S. Developed Markets[2] Fiscal Year 2017	Non-U.S. Developed Markets[2] % Change	Emerging Markets[3] Fiscal Year 2018	Emerging Markets[3] Fiscal Year 2017	Emerging Markets[3] % Change
Cardiac and Vascular Group	$ 5,681	$ 5,454	4%	$ 3,790	$ 3,393	12%	$ 1,883	$ 1,651	14%
Minimally Invasive Therapies Group	3,804	5,049	(25)	3,378	3,479	(3)	1,534	1,391	10
Restorative Therapies Group	5,164	5,012	3	1,720	1,588	8	859	766	12
Diabetes Group	1,226	1,148	7	739	625	18	175	154	14
TOTAL	**$ 15,875**	**$ 16,663**	**(5)%**	**$ 9,627**	**$ 9,085**	**6%**	**$ 4,451**	**$ 3,962**	**12%**

(in millions)	U.S.[1] Fiscal Year 2017	U.S.[1] Fiscal Year 2016	U.S.[1] % Change	Non-U.S. Developed Markets[2] Fiscal Year 2017	Non-U.S. Developed Markets[2] Fiscal Year 2016	Non-U.S. Developed Markets[2] % Change	Emerging Markets[3] Fiscal Year 2017	Emerging Markets[3] Fiscal Year 2016	Emerging Markets[3] % Change
Cardiac and Vascular Group	$ 5,454	$ 5,347	2%	$ 3,393	$ 3,283	3%	$ 1,651	$ 1,566	5%
Minimally Invasive Therapies Group	5,049	5,014	1	3,479	3,299	5	1,391	1,250	11
Restorative Therapies Group	5,012	4,921	2	1,588	1,542	3	766	747	3
Diabetes Group	1,148	1,140	1	625	584	7	154	140	10
TOTAL	**$ 16,663**	**$ 16,422**	**1%**	**$ 9,085**	**$ 8,708**	**4%**	**$ 3,962**	**$ 3,703**	**7%**

(1) U.S. includes the United States and U.S. territories.

(2) Non-U.S. developed markets include Japan, Australia, New Zealand, Korea, Canada, and the countries of Western Europe.

(3) Emerging markets include the countries of the Middle East, Africa, Latin America, Eastern Europe, and the countries of Asia that are not included in the non-U.S. developed markets, as defined above.

For fiscal year 2018, net sales for the U.S. decreased 5 percent, developed markets outside the U.S. increased 6 percent, and emerging markets increased 12 percent as compared to fiscal year 2017. Net sales declines in the U.S. were impacted by the July 29, 2017 divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses within the Minimally Invasive Therapies Group, partially offset by growth in the other segments. Net sales growth in non-U.S. developed markets was led by strong performance in Western Europe. Emerging market sales growth was driven by solid performance in all of our segments, with strong performance in China, Latin America, Eastern Europe and the Middle East & Africa. Currency had a favorable effect of $494 million on net sales for fiscal year 2018.

For fiscal year 2017, net sales for the U.S. increased 1 percent, non-U.S. developed markets increased 4 percent, and emerging markets increased 7 percent as compared to fiscal year 2016. Net sales growth across all markets was driven by meaningful product launches and introduction of groundbreaking new technologies, partially offset by an unfavorable impact of an additional selling week during the first quarter of fiscal year 2016. Net sales growth in the U.S. was led by strong growth in the Cardiac and Vascular Group and Minimally Invasive Therapies Group and solid growth in the Restorative Therapies Group and Diabetes Group. In Emerging Markets, net sales growth was also attributable to the expansion of access to our therapies.

Looking ahead, our segments are likely to face competitive product launches and pricing pressure, geographic macro-economic risks, reimbursement challenges, impacts from changes in the mix of our product offerings, the timing of product registration approvals, replacement cycle challenges, and fluctuations in currency exchange rates. Additionally, changes in procedural volumes could affect our Cardiac and Vascular, Minimally Invasive Therapies, and Restorative Therapies Groups.

Cardiac and Vascular Group

The Cardiac and Vascular Group's products include pacemakers, insertable and external cardiac monitors, cardiac resynchronization therapy devices (CRT-D), implantable cardioverter defibrillators (ICD), leads and delivery systems, ventricular assist systems, ablation products, electrophysiology catheters, products for the treatment of atrial fibrillation, information systems for the management of patients with Cardiac Rhythm & Heart Failure devices, products designed to reduce surgical site infections, coronary and peripheral stents, balloons, and related delivery systems, endovascular stent graft systems, heart valve replacement technologies, cardiac tissue ablation systems, and open heart and coronary bypass grafting surgical products. The Cardiac and Vascular Group also includes Care Management Services and Cath Lab Managed Services (CLMS) within the Cardiac Rhythm & Heart Failure division. The Cardiac and Vascular Group's net sales for fiscal year 2018 were $11.4 billion, an increase of 8 percent as compared to fiscal year 2017. Currency had a favorable impact on net sales for fiscal year 2018 of $215 million. Cardiac and Vascular Group's net sales for fiscal year 2018, as compared to fiscal year 2017, benefited from strong net sales in all three divisions. See the more detailed discussion of each division's performance below.

Cardiac Rhythm & Heart Failure net sales for fiscal year 2018 were $5.9 billion, an increase of 5 percent as compared to fiscal year 2017. Cardiac Rhythm & Heart Failure net sales growth for fiscal year 2018 was driven by strong growth in Arrhythmia Management and Heart Failure. The strong growth in Arrhythmia Management was largely due to growth in AF Solutions, driven by the continued global acceptance of our Arctic Front Advance Cardiac CryoAblation Catheter (Arctic Front) system, growth in Diagnostics, driven by the continued adoption of the Reveal LINQ insertable cardiac monitor, as well as strong adoption of the Micra

transcatheter pacing system and TYRX absorbable antibacterial envelope. The strong growth in Heart Failure was driven by growth in Mechanical Circulatory Support from sales of the HVAD system, as well as continued demand for the CRT-P quadripolar pacing system, which launched in the U.S. in the first quarter of fiscal year 2018.

Coronary & Structural Heart net sales for fiscal year 2018 were $3.6 billion, an increase of 14 percent as compared to fiscal year 2017. Coronary & Structural Heart net sales growth for fiscal year 2018 was largely driven by the continued strong customer adoption of the Evolut PRO Transcatheter Aortic Valve system (Evolut PRO) and the Evolut R 34mm transcatheter aortic heart valve, as well as continued penetration into intermediate risk in the U.S., which received approval late in the first quarter of fiscal year 2018. Net sales growth was also driven by the continued strong demand for the Resolute Onyx drug-eluting stent in the U.S. and Japan, which launched in the first quarter of fiscal year 2018.

Aortic & Peripheral Vascular net sales for fiscal year 2018 were $1.8 billion, an increase of 6 percent as compared to fiscal year 2017. Aortic & Peripheral Vascular net sales growth for fiscal year 2018 was driven by growth in Valiant Captivia Thoracic stent grafts, Percutaneous Transluminal Angioplasty (PTA) balloons and drug-coated balloons, as well as success of the Heli-FX EndoAnchor System. Net sales growth was further driven by strong performance in EndoVenous due to accelerated growth of the VenaSeal vein closure system, for which approval for reimbursement payment in the U.S. from the Centers for Medicare & Medicaid Services (CMS) was initiated in January 2018.

The Cardiac and Vascular Group's net sales for fiscal year 2017 were $10.5 billion, an increase of 3 percent as compared to fiscal year 2016. The Cardiac and Vascular Group's net sales for fiscal year 2017 were unfavorably affected by an additional selling week during the first quarter fiscal year 2016. The Cardiac and Vascular Group's net sales for fiscal year 2017, as compared to fiscal year 2016, benefited from strong net sales in Arrhythmia Management within Cardiac Rhythm & Heart Failure, largely due to growth in AF Solutions and Diagnostics, Coronary & Structural Heart, largely due to the transcatheter aortic heart valve in the U.S. and Europe, and in Aortic & Peripheral Vascular, as well as the acquisition of HeartWare in the second quarter of fiscal year 2017. See the more detailed discussion of each division's performance below.

Cardiac Rhythm & Heart Failure net sales for fiscal year 2017 were $5.6 billion, an increase of 3 percent as compared to fiscal year 2016. Cardiac Rhythm & Heart Failure net sales growth for fiscal year 2017 was driven by strong growth in Arrhythmia Management, largely due to growth in AF Solutions and Diagnostics. The strong growth in AF Solutions was driven by the continued global acceptance of our Arctic Front Advance Cardiac CryoAblation Catheter (Arctic Front) system, including strong growth in Japan. The strong growth in Diagnostics was driven by the continued adoption of the Reveal LINQ insertable cardiac monitor. Cardiac Rhythm & Heart Failure also benefited from the acquisition of HeartWare, which was acquired during the second quarter of fiscal year 2017.

Coronary & Structural Heart net sales for fiscal year 2017 were $3.1 billion, an increase of 1 percent as compared to fiscal year 2016. Coronary & Structural Heart net sales growth for fiscal year 2017 was largely driven by the continued launch of the Evolut R 34mm transcatheter aortic heart valve in the U.S. and Europe. Net sales growth was partially offset by challenges with drug-eluting stents in both the U.S. and Japan due to competitive pressures related to the anticipated approval of the Resolute Onyx drug-eluting stents in these countries, which received U.S. FDA approval, as well as approval in Japan, during the first quarter of fiscal year 2018. Net sales growth was also partially offset by continued pricing pressures and competition worldwide in our Coronary business.

Aortic & Peripheral Vascular net sales for fiscal year 2017 were $1.7 billion, an increase of 6 percent as compared to fiscal year 2016. Aortic & Peripheral Vascular net sales growth for fiscal year 2017 was driven by the continued strong worldwide growth of the IN.PACT Admiral drug-coated balloon as well as success of the Heli-FX EndoAnchor System and the Endurant IIs aortic stent graft. Net sales growth as compared to fiscal year 2016 was also driven by the launch of the HawkOne 6 French directional atherectomy system in the third quarter of fiscal year 2017.

Looking ahead, we expect our Cardiac and Vascular Group could be affected by the following:

- Continued acceptance and growth of the CRT-P quadripolar pacing system, which received CE Mark approval in February 2017 and launched in Europe during the fourth quarter of fiscal year 2017. In the U.S., we received Food and Drug Administration (FDA) approval in May 2017, and launched in the first quarter of fiscal year 2018.
- Continued acceptance and growth of the Claria MRI CRT-D system with EffectivCRT Diagnostic and Effective CRT during AF algorithm, which launched in Japan during the third quarter of fiscal year 2018.
- Continued growth from the Reveal LINQ insertable cardiac monitor.
- Continued growth of our Micra transcatheter pacing system. Micra is a miniaturized single chamber pacemaker system that is delivered through the femoral vein and is implanted in the right ventricle of the heart. The system does not use a lead and does not have a subcutaneous device pocket underneath the skin as with conventional pacemaker systems. We received final approval for reimbursement in the U.S. from the CMS and in Japan from the Ministry of Health, Labour, and Welfare during the fourth quarter of fiscal year 2017 and during the second quarter of fiscal year 2018, respectively, for this transformative therapy, which we expect will continue to accelerate sales in the U.S. and in Japan.
- Acceptance and growth from the Azure XT and S SureScan pacing systems, which launched in the U.S. during the third quarter of fiscal year 2018. Azure pacemakers feature Medtronic-exclusive BlueSync technology, which enables automatic, secure wireless remote monitoring with increased device longevity.
- Continued acceptance and growth of the HVAD System as a Destination Therapy for patients with advanced heart failure who are not candidates for heart transplants. The HVAD System, a left ventricular assist device or LVAD, helps the heart pump and increases the amount of blood that flows through the body. In the U.S., we received FDA approval in September

2017 for this Destination Therapy indication, and expect to receive thoracotomy indication during fiscal year 2019. Further, we expect to launch the HVAD system in Japan during fiscal year 2019.

- Continued acceptance and growth from Care Management Services as post-acute care services become even more critical in bundled payment models for different interventions or therapies.
- Continued acceptance and growth from Evolut R 34mm transcatheter aortic heart valve, our next-generation recapturable system with differentiated 16 French equivalent delivery system, which was launched in the U.S. in the third quarter of fiscal year 2017.
- Acceptance and growth from penetration of the self-expanding CoreValve Evolut Transcatheter Aortic Valve Replacement platform into intermediate risk indication in the U.S., which received FDA approval during the first quarter of fiscal year 2018.
- Continued acceptance and growth from Evolut PRO, which provides control during deployment to assist with accurate positioning with the ability to recapture and reposition the valve. Evolut PRO received U.S. FDA approval and launched in the fourth quarter of fiscal year 2017. Evolut PRO also received CE Mark approval at the end of the first quarter of fiscal year 2018 and launched in Europe during the second quarter of fiscal year 2018. Further, Evolut PRO is expected to launch in Japan during the first half of fiscal year 2019.
- Continued acceptance and growth from the market release of Resolute Onyx, which launched in the first quarter of fiscal year 2018 in the U.S. and in Japan. Resolute Onyx builds on the Resolute Integrity drug-eluting coronary stent with thinner struts to improve deliverability and is the first stent to feature our CoreWire technology, allowing greater visibility during procedures.
- Continued acceptance and growth of the IN.PACT Admiral drug-coated balloon for the treatment of peripheral artery disease in the upper leg.
- Continued acceptance and growth from the VenaSeal vein closure system in the United States, for which reimbursement payment was established in January 2018 and payer coverage has been gradually increasing. The VenaSeal system is a unique non-thermal solution to address superficial venous disease that provides improved patient comfort, reduces the recovery time, and eliminates the risk of thermal nerve injury.
- Continued acceptance and growth from the Valiant family of thoracic stent grafts. Building on the success of Valiant Captivia, we expect to launch the next generation Valiant Navion in the United States and Europe during fiscal year 2019.
- Continued acceptance and growth from the expansion of the Endurant II used with the Heli-FX EndoAnchor for the short neck indication in the U.S., which received FDA approval in October 2017.

Minimally Invasive Therapies Group

The Minimally Invasive Therapies Group's products span the entire continuum of patient care with a focus on diseases of the gastrointestinal tract, lungs, pelvic region, kidneys, obesity, and preventable complications. The products include those for advanced and general surgical products including surgical stapling devices, vessel sealing instruments, wound closure, electrosurgery products, hernia mechanical devices, mesh implants, advanced ablation, interventional lung, ventilators, capnography, airway products, sensors, dialysis, and monitors. Net sales for the three months ended July 28, 2017 and fiscal years 2017 and 2016 also include sales of dental and animal health, chart paper, wound care, incontinence, electrodes, SharpSafety, thermometry, perinatal protection, blood collection, compression, and enteral feeding offerings, which were divested on July 29, 2017.

The Minimally Invasive Therapies Group's net sales for fiscal year 2018 were $8.7 billion, a decrease of 12 percent as compared to fiscal year 2017. Currency had a favorable impact on net sales of $147 million for fiscal year 2018. The Minimally Invasive Therapies Group's net sales for fiscal year 2018 were affected by the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses on July 29, 2017.

Subsequent to the divestiture, during the second quarter of fiscal year 2018, the Surgical Solutions and Patient Monitoring & Recovery divisions were realigned into the Surgical Innovations and Respiratory, Gastrointestinal, & Renal divisions. The Surgical Innovations division consists of the Advanced Surgical and General Surgical businesses. The Advanced Surgical business includes the Advanced Stapling, Advanced Energy, Hernia, Gynecology, and Interventional Lung product lines. The General Surgical business includes the Wound Closure, Electrosurgery, and Instrument product lines.

The Respiratory, Gastrointestinal, & Renal division consists of the Respiratory & Monitoring Solutions and Renal Care Solutions businesses. The Respiratory & Monitoring Solutions business includes the Patient Monitoring, Respiratory Solutions, Advanced Ablation, and GI Solutions product lines. The Renal Care Solutions business includes the Renal Access and Dialyzers product lines.

Surgical Innovations net sales for fiscal year 2018 were $5.5 billion, an increase of 8 percent as compared to fiscal year 2017. Surgical Innovations net sales growth was driven by new products in Advanced Stapling and Advanced Energy, including the Signia powered surgical stapling system and endo stapling specialty reloads. Also driving net sales was our Valleylab FT10 energy platform and new iterations of our LigaSure vessel sealing instruments, and growth in emerging markets.

Respiratory, Gastrointestinal, & Renal net sales for fiscal year 2018 were $3.2 billion, a decrease of 33 percent as compared to fiscal year 2017. Respiratory, Gastrointestinal, & Renal net sales declined as a result of the July 29, 2017 divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. Apart from the decline in net sales due to the divestiture, net sales performance in Respiratory, Gastrointestinal, & Renal benefited from growth in GI Solutions, the strength in Nellcor pulse oximetry products due to the intensity of the flu season in the U.S., the continued adoption of MicroStream capnography monitoring product, and growth in Airway and Ventilation net sales.

Surgical Innovations net sales for fiscal year 2017 were $5.1 billion, an increase of 6 percent as compared to fiscal year 2016. Surgical Innovations net sales growth was driven by Advanced Stapling and Advanced Energy. Advanced Stapling growth resulted from strong adoption of endo stapling specialty reloads with Tri-Staple

technology, growth in emerging markets, and the release of the Signia power stapling system. Advanced Energy growth resulted from the launch of the LigaSure vessel sealing instruments and continued adoption of the Valleylab FT10 energy platform. The launch of the LigaSure vessel sealing instruments along with the Valleylab FT10 energy platform helped mitigate the negative impact of reprocessing. Surgical Innovations also benefited from the acquisition of Smith & Nephew's gynecology business, which was acquired during the second quarter of fiscal year 2017.

Respiratory, Gastrointestinal, & Renal net sales for fiscal year 2017 were $4.8 billion, an increase of 1 percent as compared to fiscal year 2016. Respiratory, Gastrointestinal, & Renal net sales growth was driven by strong Respiratory & Monitoring Services sales of the Puritan Bennett 980 and Nellcor pulse oximetry products, along with growth in emerging markets. Respiratory, Gastrointestinal, & Renal also benefited from the acquisition of Bellco, which was acquired during the fourth quarter of fiscal year 2016.

Looking ahead, we expect our Minimally Invasive Therapies Group could be affected by the following:

- Continued acceptance and growth of Open-to-Minimally Invasive Surgery (MIS) techniques and tools supported by our efforts to transition open surgery to MIS. The Open-to-MIS initiative focuses on establishing our presence in and working to optimize open surgery globally, while capturing the market opportunity that exists in transitioning open procedures to MIS, whether through traditional MIS, or advanced technologies including robotics. To achieve this transition, we are focused on product training, surgical skill training and continued therapy innovation to advance MIS.
- Our ability to execute ongoing strategies to develop, gain regulatory approval, and commercialize new products, including our surgical robotics platform.
- The July 29, 2017 divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. Net sales of the businesses included in the divestiture were $2.4 billion for fiscal years 2017 and 2016. We have entered into Transition Manufacturing Agreements (TMAs) with Cardinal Health, Inc. (Cardinal). The TMAs will contribute to net sales and are designed to ensure and facilitate an orderly transfer of business operations for a transition period of two to five years, with the ability to extend upon mutual agreement of the parties.
- Continued acceptance and growth of the powered stapling and energy platform.
- Our ability to execute ongoing strategies in order to address the competitive pressure of reprocessing of our vessel sealing disposables in the U.S.
- Our ability to create markets and drive product and procedures into emerging markets. We have high quality and cost-effective surgical products designed for customers in emerging markets such as the ValleyLab LS10 single channel vessel sealing generator, which is compatible with our line of LigaSure instruments and designed for simplified use and affordability.
- Continued acceptance and growth within the end stage renal disease market. The population of patients treated for end stage renal disease globally is expected to double over the next decade. We will grow our therapy innovation with scalable and affordable dialysis delivery while investing in vascular creation and maintenance technologies. In addition, the HD multi-pass system reduces infrastructure by requiring less water, less start-up costs, and offers high quality ultrapure dialysate treatment. The system is expected to launch in late fiscal year 2020, but timing may shift depending on regulatory requirements.
- Continued elevation of the standard of care for respiratory compromise, a progressive condition impacting a patient's ability to breathe effectively.
- Continued acceptance and growth in respiratory care, airway and ventilation management, and Patient Monitoring. Key products in this area include the Puritan Bennett 980 ventilator, Microstream Capnography bedside capnography monitor, portable monitor with Nellcor pulse oximetry system with OxiMax technology and the Nellcor Respiratory Compromise monitor with vital signs of SpO2, pulse rate, End-Tidal CO2, and Respiratory Rate.
- Continued acceptance of less invasive standards of care, including the areas of GI Solutions and Advanced Ablation. Recently launched products include the PillCam COLON capsule endoscopy, the Barrx platform through ablation with the Barrx 360 Express catheter, and the Emprint ablation system with Thermosphere Technology, which maintains predictable spherical ablation zones throughout procedures reducing procedure time and cost.
- Continued acceptance of Interventional Lung Solutions. Products include the superDimension GenCut core biopsy system and the Triple Needle Cytology Brush, a lung tissue biopsy tool for use with the superDimension navigation system. The superDimension system enables a minimally invasive approach to accessing difficult-to-reach areas of the lung, which may aid in the diagnosis of lung cancer.
- Expanding the use of less invasive treatments and furthering our commitment to improving options for women with abnormal uterine bleeding with our fiscal year 2017 acquisition of Smith & Nephew's gynecology business. The addition expanded and strengthened the surgical offerings and complemented our global gynecology business.

Restorative Therapies Group

The Restorative Therapies Group's products focus on various areas of the spine, bone graft substitutes, biologic products, trauma, implantable neurostimulation therapies and drug delivery systems for the treatment of chronic pain, movement disorders, obsessive-compulsive disorder (OCD), overactive bladder, urinary retention, fecal incontinence and gastroparesis, as well as products to treat conditions of the ear, nose, and throat, and systems that incorporate advanced energy surgical instruments. The Restorative Therapies Group also manufactures and sells image-guided surgery and intra-operative imaging systems and therapies to treat diseases of the vasculature in and around the brain, including coils, neurovascular stents and flow diversion products. The Restorative Therapies Group's net sales for fiscal year 2018 were $7.7 billion, an increase of 5 percent as compared to fiscal year 2017. Currency had a favorable impact on net sales for fiscal year 2018 of $85 million. The Restorative Therapies Group's performance for fiscal year 2018 was driven by strong growth in Brain Therapies and solid growth in Specialty Therapies and Pain Therapies. See the more detailed discussion of each division's performance below.

Spine net sales for fiscal year 2018 were $2.7 billion, an increase of 1 percent as compared to fiscal year 2017. Spine net sales growth was driven by growth in bone morphogenetic protein (composed of INFUSE bone graft (InductOs in the European Union)), partially offset by a slight decline in Core Spine. Core Spine net sales declined due to continued overall market softness in the U.S. and Europe, partially offset by the continued success of our Surgical Synergy strategy, which integrates our spinal implants with enabling technologies such as imaging, navigation, power instruments, nerve monitoring and Mazor robotics sold by our Neurosurgery business, and our "Speed-to-Scale" initiative, which involves faster innovation cycles and the launching of a steady cadence of new products at scale with sets immediately available for the entire market.

Brain Therapies net sales for fiscal year 2018 were $2.4 billion, an increase of 12 percent as compared to fiscal year 2017. Brain Therapies net sales growth was driven by strong growth in both Neurovascular and Neurosurgery. Neurovascular net sales growth was driven by strength across our stroke portfolio, specifically in stents, as a result of our leading role in the development of the endovascular therapy market for treatment of ischemic stroke. Neurosurgery net sales growth was driven by strong sales of the StealthStation S8 surgical navigation system, O-arm O2 surgical imaging system, Visualase MRI-guided laser ablation system, Midas disposables, as well as disposables revenue from placement of capital equipment through our distributor agreement with Mazor. Net sales growth in Neurovascular and Neurosurgery for fiscal year 2018 was partially offset by slight declines in Brain Modulation due to competitive pressures in major markets.

Specialty Therapies net sales for fiscal year 2018 were $1.6 billion, an increase of 4 percent as compared to fiscal year 2017. Specialty Therapies net sales growth was driven by growth in ENT, Pelvic Health, and Transformative Solutions.

Pain Therapies net sales for fiscal year 2018 were $1.2 billion, an increase of 3 percent as compared to fiscal year 2017. Pain Therapies net sales growth was driven by Interventional from the OsteoCool RF Spinal Tumor ablation system. Within Spinal Cord Stimulation, the Intellis Platform launch and ongoing roll-out of the Evolve workflow algorithm contributed to net sales in fiscal year 2018 and helped mitigate competitive pressures in the U.S. and Europe.

Spine net sales for fiscal year 2017 were $2.6 billion, flat as compared to fiscal year 2016. Spine net sales were driven by growth in BMP due to strong U.S. sales, offset by declines in Europe due to the InductOs stop shipment due to suspension in the E.U. Core Spine had net sales growth in the U.S due to new product launches including the Solera Voyager and Elevate expandable cage in conjunction with the "Speed to Scale" initiative, offset by market softness in Europe and the Middle East driven by the macro-economic conditions. Inductos returned to the European market in the first quarter of fiscal year 2018.

Brain Therapies net sales for fiscal year 2017 were $2.1 billion, an increase of 6 percent as compared to fiscal year 2016. The increase in net sales was driven by strong growth in both Neurovascular and Neurosurgery. Neurovascular net sales growth was driven by growth in coils from the Axium Prime Extra Soft detachable coil, growth in flow diversion from the Pipeline Flex embolization device, and growth in stents due to the Solitaire revascularization device, partially offset by declines due to a voluntary recall of certain product lines in the second quarter. Neurosurgery net sales growth was driven by strong sales of navigation capital equipment, disposables, and the O-arm O2 surgical imaging system. Despite competitive pressure, Brain Modulation drove net sales growth with U.S. sales of the MR Conditional Activa DBS portfolio and through updated Parkinson's Disease labeling for patients with Recent Onset of Motor Complications.

Specialty Therapies net sales for fiscal year 2017 were $1.5 billion, an increase of 5 percent as compared to fiscal year 2016. The increase in net sales was driven by strong growth in Transformative Solutions and Pelvic Health and growth in ENT. Net sales growth in Transformative Solutions was driven by the sales of the Aquamantys Transcollation and PEAK PlasmaBlade products. Net sales growth in Pelvic Health was driven by strong InterStim implant growth in the U.S. Net sales growth in ENT benefited from strong adoption of new products, including NuVent balloons and Fusion Compact navigation.

Pain Therapies net sales for fiscal year 2017 were $1.1 billion, a decrease of 4 percent as compared to fiscal year 2016. The decrease in net sales was driven by declines in sales of spinal cord stimulation products due to competitive pressures in the U.S., partially offset by growth in Interventional from the OsteoCool RF Spinal Tumor ablation system.

Looking ahead, we expect our Restorative Therapies Group could be affected by the following:

- Continued acceptance and growth of the Solitare FR revascularization device for treatment of acute ischemic stroke and the Pipeline Embolization Devices, endovascular treatments for large or giant wide-necked brain aneurysms.
- Continued growth from Neurosurgery StealthStation and O-Arm Imaging Systems, Midas, and ENT power systems.
- Continued sales of robotic units and associated market adoption of robot-assisted spine procedures, under an exclusive worldwide distributor agreement with Mazor Robotics.
- Continued market acceptance of our new integrated solutions through the Surgical Synergy strategy, which integrates our spinal implants with enabling technologies such as imaging, navigation, power instruments, nerve monitoring and Mazor robotics.
- Continued success of our "Speed-to-Scale" program launches, which involves faster innovation cycles and launching a steady cadence of new products at scale with sets immediately available for the entire market.
- Market acceptance and continued global adoption of innovative new Spine products, such as our CD Horizon Solera Voyager system, our ELEVATE expandable interbody cages, and our OLIF25 and OLIF51 procedural solutions.
- Growth in the broader vertebral compression fracture (VCF) and adjacent markets, as we continue to pursue the development of other therapies to treat more patients with VCF, including continued success of both the Kyphon V vertebroplasty system and the Osteocool RF Spinal Tumor ablation system.
- Continued acceptance and adoption rates of stimulators and leads approved to treat chronic pain in major markets around

the world. Our Intellis spinal cord stimulator and Evolve workflow algorithm have received positive customer reaction since their launch in the second quarter of fiscal year 2018.

- Ongoing obligations under the U.S. FDA consent decree entered in April 2015 relating to the SynchroMed drug infusion system and the Neuromodulation quality system. The U.S. FDA lifted its distributor requirements on our implantable drug pump in October and its warning letter in November 2017.
- Continued acceptance of our devices for the treatment of Parkinson's Disease and other movement disorders.
- Continued acceptance and growth of our Specialty Therapies, including InterStim therapy for the treatment of the symptoms of overactive bladder, urinary retention, and bowel incontinence, and Transformative Solutions products and strategies to focus on its four core markets of orthopedic, spine, breast surgery, and Cardiac Rhythm Disease Management device replacements.

Diabetes Group

The Diabetes Group's products include insulin pumps, continuous glucose monitoring (CGM) systems, insulin pump consumables, and therapy management software. The Diabetes Group's net sales for fiscal year 2018 were $2.1 billion, an increase of 11 percent as compared to fiscal year 2017. The Diabetes Group's net sales increased for fiscal year 2018, primarily as a result of an increase in sales in the U.S. due to continued growth in our customer base through the continued adoption of the MiniMed 670G hybrid closed loop system. Further, we experienced continued growth in international markets due to strong sales of the MiniMed 640G system in Europe and Asia Pacific.

The Diabetes Group's net sales for fiscal year 2017 were $1.9 billion, an increase of 3 percent as compared to fiscal year 2016. The Diabetes Group's net sales for fiscal year 2017 benefited from growth in both the U.S. and international markets due to strong U.S. sales of the MiniMed 630G system and interest in the Priority Access Program for the MiniMed 670G hybrid closed loop system, as well as strong international sales in Europe, Latin America, and Asia Pacific of the MiniMed 640G system with the Enhanced Enlite sensor.

Looking ahead, we expect our Diabetes Group could be affected by the following:

- Continued increases in sensor manufacturing capacity to benefit from rapidly growing demands. In the fourth quarter of 2018, sensor expansion efforts were met with unconstrained capacity and completed with no back orders. We expect to keep sensor utilization strong and continue commercial expansion into the new fiscal year.
- Continued acceptance and growth of the MiniMed 670G system, the first hybrid closed loop system in the world. The system features our most advanced SmartGuard algorithm, which enables improved glucose control with reduced user input. The MiniMed 670G system received U.S. FDA approval during the second quarter of fiscal year 2017 and launched in the U.S. in June 2017.
- Changes in medical reimbursement policies and programs, along with payor coverage of the MiniMed 670G system.
- Continued acceptance and growth of the MiniMed 640G system with SmartGuard Suspend before Low technology, which has launched in Europe, Australia, and select countries in Latin America and Asia, and the MiniMed 620G system, the first integrated system customized for the Japanese market. The MiniMed 640G system received regulatory approval in Japan in the fourth quarter of fiscal year 2018.
- Continued acceptance and growth of Guardian Connect CGM system which displays information directly to a smartphone. This system received CE mark in 2016 and has launched both internationally and now in the U.S. after receiving FDA approval in the fourth quarter of fiscal year 2018.
- Continued partnership with UnitedHealthcare as the preferred in-network provider of insulin pumps, giving their members access to our advanced diabetes technology and comprehensive support services.
- Continued partnership and growth of our outcomes-based agreement with Aetna, where a component of our pump reimbursement is based on successfully meeting clinical improvement thresholds as part of our value-based healthcare solutions.

CRITICAL ACCOUNTING ESTIMATES

We have used various accounting policies to prepare the consolidated financial statements in accordance with U.S. GAAP. Our significant accounting policies are disclosed in Note 1 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

The preparation of the consolidated financial statements, in conformity with U.S. GAAP, requires us to use judgment in making estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. These estimates reflect our best judgment about economic and market conditions and the potential effects on the valuation and/or carrying value of assets and liabilities based upon relevant information available. We base our estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources.

Our critical accounting estimates include the following:

Litigation Contingencies

We are involved in a number of legal actions involving product liability, intellectual property and commercial disputes, shareholder related matters, environmental proceedings, income tax disputes, and governmental proceedings and investigations. The outcomes of these legal actions are not completely within our control and may not be known for prolonged periods of time. In some actions, the enforcement agencies or private claimants seek damages, as

well as other civil or criminal remedies (including injunctions barring the sale of products that are the subject of the proceeding), that could require significant expenditures or result in lost revenues or limit our ability to conduct business in the applicable jurisdictions. Estimating probable losses from our litigation and governmental proceedings is inherently difficult, particularly when the matters are in early procedural stages, with incomplete scientific facts or legal discovery; involve unsubstantiated or indeterminate claims for damages; potentially involve penalties, fines, or punitive damages; or could result in a change in business practice. Our significant legal proceedings are discussed in Note 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Income Tax Reserves and U.S. Tax Reform

We establish reserves when, despite our belief that our tax return positions are fully supportable, we believe that certain positions are likely to be challenged and that we may or may not prevail. Under U.S. GAAP, if we determine that a tax position is more likely than not of being sustained upon audit, based solely on the technical merits of the position, we recognize the benefit. We measure the benefit by determining the amount that is greater than 50 percent likely of being realized upon settlement. We presume that all tax positions will be examined by a taxing authority with full knowledge of all relevant information. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations in a multitude of jurisdictions across our global operations. We regularly monitor our tax positions and tax liabilities. We reevaluate the technical merits of our tax positions and recognize an uncertain tax benefit, or derecognize a previously recorded tax benefit, when there is (i) a completion of a tax audit, (ii) effective settlement of an issue, (iii) a change in applicable tax law including a tax case or legislative guidance, or (iv) the expiration of the applicable statute of limitations. Significant judgment is required in accounting for tax reserves. Although we believe that we have adequately provided for liabilities resulting from tax assessments by taxing authorities, positions taken by these tax authorities could have a material impact on our effective tax rate, consolidated earnings, financial position and/or cash flows.

On December 22, 2017, the U.S. government enacted the Tax Act, which significantly revises U.S. corporate income taxation by, among other things, lowering the U.S. corporate income tax rate, broadening the base of taxation, and implementing a territorial tax system. We have a measurement period of up to one year after the enactment date of the Tax Act to finalize the recognition of the related tax impacts. The final impact of the Tax Act may differ from the provisional amounts recognized in the current period, possibly materially, due to, among other things, changes in our interpretation of the Tax Act, legislative or administrative actions to clarify the intent of the statutory language provided that differ from our current interpretation, any changes in accounting standards for income taxes or related interpretations in response to the Tax Act, or any updates or changes to estimates we have utilized to calculate the impacts, including changes to current year earnings estimates and applicable foreign exchange rates.

Valuation of Intangible Assets and Goodwill

When we acquire a business, the assets acquired and liabilities assumed are recorded at their respective fair values at the acquisition date. Goodwill is the excess of the purchase price consideration over the estimated fair value of net assets of acquired businesses. Intangible assets primarily include patents, trademarks, tradenames, customer relationships, purchased technology, and IPR&D. Determining the fair value of intangible assets acquired as part of a business combination requires us to make significant estimates. These estimates include the amount and timing of projected future cash flows of each project or technology, the discount rate used to discount those cash flows to present value, the assessment of the asset's life cycle, and the consideration of legal, technical, regulatory, economic, and competitive risks.

The test for goodwill impairment requires us to make several estimates to determine fair value, most of which are based on projected future cash flows. Our estimates associated with the goodwill impairment test are considered critical due to the amount of goodwill recorded on our consolidated balance sheets and the judgment required in determining fair value, including projected future cash flows. We assess the impairment of goodwill at the reporting unit level annually in the third quarter and whenever an event occurs or circumstances change that would indicate that the carrying amount may be impaired.

We test definite-lived intangible assets for impairment when an event occurs or circumstances change that would indicate the carrying amount of the assets or asset group may be impaired. Our tests are based on future cash flows that require significant judgment with respect to future revenue and expense growth rates, appropriate discount rates, asset groupings, and other assumptions and estimates. We use estimates that are consistent with our business plans and a market participant's view of the assets being evaluated. Actual results may differ from our estimates due to a number of factors including, among others, changes in competitive conditions, timing of regulatory approval, results of clinical trials, changes in worldwide economic conditions, and fluctuations in currency exchange rates.

We assess the impairment of indefinite-lived intangibles annually in the third quarter and whenever an event occurs or circumstances change that would indicate that the carrying amount may be impaired. Our impairment tests of indefinite-lived intangibles require us to make several estimates to determine fair value, including projected future cash flows and discount rates.

ACQUISITIONS AND DIVESTITURES

Information regarding acquisitions and divestitures is included in Notes 2 and 3, respectively, to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

NEW ACCOUNTING PRONOUNCEMENTS

Information regarding new accounting pronouncements is included in Note 1 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

COSTS AND EXPENSES

The following is a summary of cost of products sold, research and development, and selling, general, and administrative expenses as a percent of net sales:

	Fiscal Year		
	2018	2017	2016
Cost of products sold	30.2%	31.3%	31.7%
Research and development expense	7.5%	7.4%	7.7%
Selling, general, and administrative expense	33.3%	32.7%	32.8%

Cost of Products Sold

We continue to focus on reducing our costs of production through supplier management, manufacturing improvements, and optimizing our manufacturing network.

Cost of products sold was $9.1 billion, $9.3 billion, and $9.1 billion during fiscal years 2018, 2017, and 2016, respectively. The decrease in cost of products sold as a percentage of sales from fiscal year 2018 as compared to 2017 was due primarily to the divestiture of lower-margin products in conjunction with the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses during fiscal year 2018 and a $38 million charge during fiscal year 2017 related to the recognition of the fair value step-up taken on inventory acquired in connection with the HeartWare acquisition. The decrease in cost of products sold as a percentage of sales due to the divestiture and fair-value step-up on HeartWare inventory was partially offset by $17 million of costs recognized in relation to restoring operations at four Puerto Rico manufacturing sites after Hurricane Maria, including idle facility costs, asset write-downs, and other facility-related costs, and the infusion set recall in our Diabetes Group. The decrease in fiscal year 2017 as compared to fiscal year 2016 was largely due to a $226 million charge in fiscal year 2016 related to the recognition of the fair value step-up of acquired Covidien inventory.

Research and Development Expense

We remain committed to accelerating the development of meaningful innovations to deliver better patient outcomes at appropriate costs that lead to enhanced quality of life and may be validated by clinical and economic evidence. We are also focused on expanding access to quality healthcare.

Research and development expense was $2.3 billion, $2.2 billion, and $2.2 billion during fiscal years 2018, 2017, and 2016, respectively. Research and development expense remained fairly consistent as a percentage of net sales with a slight decrease from fiscal year 2016 to 2018 due, in part, to the timing of clinical trials and product approvals, as well as our sales increasing at a slower rate than the increase in research and development following the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

Selling, General, and Administrative Expense

Our goal is to continue to leverage selling, general, and administrative expense initiatives and to continue to realize cost synergies expected from our acquisitions. Selling, general, and administrative expense primarily consist of salaries and wages, as well as other administrative costs, such as professional fees and marketing expenses.

Selling, general, and administrative expense was $10.0 billion, $9.7 billion, and $9.5 billion during fiscal years 2018, 2017, and 2016, respectively. Selling, general, and administrative expense increased a percentage of net sales from fiscal year 2017 to 2018, as we incurred expenses associated with new product launches and Transition Service Agreements (TSAs). In conjunction with the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses on July 29, 2017, we entered into TSAs with Cardinal to ensure and facilitate an orderly transfer of business operations. Expenses associated with the TSA agreements are recognized in selling, general, and administrative expenses; however, TSA revenue is recognized in *other expense, net,* thereby contributing to an increase in selling, general, and administrative expense as a percentage of revenue.

Selling, general, and administrative expense remained fairly flat as a percentage of net sales from fiscal year 2016 to 2017, with a slight decrease due to cost savings associated with selling, general, and administrative expense initiatives.

The following is a summary of other costs and expenses:

	Fiscal Year		
(in millions)	2018	2017	2016
Amortization of intangible assets	$ 1,823	$ 1,980	$ 1,931
Restructuring charges, net	30	363	290
Acquisition-related items	104	220	283
Certain litigation charges	61	300	26
Divestiture-related items	114	—	—
Gain on sale of businesses	(697)	—	—
Special charge	80	100	—
Other expense, net	505	222	107
Investment loss	227	—	70
Interest expense, net	749	728	955

Amortization of Intangible Assets

Amortization of intangible assets includes the amortization expense of our definite-lived intangible assets, consisting of purchased patents, trademarks, tradenames, customer relationships, purchased technology, and other intangible assets. Amortization expense was $1.8 billion, $2.0 billion, and $1.9 billion in fiscal years 2018, 2017, and 2016, respectively. The decrease in amortization expense from fiscal year 2017 to fiscal year 2018 is primarily attributable to the discontinuation of amortization on the definite-lived intangible assets classified as assets held for sale at April 28, 2017 and through the first quarter of fiscal year 2018 related to the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. This divestiture was completed during the second quarter of fiscal year 2018.

Restructuring

Enterprise Excellence

In the third quarter of fiscal year 2018, we announced a multi-year global Enterprise Excellence Program designed to drive long-term business growth and sustainable efficiency. The Enterprise Excellence Program is expected to further leverage our global size and scale as well as enhance the customer and employee experience.

The Enterprise Excellence Program is focused on three objectives:

- Global Operations - integrating and enhancing global manufacturing and supply processes, systems and site presence to improve quality, delivery cost and cash flow
- Functional Optimization - enhancing and leveraging global operating models and systems across several enabling functions to improve productivity and employee experience
- Commercial Optimization - optimizing certain processes, systems and models to improve productivity and the customer experience

The Enterprise Excellence Program is designed to drive operating margin improvement, as well as fund investment in strategic growth initiatives, with expected annual gross savings of more than $3.0 billion from cost reductions and leverage of our fixed infrastructure by the end of fiscal year 2022. Approximately $500 million to $700 million of gross annual savings are expected to be achieved each fiscal year through the end of fiscal year 2022.

The Enterprise Excellence Program is expected to result in pre-tax restructuring charges of approximately $1.6 billion to $1.8 billion, the vast majority of which are expected to be incurred by the end of fiscal year 2022 and result in cash outlays to be substantially complete by the end of fiscal year 2023. Approximately half of the estimated restructuring charges are related to employee termination benefits. The remaining restructuring charges are costs associated with the restructuring program, such as salaries for employees supporting the program and consulting expenses. We expect these costs to be recognized within *restructuring charges, net, cost of products sold, and selling, general and administrative expense* in the consolidated statements of income.

During fiscal year 2018, we recognized restructuring charges of $96 million. For fiscal year 2018, restructuring charges included $35 million of employee termination benefits recognized within *restructuring charges, net* in the consolidated statements of income. For fiscal year 2018, restructuring charges also included costs incurred as a direct result of the restructuring program, such as salaries for employees supporting the program and consulting expenses, including $28 million recognized within *cost of products sold* and $33 million recognized within *selling, general and administrative expense* in the consolidated statements of income.

Cost Synergies

In the third quarter of fiscal year 2018, we achieved $850 million in cost synergies related to the acquisition of Covidien. The cost synergies related to administrative office optimization, manufacturing and supply chain infrastructure, and certain general and administrative savings. Cash outlays for the cost synergies program are scheduled to be substantially complete by the end of fiscal year 2019.

During fiscal year 2018, we recognized restructuring charges of $45 million, partially offset by accrual adjustments of $34 million. Accrual adjustments relate to certain employees identified for termination finding other positions within Medtronic, cancellations of employee terminations, and employee termination benefits being less than initially estimated. For fiscal year 2018, restructuring charges included $29 million of employee termination benefits and contract termination costs recognized within

restructuring charges, net in the consolidated statements of income. Restructuring charges also included other costs of $12 million recognized within *cost of products sold* and $4 million recognized within *selling, general and administrative expense*.

For fiscal years 2017 and 2016, we recognized restructuring charges of $441 million and $332 million, respectively, partially offset by accrual adjustments of $68 million and $18 million, respectively. Accrual adjustments relate to certain employees identified for termination finding other positions within Medtronic, cancellations of employee terminations, and employee termination benefits being less than initially estimated. For fiscal years 2017 and 2016, restructuring charges included asset write-downs of $17 million and $14 million, respectively, related to property, plant, and equipment impairments, and $10 million and $9 million, respectively, related to inventory write-offs recognized within *cost of products sold* in the consolidated statements of income. Additionally, fiscal year 2017 restructuring charges included $73 million of incremental defined benefit pension and post-retirement related expenses for employees that accepted voluntary early retirement packages.

For additional information, see Note 4 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Acquisition-Related Items

Acquisition-related items includes expenses incurred in connection with the integration of Covidien, our $50.0 billion acquisition completed in the fourth quarter of fiscal year 2015, transaction expenses incurred in connection with business combinations, and changes in fair value of contingent consideration. During fiscal year 2018, we recognized acquisition-related items expense of $132 million, including $28 million recognized within *cost of products sold* in the consolidated statements of income. During fiscal year 2018, acquisition-related items expense includes $172 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities as well as information technology system implementation and benefits harmonization, partially offset by the change in fair value of contingent consideration as a result of revised revenue forecasts and the timing of anticipated regulatory milestones.

During fiscal year 2017, we recognized acquisition-related items expense of $230 million, including $10 million recognized within *cost of products sold* in the consolidated statements of income. During fiscal year 2017, acquisition-related items expense primarily includes $225 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities as well as information technology system implementation and benefits harmonization, $23 million of accelerated or incremental stock compensation expense, and expenses incurred in connection with the HeartWare acquisition and planned divestiture of the Patient Care, Deep Vein, Thrombosis, and Nutritional Insufficiency businesses, partially offset by the change in fair value of contingent consideration as a result of revised revenue forecasts and the timing of anticipated regulatory milestones.

During fiscal year 2016, we recognized acquisition-related items expense of $283 million, including $219 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities as well as information technology system implementation and benefits harmonization and $58 million of accelerated or incremental stock compensation expense.

Certain Litigation Charges

We classify litigation charges and gains related to significant legal matters as certain litigation charges. During fiscal years 2018, 2017, and 2016, we recognized $61 million, $300 million, and $26 million, respectively, of certain litigation charges related to probable and estimable damages for significant legal matters.

Divestiture-Related Items

Divestiture-related items include expenses incurred in connection with the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. During fiscal year 2018, we recognized divestiture-related items expense of $114 million, primarily comprised of expenses incurred for professional services, including banker, legal, tax, and advisory fees, and $16 million of accelerated stock compensation expense related to the acceleration of the vesting period for employees that transferred with the divestiture. There was no divestiture-related items expense for fiscal years 2017 and 2016.

Gain on Sale of Businesses

We recognized a pre-tax gain of $697 million on the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses during fiscal year 2018. No businesses were sold during fiscal years 2017 or 2016.

Special Charge

Continuing our commitment to improve the health of people and communities throughout the world, we recognized a charge of $80 million in fiscal year 2018 and $100 million in fiscal year 2017 for charitable contributions to the Medtronic Foundation.

Other Expense, Net

Other expense, net includes royalty income and expense, realized equity security gains and losses, TSA income, intangible asset impairments, currency transaction and derivative gains and losses, and Puerto Rico excise tax. In fiscal year 2018, other expense, net was $505 million as compared to $222 million in fiscal year 2017. The increase from fiscal year 2017 to fiscal year 2018 was primarily attributable to remeasurement and our hedging programs, which resulted in a $176 million loss for fiscal year 2018 as compared to an $81 million gain in fiscal year 2017, losses of $68 million related to the impairment of IPR&D assets in fiscal year 2018, and $15 million of humanitarian aid provided to our employees affected by Hurricane Maria in fiscal year 2018. The increase from fiscal year 2017 to 2018 was partially offset by $74 million of TSA income.

In fiscal year 2017, other expense, net was $222 million as compared to $107 million in fiscal year 2016. The increase from fiscal year 2016 to 2017 was primarily attributable to remeasurement and our hedging programs, which resulted in an $81 million gain for fiscal year 2017 as compared to a $314 million gain in fiscal year 2018, partially offset by the decrease in U.S. medical device tax due to the suspension of the U.S. medical device tax beginning January 1, 2016.

Investment Loss

We recognized losses of $227 million and $70 million during fiscal years 2018 and 2016, respectively, related to the impairment of certain cost and equity method investments. We remain committed to future strategic and focused investments in the areas of medical device technologies, services, and solutions.

Interest Expense, Net

Interest expense, net includes interest earned on our cash, cash equivalents and investments, interest incurred on our outstanding borrowings, amortization of debt issuance costs and debt premiums or discounts, amortization of gains or losses on terminated or de-designated interest rate derivative instruments, charges recognized in connection with the early redemption of senior notes, and ineffectiveness on interest rate derivative instruments. In fiscal year 2018, interest expense, net was $749 million as compared to $728 million in fiscal year 2017. The increase in interest expense, net for fiscal year 2018 was primarily driven by modestly higher average interest rates on total debt obligations outstanding and a $38 million charge recognized in connection with the early redemption of approximately $1.2 billion of Medtronic Inc. senior notes, partially offset by a slight increase in interest income as compared to fiscal year 2017.

In fiscal year fiscal year 2017, interest expense, net was $728 million as compared to $955 million in fiscal year 2016. The decrease in interest expense, net for fiscal year 2017 was the result of a $183 million charge recorded in connection with the cash tender offer and redemption of certain debt securities in fiscal year 2016 and a $45 million loss on interest rate swaps which were entered into in advance of a planned debt issuance that was no longer anticipated in fiscal year 2016.

INCOME TAXES

	Fiscal Year		
(in millions)	2018	2017	2016
Income tax provision	$ 2,580	$ 578	$ 798
Income before income taxes	5,675	4,602	4,336
Effective tax rate	45.5%	12.6%	18.4%
Non-GAAP income tax provision	$ 1,120	$ 1,232	$ 1,171
Non-GAAP income before income taxes	7,641	7,623	7,399
Non-GAAP Nominal Tax Rate	14.7%	16.2%	15.8%
Difference between the effective tax rate and Non-GAAP Nominal Tax Rate	(30.8)%	3.6%	(2.6)%

On December 22, 2017, the U.S. government enacted the Tax Act, which significantly revises U.S. corporate income taxation by, among other things, lowering the U.S. corporate income tax rate from 35.0 percent to 21.0 percent, broadening the base of taxation, implementing a territorial tax system, and imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries. The decrease in the U.S. federal corporate tax rate from 35.0 percent to 21.0 percent results in a blended statutory tax rate of 30.5 percent for our fiscal year ended April 27, 2018.

Many of the countries we operate in have statutory tax rates lower than our blended U.S. statutory rate, thereby resulting in an overall effective tax rate less than the U.S. statutory rate of 30.5 percent for fiscal year 2018. A significant portion of our earnings are generated from operations in Puerto Rico, Switzerland, and Ireland. The statutory tax rates for these jurisdictions range from 12.5 percent to 45.1 percent. Our earnings in Puerto Rico and Switzerland are subject to certain tax incentive grants which provide for tax rates lower than the country statutory tax rates. Unless our tax incentive grants are extended, they expire between fiscal years 2019 and 2029. The tax incentive grants which expired during fiscal year 2018 did not have a material impact on our financial results. See Note 14 to the consolidated financial statements for additional information.

Our effective tax rate for fiscal year 2018 was 45.5 percent, as compared to 12.6 percent in fiscal year 2017. The increase in the effective tax rate was primarily due to the impacts from U.S. tax reform, the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses, the utilization of non-U.S. special deductions, the net tax cost associated with an internal reorganization, excess tax benefits associated with stock-based compensation, and the tax effect from the intercompany sales of certain intellectual property.

Our Non-GAAP Nominal Tax Rate for fiscal year 2018 was 14.7 percent, as compared to 16.2 percent in fiscal year 2017. The decrease in our Non-GAAP Nominal Tax Rate for fiscal year 2018 as compared to fiscal year 2017 was primarily due to operational tax benefits and year-over-year changes in operational results by jurisdiction.

During fiscal year 2018, we recognized $135 million of operational tax benefits. The operational tax benefits included a $61 million benefit from excess tax benefits associated with stock-based compensation and a $74 million net benefit associated with the resolution of certain income tax audits, finalization of certain tax returns, changes to uncertain tax position reserves, and changes to certain deferred income tax balances.

Our effective tax rate for fiscal year 2017 was 12.6 percent, as compared to 18.4 percent in fiscal year 2016. The decrease in our effective tax rate for fiscal year 2017 as compared to fiscal year 2016 was due to the net tax impact of inventory step-up, debt tender premium, certain litigation payments, certain tax adjustments, operational tax benefits described below, and year-over-year changes in operational results by jurisdiction.

Our Non-GAAP Nominal Tax Rate for fiscal year 2017 was 16.2 percent, as compared to 15.8 percent in fiscal year 2016. The increase in our Non-GAAP Nominal Tax Rate for fiscal year 2017 as compared to fiscal year 2016 was primarily due to operational tax benefits and year-over-year changes in operational results by jurisdiction.

During fiscal year 2017, we recognized $95 million of operational tax benefits. The operational tax benefits included a $44 million benefit from the reversal of a valuation allowance associated with foreign net operating losses and a $51 million net benefit associated with the resolution of certain income tax audits, finalization of certain tax returns, changes to uncertain tax position reserves, and changes to certain deferred income tax balances.

An increase in our Non-GAAP Nominal Tax Rate of 1 percent would result in an additional income tax provision for fiscal years 2018, 2017, and 2016 of approximately $77 million, $76 million, and $74 million, respectively.

Certain Tax Adjustments

During fiscal year 2018, certain tax adjustments of $1.9 billion, recognized in income tax provision in the consolidated statement of income, included the following:

- A net charge of $2.4 billion associated with U.S. tax reform, inclusive of the transition tax, remeasurement of U.S. Federal deferred tax assets and liabilities, and the decrease in the U.S. statutory tax rate. Our income tax provision associated with the impact of the Tax Act for fiscal year 2018 is based on a reasonable estimate and will be finalized within the measurement period in accordance with U.S. GAAP. See Note 14 to the consolidated financial statements for additional information.
- A charge of $73 million associated with an internal reorganization of certain foreign subsidiaries.
- A net benefit of $579 million associated with the intercompany sale of intellectual property.

During fiscal year 2017, certain tax adjustments of $202 million, recognized in *income tax provision* in the consolidated statement of income, included the following:

- A charge of $404 million associated with the IRS resolution for the Ardian, CoreValve, Inc., Ablation Frontiers, Inc., PEAK Surgical, Inc. and Salient Surgical Technologies, Inc. acquisition-related issues and the allocation of income between Medtronic, Inc. and its wholly owned subsidiary operating in Puerto Rico for certain businesses. This resolution does not include the businesses that are the subject of the Medtronic, Inc. U.S. Tax Court case for fiscal years 2005 and 2006.
- A net charge of $125 million associated with the divestiture of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses to Cardinal. The net charge primarily relates to the tax effect from the recognition of the outside basis difference of certain subsidiaries which were included in the divestiture.
- A charge of $86 million associated with the IRS's disallowance of the utilization of certain net operating losses, along with the recognition of a valuation allowance against the net operating loss deferred tax asset, was recognized during the year.
- A charge of $18 million as a result of the redemption of an intercompany minority interest during the year.
- A benefit of $431 million as the result of the resolution of Covidien's previously disclosed Tyco International plc intercompany debt issues with the U.S. Tax Court and the Appeals Division of the IRS.

During fiscal year 2016, certain tax adjustments of $417 million, recognized in *income tax provision* in the consolidated statement of income, included the following:

- A charge of $442 million primarily related to the U.S. income tax expense resulting from our completion of an internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by our U.S.-controlled non-U.S. subsidiaries. As a result of this internal reorganization, approximately $9.7 billion of cash, cash equivalents and investments in marketable debt and equity securities previously held by U.S.-controlled non-U.S. subsidiaries became available for general corporate purposes.
- A $25 million tax benefit associated with the disposition of a wholly-owned U.S. subsidiary.

Certain tax adjustments will affect the comparability of our operating results between periods. Therefore, we consider these Non-GAAP Adjustments. Refer to the "Executive Level Overview" section of this Management's Discussion and Analysis for further discussion of these adjustments.

LIQUIDITY AND CAPITAL RESOURCES

Our liquidity and capital structure is evaluated regularly within the context of our annual operating and strategic planning process. We consider the liquidity necessary to fund our operations, which includes working capital needs, investments in research and development, property, plant, and equipment, and other operating costs. We also consider capital allocation alternatives that balance returning value to shareholders through dividends and share repurchases, satisfying maturing debt, and acquiring businesses and technology.

Summary of Cash Flows

The following is a summary of cash provided by (used in) operating, investing, and financing activities, the effect of exchange rate changes on cash and cash equivalents, and the net change in cash and cash equivalents:

	Fiscal Year		
(in millions)	2018	2017	2016
Cash provided by (used in):			
Operating activities	$ 4,684	$ 6,880	$ 5,218
Investing activities	5,858	(1,571)	2,245
Financing activities	(11,954)	(3,283)	(9,543)
Effect of exchange rate changes on cash and cash equivalents	114	65	113
NET CHANGE IN CASH AND CASH EQUIVALENTS	**$ (1,298)**	**$ 2,091**	**$ (1,967)**

Operating Activities

The $2.2 billion decrease in net cash provided in fiscal year 2018 as compared to fiscal year 2017 was primarily driven by an increase in cash paid for taxes of $1.5 billion, an increase in net cash outflows for collateral related to our derivative instruments of $145 million, cash paid for divestiture-related expenses of approximately $100 million, an increase in certain litigation payments of $60 million, and a decrease in cash collected from customers. The increase in cash paid for income taxes was primarily a result of a $1.1 billion pre-payment we elected to make to the U.S. IRS related to in-process litigation on Puerto Rico transfer pricing, tax payments related to the intercompany sale of intellectual property and sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses as well as settlement payments for U.S. federal income taxes for fiscal years 2012 to 2014 and audit settlements outside of the U.S.

The $1.7 billion increase in net cash provided in fiscal year 2017 as compared to fiscal year 2016 was primarily attributable to an increase in cash collected from customers, as well as a decrease in cash paid for income taxes and interest of $350 million and $132 million, respectively, and a $191 million payment in fiscal year 2016 related to the Covidien Tax Sharing Agreement. The increase in cash collected from customers was primarily attributable to an increase in revenue. The decrease in cash paid for income taxes was primarily a result of payments made for the resolution of the Kyphon acquisition-related matters, as well as Covidien income tax extension payments in fiscal year 2016. We did not make any significant tax audit settlement payments or significant extension payments in fiscal year 2017. The decrease in cash paid for interest was the result of less debt, on average, in fiscal year 2017 as compared to fiscal year 2016.

Investing Activities

The $7.4 billion increase in net cash provided in fiscal year 2018 as compared to fiscal year 2017 was primarily attributable to the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses on July 29, 2017, resulting in net proceeds of $6.1 billion, a decrease in cash paid for acquisitions of $1.2 billion, primarily due to the acquisition of Heartware during fiscal year 2017, and a decrease in additions to property, plant, and equipment.

The $3.8 billion increase in net cash used in fiscal year 2017 as compared to fiscal year 2016 was primarily attributable to a decrease in net proceeds from purchases and sales and maturities of investments in fiscal year 2017.

Financing Activities

The $8.7 billion increase in net cash used in fiscal year 2018 as compared to fiscal year 2017 was primarily attributable to the repayment of our senior unsecured term loan, including accrued interest, for $3.0 billion in August 2017, the repayment of our 6.000 percent ten-year 2008 CIFSA senior notes, including accrued interest, for $1.2 billion in October 2017, the repayment of our 3.500 percent seven-year 2010 HTWR senior notes, including accrued interest, for $43 million in December 2017, the repayment of our 1.500 percent three-year 2015 senior notes, including accrued interest, for $1.0 billion in March 2018, repayment of our 1.375 percent five-year 2013 senior notes, including accrued interest, for $1.0 billion in April 2018, repayment of our 4.450 percent ten-year 2010 senior notes, including accrued interest and early redemption premium, for $795 million in April 2018, and repayment of our 5.600 percent ten-year 2009 senior notes, including accrued interest and early redemption premium, for $413 million in April 2018. The increase in net cash used was also due to the issuance of $2.0 billion of Senior Notes in fiscal year 2017 and a reduction of commercial paper borrowings in fiscal year 2018 as compared to fiscal year 2017, partially offset by a decrease in share repurchases of $1.4 billion.

The $6.3 billion decrease in net cash used in financing activities in fiscal year 2017 as compared to fiscal year 2016 was primarily attributable to the issuance of $2.0 billion of Senior Notes in fiscal year 2017, an increase in commercial paper borrowings, and lower payments on maturing and extinguished debt, partially offset by increases in dividends to shareholders and repurchases of ordinary shares.

Free Cash Flow

Free cash flow, a non-GAAP financial measure, is calculated by subtracting additions to property, plant, and equipment from net cash provided by operating activities. Management uses this non-GAAP financial measure, in addition to U.S. GAAP financial

measures, to evaluate our operating results. Free cash flow should be considered supplemental to, and not a substitute for, our reported financial results prepared in accordance with U.S. GAAP.

Reconciliations between net cash provided by operating activities (the most comparable U.S. GAAP measure) and free cash flow are as follows:

	Fiscal Year		
(in millions)	**2018**	**2017**	**2016**
Net cash provided by operating activities	$ 4,684	$ 6,880	$ 5,218
Net cash provided by (used in) investing activities	5,858	(1,571)	2,245
Net cash used in financing activities	(11,954)	(3,283)	(9,543)
Net cash provided by operating activities	4,684	6,880	5,218
Additions to property, plant, and equipment	(1,068)	(1,254)	(1,046)
Free cash flow	$ 3,616	$ 5,626	$ 4,172
Dividends to shareholders	$ 2,494	$ 2,376	$ 2,139
Repurchase of ordinary shares	2,171	3,544	2,830
Issuances of ordinary shares	(403)	(428)	(491)
Return to shareholders	$ 4,262	$ 5,492	$ 4,478
Return of operating cash flow percentage	91%	80%	86%
Return of free cash flow percentage	118%	98%	107%

Debt and Capital

Our capital structure consists of equity and interest-bearing debt. We use a combination of bank borrowings and commercial paper issuances to fund our short-term financing needs. Current debt, including the current portion of our long-term debt and capital lease obligations, at April 27, 2018 was $2.1 billion as compared to $7.5 billion at April 28, 2017. Historically, we have issued Senior Notes to meet our long-term financing needs. Long-term debt at April 27, 2018 was $23.7 billion as compared to $25.9 billion at April 28, 2017.

Total debt at April 27, 2018 was $25.8 billion, as compared to $33.4 billion at April 28, 2017. The decrease in total debt was primarily driven by the repayment of our senior unsecured term loan and senior notes detailed below, along with a reduction in our commercial paper borrowings of $203 million.

During fiscal year 2018, we repaid our senior unsecured term loan, including accrued interest, for $3.0 billion, our 6.000 percent ten-year 2008 CIFSA senior notes, including accrued interest, for $1.2 billion, our 3.500 percent seven-year 2010 HTWR senior notes, including interest, for $43 million, our 1.500 percent three-year 2015 senior notes, including accrued interest, for $1.0 billion, our 1.375 percent five-year 2013 senior notes, including accrued interest, for $1.0 billion, our 4.450 percent ten-year 2010 senior notes, including accrued interest and early redemption premium, for $795 million, and our 5.600 percent ten-year 2009 senior notes, including accrued interest and early redemption premium, for $413 million.

We maintain a commercial paper program for short-term financing, which allows us to issue unsecured commercial paper notes on a private placement basis up to a maximum aggregate amount outstanding at any time of $3.5 billion. At April 27, 2018, we had $698 million of commercial paper outstanding as compared to $901 million at April 28, 2017. During fiscal years 2018 and 2017, the weighted average original maturity of the commercial paper outstanding was approximately 28 and 39 days, respectively, and the weighted average interest rate was 1.46 percent and 0.89 percent, respectively. The issuance of commercial paper reduces the amount of credit available under our existing line of credit, as explained below.

We also have a $3.5 billion syndicated line of credit facility (Credit Facility) which expires in January 2020. The Credit Facility provides backup funding for the commercial paper program and may also be used for general corporate purposes. The Credit Facility provides us with the ability to increase our borrowing capacity by an additional $500 million at any time during the term of the agreement. At each anniversary date of the Credit Facility, but not more than twice prior to the maturity date, we could also request a one-year extension of the maturity date. At April 27, 2018 and April 28, 2017, no amounts were outstanding on the committed line of credit.

Interest rates on advances of our Credit Facility are determined by a pricing matrix, based on our long-term debt ratings assigned by S&P and Moody's. For additional information on our credit ratings status by S&P and Moody's, refer to the "Liquidity" section of this Management's Discussion and Analysis. Facility fees are payable on the credit facility and are determined in the same manner as the interest rates. The agreements also contain customary covenants, all of which we were in compliance with at April 27, 2018.

We repurchase our ordinary shares from time to time as part of our focus on returning value to our shareholders. In June 2015, our Board of Directors authorized, subject to the ongoing existence of sufficient distributable reserves, the repurchase of 80 million of our ordinary shares. At April 28, 2017, we had used 51 million of the 80 million shares authorized under the June 2015 share repurchase program. In June 2017, our Board of Directors authorized the expenditure of up to $5.0 billion for new share repurchases, replacing the previous 2015 repurchase authorization to redeem up to an aggregate number of ordinary shares. During fiscal years 2018 and 2017, we repurchased a total of 25 million and 43 million shares, respectively, under these programs at an average price of $83.71 and $83.03, respectively. At April 27, 2018, we had approximately $4.0 billion remaining under the share repurchase program authorized by our Board of Directors.

For more information on credit arrangements, see Note 8 of the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Liquidity

The following table is a summary of our cash, cash equivalents, and current investments, working capital, and current ratio:

(in millions)	April 27, 2018	April 28, 2017
Cash, cash equivalents, and current investments	$ 11,227	$ 13,708
Working capital	12,896	10,272
Current ratio[1]	2.3:1.0	1.7:1.0

(1) The ratio of current assets to current liabilities. The current ratio at April 28, 2017 excludes current assets and current liabilities held for sale.

Our liquidity sources at April 27, 2018 include $3.7 billion of cash and cash equivalents and $7.6 billion of current investments. Additionally, we maintain a commercial paper program ($698 million of commercial paper outstanding at April 27, 2018) and Credit Facility. See discussion above regarding changes in our cash and cash equivalents and commercial paper program and Credit Facility.

Our current investments include marketable debt and equity securities that are classified and accounted for as available-for-sale. Our debt and equity securities include U.S. and non-U.S. government and agency securities, corporate debt securities, mortgage-backed securities, other asset-backed securities, debt funds, equity securities, and auction rate securities. Some of our investments may experience reduced liquidity due to changes in market conditions and investor demand. Our auction rate security holdings continue to experience reduced liquidity due to low investor demand. Although our auction rate securities are currently illiquid and other securities could become illiquid, we believe we could liquidate a substantial amount of our portfolio without incurring a material impairment loss.

For fiscal year 2018, the total other-than-temporary impairment losses on available-for-sale debt securities and funds were not significant. Based on our assessment of the credit quality of the underlying collateral and credit support available to each of the remaining securities in which we are invested, we believe we have recognized all necessary other-than-temporary impairments as we do not have the intent to sell, nor is it more likely than not that we will be required to sell, before recovery of the amortized cost. At April 27, 2018, we have $321 million of gross unrealized losses on our aggregate available-for-sale debt securities and funds of $7.6 billion. If market conditions deteriorate, some of these holdings may experience other-than-temporary impairment in the future, which could adversely affect our financial results. We are required to use estimates and assumptions in our valuation of investments, which requires a high degree of judgment, and therefore, actual results could differ materially from estimates. See Note 6 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for additional information.

Our working capital and current ratio at April 27, 2018 increased as compared to April 28, 2017, primarily due to the receipt of $6.1 billion of cash proceeds from the sale of our Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses on July 29, 2017, partially offset by repayments of current and long-term debt obligations and a $1.1 billion income tax pre-payment we elected to make to the U.S. IRS related to in-process litigation on Puerto Rico transfer pricing in fiscal year 2018.

The following table is a summary of our Standard and Poor's Rating Services (S&P) and Moody's Investors Service (Moody's) long-term debt ratings and short-term debt ratings:

	Agency Rating[1]	
	April 27, 2018	April 28, 2017
Standard & Poor's Ratings Services		
Long-term debt	A	A
Short-term debt	A-1	A-1
Moody's Investors Service		
Long-term debt	A3	A3
Short-term debt	P-2	P-2

(1) Agency ratings are subject to change, and there is no assurance that an agency will continue to provide ratings and/or maintain its current ratings. A security rating is not a recommendation to buy, sell or hold securities, and may be subject to revision or withdrawal at any time by the rating agency, and each rating should be evaluated independently of any other rating.

S&P and Moody's long-term debt ratings and short-term debt ratings at April 27, 2018 were unchanged as compared to the ratings at April 28, 2017. We do not expect the S&P and Moody's ratings to have a significant impact on our liquidity or future flexibility to access additional liquidity given our balance sheet and Credit Facility and related commercial paper program.

We have future contractual obligations and other minimum commercial commitments that are entered into in the normal course of business. We believe our off-balance sheet arrangements do not have a material current or anticipated future effect on our consolidated earnings, financial position, and/or cash flows. Refer to the "Off-Balance Sheet Arrangements and Long-Term Contractual Obligations" section of this Management's Discussion and Analysis for more information on these obligations and commitments.

Note 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K provides information regarding amounts

we have accrued related to legal matters. In accordance with U.S. GAAP, we record a liability in our consolidated financial statements for these matters when a loss is known or considered probable and the amount can be reasonably estimated. Actual settlements may be different than estimated and could have a material effect on our consolidated earnings, financial position, and/or cash flows.

We record tax liabilities in our consolidated financial statements for amounts that we expect to repatriate from subsidiaries (to the extent the repatriation would be subject to tax); however, no tax liabilities are recorded for amounts that we consider to be permanently reinvested. As a result of the Tax Act, we have removed our permanently reinvested assertion on the historical earnings through April 27, 2018 for legal entities with accumulated earnings subject to the transition tax. We continue to evaluate our permanently reinvested assertion for certain legal entities. We expect to have access to the majority of our cash flows in the future. In addition, we continue to evaluate our legal entity structure supporting our business operations, and to the extent such evaluation results in a change to our overall business structure, we may be required to accrue for additional tax obligations.

We believe our balance sheet and liquidity provide us with flexibility, and that our cash, cash equivalents, and current investments, as well as our $3.5 billion revolving credit facility and related commercial paper program ($698 million of commercial paper outstanding at April 27, 2018), will satisfy our foreseeable operating needs for at least the next 12 months. We regularly review our capital needs and consider various investing and financing alternatives to support our requirements.

OFF-BALANCE SHEET ARRANGEMENTS AND LONG-TERM CONTRACTUAL OBLIGATIONS

In the normal course of business, we periodically enter into agreements that require us to indemnify customers or suppliers for specific risks, such as claims for injury or property damage arising as a result of our products or the negligence of our personnel or claims alleging that our products infringe third-party patents or other intellectual property. Our maximum exposure under these indemnification provisions is unable to be estimated, and we have not accrued any liabilities within our consolidated financial statements or included any indemnification provisions in the table below. Historically, we have not experienced significant losses on these types of indemnification agreements.

Presented below is a summary of our off-balance sheet contractual obligations and other minimum commercial commitments at April 27, 2018, as well as long-term contractual obligations reflected in the balance sheet at April 27, 2018.

	Maturity by Fiscal Year						
(in millions)	**Total**	**2019**	**2020**	**2021**	**2022**	**2023**	**Thereafter**
Contractual obligations related to off-balance sheet arrangements:							
Operating leases	$ 753	$ 234	$ 182	$ 133	$ 87	$ 43	$ 74
Commitments to fund minority investments, milestone payments, and royalty obligations[1]	252	75	76	59	38	3	1
Interest payments[2]	12,331	914	901	806	773	662	8,275
Other[3]	608	355	146	44	16	6	41
Contractual obligations related to off-balance sheet arrangements subtotal	$ 13,944	$ 1,578	$ 1,305	$ 1,042	$ 914	$ 714	$ 8,391
Contractual obligations reflected in the balance sheet:							
Debt obligations[4]	$ 25,026	$ 1,355	$ 3,005	$ 1,120	$ 3,275	$ 1,180	$ 15,091
Capital leases	21	4	4	3	2	2	6
Contingent consideration[5]	173	108	41	14	6	1	3
Tax obligations[6]	2,145	198	160	160	160	160	1,307
Contractual obligations reflected in the balance sheet subtotal[7]	$ 27,365	$ 1,665	$ 3,210	$ 1,297	$ 3,443	$ 1,343	$ 16,407
TOTAL CONTRACTUAL OBLIGATIONS	**$ 41,309**	**$ 3,243**	**$ 4,515**	**$ 2,339**	**$ 4,357**	**$ 2,057**	**$ 24,798**

(1) Includes commitments related to the funding of cost or equity method investments, estimated milestone payments, and royalty obligations. While it is not certain if and/or when payments will be made, the maturity dates included in the table reflect our best estimates.

(2) Includes the contractual interest payments on our outstanding debt and excludes the impacts of debt premium and discount amortization and interest rate swap agreements. See Note 8 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for additional information on our debt agreements.

(3) Includes inventory purchase commitments and research and development arrangements which are legally binding and specify minimum purchase quantities or spending amounts. These purchase commitments do not exceed our projected requirements and are in the normal course of business. Excludes open purchase orders with a remaining term of less than one year.

(4) Includes the current and non-current portion of our Senior Notes and bank borrowings. Excludes debt premium and discount, the fair value impact of outstanding interest rate swap agreements, unamortized gains from terminated interest rate swap agreements, and commercial paper. See Notes 8 and 9 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for additional information on our debt agreements and interest rate swap agreements, respectively.

(5) Includes the fair value of our current and non-current portions of contingent consideration. While it is not certain if and/or when payments will be made, the maturity dates included in this table reflect our best estimates.

(6) Represents the tax obligations associated with the transition tax that resulted from U.S. Tax Reform. The transition tax will be paid over an eight-year period and will not accrue interest. See Note 14 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for further information.

(7) Excludes defined benefit plan obligations, guarantee obligations, uncertain tax positions, non-current tax liabilities, and litigation settlements for which we cannot make a reliable estimate of the period of cash settlement. For further information, see Notes 14, 16, and 19 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K for further information.

Item 7A Quantitative and Qualitative Disclosures About Market Risk

CURRENCY EXCHANGE RATE RISK

Due to the global nature of our operations, we are exposed to currency exchange rate changes which may cause fluctuations in earnings and cash flows. We use operational and economic hedges, as well as currency exchange rate derivative instruments, to manage the impact of currency exchange rate fluctuations. In order to minimize earnings and cash flow volatility resulting from currency exchange rate fluctuations, we enter into derivative instruments, principally forward currency exchange rate contracts. These contracts are designed to hedge anticipated transactions in other currencies and changes in the value of specific assets and liabilities. At inception of the contract, the derivative instrument is designated as either a freestanding derivative or a cash flow hedge. The primary currencies of our derivative instruments are the Euro, Japanese Yen, and British Pound. Fluctuations in the currency exchange rates of currency exposures that are unhedged, such as in certain emerging markets, may result in future earnings and cash flow volatility. We do not enter into currency exchange rate derivative instruments for speculative purposes.

The gross notional amount of all currency exchange rate derivative instruments outstanding at April 27, 2018 and April 28, 2017 was $11.5 billion and $10.8 billion, respectively. At April 27, 2018, these contracts were in a net unrealized loss position of $159 million. A sensitivity analysis of changes in the fair value of all currency exchange rate derivative contracts at April 27, 2018 indicates that, if the U.S. dollar uniformly strengthened/weakened by 10 percent against all currencies, the fair value of these contracts would increase/decrease by approximately $879 million. Any gains and losses on the fair value of derivative contracts would generally be offset by gains and losses on the underlying transactions. These offsetting gains and losses are not reflected in the above analysis.

INTEREST RATE RISK

We are subject to interest rate risk on our short-term investments and our borrowings. We manage interest rate risk in the aggregate, while focusing on our immediate and intermediate liquidity needs. Our debt portfolio at April 27, 2018 was comprised of debt predominately denominated in U.S. dollars, of which approximately 95% is fixed rate debt and approximately 5% is floating-rate debt. We are also exposed to interest rate changes affecting our investments in interest rate sensitive instruments, which include our marketable debt securities, fixed-to-floating interest rate swap agreements, and forward starting interest rate swap agreements.

A sensitivity analysis of the impact on our interest rate-sensitive financial instruments of a hypothetical 10 basis point change in interest rates, as compared to interest rates at April 27, 2018, indicates that the fair value of these instruments would correspondingly change by $81 million.

For a discussion of current market conditions and the impact on our financial condition and results of operations, please see the "Liquidity and Capital Resources" section of the Management's Discussion and Analysis in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Annual Report on Form 10-K. For additional discussion of market risk, see Notes 6 and 9 to the consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Item 8 Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Medtronic plc:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Medtronic plc and its subsidiaries as of April 27, 2018 and April 28, 2017, and the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended April 27, 2018, including the related notes and schedule of valuation and qualifying accounts for each of the three years in the period ended April 27, 2018 appearing under Item 15(a)(1) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of April 27, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of April 27, 2018 and April 28, 2017, and the results of its operations and its cash flows for each of the three years in the period ended April 27, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of April 27, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota
June 22, 2018

We have served as the Company's auditor since 1963.

Medtronic plc
Consolidated Statements of Income

(in millions, except per share data)	Fiscal Year 2018	2017	2016
Net sales	$ 29,953	$ 29,710	$ 28,833
Costs and expenses:			
Cost of products sold	9,055	9,291	9,142
Research and development expense	2,253	2,193	2,224
Selling, general, and administrative expense	9,974	9,711	9,469
Amortization of intangible assets	1,823	1,980	1,931
Restructuring charges, net	30	363	290
Acquisition-related items	104	220	283
Certain litigation charges	61	300	26
Divestiture-related items	114	—	—
Gain on sale of businesses	(697)	—	—
Special charge	80	100	—
Other expense, net	505	222	107
Operating profit	6,651	5,330	5,361
Investment loss	227	—	70
Interest income	(397)	(366)	(431)
Interest expense	1,146	1,094	1,386
Interest expense, net	749	728	955
Income before income taxes	5,675	4,602	4,336
Income tax provision	2,580	578	798
Net income	3,095	4,024	3,538
Net loss attributable to noncontrolling interests	9	4	—
Net income attributable to Medtronic	$ 3,104	$ 4,028	$ 3,538
Basic earnings per share	$ 2.29	$ 2.92	$ 2.51
Diluted earnings per share	$ 2.27	$ 2.89	$ 2.48
Basic weighted average shares outstanding	1,356.7	1,378.9	1,409.6
Diluted weighted average shares outstanding	1,368.2	1,391.4	1,425.9
Cash dividends declared per ordinary share	$ 1.84	$ 1.72	$ 1.52

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

Medtronic plc
Consolidated Statements of Comprehensive Income

(in millions)	Fiscal Year 2018	2017	2016
Net income	$ 3,095	$ 4,024	$ 3,538
Other comprehensive gain (loss), net of tax:			
Unrealized (loss) gain on available-for-sale securities	(103)	38	(121)
Translation adjustment	1,184	(977)	(197)
Net change in retirement obligations	167	68	(66)
Unrealized (loss) gain on derivatives	(218)	127	(300)
Other comprehensive gain (loss)	1,030	(744)	(684)
Comprehensive income including noncontrolling interests	4,125	3,280	2,854
Comprehensive loss attributable to noncontrolling interests	9	3	—
Comprehensive income attributable to Medtronic	$ 4,134	$ 3,283	$ 2,854

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

Medtronic plc
Consolidated Balance Sheets

(in millions)	April 27, 2018	April 28, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 3,669	$ 4,967
Investments	7,558	8,741
Accounts receivable, less allowances of $193 and $155, respectively	5,987	5,591
Inventories, net	3,579	3,338
Other current assets	2,187	1,865
Current assets held for sale	—	371
TOTAL CURRENT ASSETS	**22,980**	**24,873**
Property, plant, and equipment, net	4,604	4,361
Goodwill	39,543	38,515
Other intangible assets, net	21,723	23,407
Tax assets	1,465	1,550
Other assets	1,078	1,232
Noncurrent assets held for sale	—	5,919
TOTAL ASSETS	**$ 91,393**	**$ 99,857**
LIABILITIES AND EQUITY		
Current liabilities:		
Current debt obligations	$ 2,058	$ 7,520
Accounts payable	1,628	1,555
Accrued compensation	1,988	1,904
Accrued income taxes	979	633
Other accrued expenses	3,431	2,618
Current liabilities held for sale	—	34
TOTAL CURRENT LIABILITIES	**10,084**	**14,264**
Long-term debt	23,699	25,921
Accrued compensation and retirement benefits	1,425	1,724
Accrued income taxes	3,051	2,405
Deferred tax liabilities	1,423	2,978
Other liabilities	889	1,515
Noncurrent liabilities held for sale	—	720
TOTAL LIABILITIES	**$ 40,571**	**$ 49,527**
Commitments and contingencies (Notes 2, 17, and 19)		
Shareholders' equity:		
Ordinary shares— par value $0.0001, 2.6 billion shares authorized, 1,354,218,154 and 1,369,424,818 shares issued and outstanding, respectively	—	—
Additional paid-in capital	28,127	29,551
Retained earnings	24,379	23,270
Accumulated other comprehensive loss	(1,786)	(2,613)
TOTAL SHAREHOLDERS' EQUITY	**50,720**	**50,208**
Noncontrolling interests	102	122
TOTAL EQUITY	**50,822**	**50,330**
TOTAL LIABILITIES AND EQUITY	**$ 91,393**	**$ 99,857**

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

Medtronic plc
Consolidated Statements of Equity

(in millions)	Ordinary Shares Number	Ordinary Shares Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity	Noncontrolling Interests	Total Equity
APRIL 24, 2015	**1,422**	**$ —**	**$ 34,109**	**$ 20,219**	**$ (1,184)**	**$ 53,144**	**$ —**	**$ 53,144**
Net income	—	—	—	3,538	—	3,538	—	3,538
Other comprehensive loss	—	—	—	—	(684)	(684)	—	(684)
Dividends to shareholders	—	—	—	(2,139)	—	(2,139)	—	(2,139)
Issuance of shares under stock purchase and award plans	15	—	491	—	—	491	—	491
Repurchase of ordinary shares	(38)	—	(2,830)	—	—	(2,830)	—	(2,830)
Tax benefit from exercise of stock-based awards	—	—	82	—	—	82	—	82
Stock-based compensation		—	375	—	—	375	—	375
APRIL 29, 2016	**1,399**	**$ —**	**$ 32,227**	**$ 21,618**	**$ (1,868)**	**$ 51,977**	**$ —**	**$ 51,977**
Net income (loss)	—	—	—	4,028	—	4,028	(4)	4,024
Other comprehensive (loss) income	—	—	—	—	(745)	(745)	1	(744)
Dividends to shareholders	—	—	—	(2,376)	—	(2,376)	—	(2,376)
Issuance of shares under stock purchase and award plans	13	—	428	—	—	428	—	428
Repurchase of ordinary shares	(43)	—	(3,544)	—	—	(3,544)	—	(3,544)
Tax benefit from exercise of stock-based awards	—	—	92	—	—	92	—	92
Stock-based compensation	—	—	348	—	—	348	—	348
Changes to noncontrolling ownership interests	—	—	—	—	—	—	125	125
APRIL 28, 2017	**1,369**	**$ —**	**$ 29,551**	**$ 23,270**	**$ (2,613)**	**$ 50,208**	**$ 122**	**$ 50,330**
Net income (loss)	—	—	—	3,104	—	3,104	(9)	3,095
Other comprehensive income	—	—	—	—	1,030	1,030	—	1,030
Dividends to shareholders	—	—	—	(2,494)	—	(2,494)	—	(2,494)
Issuance of shares under stock purchase and award plans	10	—	329	—	—	329	—	329
Repurchase of ordinary shares	(25)	—	(2,097)	—	—	(2,097)	—	(2,097)
Stock-based compensation	—	—	344	—	—	344	—	344
Changes to noncontrolling ownership interests	—	—	—	—	—	—	(11)	(11)
Cumulative effect of change in accounting principle[1]	—	—	—	499	(203)	296	—	296
APRIL 27, 2018	**1,354**	**$ —**	**$ 28,127**	**$ 24,379**	**$ (1,786)**	**$ 50,720**	**$ 102**	**$ 50,822**

(1) See Note 1 to the consolidated financial statements for discussion regarding the adoption of accounting standards during fiscal year 2018.

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

Medtronic plc
Consolidated Statements of Cash Flows

(in millions)	Fiscal Year 2018	2017	2016
Operating Activities:			
Net income	$ 3,095	$ 4,024	$ 3,538
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	2,644	2,917	2,820
Amortization of debt premium, discount, and issuance costs	(13)	11	29
Acquisition-related items	(31)	(46)	218
Provision for doubtful accounts	52	39	49
Deferred income taxes	(919)	(459)	(460)
Stock-based compensation	344	348	375
Loss on debt extinguishment	38	—	163
Gain on sale of businesses	(697)	—	—
Investment loss	227	—	70
Other, net	117	(93)	(181)
Change in operating assets and liabilities, net of acquisitions and divestitures:			
Accounts receivable, net	(275)	(75)	(435)
Inventories, net	(192)	(227)	(186)
Accounts payable and accrued liabilities	65	356	(379)
Other operating assets and liabilities	229	85	(403)
Net cash provided by operating activities	4,684	6,880	5,218
Investing Activities:			
Acquisitions, net of cash acquired	(137)	(1,324)	(1,213)
Proceeds from sale of businesses	6,058	—	—
Additions to property, plant, and equipment	(1,068)	(1,254)	(1,046)
Purchases of investments	(3,200)	(4,371)	(5,406)
Sales and maturities of investments	4,227	5,356	9,924
Other investing activities, net	(22)	22	(14)
Net cash provided by (used in) investing activities	5,858	(1,571)	2,245
Financing Activities:			
Acquisition-related contingent consideration	(48)	(69)	(22)
Change in current debt obligations, net	(249)	906	7
Repayment of short-term borrowings (maturities greater than 90 days)	(45)	(2)	(139)
Proceeds from short-term borrowings (maturities greater than 90 days)	1	12	139
Issuance of long-term debt	21	2,140	—
Payments on long-term debt	(7,370)	(863)	(5,132)
Dividends to shareholders	(2,494)	(2,376)	(2,139)
Issuance of ordinary shares	403	428	491
Repurchase of ordinary shares	(2,171)	(3,544)	(2,830)
Other financing activities	(2)	85	82
Net cash used in financing activities	(11,954)	(3,283)	(9,543)
Effect of exchange rate changes on cash and cash equivalents	114	65	113
Net change in cash and cash equivalents	(1,298)	2,091	(1,967)
Cash and cash equivalents at beginning of period	4,967	2,876	4,843
Cash and cash equivalents at end of period	$ 3,669	$ 4,967	$ 2,876
Supplemental Cash Flow Information			
Cash paid for:			
Income taxes	$ 2,542	$ 1,029	$ 1,379
Interest	1,147	1,134	1,266

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

Medtronic plc
Notes to Consolidated Financial Statements

Note 1 Summary of Significant Accounting Policies

Nature of Operations

Medtronic plc (Medtronic or the Company) is a global leader in medical technology – alleviating pain, restoring health, and extending life for millions of people around the world. The Company provides innovative products and therapies to serve hospitals, physicians, clinicians, and patients. Medtronic was founded in 1949 and is headquartered in Dublin, Ireland.

Principles of Consolidation

The consolidated financial statements include the accounts of Medtronic plc, its wholly-owned subsidiaries, entities for which the Company has a controlling financial interest, and variable interest entities for which the Company is the primary beneficiary. Intercompany transactions and balances have been fully eliminated in consolidation. Certain reclassifications have been made to prior year financial statements to conform to classifications used in the current year.

Certain consolidated balance sheet amounts related to prior periods have been revised to correct the Company's application of Accounting Standards Codification (ASC) 605, Revenue Recognition, with respect to its accrual for the costs of post-implant support services which are inconsequential deliverables within the arrangements. In accordance with Securities and Exchange Commission Staff Accounting Bulletin (SAB) No. 99, Materiality, and ASC 250, Presentation of Financial Statements, the Company assessed the materiality of this correction and concluded that the accrual for the costs of post-implant support services was not material to prior periods, and therefore, amendments of previously filed reports are not required.

As such, in accordance with ASC 250, the Company revised the previously reported consolidated balance sheets and consolidated statements of equity. The correction had no impact on the previously reported consolidated statements of income, consolidated statements of comprehensive income, or consolidated statements of cash flows for the periods presented, as this error originates in periods prior to those presented. The table below presents the impact of the revision on the Company's previously reported consolidated balance sheets, consolidated statements of equity, and related amounts disclosed in Notes 14, 21, and 22 as follows:

	April 28, 2017		
(in millions)	As Reported	Adjustments	As Revised
Tax assets	$ 1,509	$ 41	$ 1,550
Total assets	99,816	41	99,857
Accrued compensation	1,860	44	1,904
Current liabilities	14,220	44	14,264
Accrued compensation and retirement benefits	1,641	83	1,724
Total liabilities	49,400	127	49,527
Retained earnings	23,356	(86)	23,270
Total shareholders' equity	50,294	(86)	50,208
Total equity	50,416	(86)	50,330
Total liabilities and equity	99,816	41	99,857

As this error originates in periods prior to those presented, previously reported amounts at April 24, 2015 and April 29, 2016 of retained earnings ($20,305 million and $21,704 million, respectively), total shareholders' equity ($53,230 million and $52,063 million, respectively) and total equity ($53,230 million and $52,063 million, respectively), have been reduced by $86 million to reflect the correction above within the consolidated statements of equity.

Use of Estimates

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles in the United States (U.S.) (U.S. GAAP) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are used when accounting for items such as income taxes, contingencies, intangible asset, and liability valuations. Actual results may or may not differ from those estimates.

Fiscal Year-End

The Company utilizes a 52/53-week fiscal year, ending the last Friday in April, for the presentation of its consolidated financial statements and related notes thereto at April 27, 2018 and April 28, 2017 and for each of the three fiscal years ended April 27, 2018 (fiscal year 2018), April 28, 2017 (fiscal year 2017), and April 29, 2016 (fiscal year 2016). Fiscal years 2018 and 2017 were 52-week years. Fiscal year 2016 was a 53-week year, with the additional week occurring in the first quarter.

Cash Equivalents

The Company considers highly liquid investments with maturities of three months or less from the date of purchase to be cash equivalents. These investments are carried at cost, which approximates fair value.

Investments

Investments in marketable equity securities and certain debt securities, which include corporate debt securities, government and agency securities, mortgage-backed securities, other asset-backed securities, debt funds, and auction rate securities, are classified and accounted for as available-for-sale. These investments are recorded at fair value in the consolidated balance sheets. The change in fair value for available-for-sale securities is recorded, net of taxes, as a component of *accumulated other comprehensive loss* on the consolidated balance sheets. Management determines the appropriate classification of its investments in debt and equity securities at the time of purchase and reevaluates such determinations at each balance sheet date. The classification of marketable securities as current or long-term is based on the nature of the securities and the availability for use in current operations consistent with the Company's management of its capital structure and liquidity.

Certain of the Company's investments in equity and other securities are long-term, strategic investments in companies that are in various stages of development. These investments are included in *other assets* on the consolidated balance sheets. If an investment has no quoted market price, the Company accounts for these investments under the cost or the equity method of accounting. Certain of these investments are publicly traded companies and are accounted for as available-for-sale. The valuation of equity and other securities accounted for under the cost method considers all available financial information related to the investee, including valuations based on recent third-party equity investments in the investee. If an unrealized loss for any investment is considered to be other-than-temporary, the loss is recognized in the consolidated statement of income in the period the determination is made. Equity securities accounted for under the equity method are initially recorded at the amount of the Company's investment and are adjusted each period for the Company's share of the investee's income or loss and dividends paid. Securities accounted for under the cost and equity methods are reviewed quarterly for changes in circumstance or the occurrence of events that suggest the Company's investment may not be recoverable. See Note 6 for a discussion of the gains and losses recognized on equity and other securities.

Accounts Receivable and Allowance for Doubtful Accounts

The Company grants credit to customers in the normal course of business and maintains an allowance for doubtful accounts for potential credit losses. When evaluating allowances for doubtful accounts, the Company considers various factors, including historical experience and customer-specific information. Uncollectible accounts are written-off against the allowance when it is deemed that a customer account is uncollectible.

Inventories

Inventories are stated at the lower of cost or net realizable value, with cost determined on a first-in, first-out basis. The Company reduces the carrying value of inventories for items that are potentially excess, obsolete, or slow-moving based on changes in customer demand, technology developments, or other economic factors.

Property, Plant, and Equipment

Property, plant, and equipment is stated at cost. Additions and improvements that extend the lives of the assets are capitalized, while expenditures for repairs and maintenance are expensed as incurred. The Company assesses property, plant, and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of property, plant, and equipment asset groupings may not be recoverable. The Company utilizes the straight-line method of depreciation over the estimated useful lives of the various assets. The cost of interest that is incurred in connection with ongoing construction projects is capitalized using a weighted average interest rate. These costs are included in property, plant, and equipment and amortized over the useful life of the related asset.

Goodwill and Intangible Assets

Goodwill is the excess of the purchase price over the estimated fair value of net assets of acquired businesses. In accordance with U.S. GAAP, goodwill is not amortized. The Company assesses goodwill for impairment annually in the third quarter of the fiscal year and whenever an event occurs or circumstances change that would indicate the carrying amount may be impaired. Impairment testing for goodwill is performed at a reporting unit level. There were no changes in reporting units during fiscal year 2018. The test for impairment of goodwill requires the Company to make several estimates about fair value, most of which are based on projected future cash flows. The Company calculated the excess of each reporting unit's fair value over its carrying amount, including goodwill, utilizing a discounted cash flow analysis. An impairment loss is recognized when the carrying amount of the reporting unit's net assets exceeds the estimated fair value of the reporting unit.

Intangible assets include patents, trademarks, tradenames, customer relationships, purchased technology, and in-process research and development (IPR&D). Intangible assets with a definite life are amortized on a straight-line basis with estimated useful lives ranging from three to 20 years. Amortization is recognized within *amortization of intangible assets* in the consolidated statements of income. Intangible assets with a definite life are tested for impairment whenever events or changes in circumstances indicate that the carrying amount of an intangible asset (asset group) may not be recoverable. When events or changes in circumstances indicate that the carrying amount of an intangible asset may not be recoverable, the Company calculates the excess of an intangible asset's carrying value over its undiscounted future cash flows. If the carrying value is not recoverable, an impairment loss is recognized based on the amount by which the carrying value exceeds the fair value. The inputs used in the fair value analysis fall within Level 3 of the fair value hierarchy due to the use of significant unobservable inputs to determine fair value. Indefinite-lived intangible assets are tested for impairment annually in the third quarter of the fiscal year and

whenever events or changes in circumstances indicate that the carrying amount may be impaired. Impairment is calculated as the excess of the asset's carrying value over its fair value. Fair value is generally determined using a discounted future cash flow analysis.

Acquired IPR&D represents the fair value assigned to those research and development (R&D) projects in development that were acquired in a business combination for which the related products have not received regulatory approval and have no alternative future use. IPR&D is capitalized at its fair value as an indefinite-lived intangible asset, and any development costs incurred after the acquisition are expensed as incurred. The fair value of IPR&D is determined by estimating the future cash flows of each R&D project or technology and discounting the net cash flows back to their present values. Upon achieving regulatory approval or commercial viability for the related technology or product, the indefinite-lived intangible asset is accounted for as a definite-lived asset and is amortized on a straight-line basis over the estimated useful life of the related technology or product. If the R&D project is not completed or the related R&D project is terminated or abandoned, the Company may have an impairment related to the IPR&D which is charged to expense.

Contingent Consideration

Certain of the Company's business combinations involve potential payment of future consideration that is contingent upon the achievement of certain product development milestones and/or contingent on the acquired business reaching certain performance milestones. The Company records contingent consideration at fair value at the date of acquisition based on the consideration expected to be transferred, estimated as the probability-weighted future cash flows, discounted back to present value. The fair value of contingent consideration is measured using projected payment dates, discount rates, probabilities of payment, and projected revenues (for revenue-based considerations). Projected revenues are based on the Company's most recent internal operational budgets and long-range strategic plans. The discount rate used is determined at the time of measurement in accordance with accepted valuation methodologies. Changes in projected revenues, probabilities of payment, discount rates, and projected payment dates may result in adjustments to the fair value measurements. Contingent consideration is remeasured each reporting period using Level 3 inputs, and the change in fair value, including accretion for the passage of time, is recognized as income or expense within *acquisition-related items* in the consolidated statements of income. Contingent consideration payments made soon after the acquisition date are classified as investing activities in the consolidated statements of cash flows. Contingent consideration payments not made soon after the acquisition date that are related to the acquisition date fair value are reported as financing activities in the consolidated statements of cash flows, and amounts paid in excess of the original acquisition date fair value are reported as operating activities in the consolidated statements of cash flows.

Derivatives

The Company recognizes all derivative financial instruments in its consolidated financial statements at fair value in accordance with authoritative guidance on derivatives and hedging, and presents assets and liabilities associated with derivative financial instruments on a gross basis in the consolidated financial statements. For derivative instruments that are designated and qualify as hedging instruments, the hedging instrument must be designated, based upon the exposure being hedged, as a fair value hedge or a cash flow hedge. See Note 9 for more information on the Company's derivative instruments and hedging programs.

Fair Value Measurements

The Company follows the authoritative guidance on fair value measurements and disclosures with respect to assets and liabilities that are measured at fair value on both a recurring and nonrecurring basis. Fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability, based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels defined as follows:

- Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly.
- Level 3 - Inputs are unobservable for the asset or liability.

Financial assets that are classified as Level 1 securities include highly liquid government bonds within U.S. government and agency securities and marketable equity securities for which quoted market prices are available. In addition, the Company classifies currency forward contracts as Level 1 since they are valued using quoted market prices in active markets which have identical assets or liabilities.

The valuation for most fixed maturity securities are classified as Level 2. Financial assets that are classified as Level 2 include corporate debt securities, government and agency securities, other asset-backed securities, debt funds, and mortgage-backed securities whose value is determined using inputs that are observable in the market or may be derived principally from, or corroborated by, observable market data such as pricing for similar securities, recently executed transactions, cash flow models with yield curves, and benchmark securities. In addition, interest rate swaps and total return swaps are included in Level 2 as the Company uses inputs other than quoted prices that are observable for the asset. The Level 2 derivative instruments are primarily valued using standard calculations and models that use readily observable market data as their basis.

Financial assets are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies, or similar techniques, and at least one significant model assumption or input is unobservable. Financial assets that are classified as Level 3 financial assets include certain investment securities for which there is limited market activity such that the determination of fair value requires significant judgment or estimation, certain corporate debt securities and auction rate securities. With the exception of auction rate securities, these securities are valued using third-party pricing sources that incorporate transaction details such as contractual terms, maturity, timing, and amount of expected future cash flows, as well as assumptions about liquidity and credit valuation adjustments by market participants. The fair value of auction rate securities is estimated by the Company using a discounted cash flow model, which incorporates significant unobservable inputs. The significant unobservable inputs used in the fair value measurement of the Company's auction rate securities are years to principal recovery and the illiquidity premium that is incorporated into the discount rate.

Certain investments for which the fair value is measured using the net asset value per share (or its equivalent) practical expedient are excluded from the fair value hierarchy. Financial assets for which the fair value is measured using the net asset value per share practical expedient include certain debt funds, equity and fixed income commingled trusts, and registered investment companies.

Self-Insurance

The Company self-insures the majority of its insurable risks, including medical and dental costs, disability coverage, physical loss to property, business interruptions, workers' compensation, comprehensive general, and product liability. Insurance coverage is obtained for risks required to be insured by law or contract. The Company uses claims data and historical experience, as applicable, to estimate liabilities associated with the exposures that the Company has self-insured.

Retirement Benefit Plan Assumptions

The Company sponsors various retirement benefit plans, including defined benefit pension plans, post-retirement medical plans, defined contribution savings plans, and termination indemnity plans, covering substantially all U.S. employees and many employees outside the U.S. See Note 16 for assumptions used in determining pension and post-retirement benefit costs.

The Company utilizes a full yield curve approach methodology to estimate the service and interest cost components of net periodic pension cost and net periodic post-retirement benefit cost for the Company's pension and other post-retirement benefits. The full yield curve approach applies specific spot rates along the yield curve to their underlying projected cash flows in estimation of the cost components.

Revenue Recognition

The Company sells its products through direct sales representatives and independent distributors. Additionally, a portion of the Company's revenue is generated from consignment inventory maintained at hospitals or with field representatives. The Company recognizes revenue when control is transferred to a customer. For products sold through direct sales representatives and independent distributors, control is transferred upon shipment or upon delivery, based on the contract terms and legal requirements. For consignment inventory, revenue is recognized at the time the product has been used or implanted.

The amount of revenue recognized reflects estimated sales rebates and returns, which are estimated based on sales terms, historical experience, and trend analysis. In estimating rebates, the Company considers the lag time between the point of sale and the payment of the rebate claim, contractual commitments, including stated rebate rates, and other relevant information. The Company adjusts reserves to reflect differences between estimated and actual experience, and records such adjustment as increases or decrease of revenue in the period of adjustment.

In certain circumstances, the Company enters into arrangements in which multiple deliverables are provided to customers. Under multiple deliverable arrangements, the Company recognizes revenue in accordance with the principles described above and allocates the revenue based on the relative selling price of each deliverable, which is based on vendor specific objective evidence.

Shipping and Handling

Shipping and handling costs incurred to physically move product from the Company's premises to the customer's premises are recognized in *selling, general, and administrative expense* in the consolidated statements of income and were $363 million, $370 million, and $316 million in fiscal years 2018, 2017, and 2016, respectively. Other shipping and handling costs incurred to store, move, and prepare products for shipment are recognized in *cost of products sold* in the consolidated statements of income.

Research and Development

Research and development costs are expensed when incurred. Research and development costs include costs of other research, engineering, and technical activities to develop a new product or service or make significant improvement to an existing product or manufacturing process. Research and development costs also include pre-approval regulatory and clinical trial expenses.

Contingencies

The Company records a liability in the consolidated financial statements for loss contingencies when a loss is known or considered probable and the amount may be reasonably estimated. If the reasonable estimate of a known or probable loss is a range, and no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. If a loss is reasonably possible but not known or probable, and may be reasonably estimated, the estimated loss or range of loss is disclosed. Insurance recoveries related to potential claims are recognized up to the amount of the recorded liability when coverage is confirmed and the estimated recoveries are probable of payment. These recoveries are not netted against the related liabilities for financial statement presentation.

Income Taxes

The Company has deferred taxes that arise as a result of the different treatment of transactions for U.S. GAAP and income tax accounting, known as temporary differences. The Company records the tax effect of these temporary differences as deferred tax assets and deferred tax liabilities. Deferred tax assets generally represent items that may be used as a tax deduction or credit in a tax return in future years for which the Company has already recognized the tax benefit in the consolidated statements of income. The Company establishes valuation allowances for deferred tax assets when the amount of expected future taxable income is not likely to support the use of the deduction or credit. Deferred tax liabilities generally represent tax expense for which payment has been deferred or expense has already been taken as a deduction on the Company's tax return but has not yet been recognized as an expense in the consolidated statements of income.

Other Expense, Net

Other expense, net includes royalty income and expense, realized equity security gains and losses, intangible asset impairments, currency transaction and derivative gains and losses, Puerto Rico excise tax, and other income not central to the Company's operations.

Currency Translation

Assets and liabilities of non-U.S. dollar functional currency entities are translated to U.S. dollars at period-end exchange rates, and the currency impacts arising from the translation of the assets and liabilities are recorded as a cumulative translation adjustment, a component of *accumulated other comprehensive loss*, on the consolidated balance sheets. Elements of the consolidated statements of income are translated at the average monthly currency exchange rates in effect during the period. Currency transaction gains and losses are included in *other expense, net* in the consolidated statements of income.

Stock-Based Compensation

The Company measures stock-based compensation expense at the grant date based on the fair value of the award and recognizes the compensation expense over the requisite service period, which is generally the vesting period. The amount of stock-based compensation expense recognized during a period is based on the portion of the awards that are expected to vest. The Company estimates pre-vesting forfeitures at the time of grant and revises the estimates in subsequent periods.

New Accounting Standards

Recently Adopted

In March 2016, the Financial Accounting Standards Board (FASB) issued guidance to simplify the accounting for share-based payment transactions by requiring all excess tax benefits and deficiencies to be recognized in income tax expense or benefit in earnings; eliminating the requirement to classify the excess tax benefits and deficiencies as additional paid-in capital. Cash flows related to excess tax benefits are to be classified in operating activities in the statement of cash flows rather than financing. Under the new guidance, an entity makes an accounting policy election to either estimate the expected forfeiture awards or account for forfeitures as they occur. The standard also allows an entity to withhold up to the maximum statutory tax rate and classify the awards as equity. The Company prospectively adopted this guidance in the first quarter of fiscal year 2018. The Company has elected to continue to estimate forfeitures.

In October 2016, the FASB issued guidance that requires the tax effect of intra-entity transactions, other than sales of inventory, to be recognized when the transaction occurs. Previously, U.S. GAAP prohibited the recognition of current and deferred income taxes associated with an intra-entity asset transfer until an asset had been sold to a third-party. This update requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset, such as equipment or intangibles, when the transfer occurs. The adoption of this guidance is to be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The Company has early-adopted this guidance, as permitted, in the first quarter of fiscal year 2018. As a result of this adoption, the Company increased its beginning retained earnings by $296 million.

In February 2018, the FASB issued accounting guidance which allows for reclassification from accumulated other comprehensive income (AOCI) to retained earnings for stranded tax effects resulting from the enactment of comprehensive U.S. tax legislation, commonly referred to as the Tax Cuts and Jobs Act (the Tax Act), and can be applied either in the period of adoption or retrospectively to all applicable periods. The Company early-adopted this guidance in the fourth quarter of fiscal year 2018 and reclassified the stranded income tax effects of the Tax Act, increasing the accumulated other comprehensive loss by $203 million with a corresponding increase to retained earnings. The reclassification was primarily comprised of amounts relating to retirement benefit plans and available-for-sale securities. In accordance with its accounting policy, the Company releases other disproportionate income tax effects from accumulated other comprehensive loss once the reason the tax effects were established ceases to exist.

In March 2018, the FASB issued accounting guidance which incorporates Securities and Exchange Commission Staff Accounting Bulletin No. 118 into U.S. GAAP, allowing a measurement period, not to exceed one year, to finalize the accounting for the income tax impacts of the Tax Act. This guidance is effective immediately and requires adjustments to provisional amounts that were previously recorded as new information becomes available. The Company has adopted this standard and will continue to evaluate indicators that may give rise to a change in the tax provision as a result of the Tax Act.

Not Yet Adopted

In May 2014, the FASB issued amended revenue recognition guidance to clarify the principles for recognizing revenue from contracts with customers. The guidance requires an entity to recognize revenue in an amount that reflects the consideration to which an entity expects to be entitled in exchange for the transfer of goods or services. The guidance also requires expanded

disclosures relating to the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Additionally, qualitative and quantitative disclosures are required about customer contracts, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. This accounting guidance is effective for the Company beginning in the first quarter of fiscal year 2019, and may be applied either retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of the change recognized at the date of initial application (modified retrospective method). The Company will adopt this guidance under the modified retrospective method. The Company does not expect the adoption of the amended guidance to have a material impact on the Company's consolidated financial statements. The Company will make additional revenue related disclosures in the footnotes to the Company's consolidated financial statements upon adoption in the first quarter of fiscal year 2019.

In January 2016, the FASB issued guidance which requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. The guidance also includes a simplified impairment assessment of equity investments without readily determinable fair values and presentation and disclosure changes. This accounting guidance is effective for the Company beginning in the first quarter of fiscal year 2019. The Company expects a reclassification of approximately $83 million, net of taxes, from accumulated other comprehensive loss to the opening balance of retained earnings upon adoption in the first quarter of fiscal year 2019.

In February 2016, the FASB issued guidance which requires lessees to recognize right-of-use assets and lease liabilities on the balance sheet. The guidance is to be applied using a modified retrospective approach and is effective for the Company beginning in the first quarter of fiscal year 2020. Early adoption is permitted. The Company is evaluating the impact of the lease guidance on the Company's consolidated financial statements and anticipates recording additional assets and corresponding liabilities on its consolidated balance sheets related to operating leases within its lease portfolio upon adoption of the guidance.

Note 2 Acquisitions and Acquisition-Related Items

The Company accounts for acquisitions of businesses using the acquisition method of accounting. The assets and liabilities of businesses acquired are recorded and consolidated on the acquisition date at their respective fair values. Goodwill resulting from business combinations is largely attributable to future yet to be defined technologies, new customer relationships, existing workforce of the acquired businesses, and synergies expected to arise after the Company's acquisition of the business. The pro forma impact of acquisitions during fiscal year 2018 was not significant, either individually or in the aggregate, to the results of the Company. The results of operations of acquired businesses have been included in the Company's consolidated statements of income since the date each business was acquired.

On August 23, 2016, the Company's Cardiac and Vascular Group acquired HeartWare International, Inc. (HeartWare), a medical device company that develops and manufactures miniaturized implantable heart pumps, or ventricular assist devices, to treat patients around the world suffering from advanced heart failure. Total consideration for the transaction was approximately $1.1 billion. Based upon an acquisition valuation, the Company acquired $602 million of technology-based and customer-related intangible assets and $23 million of tradenames, with estimated useful lives of 15 and 5 years, respectively, and $481 million of goodwill. The acquired goodwill is not deductible for tax purposes. In addition, the Company acquired $245 million of debt through the acquisition, of which the Company redeemed $203 million as part of a cash tender offer in August 2016, and the remaining $42 million of debt acquired was repaid in December 2017. During the measurement period, which ended on August 22, 2017, adjustments were made to finalize the allocation of purchase price related to other assets, goodwill, and contingent liabilities.

The acquisition date fair values of the assets acquired and liabilities acquired were as follows:

(in millions)	HeartWare International, Inc.	All Other
Other current assets	$ 351	$ 3
Property, plant, and equipment	14	6
Other intangible assets	625	95
Goodwill	481	52
Other assets	84	—
TOTAL ASSETS ACQUIRED	**1,555**	**156**
Current liabilities	143	2
Deferred tax liabilities	6	2
Long-term debt	245	—
Other liabilities	89	—
TOTAL LIABILITIES ASSUMED	**483**	**4**
Net assets acquired	$ 1,072	$ 152

For additional information on acquisitions in fiscal year 2017, see Note 2 to the consolidated financial statements included in the Company's Annual report on Form 10-K for the fiscal year ended April 28, 2017.

Acquisition-Related Items

Acquisition-related items includes expenses incurred in connection with the integration of Covidien, the Company's $50.0 billion acquisition completed in the fourth quarter of fiscal year 2015, transaction expenses incurred in connection with business acquisitions, and changes in the fair value of contingent consideration. During fiscal year 2018, the Company recognized acquisition-related items expense of $132 million, including $28 million recognized within *cost of products sold*, in the consolidated statements of income. During fiscal year 2018, acquisition-related items expense includes $172 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities, as well as information technology system implementation and benefits harmonization, partially offset by changes in fair value of contingent consideration as a result of revised revenue forecasts and the timing of anticipated regulatory milestones.

During fiscal year 2017, the Company recognized acquisition-related items expense of $230 million, including $10 million recognized within *cost of products sold*, in the consolidated statements of income. During fiscal year 2017, acquisition-related items expense includes $225 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities, as well as information technology system implementation and benefits harmonization, $23 million of accelerated or incremental stock compensation expense, and expenses incurred in connection with the HeartWare acquisition and planned divestiture of the Patient Care, Deep Vein, Thrombosis, and Nutritional Insufficiency businesses, partially offset by changes in fair value of contingent consideration as a result of revised revenue forecasts and the timing of anticipated regulatory milestones.

During fiscal year 2016, the Company recognized acquisition-related items expense of $283 million, including $219 million of costs associated with the integration of Covidien manufacturing, distribution, and administrative facilities, as well as information technology system implementation and benefits harmonization, and $58 million of accelerated or incremental stock compensation expense.

Contingent Consideration

The fair value of contingent consideration at April 27, 2018 and April 28, 2017 was $173 million and $246 million, respectively. At April 27, 2018, $65 million was reflected in *other liabilities* and $108 million was reflected in *other accrued expenses* in the consolidated balance sheets. At April 28, 2017, $180 million was reflected in *other liabilities* and $66 million was reflected in *other accrued expenses* in the consolidated balance sheets.

The following table provides a reconciliation of the beginning and ending balances of contingent consideration:

	Fiscal Year	
(in millions)	2018	2017
Beginning Balance	$ 246	$ 377
Purchase price contingent consideration	28	28
Contingent consideration payments	(72)	(76)
Change in fair value of contingent consideration	(29)	(83)
Ending Balance	$ 173	$ 246

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

(in millions)	Fair Value at April 27, 2018	Valuation Technique	Unobservable Input	Range
			Discount rate	11.5%-32.5%
Revenue-based payments	$ 90	Discounted cash flow	Probability of payment	30%-100%
			Projected fiscal year of payment	2019-2026
			Discount rate	5.5%
Product development-based payments	$ 83	Discounted cash flow	Probability of payment	75%-100%
			Projected fiscal year of payment	2019-2026

Note 3 Divestiture and Divestiture-Related Items

Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency Businesses

In April 2017, the Company entered into a definitive agreement for the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses within the Minimally Invasive Therapies Group segment to Cardinal Health, Inc. (Cardinal). The divestiture was completed on July 29, 2017. As a result of the transaction, the Company received proceeds of $6.1 billion, which was recorded in *proceeds from sale of businesses* in the consolidated statements of cash flows and recognized a before-tax gain of $697 million, which was recognized within *gain on sale of businesses* in the consolidated statements of income. Among the product lines included in the divestiture were the dental and animal health, chart paper, wound care, incontinence, electrodes, SharpSafety, thermometry, perinatal protection, blood collection, compression, and enteral feeding offerings. The divestiture also included 17 dedicated manufacturing sites. In connection with the transaction, the Company entered into Transition Service Agreements (TSAs) and Transition Manufacturing Agreements (TMAs) with Cardinal

designed to ensure and facilitate an orderly transfer of business operations. The TSAs are primarily related to administrative services and continue for 12 months from the divestiture date, with some TSAs extendable beyond the original 12 month period per the original agreement. Certain of the TSAs have been extended beyond the initial 12 month period in accordance with the provisions of the original agreement. Under the TMAs, both the Company and Cardinal will manufacture and supply certain products to each other for a transition period of up to 5 years.

The divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses did not meet the criteria to be classified as discontinued operations, and as such, the results of operations of these businesses were included within net income through the date of the divestiture. The Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses met the criteria to be classified as held for sale in the fourth quarter of fiscal year 2017, at which time the Company ceased depreciation and amortization of property, plant, and equipment and intangible assets classified as held for sale. The following table presents information related to the assets and liabilities that were classified as held for sale in the consolidated balance sheets:

(in millions)	April 28, 2017
Inventories, net	$ 371
Property, plant, and equipment, net	689
Goodwill	2,910
Other intangible assets, net	2,320
TOTAL ASSETS HELD FOR SALE	**$ 6,290**
Other accrued expenses	$ 34
Accrued compensation and retirement benefits	12
Deferred tax liabilities	707
Other liabilities	1
TOTAL LIABILITIES HELD FOR SALE	**$ 754**

Divestiture-Related Items

Divestiture-related items include expenses incurred in connection with the divestiture of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses. During fiscal year 2018, the Company recognized divestiture-related items expense of $114 million, primarily comprised of expenses incurred for professional services, including banker, legal, tax, and advisory fees, and $16 million of accelerated stock compensation expense related to the acceleration of the vesting period for employees that transferred with the divestiture. There was no divestiture-related items expense for fiscal years 2017 or 2016.

Note 4 Restructuring Charges

Enterprise Excellence

In the third quarter of fiscal year 2018, the Company announced its Enterprise Excellence restructuring program, which is expected to leverage the Company's global size and scale, as well as enhance the customer and employee experience, with a focus on three objectives: global operations, functional optimization, and commercial optimization. Primary activities of the restructuring program include integrating and enhancing global manufacturing and supply processes, systems and site presence, enhancing and leveraging global operating models across several enabling functions, and optimizing certain commercial processes, systems, and models.

The Company estimates that, in connection with its Enterprise Excellence restructuring program, it will recognize pre-tax exit and disposal costs and other costs associated with the restructuring program across all segments of approximately $1.6 billion to $1.8 billion, the majority of which are expected to be incurred by the end of fiscal year 2022. Approximately half of the estimated charges are related to employee termination benefits. The remaining restructuring charges are costs associated with the restructuring program, such as salaries for employees supporting the program and consulting expenses. These charges are recognized within *restructuring charges, net, cost of products sold,* and *selling, general, and administrative expense* in the consolidated statements of income. During fiscal year 2018, the Company recognized $96 million in charges.

The following table summarizes the activity related to the Enterprise Excellence restructuring program for fiscal year 2018:

(in millions)	Employee Termination Benefits	Associated Costs[1]	Total
APRIL 28, 2017	**$ —**	**$ —**	**$ —**
Charges	35	61	96
Cash payments	(8)	(59)	(67)
APRIL 27, 2018	**$ 27**	**$ 2**	**$ 29**

(1) Associated costs include costs incurred as a direct result of the restructuring program, such as salaries for employees supporting the program and consulting expenses. For fiscal year 2018, $28 million was recognized within *cost of products sold* and $33 million was recognized within *selling, general, and administrative expense* in the consolidated statements of income.

Cost Synergies

The cost synergies program related to administrative office optimization, manufacturing and supply chain infrastructure, and certain general and administrative savings was achieved as part of the Covidien integration and completed in the third quarter of fiscal year 2018. Restructuring charges incurred throughout the life of the initiative affecting all segments were primarily related to employee termination costs and costs related to manufacturing and facility closures.

A summary of the restructuring accrual and related activity is presented below:

(in millions)	Employee Termination Benefits	Asset Write-downs	Other Costs	Total
APRIL 24, 2015	**$ 136**	**$ —**	**$ 7**	**$ 143**
Charges	248	23	61	332
Cash payments	(153)	—	(31)	(184)
Settled non-cash	—	(23)	—	(23)
Accrual adjustments	(18)	—	—	(18)
APRIL 29, 2016	**$ 213**	**$ —**	**$ 37**	**$ 250**
Charges	287	27	54	368
Cash payments	(179)	—	(53)	(232)
Settled non-cash	—	(27)	—	(27)
Accrual adjustments	(60)	—	(8)	(68)
APRIL 28, 2017	**$ 261**	**$ —**	**$ 30**	**$ 291**
Charges	25	—	20	45
Cash payments	(132)	—	(32)	(164)
Accrual adjustments	(38)	—	4	(34)
APRIL 27, 2018	**$ 116**	**$ —**	**$ 22**	**$ 138**

For fiscal year 2018, the Company recognized $45 million in charges, partially offset by accrual adjustments of $34 million. Accrual adjustments related to certain employees identified for termination finding other positions within the Company, cancellations of employee terminations, and employee termination benefits being less than initially estimated. For fiscal year 2018, charges included $12 million recognized within *cost of products sold* and $4 million recognized within *selling, general and administrative expense* in the consolidated statements of income.

For fiscal year 2017, the Company recognized $441 million in charges, which included $73 million of incremental defined benefit pension and post-retirement related expenses for employees that accepted voluntary early retirement packages. These costs are not included in the table summarizing the restructuring costs above, because they are associated with costs that are accounted for under the pension and post-retirement rules. See Note 16 for further discussion on the incremental defined benefit pension and post-retirement related expenses. The charges recognized during fiscal year 2017 were partially offset by accrual adjustments of $68 million. Accrual adjustments relate to certain employees identified for termination finding other positions within the Company, cancellations of employee terminations, and employee termination benefits being less than initially estimated. For fiscal year 2017, asset write-downs included $17 million of property, plant, and equipment impairments. Fiscal year 2017 asset write-downs also included $10 million of inventory write-offs of discontinued product lines recognized within *cost of products sold* in the consolidated statements of income.

For fiscal year 2016, the Company recognized $332 million in charges, partially offset by accrual adjustments of $18 million. Accrual adjustments relate to certain employees identified for termination finding other positions within the Company, cancellations of employee terminations, and employee termination benefits being less than initially estimated. For fiscal year 2016, asset write-downs included $14 million of property, plant, and equipment impairments. Fiscal year 2016 assets write-downs also included $9 million of inventory write-offs of discontinued product lines recognized within *cost of products sold* in the consolidated statements of income.

Note 5 Special Charge

Continuing the Company's commitment to improve the health of people and communities throughout the world, the Company recognized a charge of $80 million in fiscal year 2018 and $100 million in fiscal year 2017 for charitable contributions to the Medtronic Foundation.

Note 6 Financial Instruments

The Company holds investments, including marketable debt and equity securities, that are classified and accounted for as available-for-sale and are remeasured on a recurring basis. The Company also holds cost method, equity method, and other investments which are measured at fair value on a nonrecurring basis. Refer to Note 1 for information regarding valuation techniques and inputs used in the fair value measurements.

The following table summarizes the Company's investments by significant investment category and consolidated balance sheet classification at April 27, 2018:

	Valuation				Balance Sheet Classification	
(in millions)	Cost	Unrealized Gains	Unrealized Losses	Fair Value	Investments	Other Assets
Available-for-sale securities						
Level 1:						
U.S. government and agency securities	$ 732	$ —	$ (26)	$ 706	$ 706	$ —
Marketable equity securities	63	99	—	162	—	162
Total Level 1	795	99	(26)	868	706	162
Level 2:						
Corporate debt securities	4,179	20	(75)	4,124	4,124	—
U.S. government and agency securities	848	—	(24)	824	824	—
Mortgage-backed securities	725	2	(34)	693	693	—
Non-U.S. government and agency securities	74	—	(1)	73	73	—
Other asset-backed securities	358	—	(2)	356	356	—
Debt funds	739	—	(154)	585	585	—
Total Level 2	6,923	22	(290)	6,655	6,655	—
Level 3:						
Auction rate securities	47	—	(3)	44	—	44
Total Level 3	47	—	(3)	44	—	44
Investments measured at net asset value[(1)]:						
Debt funds	199	—	(2)	197	197	—
Total available-for-sale securities	7,964	121	(321)	7,764	7,558	206
Cost method, equity method, and other investments:						
Level 3:						
Cost method, equity method, and other investments	353	—	—	N/A	—	353
Total Level 3:	353	—	—	N/A	—	353
Total cost method, equity method, and other investments	353	—	—	N/A	—	353
TOTAL INVESTMENTS	**$ 8,317**	**$ 121**	**$ (321)**	**$ 7,764**	**$ 7,558**	**$ 559**

(1) Certain investments that are measured at the net asset value per share (or its equivalent) as a practical expedient are excluded from the fair value hierarchy. The fair value amounts presented herein are intended to permit reconciliation to the consolidated balance sheets.

The following table summarizes the Company's investments by significant investment category and consolidated balance sheet classification at April 28, 2017:

	Valuation				Balance Sheet Classification	
(in millions)	Cost	Unrealized Gains	Unrealized Losses	Fair Value	Investments	Other Assets
Available-for-sale securities:						
Level 1:						
U.S. government and agency securities	$ 613	$ 2	$ (5)	$ 610	$ 610	$ —
Marketable equity securities	58	49	(4)	103	—	103
Total Level 1	671	51	(9)	713	610	103
Level 2:						
Corporate debt securities	4,643	62	(23)	4,682	4,682	—
U.S. government and agency securities	860	—	(10)	850	850	—
Mortgage-backed securities	766	9	(16)	759	759	—
Non-U.S. government and agency securities	49	—	—	49	49	—
Other asset-backed securities	228	1	(1)	228	228	—
Debt funds	1,246	4	(178)	1,072	1,072	—
Total Level 2	7,792	76	(228)	7,640	7,640	—
Level 3:						
Auction rate securities	47	—	(3)	44	—	44
Corporate debt securities	1	—	—	1	—	1
Total Level 3	48	—	(3)	45	—	45
Investments measured at net asset value[1]:						
Debt funds	497	—	(6)	491	491	—
Total available-for-sale securities	9,008	127	(246)	8,889	8,741	148
Cost method, equity method, and other investments:						
Level 3:						
Cost method, equity method, and other investments	589	—	—	N/A	—	589
Total Level 3	589	—	—	N/A	—	589
Total cost method, equity method, and other investments	589	—	—	N/A	—	589
TOTAL INVESTMENTS	**$ 9,597**	**$ 127**	**$ (246)**	**$ 8,889**	**$ 8,741**	**$ 737**

(1) Certain investments that are measured at the net asset value per share (or its equivalent) as a practical expedient are excluded from the fair value hierarchy. The fair value amounts presented herein are intended to permit reconciliation to the consolidated balance sheets.

Marketable Debt and Equity Securities

The following tables present the gross unrealized losses and fair values of the Company's available-for-sale securities that have been in a continuous unrealized loss position deemed to be temporary, aggregated by investment category, at April 27, 2018 and April 28, 2017:

	April 27, 2018			
	Less than 12 months		More than 12 months	
(in millions)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate debt securities	$ 2,620	$ (58)	$ 272	$ (17)
U.S. government and agency securities	762	(33)	374	(17)
Mortgage-backed securities	442	(15)	102	(19)
Non-U.S. government and agency securities	32	—	36	(1)
Other asset-backed securities	238	(1)	63	(1)
Debt funds	7	—	775	(156)
Auction rate securities	—	—	44	(3)
TOTAL	**$ 4,101**	**$ (107)**	**$ 1,666**	**$ (214)**

	April 28, 2017			
	Less than 12 months		More than 12 months	
(in millions)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate debt securities	$ 1,263	$ (19)	$ 46	$ (4)
U.S. government and agency securities	896	(15)	—	—
Mortgage-backed securities	276	(4)	95	(12)
Other asset-backed securities	127	(1)	—	—
Debt funds	173	(1)	1,125	(183)
Auction rate securities	—	—	44	(3)
Marketable equity securities	14	(3)	2	(1)
TOTAL	**$ 2,749**	**$ (43)**	**$ 1,312**	**$ (203)**

The following table presents the unobservable inputs utilized in the fair value measurement of the auction rate securities classified as Level 3 at April 27, 2018:

	Valuation Technique	Unobservable Input	Range (Weighted Average)
Auction rate securities	Discounted cash flow	Years to principal recovery Illiquidity premium	2 yrs. - 12 yrs. (3 yrs.) 6%

The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. The Company's policy is to recognize transfers into and out of levels within the fair value hierarchy at the end of the fiscal quarter in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, or Level 3 during fiscal years 2018 or 2017. When a determination is made to classify an asset or liability within Level 3, the determination is based upon the significance of the unobservable inputs to the overall fair value measurement.

The following tables provide a reconciliation of the beginning and ending balances of items measured at fair value on a recurring basis that used significant unobservable inputs (Level 3):

(in millions)	Total Level 3 Investments	Corporate Debt Securities	Auction Rate Securities
April 29, 2016	$ 45	$ 1	$ 44
Settlements	—	—	—
April 28, 2017	45	1	44
Settlements	(1)	(1)	—
APRIL 27, 2018	**$ 44**	**$ —**	**$ 44**

Activity related to the Company's investment portfolio was as follows:

	Fiscal Year					
	2018		2017		2016	
(in millions)	Debt[1]	Equity[2]	Debt[1]	Equity[2]	Debt[1]	Equity[2]
Proceeds from sales	$ 4,114	$ 113	$ 5,224	$ 132	$ 9,881	$ 42
Gross realized gains	30	15	75	49	36	38
Gross realized losses	(25)	—	(56)	—	(53)	—
Recognized impairment losses	—	(231)	—	(30)	—	(114)

(1) Includes available-for-sale debt securities and debt funds.
(2) Includes marketable equity securities, cost method, equity method, exchange-traded funds, and other investments.

Credit losses represent the difference between the present value of cash flows expected to be collected on certain mortgage-backed securities and auction rate securities and the amortized cost of these securities. Based on the Company's assessment of the credit quality of the underlying collateral and credit support available to each of the remaining securities in which the Company is invested, the Company believes it has recognized all necessary other-than-temporary impairments as the Company does not have the intent to sell, nor is it more likely than not that the Company will be required to sell, before recovery of the amortized cost.

At April 27, 2018 and April 28, 2017, the credit loss portion of other-than temporary impairments on debt securities was not significant. The total reductions for available-for-sale debt securities sold during fiscal years 2018 and 2017 were not significant.

The April 27, 2018 balance of available-for-sale debt securities, excluding debt funds which have no single maturity date, by contractual maturity is shown in the following table. Within the table, maturities of mortgage-backed securities have been allocated based upon timing of estimated cash flows assuming no change in the current interest rate environment. Actual maturities may differ from contractual maturities, because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

(in millions)	April 27, 2018
Due in one year or less	$ 887
Due after one year through five years	2,687
Due after five years through ten years	3,138
Due after ten years	108
TOTAL DEBT SECURITIES	**$ 6,820**

The Company holds investments in marketable equity securities, which are classified as *other assets* in the consolidated balance sheets. At April 27, 2018 and April 28, 2017, the aggregate carrying amount of these investments was $162 million and $103 million, respectively. The Company did not recognize any significant impairment charges related to marketable equity securities during fiscal years 2018, 2017, or 2016.

Cost Method, Equity Method, and Other Investments

The Company holds investments in equity and other securities that are accounted for using the cost or equity method, which are classified as *other assets* in the consolidated balance sheets. At April 27, 2018 and April 28, 2017, the aggregate carrying amount of equity and other securities accounted for using the cost or equity method was $353 million and $589 million, respectively. Cost and equity method investments are measured at fair value on a nonrecurring basis. Changes in circumstance or the occurrence of events that suggest the Company's investment may not be recoverable are assessed quarterly. If events or changes in circumstances are identified that may have a material adverse effect on the fair value of the investment, the investment is assessed for impairment. Cost and equity method investments are included within Level 3 of the fair value hierarchy due to the use of significant unobservable inputs to determine fair value. To determine the fair value of these investments, the Company uses all pertinent financial information available related to the investees, including financial statements, market participant valuations from recent and proposed equity offerings, and other third-party data.

During fiscal year 2018, the Company received bids from potential buyers and investors for some or all of its ownership in a portfolio of selected investments, which indicated that the fair values of certain of the underlying cost and equity method investments in the portfolio may be below the respective carrying values. The Company determined that the decline in the fair values was other-than-temporary given the uncertainty regarding the Company's intent to hold the investments for a period of time that would be sufficient to recover the carrying values. As a result, the Company recognized impairment charges of $227 million during fiscal year 2018, which were recognized within *investment loss* in the consolidated statements of income. The fair values of the investments were determined based on Level 3 inputs. The carrying value of the investments prior to recognizing the impairment charges was $317 million. In April 2018, the Company transferred the portfolio of investments into a newly created, wholly-owned entity. In a subsequent transaction, the Company sold a significant interest in the new entity in exchange for cash proceeds of $72 million. The Company's remaining investment in the entity of $18 million is accounted for using the equity method. No gain or loss was recognized on the transaction.

During fiscal year 2016, the Company recognized an impairment charge of $70 million related to the impairment of a debt investment accounted for using the cost method, which was recognized within *investment loss* in the consolidated statements of income. There were no other significant impairment charges recognized during fiscal years 2018, 2017, and 2016.

Note 7 Goodwill and Other Intangible Assets

Goodwill

The following table presents the changes in the carrying amount of goodwill by segment:

(in millions)	Cardiac and Vascular Group	Minimally Invasive Therapies Group	Restorative Therapies Group	Diabetes Group	Total
APRIL 29, 2016	**$ 6,243**	**$ 23,784**	**$ 9,620**	**$ 1,853**	**$ 41,500**
Goodwill as a result of acquisitions	457	242	33	—	732
Currency translation	(49)	(705)	(53)	—	(807)
Goodwill reclassified to noncurrent assets held for sale	—	(2,910)	—	—	(2,910)
APRIL 28, 2017	**6,651**	**20,411**	**9,600**	**1,853**	**38,515**
Goodwill as a result of acquisitions	6	10	9	27	52
Purchase accounting adjustments	54	—	—	—	54
Currency translation	80	734	108	—	922
APRIL 27, 2018	**$ 6,791**	**$ 21,155**	**$ 9,717**	**$ 1,880**	**$ 39,543**

The Company did not recognize any goodwill impairments during fiscal years 2018, 2017, or 2016.

Intangible Assets

The following table presents the gross carrying amount and accumulated amortization of intangible assets:

(in millions)	April 27, 2018 Gross Carrying Amount	April 27, 2018 Accumulated Amortization	April 28, 2017 Gross Carrying Amount	April 28, 2017 Accumulated Amortization
Definite-lived:				
Customer-related	$ 16,949	$ (3,139)	$ 16,862	$ (2,166)
Purchased technology and patents	11,569	(4,441)	11,461	(3,690)
Trademarks and tradenames	822	(569)	772	(461)
Other	94	(52)	77	(42)
TOTAL	**$ 29,434**	**$ (8,201)**	**$ 29,172**	**$ (6,359)**
Indefinite-lived:				
IPR&D	$ 490		$ 594	

The Company did not recognize any definite-lived intangible asset impairments during fiscal years 2018, 2017, or 2016. During fiscal year 2018, the Company recognized impairment losses on indefinite-lived intangibles of $68 million as a result of the discontinuation of certain IPR&D projects within the Restorative Therapies Group segment, which were recognized within *other expense, net* in the consolidated statements of income. The Company did not recognize any significant indefinite-lived asset impairments during fiscal years 2017 or 2016. Due to the nature of IPR&D projects, the Company may experience future delays or failures to obtain regulatory approvals to conduct clinical trials, failures of such clinical trials, delays or failures to obtain required market clearances or other failures to achieve a commercially viable product, or the discontinuation of certain projects, and as a result, may recognize impairment losses in the future.

Amortization

Intangible asset amortization expense for fiscal years 2018, 2017, and 2016 was $1.8 billion, $2.0 billion, and $1.9 billion, respectively. Estimated aggregate amortization expense by fiscal year based on the current carrying value and remaining estimated useful lives of definite-lived intangible assets at April 27, 2018, excluding any possible future amortization associated with acquired IPR&D which has not met technological feasibility, is as follows:

(in millions)	Amortization Expense
2019	$ 1,633
2020	1,583
2021	1,568
2022	1,548
2023	1,481

Note 8 Financing Arrangements

Current debt obligations consisted of the following:

(in millions)	April 27, 2018	April 28, 2017
Bank borrowings	$ 355	$ 396
Capital lease obligations	5	5
Commercial paper	698	901
1.700 percent two-year 2017 senior notes	1,000	—
Three-year term loan	—	3,000
6.000 percent ten-year 2008 CIFSA senior notes	—	1,150
1.500 percent three-year 2015 senior notes	—	1,000
1.375 percent five-year 2013 senior notes	—	1,000
3.500 percent seven-year 2010 HTWR senior notes	—	42
Debt premium, net	—	26
CURRENT DEBT OBLIGATIONS	**$ 2,058**	**$ 7,520**

Bank Borrowings

Outstanding bank borrowings at April 27, 2018 were short-term advances to certain non-U.S. subsidiaries under credit agreements with various banks. Bank borrowings consist primarily of borrowings in Japanese Yen at interest rates ranging from 0.17% to 0.21%, and the borrowing is a natural hedge of currency and exchange rate risk.

Commercial Paper

On January 26, 2015, Medtronic Global Holdings S.C.A. (Medtronic Luxco), an entity organized under the laws of Luxembourg, entered into various agreements pursuant to which Medtronic Luxco may issue unsecured commercial paper notes (the 2015 Commercial Paper Program) on a private placement basis up to a maximum aggregate amount outstanding at any time of $3.5 billion. The Company and Medtronic, Inc. have guaranteed the obligations of Medtronic Luxco under the 2015 Commercial Paper Program.

Commercial paper outstanding at April 27, 2018 was $698 million, as compared to $901 million at April 28, 2017. During fiscal years 2018 and 2017, the weighted average original maturity of the commercial paper outstanding was approximately 28 days and 39 days, respectively, and the weighted average interest rate was 1.46 percent and 0.89 percent, respectively. The issuance of commercial paper reduces the amount of credit available under the Company's existing Credit Facility, defined below.

Line of Credit

The Company has a $3.5 billion five year revolving syndicated line of credit facility (Credit Facility), by and among Medtronic, Medtronic, Inc., Medtronic Luxco, the lenders from time to time party thereto and Bank of America, N.A., as administrative agent and issuing bank, which expires in January 2020. The Credit Facility provides the Company with the ability to increase its borrowing capacity by an additional $500 million at any time during the term of the agreement. At each anniversary date of the Credit Facility, but not more than twice prior to the maturity date, the Company could also request a one-year extension of the maturity date. The Company, Medtronic Luxco, and Medtronic, Inc. guarantee the obligations under the Amended and Restated Revolving Credit Agreement. At April 27, 2018 and April 28, 2017, no amounts were outstanding on the committed line of credit.

Interest rates on advances on the Credit Facility are determined by a pricing matrix, based on the Company's long-term debt ratings, assigned by Standard & Poor's Ratings Services and Moody's Investors Service. Facility fees are payable on the Credit Facility and are determined in the same manner as the interest rates. The agreements also contain customary covenants, all of which the Company remained in compliance with at April 27, 2018.

Term Loan

On January 26, 2015, Medtronic, Inc. borrowed $3.0 billion for a term of three years under a senior unsecured term loan credit agreement (the "Term Loan Credit Agreement"), among Medtronic, Inc., Medtronic, Medtronic Luxco, the lenders from time to time party thereto and Bank of America, N.A., as administrative agent. The Term Loan Credit Agreement was entered into to finance, in part, the cash component of the acquisition of Covidien and certain transaction expenses. Medtronic and Medtronic Luxco provided guarantees of the obligations of Medtronic, Inc. under the Term Loan Credit Agreement. During fiscal year 2018, the Company repaid its senior unsecured term loan, including interest, for $3.0 billion.

Long-term debt consisted of the following:

(in millions, except interest rates)	Maturity by Fiscal Year	April 27, 2018 Amount	April 27, 2018 Effective Interest Rate	April 28, 2017 Amount	April 28, 2017 Effective Interest Rate
5.600 percent ten-year 2009 senior notes	2019	$ —	5.61%	$ 400	5.61%
1.700 percent two-year 2017 senior notes	2019	—	1.74	1,000	1.74
4.450 percent ten-year 2010 senior notes	2020	—	4.47	766	4.47
Floating rate five-year 2015 senior notes	2020	500	2.92	500	1.98
2.500 percent five-year 2015 senior notes	2020	2,500	2.52	2,500	2.52
4.200 percent ten-year 2010 CIFSA senior notes	2021	600	2.22	600	2.22
4.125 percent ten-year 2011 senior notes	2021	500	4.19	500	4.19
3.150 percent seven-year 2015 senior notes	2022	2,500	3.18	2,500	3.18
3.125 percent ten-year 2012 senior notes	2022	675	3.16	675	3.16
3.200 percent ten-year 2012 CIFSA senior notes	2023	650	2.66	650	2.66
2.750 percent ten-year 2013 senior notes	2023	530	2.78	530	2.78
2.950 percent ten-year 2013 CIFSA senior notes	2024	310	2.67	310	2.67
3.625 percent ten-year 2014 senior notes	2024	850	3.65	850	3.65
3.500 percent ten-year 2015 senior notes	2025	4,000	3.61	4,000	3.61
3.350 percent ten-year 2017 senior notes	2027	850	3.35	850	3.35
4.375 percent twenty-year 2015 senior notes	2035	2,382	4.44	2,382	4.44
6.550 percent thirty-year 2007 CIFSA senior notes	2038	374	3.75	374	3.75
6.500 percent thirty-year 2009 senior notes	2039	300	6.52	300	6.52
5.550 percent thirty-year 2010 senior notes	2040	500	5.56	500	5.56
4.500 percent thirty-year 2012 senior notes	2042	400	4.51	400	4.51
4.000 percent thirty-year 2013 senior notes	2043	325	4.12	325	4.12
4.625 percent thirty-year 2014 senior notes	2044	650	4.67	650	4.67
4.625 percent thirty-year 2015 senior notes	2045	4,150	4.63	4,150	4.63
Bank borrowings	2020-2022	125	3.99	139	1.28
Debt premium, net	2020-2045	120	—	135	—
Capital lease obligations	2020-2025	21	4.46	23	4.81
Interest rate swaps	2021-2022	(6)	—	40	—
Deferred financing costs	2020-2045	(107)	—	(128)	—
LONG-TERM DEBT		**$ 23,699**		**$ 25,921**	

Senior Notes

The Company has outstanding unsecured senior obligations, described as senior notes in the tables above (collectively, the Senior Notes). The Senior Notes rank equally with all other unsecured and unsubordinated indebtedness of the Company. The indentures under which the Senior Notes were issued contain customary covenants, all of which the Company remained in compliance with at April 27, 2018. The Company used the net proceeds from the sale of the Senior Notes primarily for general corporate purposes, which includes the repayment of other indebtedness of the Company.

In April 2018, the Company completed an early redemption of approximately $1.2 billion of Senior Notes for $1.2 billion of total consideration. The Company recognized a loss on the debt redemption of $38 million, which included cash premiums and accelerated amortization of deferred financing costs. The loss was recognized in *interest expense, net* in the consolidated statements of income.

In March 2017, Medtronic Luxco issued two tranches of Senior Notes with an aggregate face value of $1.850 billion (collectively, the 2017 Senior Notes). The first tranche consisted of $1.0 billion of 1.700 percent Senior Notes due in fiscal year 2019. The second tranche consisted of $850 million of 3.350 percent Senior Notes due in fiscal year 2027. Concurrent with the offering by Medtronic Luxco, Medtronic, Inc. issued $150 million in principal amount of its 4.625 percent Senior Notes due in fiscal year 2045 (the Reopening Notes). The Reopening Notes are a further issuance of, and form a single series with, the $4.0 billion principal amount of Medtronic, Inc.'s previously outstanding 4.625 percent Senior Notes due in fiscal year 2045. Interest on the 2017 Senior Notes and the Reopening Notes is payable semi-annually. The Company used the net proceeds from the sale of the 2017 Senior Notes and the Reopening Notes for general corporate purposes.

In April 2016, the Company completed a cash tender offer and redemption of $2.7 billion of Senior Notes for $3.0 billion of total consideration. The Company recognized a loss on debt extinguishment of $163 million, which included cash premiums

and accelerated amortization of deferred financing costs and debt discounts and premiums. The loss on debt extinguishment was recognized in *interest expense, net* in the consolidated statements of income. In addition to the loss on debt extinguishment, we recognized a loss of $20 million due to the acceleration of net losses on forward starting interest rate derivatives, which were terminated at the time of original debt issuances relating to the portion of debt extinguished in the tender offer, which was recognized in *interest expense, net* in the consolidated statements of income.

At April 27, 2018 and April 28, 2017, the Company had interest rate swap agreements designated as fair value hedges of certain underlying fixed-rate obligations, including the Company's $500 million 4.125 percent 2011 Senior Notes and $675 million 3.125 percent 2012 Senior Notes. Refer to Note 9 for additional information regarding the interest rate swap agreements.

Contractual maturities of debt for the next five fiscal years and thereafter, excluding deferred financing costs, debt premium, net, and the fair value of outstanding interest rate swap agreements are as follows:

(in millions)		
2019	$	2,058
2020		3,006
2021		1,122
2022		3,275
2023		1,192
Thereafter		15,097
Total debt		25,750
Less: Current portion of debt		2,058
LONG-TERM PORTION OF DEBT	**$**	**23,692**

Financial Instruments Not Measured at Fair Value

At April 27, 2018, the estimated fair value of the Company's Senior Notes was $25.1 billion compared to a principal value of $24.5 billion. At April 28, 2017 the estimated fair value was $30.4 billion compared to a principal value of $28.9 billion. The fair value was estimated using quoted market prices for the publicly registered Senior Notes, which are classified as Level 2 within the fair value hierarchy. The fair values and principal values consider the terms of the related debt and exclude the impacts of debt discounts and hedging activity.

Note 9 Derivatives and Currency Exchange Risk Management

The Company uses operational and economic hedges, as well as currency exchange rate derivative contracts and interest rate derivative instruments, to manage the impact of currency exchange and interest rate changes on earnings and cash flows. In addition, the Company uses cross currency interest rate swaps to manage currency risk related to certain debt. In order to minimize earnings and cash flow volatility resulting from currency exchange rate changes, the Company enters into derivative instruments, principally forward currency exchange rate contracts. These contracts are designed to hedge anticipated foreign currency transactions and changes in the value of specific assets and liabilities. At inception of the contract, the derivative is designated as either a freestanding derivative or a cash flow hedge. The cash flows related to all of the Company's derivative instruments are reported as operating activities in the consolidated statements of cash flows. The primary currencies of the derivative instruments are the Euro, Japanese Yen, and British Pound. The Company does not enter into currency exchange rate derivative contracts for speculative purposes. The gross notional amount of all currency exchange rate derivative instruments outstanding was $11.5 billion and $10.8 billion at April 27, 2018 and April 28, 2017, respectively.

The following information explains the various types of derivatives and financial instruments used by the Company, reasons the Company uses such instruments, and the impact such instruments have on the Company's consolidated balance sheets and statements of income.

Freestanding Derivative Contracts

Freestanding derivative contracts are primarily used to offset the Company's exposure to the change in value of specific foreign-currency-denominated assets and liabilities and to offset variability of cash flows associated with forecasted transactions denominated in foreign currencies. The gross notional amount of the Company's currency exchange rate contracts outstanding at April 27, 2018 and April 28, 2017 was $5.2 billion and $4.9 billion, respectively. The Company's freestanding currency exchange rate contracts are not designated as hedges, and therefore, changes in the value of these contracts are recognized in earnings, thereby offsetting the current earnings effect of the related change in value of foreign-currency-denominated assets, liabilities, and cash flows.

The Company also entered into total return swaps in fiscal year 2018, which are used to hedge the liability of a non-qualified, deferred compensation plan. The gross notional amount of the Company's total return swaps outstanding at April 27, 2018 was $210 million. The Company's total return swaps are not designated as hedges, and therefore, changes in the value of these instruments are recognized in earnings.

The amounts and classification of the gains (losses) in the consolidated statements of income related to derivative instruments, not designated as hedging instruments, for fiscal years 2018, 2017, and 2016 are as follows:

		Fiscal Year		
(in millions)	Classification	2018	2017	2016
Currency exchange rate contracts	Other expense, net	$ (253)	$ 54	$ 33
Total return swaps	Other expense, net	27	—	—
TOTAL		**$ (226)**	**$ 54**	**$ 33**

Cash Flow Hedges

Currency Exchange Rate Risk

Forward contracts designated as cash flow hedges are designed to hedge the variability of cash flows associated with forecasted transactions denominated in a foreign currency that will take place in the future. For derivative instruments that are designated and qualify as a cash flow hedge, the effective portion of the gain or loss on the derivative instrument is reported as a component of *accumulated other comprehensive loss*. The effective portion of the gain or loss on the derivative instrument is reclassified into earnings and is included in *other expense, net or cost of products sold* in the consolidated statements of income in the same period or periods during which the hedged transaction affects earnings.

No gains or losses relating to ineffectiveness of cash flow hedges were recognized in earnings during fiscal years 2018, 2017, or 2016. No components of the hedge contracts were excluded in the measurement of hedge ineffectiveness, and no hedges were derecognized or discontinued during fiscal years 2018, 2017, or 2016. The gross notional amount of these contracts, designated as cash flow hedges, outstanding at April 27, 2018 and April 28, 2017 was $6.3 billion and $5.8 billion, respectively, and will mature within the subsequent two-year period.

The amount of gross gains (losses), classification of the gains (losses) in the consolidated statements of income, and the AOCI related to the effective portion of currency exchange rate contract derivative instruments designated as cash flow hedges for fiscal years 2018, 2017, and 2016 were as follows:

	Fiscal Year 2018			
	Recognized in AOCI	Recognized in Income		
(in millions)	Amount	Classification		Amount
Currency exchange rate contracts	$ (404)	Other expense, net	$	(69)

	Fiscal Year 2017			
	Recognized in AOCI	Recognized in Income		
(in millions)	Amount	Classification		Amount
Currency exchange rate contracts	$ 342	Other expense, net	$	173

	Fiscal Year 2016			
	Recognized in AOCI	Recognized in Income		
(in millions)	Amount	Classification		Amount
Currency exchange rate contracts	$ (165)	Other expense, net	$	405
		Cost of products sold		(37)
TOTAL	**$ (165)**		**$**	**368**

Forecasted Debt Issuance Interest Rate Risk

Forward starting interest rate derivative instruments designated as cash flow hedges are designed to manage the exposure to interest rate volatility with regard to future issuances of fixed-rate debt. The effective portion of the gains or losses on forward starting interest rate derivative instruments that are designated and qualify as cash flow hedges are reported as a component of *accumulated other comprehensive loss*. Beginning in the period in which the planned debt issuance occurs and the related derivative instruments are terminated, the effective portion of the gains or losses are then reclassified into *interest expense, net* over the term of the related debt. Any portion of the gains or losses that are determined to be ineffective is immediately recognized in *interest expense, net*.

During fiscal year 2017, in connection with the issuance of the 2017 Senior Notes, the Company terminated $300 million of fixed pay, forward starting interest rate swaps with a weighted average fixed rate of 3.10 percent. During fiscal year 2016, the Company terminated forward starting interest rate derivatives with a consolidated notional amount of $500 million, which were previously entered into in advance of a planned debt issuance that was no longer expected. During fiscal years 2017 and 2016, there were $21 million and $23 million, respectively, of unrealized gains recorded in *accumulated other comprehensive loss*.

No gains or losses related to the ineffectiveness of forward starting interest rate derivative instruments were recognized in *interest expense, net* during fiscal years 2017 and 2016. Additionally, during fiscal years 2017 and 2016, no components of the forward starting interest rate derivative instruments were excluded in the measurement of hedge ineffectiveness and no hedges were derecognized or discontinued. The reclassification

of the effective portion of the net losses from accumulated other comprehensive loss to *interest expense, net* was not significant.

At April 27, 2018 and April 28, 2017, the Company had $(207) million and $37 million, respectively, in after-tax net unrealized (losses) gains associated with cash flow hedging instruments recorded in accumulated other comprehensive loss. The Company expects that $111 million of after-tax net unrealized losses at April 27, 2018 will be recognized in the consolidated statements of income over the next 12 months.

Fair Value Hedges

Interest rate derivative instruments designated as fair value hedges are designed to manage the exposure to interest rate movements and to reduce borrowing costs by converting fixed-rate debt into floating-rate debt. Under these agreements, the Company agrees to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount.

Changes in the fair value of the derivative instrument are recognized in *interest expense, net*, and are offset by changes in the fair value of the underlying debt instrument. The gains (losses) from terminated interest rate swap agreements are recorded in *long-term debt*, increasing (decreasing) the outstanding balances of the debt, and amortized as a reduction of (addition to) interest expense, net over the remaining life of the related debt.

At both April 27, 2018 and April 28, 2017, the Company had interest rate swaps with gross notional amounts of $1.2 billion, designated as fair value hedges of underlying fixed-rate senior note obligations, including the Company's $500 million 4.125 percent 2011 Senior Notes due fiscal year 2021 and the $675 million 3.125 percent 2012 Senior Notes due fiscal year 2022.

At April 27, 2018, the market value of outstanding interest rate swap agreements was an unrealized loss of $6 million, as compared to an unrealized gain of $41 million at April 28, 2017. At April 27, 2018, the market value of the hedged items was an unrealized gain of $6 million, as compared to an unrealized loss of $41 million. The amounts were recorded in *other assets* with the offsets recorded in *long-term debt* on the consolidated balance sheets.

No significant hedge ineffectiveness was recognized as a result of these fair value hedges for fiscal years 2018, 2017, or 2016. In addition, the Company did not recognize any gains or losses during fiscal years 2018, 2017, or 2016 on firm commitments that no longer qualify as fair value hedges.

Balance Sheet Presentation

The following tables summarize the balance sheet classification and fair value of derivative instruments included in the consolidated balance sheets at April 27, 2018 and April 28, 2017. The fair value amounts are presented on a gross basis, and are segregated between derivatives that are designated and qualify as hedging instruments and those that are not designated and do not qualify as hedging instruments, and are further segregated by type of contract within those two categories.

	April 27, 2018			
	Derivative Assets		Derivative Liabilities	
(in millions)	Balance Sheet Classification	Fair Value	Balance Sheet Classification	Fair Value
Derivatives designated as hedging instruments				
Currency exchange rate contracts	Other current assets	$ 37	Other accrued expenses	$ 162
Interest rate contracts	Other assets	8	Other liabilities	14
Currency exchange rate contracts	Other assets	11	Other liabilities	51
Total derivatives designated as hedging instruments		$ 56		$ 227
Derivatives not designated as hedging instruments				
Currency exchange rate contracts	Other current assets	$ 31	Other accrued expenses	$ 25
Total return swaps	Other current assets	4	Other accrued expenses	—
Stock warrants	Other assets	21	Other liabilities	—
Cross currency interest rate contracts	Other assets	6	Other liabilities	6
Total derivatives not designated as hedging instruments		62		31
TOTAL DERIVATIVES		**$ 118**		**$ 258**

(in millions)	April 28, 2017			
	Derivative Assets		Derivative Liabilities	
	Balance Sheet Classification	Fair Value	Balance Sheet Classification	Fair Value
Derivatives designated as hedging instruments				
Currency exchange rate contracts	Other current assets	$ 152	Other accrued expenses	$ 43
Interest rate contracts	Other assets	41	Other liabilities	—
Currency exchange rate contracts	Other assets	48	Other liabilities	14
Total derivatives designated as hedging instruments		$ 241		$ 57
Derivatives not designated as hedging instruments				
Currency exchange rate contracts	Other current assets	$ 16	Other accrued expenses	$ 36
Cross currency interest rate contracts	Other assets	5	Other liabilities	11
Total derivatives not designated as hedging instruments		21		47
TOTAL DERIVATIVES		**$ 262**		**$ 104**

The following table provides information by level for the derivative assets and liabilities that are measured at fair value on a recurring basis:

(in millions)	April 27, 2018		April 28, 2017	
	Level 1	Level 2	Level 1	Level 2
Derivative assets	$ 79	$ 39	$ 216	$ 46
Derivative liabilities	238	20	93	11

The Company has elected to present the fair value of derivative assets and liabilities within the consolidated balance sheets on a gross basis, even when derivative transactions are subject to master netting arrangements and may otherwise qualify for net presentation. The following table provides information as if the Company had elected to offset the asset and liability balances of derivative instruments, netted in accordance with various criteria as stipulated by the terms of the master netting arrangements with each of the counterparties. Derivatives not subject to master netting arrangements are not eligible for net presentation.

(in millions)	April 27, 2018				
		Gross Amount Not Offset on the Balance Sheet			
	Gross Amount of Recognized Assets (Liabilities)	Financial Instruments	Cash Collateral (Received) Posted	Securities Collateral (Received) Posted	Net Amount
Derivative assets:					
Currency exchange rate contracts	$ 79	$ (61)	$ —	$ —	$ 18
Interest rate contracts	8	(6)	—	—	2
Total return swaps	4	—	—	—	4
Stock warrants	21	—	—	—	21
Cross currency interest rate contracts	6	(4)	—	—	2
	$ 118	$ (71)	$ —	$ —	$ 47
Derivative liabilities:					
Currency exchange rate contracts	$ (238)	$ 61	$ —	$ 74	$ (103)
Interest rate contracts	(14)	6	—	2	(6)
Cross currency interest rate contracts	(6)	4	—	—	(2)
	(258)	71	—	76	(111)
TOTAL	**$ (140)**	**$ —**	**$ —**	**$ 76**	**$ (64)**

(in millions)	Gross Amount of Recognized Assets (Liabilities)	Gross Amount Not Offset on the Balance Sheet: Financial Instruments	Gross Amount Not Offset on the Balance Sheet: Cash Collateral (Received) Posted	Gross Amount Not Offset on the Balance Sheet: Securities Collateral (Received) Posted	Net Amount
	April 28, 2017				
Derivative assets:					
Currency exchange rate contracts	$ 216	$ (58)	$ (55)	$ —	$ 103
Interest rate contracts	41	(15)	(5)	—	21
Cross currency interest rate contracts	5	(2)	—	—	3
	$ 262	$ (75)	$ (60)	$ —	$ 127
Derivative liabilities:					
Currency exchange rate contracts	$ (93)	$ 73	$ —	$ —	$ (20)
Cross currency interest rate contracts	(11)	2	—	—	(9)
	(104)	75	—	—	(29)
TOTAL	**$ 158**	**$ —**	**$ (60)**	**$ —**	**$ 98**

Concentrations of Credit Risk

Financial instruments, which potentially subject the Company to significant concentrations of credit risk, consist principally of interest-bearing investments, forward exchange derivative contracts, and trade accounts receivable. Global concentrations of credit risk with respect to trade accounts receivable are limited due to the large number of customers and their dispersion across many geographic areas. The Company monitors the creditworthiness of its customers to which it grants credit terms in the normal course of business.

The Company maintains cash and cash equivalents, investments, and certain other financial instruments (including currency exchange rate and interest rate derivative contracts) with various major financial institutions. The Company performs periodic evaluations of the relative credit standings of these financial institutions and limits the amount of credit exposure with any one institution. In addition, the Company has collateral credit agreements with its primary derivatives counterparties. Under these agreements, either party is required to post eligible collateral when the market value of transactions covered by the agreement exceeds specific thresholds, thus limiting credit exposure for both parties. At April 27, 2018, the Company posted net securities collateral of $76 million to its counterparties. At April 28, 2017, the Company received net cash collateral of $60 million from its counterparties. The cash collateral received was recorded in *cash and cash equivalents*, with the offset recorded as an increase in *other accrued expenses* on the consolidated balance sheets. The security collateral posted remained in *investments* on the consolidated balance sheets.

Note 10 Inventories

Inventory balances, net of reserves, were as follows:

(in millions)	April 27, 2018	April 28, 2017
Finished goods	$ 2,407	$ 2,211
Work-in-process	496	458
Raw materials	676	669
TOTAL	**$ 3,579**	**$ 3,338**

Note 11 Property, Plant, and Equipment

Property, plant, and equipment balances and corresponding estimated useful lives were as follows:

(in millions)	April 27, 2018	April 28, 2017	Estimated Useful Lives (in years)
Land and land improvements	$ 187	$ 186	Up to 20
Buildings and leasehold improvements	2,265	2,175	Up to 40
Equipment	6,749	6,435	Generally 3-7, up to 15
Construction in progress	1,058	895	—
Property, plant, and equipment	10,259	9,691	
Less: Accumulated depreciation	(5,655)	(5,330)	
Property, plant, and equipment, net	$ 4,604	$ 4,361	

Depreciation is recognized using the straight-line method over the estimated useful lives of the assets. Depreciation expense of $821 million, $937 million, and $889 million was recognized in fiscal years 2018, 2017, and 2016, respectively. Upon retirement or disposal of property, plant, and equipment, the costs and related amounts of accumulated depreciation or amortization are eliminated from the asset and accumulated depreciation accounts. The difference, if any, between the net asset value and the proceeds, is recognized in earnings.

Note 12 Shareholders' Equity

Share Capital

Medtronic plc is authorized to issue 2.6 billion Ordinary Shares, $0.0001 par value; 40 thousand Euro Deferred Shares, €1.00 par value; 127.5 million Preferred Shares, $0.20 par value; and 500 thousand A Preferred Shares, $1.00 par value.

Euro Deferred Shares

The authorized share capital of the Company includes 40 thousand Euro Deferred Shares, with a par value of €1.00 per share. At April 27, 2018, no Euro Deferred Shares were issued or outstanding.

Preferred Shares

The authorized share capital of the Company includes 127.5 million of Preferred Shares, with a par value of $0.20 per share. At April 27, 2018, no Preferred Shares were issued or outstanding.

A Preferred Shares

The authorized share capital of the Company includes 500 thousand A Preferred Shares, with a par value of $1.00 per share. At April 27, 2018, 1,872 A Preferred Shares were outstanding. The holders of A Preferred Shares are entitled to payment of dividends prior to any other class of shares in the Company equal to twice the dividend to be paid per Company ordinary share. On a return of assets, whether on liquidation or otherwise, the A Preferred Shares are entitled to repayment of the capital paid up thereon in priority to any repayment of capital to the holders of any other shares and the holders of the A Preferred Shares shall not be entitled to any further participation in the assets or profits of the Company. The holders of the A Preferred Shares are not entitled to receive notice of, nor to attend, speak, or vote at any general meeting of the Company.

Dividends

The timing, declaration, and payment of future dividends to holders of our ordinary and A Preferred shares falls within the discretion of the Company's Board of Directors and depends upon many factors, including the statutory requirements of Irish law, the Company's earnings and financial condition, the capital requirements of our businesses, industry practice and any other factors the Board of Directors deems relevant.

Ordinary Share Repurchase Program

Shares are repurchased from time to time to support the Company's stock-based compensation programs and to return capital to shareholders. During fiscal years 2018 and 2017, the Company repurchased approximately 25 million and 43 million shares, respectively, at an average price of $83.71 and $83.03, respectively.

In June 2015, the Company's Board of Directors authorized, subject to the ongoing existence of sufficient distributable reserves, the repurchase of 80 million of the Company's ordinary shares. As described below, this authorization was replaced in June 2017. During fiscal year 2018, prior to the June 2017 repurchase program which became effective on June 26, 2017, the Company purchased approximately 13 million shares authorized under the June 2015 repurchase program.

In June 2017, the Company's Board of Directors replaced the June 2015 authorization to repurchase up to an aggregate number of ordinary shares with an authorization to expend up to an aggregate amount of $5.0 billion beginning June 26, 2017 to repurchase the Company's ordinary shares. At April 27, 2018, the Company had used approximately $1.0 billion of the $5.0 billion authorized under the repurchase program, leaving approximately $4.0 billion available for future repurchases. The Company accounts for repurchases of ordinary shares using the par value method and shares repurchased are canceled.

Note 13 Stock Purchase and Award Plans

The Medtronic, Inc. 2013 Stock Award and Incentive Plan was originally approved by the Company's shareholders in August 2013. In January 2015, the Company's Board of Directors approved an amendment to and assumption of the Medtronic, Inc. 2013 Stock Award and Incentive Plan, which created the Medtronic plc 2013 Stock Award and Incentive Plan (2013 Plan). In fiscal year 2018, the Company granted stock awards under the 2013 Plan. The 2013 Plan provides for the grant of non-qualified and incentive stock options, stock appreciation rights, restricted stock, restricted stock units, performance awards, and other stock and cash-based awards. At April 27, 2018, there were approximately 63 million shares available for future grants under the 2013 Plan.

Share Options

Options are granted at the exercise price, which is equal to the closing price of the Company's ordinary share on the grant date. The majority of the Company's options are non-qualified options with a 10-year life and a 4-year ratable vesting term. In fiscal year 2018, the Company granted share options under the 2013 Plan. The Company also grants shares of performance-based share options that typically cliff vest after three years only if the Company has also achieved certain performance objectives. Performance awards are expensed over the performance period based on the probability of achieving the performance objectives.

Restricted Stock

Restricted stock awards and restricted stock units (collectively referred to as restricted stock) are granted to officers and key employees. At April 27, 2018, the Company does not have any outstanding restricted stock awards. Beginning in fiscal year 2018, restricted stock units have a 4-year ratable vesting term. Restricted stock units issued prior to fiscal year 2018 cliff vest after four years. The expense recognized for restricted stock units is equal to the grant date fair value, which is equal to the closing stock price on the date of grant. Restricted stock units are expensed over the vesting period and are subject to forfeiture if employment terminates prior to the lapse of the restrictions. The Company also grants shares of performance-based restricted stock units that typically cliff vest after three years only if the Company has also achieved certain performance objectives. Performance awards are expensed over the performance period based on the probability of achieving the performance objectives.

Restricted stock units are not considered issued or outstanding ordinary shares of the Company. Dividend equivalent units are accumulated on restricted stock units during the vesting period. In fiscal year 2018, the Company granted restricted stock units under the 2013 Plan. At April 27, 2018, all restricted stock outstanding were restricted stock units.

Employees Stock Purchase Plan

The Medtronic plc Amended and Restated 2014 Employees Stock Purchase Plan (ESPP) allows participating employees to purchase the Company's ordinary shares at a discount through payroll deductions. The expense recognized for shares purchased under the Company's ESPP is equal to the 15 percent discount the employee receives at the end of the calendar quarter purchase period.

Employees may contribute between 2 percent and 10 percent of their wages or the statutory limit under the U.S. Internal Revenue Code toward the purchase of newly-issued ordinary shares of the Company at 85 percent of its market value at the end of the calendar quarter purchase period. Employees purchased 2 million shares at an average price of $69.41 per share in fiscal year 2018. At April 27, 2018, plan participants had approximately $11 million withheld to purchase the Company's ordinary shares at 85 percent of its market value on June 29, 2018, the last trading day before the end of the calendar quarter purchase period. At April 27, 2018, approximately 16 million ordinary shares were available for future purchase under the ESPP.

Stock Option Valuation Assumptions

The Company uses the Black-Scholes option pricing model (Black-Scholes model) to determine the fair value of stock options at the grant date. The fair value of stock options under the Black-Scholes model requires management to make assumptions regarding projected employee stock option exercise behaviors, risk-free interest rates, volatility of the Company's stock price, and expected dividends.

The following table provides the weighted average fair value of options granted to employees and the related assumptions used in the Black-Scholes model:

	Fiscal Year		
	2018	2017	2016
Weighted average fair value of options granted	$ 13.71	$ 14.70	$ 13.72
Assumptions used:			
Expected life (years)[1]	6.16	6.18	5.94
Risk-free interest rate[2]	2.00%	1.26%	1.79%
Volatility[3]	19.51%	21.07%	21.00%
Dividend yield[4]	2.19%	1.97%	1.96%

(1) The Company analyzes historical employee stock option exercise and termination data to estimate the expected life assumption. The Company calculates the expected life assumption using the midpoint scenario, which combines historical exercise data with hypothetical exercise data, as the Company believes this data currently represents the best estimate of the expected life of a new employee option.

(2) The rate is based on the grant date yield of a zero-coupon U.S. Treasury bond whose maturity period equals the expected term of the option.

(3) Expected volatility is based on a blend of historical volatility and an implied volatility of the Company's ordinary shares. Implied volatility is based on market traded options of the Company's ordinary shares.

(4) The dividend yield rate is calculated by dividing the Company's annual dividend, based on the most recent quarterly dividend rate, by the closing stock price on the grant date.

Stock-Based Compensation Expense

The following table presents the components and classification of stock-based compensation expense recognized for stock options, restricted stock, and ESPP in fiscal years 2018, 2017, and 2016:

	Fiscal Year		
(in millions)	2018	2017	2016
Stock options	$ 132	$ 157	$ 206
Restricted stock	185	169	148
Employee stock purchase plan	27	22	21
TOTAL STOCK-BASED COMPENSATION EXPENSE	**$ 344**	**$ 348**	**$ 375**
Cost of products sold	$ 44	$ 49	$ 50
Research and development expense	38	41	37
Selling, general, and administrative expense	242	233	212
Restructuring charges	—	2	18
Acquisition-related items	4	23	58
Divestiture-related items	16	—	—
Total stock-based compensation expense	344	348	375
Income tax benefits	(82)	(98)	(108)
TOTAL STOCK-BASED COMPENSATION EXPENSE, NET OF TAX	**$ 262**	**$ 250**	**$ 267**

Stock Options

The following table summarizes all stock option activity, including activity from options assumed or issued as a result of acquisitions, during fiscal year 2018:

	Options (in thousands)	Wtd. Avg. Exercise Price	Wtd. Avg. Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Outstanding at April 28, 2017	45,194	$ 62.41		
Granted	3,773	83.92		
Exercised	(6,145)	43.72		
Expired/Forfeited	(1,783)	76.93		
Outstanding at April 27, 2018	41,039	66.56	5.94	$ 637
Vested and expected to vest at April 27, 2018	23,093	77.30	7.12	115
Exercisable at April 27, 2018	17,136	51.43	4.25	520

The following table summarizes the total cash received from the issuance of new shares upon stock option award exercises, the total intrinsic value of options exercised, and the related tax benefit during fiscal years 2018, 2017, and 2016:

	Fiscal Year		
(in millions)	2018	2017	2016
Cash proceeds from options exercised	$ 250	$ 367	$ 452
Intrinsic value of options exercised	248	403	374
Tax benefit related to options exercised	75	140	131

Unrecognized compensation expense related to outstanding stock options at April 27, 2018 was $72 million and is expected to be recognized over a weighted average period of 2.0 years.

Restricted Stock

The following table summarizes restricted stock activity, including activity from restricted stock assumed or issued as a result of acquisitions, during fiscal year 2018:

	Units (in thousands)	Wtd. Avg. Grant Price
Nonvested at April 28, 2017	8,788	$ 76.49
Granted	2,683	83.88
Vested	(2,589)	61.73
Forfeited	(646)	78.90
Nonvested at April 27, 2018	8,236	$ 83.35

The following table summarizes the weighted-average grant date fair value of restricted stock granted, total fair value of restricted stock vested and related tax benefit during fiscal years 2018, 2017, and 2016:

	Fiscal Year		
(in millions, except per share data)	2018	2017	2016
Weighted-average grant-date fair value per restricted stock	$ 83.88	$ 85.07	$ 77.68
Fair value of restricted stock vested	160	131	276
Tax benefit related to restricted stock vested	63	76	76

Unrecognized compensation expense related to restricted stock as of April 27, 2018 was $307 million and is expected to be recognized over a weighted average period of 2.4 years.

Note 14 Income Taxes

The income tax provision is based on income before income taxes reported for financial statement purposes. The components of income before income taxes, based on tax jurisdiction, are as follows:

	Fiscal Year		
(in millions)	2018	2017	2016
U.S.	$ (958)	$ (234)	$ 333
International	6,633	4,836	4,003
INCOME BEFORE INCOME TAXES	**$ 5,675**	**$ 4,602**	**$ 4,336**

The income tax provision consists of the following:

	Fiscal Year		
(in millions)	2018	2017	2016
Current tax expense:			
U.S.	$ 2,899	$ 614	$ 440
International	796	840	835
Total current tax expense	3,695	1,454	1,275
Deferred tax expense (benefit):			
U.S.	45	(399)	(67)
International	(1,160)	(477)	(410)
Net deferred tax benefit	(1,115)	(876)	(477)
INCOME TAX PROVISION	**$ 2,580**	**$ 578**	**$ 798**

On December 22, 2017, the U.S. government enacted the Tax Act, which significantly revises U.S. corporate income taxation by, among other things, lowering the U.S. corporate income tax rate from 35.0 percent to 21.0 percent effective January 1, 2018, broadening the base of taxation, implementing a territorial tax system, and imposing a repatriation tax on deemed repatriated earnings of foreign subsidiaries. U.S. GAAP requires that the impact of tax legislation be recognized in the period in which the law was enacted. The decrease in the U.S. federal corporate tax rate from 35.0 percent to 21.0 percent results in a blended statutory tax rate of 30.5 percent for the Company's fiscal year 2018. As discussed in Note 1, the Company adopted guidance related to the finalization of the accounting for the income tax impacts of the Tax Act. Until the accounting for the income tax impacts of the Tax Act is complete, the reported amounts are based on reasonable estimates and are disclosed as provisional.

As of April 27, 2018, the Company had not fully completed its accounting for the tax effects of the enactment of the Tax Act. The Company's income tax provision for fiscal year 2018 is based on a reasonable estimate of the transition tax and expected reversal of existing deferred tax balances. As a result of the Tax Act, the Company has removed its permanently reinvested assertion on historical earnings through April 27, 2018 for legal entities with accumulated earnings subject to the transition tax. The Company continues to evaluate its permanently reinvested assertion for certain legal entities. For the amounts which the Company was able to reasonably estimate, the Company recognized a provisional net tax charge of $2.4 billion within *income tax provision* in the consolidated statements of income. The components of the provisional tax amounts are as follows:

- A provisional tax charge of $2.6 billion for the transition tax liability. The Company has not yet completed the calculation of the total post-1986 foreign earnings & profits (E&P) and the income tax pools for all foreign subsidiaries. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. This amount may change when the Company finalizes the calculation of post-1986 foreign E&P previously deferred from U.S. federal taxation and finalizes the amounts held in cash or other specified assets. In addition, further interpretations from U.S. federal and state governments and regulatory organizations may change the provisional tax liability or the accounting treatment of the provisional tax liability.
- A provisional net tax benefit of $114 million associated with the change in the U.S. Federal statutory tax rate for the year and the remeasurement of certain deferred tax assets, liabilities, and valuation allowances.

Because of the complexity of the new Global Intangible Low-Taxed Income (GILTI) tax rules, the Company continues to evaluate this provision of the Tax Act. The Company is allowed to make an accounting policy election of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current period expense when incurred (the "period cost method") or (2) factoring such amounts into the Company's measurement of its deferred taxes (the "deferred method"). The Company's selection of an accounting policy with respect to the new GILTI tax rules will depend, in part, on analyzing its global income to determine whether it can reasonably estimate the tax impact. The Company is currently in the process of analyzing its structure and is not yet able to determine the effect of this provision of the Tax Act. Therefore, the Company has not yet made a policy decision regarding whether to record deferred tax on GILTI and has not made any adjustments related to potential GILTI tax in its consolidated financial statements.

Tax assets (liabilities), shown before jurisdictional netting of deferred tax assets (liabilities), are comprised of the following:

(in millions)	April 27, 2018	April 28, 2017
Deferred tax assets:		
Net operating loss, capital loss, and credit carryforwards	$ 7,463	$ 6,800
Other accrued liabilities	410	658
Accrued compensation	209	427
Pension and post-retirement benefits	256	456
Stock-based compensation	190	278
Other	332	349
Inventory	207	277
Federal and state benefit on uncertain tax positions	67	191
Unrealized loss on available-for-sale securities and derivative financial instruments	93	—
Gross deferred tax assets	9,227	9,436
Valuation allowance	(7,166)	(6,311)
Total deferred tax assets	2,061	3,125
Deferred tax liabilities:		
Intangible assets	(1,697)	(4,943)
Realized loss on derivative financial instruments	(69)	(112)
Other	(143)	(74)
Accumulated depreciation	(38)	(149)
Unrealized gain on available-for-sale securities and derivative financial instruments	—	(18)
Outside basis difference of subsidiaries	(131)	(112)
Total deferred tax liabilities	(2,078)	(5,408)
Prepaid income taxes	406	475
Income tax receivables	315	218
TAX ASSETS (LIABILITIES), NET	**$ 704**	**$ (1,590)**
Reported as (after valuation allowance and jurisdictional netting):		
Other current assets	$ 662	$ 545
Tax assets	1,465	1,550
Deferred tax liabilities	(1,423)	(2,978)
Noncurrent liabilities held for sale	—	(707)
TAX ASSETS (LIABILITIES), NET	**$ 704**	**$ (1,590)**

No deferred taxes have been provided on the approximately $61.0 billion and $31.8 billion of undistributed earnings of the Company's subsidiaries at April 27, 2018 and April 28, 2017, respectively, since these earnings have been, and under current plans will continue to be, permanently reinvested in these subsidiaries. During fiscal year 2018, the Company removed its permanently reinvested assertion on the undistributed earnings of certain foreign subsidiaries with a U.S. parent which were subject to the transition tax. The assertion was removed for all earnings of such subsidiaries through April 27, 2018. Due to the number of legal entities and jurisdictions involved, the complexity of the legal entity structure of the Company, and the complexity of the tax laws in the relevant jurisdictions, the Company believes it is not practicable to estimate, within any reasonable range, the amount of additional taxes which may be payable upon distribution of these undistributed earnings.

At April 27, 2018, the Company had approximately $28.4 billion of net operating loss carryforwards in certain non-U.S. jurisdictions, of which $25.2 billion have no expiration, and the remaining $3.2 billion will expire during fiscal years 2019 through 2038. Included in these net operating loss carryforwards are $19.7 billion of net operating losses related to a subsidiary of the Company, substantially all of which were recorded in fiscal 2008 as a result of the receipt of a favorable tax ruling from certain non-U.S. taxing authorities. The Company has recorded a full valuation allowance against these net operating losses, as management does not believe that it is more likely than not that these net operating losses will be utilized. Certain of the remaining non-U.S. net operating loss carryforwards of $8.7 billion have a valuation allowance recorded against the carryforwards, as management does not believe that it is more likely than not that these net operating losses will be utilized.

At April 27, 2018, the Company had $963 million of U.S. federal net operating loss carryforwards, which will expire during fiscal years 2019 through 2036. For U.S. state purposes, the Company had $981 million of net operating loss carryforwards at April 27, 2018, which will expire during fiscal years 2019 through 2038.

At April 27, 2018, the Company also had $174 million of tax credits available to reduce future income taxes payable, of which $58 million have no expiration. The remaining credits expire during fiscal years 2019 through 2038.

The Company has established valuation allowances of $7.2 billion and $6.3 billion at April 27, 2018 and April 28, 2017, respectively, primarily related to the uncertainty of the utilization of certain deferred tax assets which are primarily comprised of tax loss and credit carryforwards in various jurisdictions. The increase in the valuation allowance during fiscal year 2018 is primarily related to the establishment of a valuation allowance against current year generated losses, as well as the effects of currency fluctuations. These valuation allowances would result in a reduction to the income tax provision in the consolidated statements of income if they are ultimately not required.

During fiscal year 2018, the Company received a tax ruling confirming the treatment of various intercompany transactions, which have the effect of utilizing the $12.0 billion of non-U.S. special deductions previously disclosed. The ruling allowed the Company to offset some of the gain on the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses within the Minimally Invasive Therapies Group segment, as well as recognize an income tax benefit associated with the intercompany sale of intellectual property and the associated elimination of a deferred tax liability.

The Company's effective income tax rate varied from the U.S. federal statutory tax rate as follows:

	Fiscal Year		
	2018	2017	2016
U.S. federal statutory tax rate	30.5%	35.0%	35.0%
Increase (decrease) in tax rate resulting from:			
U.S. state taxes, net of federal tax benefit	0.8	1.0	0.9
Research and development credit	(0.8)	(0.9)	(1.2)
Domestic production activities	(0.1)	(0.4)	(0.3)
International	(18.8)	(27.1)	(23.4)
Puerto Rico Excise Tax	(1.1)	(1.5)	(1.6)
Impact of adjustments[(1)]	(8.5)	5.7	11.4
U.S. Tax Reform	43.0	—	—
Valuation allowance release	(0.1)	(1.0)	(0.9)
Stock based compensation	(1.0)	—	—
Other, net	1.6	1.8	(1.5)
EFFECTIVE TAX RATE	**45.5%**	**12.6%**	**18.4%**

(1) Adjustments include the impact of restructuring charges, net, acquisition- and divestiture-related items, certain litigation charges, special charge, debt redemption premium, inventory step-up, loss on previously held forward starting interest rate swaps, interest expense, net, and certain tax adjustments, net.

During fiscal year 2018, certain tax adjustments of $1.9 billion, recognized in *income tax provision* in the consolidated statements of income, included the following:

- A net charge of $2.4 billion associated with U.S. tax reform, inclusive of the transition tax, remeasurement of U.S. Federal deferred tax assets and liabilities, and the decrease in the U.S. statutory tax rate. The Company's income tax provision associated with the impact of the Tax Act for fiscal year 2018 is based on a reasonable estimate and will be finalized within the measurement period.
- A charge of $73 million associated with an internal reorganization of certain foreign subsidiaries.
- A net benefit of $579 million associated with the intercompany sale of intellectual property.

During fiscal year 2017, certain tax adjustments of $202 million, recognized in income tax provision in the consolidated statements of income, included the following:

- A charge of $404 million associated with the IRS resolution for the Ardian, CoreValve, Inc., Ablation Frontiers, Inc., PEAK Surgical, Inc. and Salient Surgical Technologies, Inc. acquisition-related issues and the allocation of income between Medtronic, Inc. and its wholly owned subsidiary operating in Puerto Rico for certain businesses. This resolution does not include the businesses that are the subject of the Medtronic, Inc. U.S. Tax Court case for fiscal years 2005 and 2006.
- A net charge of $125 million associated with the divestiture of a portion of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses to Cardinal. The net charge primarily relates to the tax effect from the recognition of the outside basis difference of certain subsidiaries, which are included in the expected divestiture.
- A charge of $86 million associated with the IRS's disallowance of the utilization of certain net operating losses, along with the recognition of a valuation allowance against the net operating loss deferred tax asset, which were recognized during the year.
- A charge of $18 million as a result of the redemption of an intercompany minority interest during the year.
- A benefit of $431 million as the result of the resolution of Covidien's previously disclosed Tyco International plc intercompany debt issues with the U.S. Tax Court and the Appeals Division of the IRS.

During fiscal year 2016, certain tax adjustments of $417 million, recognized in income tax provision in the consolidated statements of income, included the following:

- A charge of $442 million primarily related to the U.S. income tax expense resulting from the Company's completion of an

internal reorganization of the ownership of certain legacy Covidien businesses that reduced the cash and investments held by its U.S.-controlled non-U.S. subsidiaries (the Internal Reorganization). As a result of the Internal Reorganization, approximately $9.7 billion of cash, cash equivalents and investments in marketable debt and equity securities previously held by U.S.-controlled non-U.S. subsidiaries became available for general corporate purposes.

- A $25 million tax benefit associated with the disposition of a wholly owned U.S. subsidiary.

Currently, the Company's operations in Puerto Rico, Switzerland, Singapore, Dominican Republic, Costa Rica, and Israel have various tax incentive grants. The tax reductions as compared to the local statutory rate favorably impacted earnings by $446 million, $475 million, and $474 million in fiscal years 2018, 2017, and 2016, respectively, and earnings per diluted share by $0.33, $0.34, and $0.33 in fiscal years 2018, 2017, and 2016, respectively. Unless these grants are extended, they will expire between fiscal years 2019 and 2029. The Company's historical practice has been to renew, extend, or obtain new tax incentive grants upon expiration of existing tax incentive grants. If the Company is not able to renew, extend, or obtain new tax incentive grants, the expiration of existing tax incentive grants could have a material impact on the Company's financial results in future periods. The tax incentive grants which expired during fiscal year 2018 did not have a material impact on the Company's consolidated financial statements.

The Company had $1.7 billion, $1.9 billion, and $2.7 billion of gross unrecognized tax benefits at April 27, 2018, April 28, 2017, and April 29, 2016, respectively. A reconciliation of the beginning and ending amount of unrecognized tax benefits for fiscal years 2018, 2017, and 2016 is as follows:

	Fiscal Year		
(in millions)	**2018**	**2017**	**2016**
Gross unrecognized tax benefits at beginning of fiscal year	$ 1,896	$ 2,703	$ 2,860
Gross increases:			
Prior year tax positions	13	147	36
Current year tax positions	63	75	202
Acquisitions	—	4	—
Gross decreases:			
Prior year tax positions	(120)	(538)	(116)
Settlements	(80)	(467)	(275)
Statute of limitation lapses	(45)	(28)	(4)
Gross unrecognized tax benefits at end of fiscal year	1,727	1,896	2,703
Cash advance paid to taxing authorities	(859)	—	(384)
GROSS UNRECOGNIZED TAX BENEFITS AT END OF FISCAL YEAR, NET OF CASH ADVANCE	**$ 868**	**$ 1,896**	**$ 2,319**

If all of the Company's unrecognized tax benefits at April 27, 2018, April 28, 2017, and April 29, 2016 were recognized, $1.7 billion, $1.8 billion, and $2.1 billion would impact the Company's effective tax rate, respectively. Although the Company believes that it has adequately provided for liabilities resulting from tax assessments by taxing authorities, positions taken by these tax authorities could have a material impact on the Company's effective tax rate in future periods. The Company has recorded gross unrecognized tax benefits, net of cash advance, of $868 million as a noncurrent liability. The Company estimates that within the next 12 months, it is reasonably possible that its uncertain tax positions, excluding interest, could decrease by as much as $25 million, net as a result of the resolution of tax matters with the IRS and other taxing authorities as well as statute of limitation lapses.

The Company recognizes interest and penalties related to income tax matters in *income tax provision* in the consolidated statements of income and records the liability in the current or noncurrent *accrued income taxes* in the consolidated balance sheets, as appropriate. The Company had $128 million, $360 million, and $609 million of accrued gross interest and penalties at April 27, 2018, April 28, 2017, and April 29, 2016, respectively. During fiscal years 2018, 2017, and 2016, the Company recognized gross interest expense (income) of approximately $84 million, $(208) million, and $80 million, respectively, in *income tax provision* in the consolidated statements of income.

During fiscal year 2018, the Company made a $1.1 billion advance payment to the IRS in connection with certain tax matters for fiscal years 2005 through 2014. This payment is comprised of $859 million of tax and $285 million of interest.

The Company's reserves for uncertain tax positions relate to unresolved matters with the IRS and other taxing authorities. These reserves are subject to a high degree of estimation and management judgment. Resolution of these significant unresolved matters, or positions taken by the IRS or other tax authorities during future tax audits, could have a material impact on the Company's financial results in future periods. The Company continues to believe that its reserves for uncertain tax positions are appropriate and that it has meritorious defenses for its tax filings and will vigorously defend them during the audit process, appellate process, and through litigation in courts, as necessary.

The major tax jurisdictions where the Company conducts business which remain subject to examination are as follows:

Jurisdiction	Earliest Year Open
United States - federal and state	1998
Brazil	2013
Canada	2010
China	2009
Costa Rica	2014
Dominican Republic	2013
Germany	2010
India	2002
Ireland	2012
Israel	2010
Italy	2005
Japan	2015
Luxembourg	2013
Mexico	2005
Puerto Rico	2011
Singapore	2013
Switzerland	2012
United Kingdom	2016

See Note 19 for additional information regarding the status of current tax audits and proceedings.

Note 15 Earnings Per Share

Earnings per share is calculated using the two-class method, as the Company's A Preferred Shares are considered participating securities. Accordingly, earnings are allocated to both ordinary shares and participating securities in determining earnings per ordinary share. Due to the limited number of A Preferred Shares outstanding, this allocation had no effect on the ordinary earnings per share; therefore, it is not presented below. Basic earnings per share is computed based on the weighted average number of ordinary shares outstanding. Diluted earnings per share is computed based on the weighted number of ordinary shares outstanding, increased by the number of additional shares that would have been outstanding had the potentially dilutive ordinary shares been issued, and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive ordinary shares. Potentially dilutive ordinary shares include stock-based awards granted under the stock-based compensation plans and shares committed to be purchased under the employee stock purchase plan.

The table below sets forth the computation of basic and diluted earnings per share:

(in millions, except per share data)	Fiscal Year 2018	2017	2016
Numerator:			
Net income attributable to ordinary shareholders	$ 3,104	$ 4,028	$ 3,538
Denominator:			
Basic — weighted average shares outstanding	1,356.7	1,378.9	1,409.6
Effect of dilutive securities:			
Employee stock options	7.9	9.0	12.2
Employee restricted stock units	3.3	3.4	4.0
Other	0.3	0.1	0.1
Diluted — weighted average shares outstanding	1,368.2	1,391.4	1,425.9
Basic earnings per share	$ 2.29	$ 2.92	$ 2.51
Diluted earnings per share	$ 2.27	$ 2.89	$ 2.48

The calculation of weighted average diluted shares outstanding excludes options to purchase approximately 10 million, 7 million, and 4 million ordinary shares in fiscal years 2018, 2017, and 2016, respectively, because their effect would have been anti-dilutive on the Company's earnings per share.

Note 16 Retirement Benefit Plans

The Company sponsors various retirement benefit plans, including defined benefit pension plans, post-retirement medical plans, defined contribution savings plans, and termination indemnity plans, covering substantially all U.S. employees and many employees outside the U.S. The expense related to these plans was $552 million, $602 million, and $584 million in fiscal years 2018, 2017, and 2016, respectively.

In the U.S., the Company maintains a qualified pension plan designed to provide guaranteed minimum retirement benefits to all eligible U.S. employees. Pension coverage for non-U.S. employees is provided, to the extent deemed appropriate, through separate plans. In addition to the benefits provided under the qualified pension plan, retirement benefits associated with wages in excess of the IRS allowable limits are provided to certain employees under a non-qualified plan. U.S. and Puerto Rico employees are also eligible to receive a medical benefit component, in addition to normal retirement benefits, through the Company's post-retirement benefits.

At April 27, 2018 and April 28, 2017, the net underfunded status of the Company's benefit plans was $942 million and $1.3 billion, respectively. The $1.3 billion underfunded status at April 28, 2017 included $12 million of liabilities classified as held for sale. The liabilities classified as held for sale consisted of $9 million related to pension benefits and $3 million related to post-retirement benefits. Pension and post-retirement benefit liabilities held for sale at April 28, 2017 were divested during fiscal year 2018 as part of the sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses.

During fiscal year 2017, the Company offered certain eligible U.S. employees voluntary early retirement packages. The acceptance of this offer by eligible U.S. employees caused incremental expenses of $73 million to be recognized during fiscal year 2017. Of this amount, $60 million related to U.S. pension benefits, $7 million related to U.S. post-retirement benefits, $4 million related to defined contribution plans, and $2 million related to cash payments and administrative fees.

Defined Benefit Pension Plans

The change in benefit obligation and funded status of the Company's U.S. and Non-U.S. pension benefits are as follows:

	U.S. Pension Benefits		Non-U.S. Pension Benefits	
	Fiscal Year		Fiscal Year	
(in millions)	2018	2017	2018	2017
Accumulated benefit obligation at end of year:	$ 2,943	$ 2,879	$ 1,580	$ 1,518
Change in projected benefit obligation:				
Projected benefit obligation at beginning of year	$ 3,232	$ 3,048	$ 1,734	$ 1,535
Service cost	116	117	67	70
Interest cost	117	109	28	26
Employee contributions	—	—	12	15
Plan curtailments and settlements	(168)	—	(8)	6
Actuarial (gain) loss	12	(22)	(74)	182
Benefits paid	(107)	(80)	(51)	(43)
Special termination benefits	—	60	—	—
Currency exchange rate changes and other	—	—	146	(57)
Divestiture	—	—	(63)	—
PROJECTED BENEFIT OBLIGATION AT END OF YEAR	**$ 3,202**	**$ 3,232**	**$ 1,791**	**$ 1,734**
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 2,479	$ 2,138	$ 1,235	$ 1,113
Actual return on plan assets	243	238	67	109
Employer contributions	215	183	90	76
Employee contributions	—	—	13	15
Plan settlements	(168)	—	(4)	(1)
Benefits paid	(108)	(80)	(51)	(43)
Currency exchange rate changes and other	—	—	108	(34)
Divestiture	—	—	(54)	—
FAIR VALUE OF PLAN ASSETS AT END OF YEAR	**$ 2,661**	**$ 2,479**	**$ 1,404**	**$ 1,235**
Funded status at end of year:				
Fair value of plan assets	$ 2,661	$ 2,479	$ 1,404	$ 1,235
Benefit obligations	3,202	3,232	1,791	1,734
Underfunded status of the plans	(541)	(753)	(387)	(499)
RECOGNIZED LIABILITY	**$ (541)**	**$ (753)**	**$ (387)**	**$ (499)**
Amounts recognized on the consolidated balance sheets consist of:				
Non-current assets	$ —	$ —	$ 16	$ 5
Current liabilities	(17)	(13)	(8)	(7)
Non-current liabilities	(524)	(740)	(395)	(497)
RECOGNIZED LIABILITY	**$ (541)**	**$ (753)**	**$ (387)**	**$ (499)**
Amounts recognized in accumulated other comprehensive loss:				
Prior service cost (benefit)	$ 2	$ 3	$ (9)	$ (6)
Net actuarial loss	1,088	1,212	380	450
ENDING BALANCE	**$ 1,090**	**$ 1,215**	**$ 371**	**$ 444**

In certain countries outside the U.S., fully funding pension plans is not a common practice, as funding provides no income tax benefit. Consequently, certain pension plans were partially funded at April 27, 2018 and April 28, 2017. U.S. and non-U.S. plans with accumulated benefit obligations in excess of plan assets consist of the following:

	Fiscal Year	
(in millions)	2018	2017
Accumulated benefit obligation	$ 4,110	$ 4,188
Projected benefit obligation	4,282	4,677
Plan assets at fair value	3,472	3,454

Plans with projected benefit obligations in excess of plan assets consist of the following:

	Fiscal Year	
(in millions)	2018	2017
Projected benefit obligation	$ 4,736	$ 4,903
Plan assets at fair value	3,793	3,646

The net periodic benefit cost of the plans include the following components:

	U.S. Pension Benefits			Non-U.S. Pension Benefits		
	Fiscal Year			Fiscal Year		
(in millions)	2018	2017	2016	2018	2017	2016
Service cost	$ 116	$ 117	$ 120	$ 67	$ 70	$ 81
Interest cost	117	109	122	28	26	31
Expected return on plan assets	(205)	(195)	(180)	(53)	(48)	(48)
Amortization of prior service cost	1	1	—	—	(1)	—
Amortization of net actuarial loss	82	88	98	18	17	20
Settlement loss (gain)	16	—	(1)	—	—	(10)
Special termination benefits	—	60	—	—	—	—
NET PERIODIC BENEFIT COST	**$ 127**	**$ 180**	**$ 159**	**$ 60**	**$ 64**	**$ 74**

The other changes in plan assets and projected benefit obligations recognized in *accumulated other comprehensive loss* for fiscal year 2018 are as follows:

(in millions)	U.S. Pension Benefits	Non-U.S. Pension Benefits
Net actuarial gain	$ (27)	$ (88)
Amortization of prior service cost	(1)	—
Amortization of net actuarial loss	(82)	(18)
Prior service cost	—	(4)
Effect of exchange rates	—	37
Settlement loss	(17)	—
TOTAL RECOGNIZED IN ACCUMULATED OTHER COMPREHENSIVE LOSS	**$ (127)**	**$ (73)**
TOTAL RECOGNIZED IN NET PERIODIC BENEFIT COST AND ACCUMULATED OTHER COMPREHENSIVE LOSS	**$ —**	**$ (13)**

The estimated net actuarial loss that will be amortized from *accumulated other comprehensive loss* into net periodic benefit cost, before tax, in fiscal year 2019 for U.S. and non-U.S. pension benefits is expected to be $77 million and $11 million, respectively.

The actuarial assumptions are as follows:

	U.S. Pension Benefits			Non-U.S. Pension Benefits		
	Fiscal Year			Fiscal Year		
	2018	2017	2016	2018	2017	2016
Critical assumptions – projected benefit obligation:						
Discount rate	4.20%-4.35%	3.70%-4.30%	3.60%-4.30%	0.70%-11.00%	0.45%-11.40%	0.25%-10.20%
Rate of compensation increase	3.90%	3.90%	3.90%	2.88%	2.89%	2.83%
Critical assumptions – net periodic benefit cost:						
Discount rate – benefit obligation	4.00%-4.30%	3.55%-4.30%	4.20%-4.80%	0.45%-11.40%	0.25%-10.20%	0.80%-9.00%
Discount rate – service cost	3.70%-4.45%	3.60%-4.45%	4.20%-4.80%	0.20%-11.40%	0.05%-10.20%	0.80%-9.00%
Discount rate – interest cost	3.45%-3.80%	2.90%-3.80%	4.20%-4.80%	0.45%-11.40%	0.30%-10.20%	0.80%-9.00%
Expected return on plan assets	7.90%	8.20%	8.20%	4.20%	4.45%	4.35%
Rate of compensation increase	3.90%	3.90%	3.90%	2.89%	2.83%	2.92%

The Company changed the methodology used to estimate the service and interest cost components of net periodic pension cost and net periodic postretirement benefit cost for the Company's pension and other postretirement benefit plans, effective April 30, 2016. Previously, the Company estimated such cost components utilizing a single weighted-average discount rate derived from the market-observed yield curves of high-quality fixed income securities used to measure the pension benefit obligation and accumulated postretirement benefit obligation. The new methodology utilizes a full yield curve approach in the estimation of these cost components by applying the specific spot rates along the yield curve to their underlying projected cash flows and provides a more precise measurement of service and interest costs by improving the correlation between projected cash flows and their corresponding spot rates. The current yield curves represent high quality, long-term fixed income instruments. The change does not affect the measurement of the Company's pension obligation or accumulated postretirement benefit obligation. The Company accounted for this change prospectively as a change in accounting estimate.

The expected long-term rate of return on plan assets assumptions are determined using a building block approach, considering historical averages and real returns of each asset class. In certain countries, where historical returns are not meaningful, consideration is given to local market expectations of long-term returns.

Retirement Benefit Plan Investment Strategy

The Company sponsors trusts that hold the assets for U.S. pension plans and other U.S. post-retirement benefit plans, primarily retiree medical benefits. For investment purposes, the legacy Medtronic U.S. pension and other U.S. post-retirement benefit plans are managed in an identical way, as their objectives are similar.

The Company has a Qualified Plan Committee (the Plan Committee) that sets investment guidelines for U.S. pension plans and other U.S. post-retirement benefit plans with the assistance of external consultants. These guidelines are established based on market conditions, risk tolerance, funding requirements, and expected benefit payments. The Plan Committee also oversees the investment allocation process, selects the investment managers, and monitors asset performance. As pension liabilities are long-term in nature, the Company employs a long-term total return approach to maximize the long-term rate of return on plan assets for a prudent level of risk. An annual analysis on the risk versus the return of the investment portfolio is conducted to justify the expected long-term rate of return assumption.

The investment portfolios contain a diversified allocation of investment categories, including equities, fixed income securities, hedge funds, and private equity. Securities are also diversified in terms of domestic and international, short- and long-term, growth and value styles, large cap and small cap stocks, active and passive management, and derivative-based styles.

Outside the U.S., pension plan assets are typically managed by decentralized fiduciary committees. There is significant variation in policy asset allocation from country to country. Local regulations, funding rules, and financial and tax considerations are part of the funding and investment allocation process in each country. The weighted average target asset allocations at April 27, 2018 for the plans are 38% equity securities, 29% debt securities, and 33% other.

The plans did not hold any investments in the Company's ordinary shares at April 27, 2018 or April 28, 2017.

The Company's U.S. plans target asset allocations at April 27, 2018, compared to the U.S. plans actual asset allocations at April 27, 2018 and April 28, 2017 by asset category, are as follows:

U.S. Plans

	Target Allocation	Actual Allocation	
	April 27, 2018	April 27, 2018	April 28, 2017
Asset Category:			
Equity securities	49%	49%	45%
Debt securities	32	32	37
Other	19	19	18
TOTAL	**100%**	**100%**	**100%**

Retirement Benefit Plan Asset Fair Values

The following is a description of the valuation methodologies used for retirement benefit plan assets measured at fair value:

Short-term investments: Valued at the closing price reported in the active markets in which the individual security is traded.

U.S. government securities: Certain U.S. government securities are valued at the closing price reported in the active markets in which the individual security is traded. Other U.S. government securities are valued based on inputs other than quoted prices that are observable.

Corporate debt securities: Valued based on inputs other than quoted prices that are observable.

Equity commingled trusts: Comprised of investments in equity securities held in pooled investment vehicles. The valuations of equity commingled trusts are based on the respective net asset values which are determined by the fund daily at market close. The net asset values are calculated based on the valuation of the underlying assets which are determined using observable inputs. The net asset values are not publicly reported and funds are valued at the net asset value practical expedient.

Fixed income commingled trusts: Comprised of investments in fixed income securities held in pooled investment vehicles. The valuations of fixed income commingled trusts are based on the respective net asset values which are determined by the fund daily at market close. The net asset values are calculated based on the valuation of the underlying assets which are determined using observable inputs. The net asset values are not publicly reported and funds are valued at the net asset value practical expedient.

Partnership units: Valued based on the year-end net asset values of the underlying partnerships. The net asset values of the partnerships are based on the fair values of the underlying investments of the partnerships. Quoted market prices are used to value the underlying investments of the partnerships, where the partnerships consist of the investment pools which invest primarily in common stocks. Partnership units include partnerships, private equity investments, and real asset investments. Partnerships primarily include long/short equity and absolute return strategies. These investments may be redeemed monthly with notice periods ranging from 45 to 95 days. At April 27, 2018, there are no funds in the process of liquidation. Private equity investments consist of common stock and debt instruments of private companies. For private equity funds, the sum of the unfunded commitments at April 27, 2018 is $168 million, and the estimated liquidation period of these funds is expected to be one to 15 years. Real asset investments consist of commodities, derivatives, Real Estate Investment Trusts, and illiquid real estate holdings. These investments have redemption and liquidation periods ranging from 30 days to 10 years. At April 27, 2018, there are no real estate investments in the process of liquidation. The Company expects to receive the proceeds over the next year. Other valuation procedures are utilized to arrive at fair value if a quoted market price is not available for a partnership investment.

Registered investment companies: Valued at net asset values which are not publicly reported. The net asset values are calculated based on the valuation of the underlying assets. The underlying assets are valued at the quoted market prices of shares held by the plan at year-end in the active market on which the individual securities are traded.

Insurance contracts: Comprised of investments in collective (group) insurance contracts, consisting of individual insurance policies. The policyholder is the employer and each member is the owner/beneficiary of their individual insurance policy. These policies are a part of the insurance company's general portfolio and participate in the insurer's profit-sharing policy on an excess yield basis.

The methods described above may produce fair values that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

There were no transfers between Level 1, Level 2, or Level 3 during fiscal years 2018 or 2017.

The following tables provide information by level for the retirement benefit plan assets that are measured at fair value, as defined by U.S. GAAP. See Note 1 for discussion of the fair value measurement terms of Levels 1, 2, and 3. In accordance with authoritative guidance adopted in fiscal year 2017, certain investments for which the fair value is measured using the net asset value per share (or its equivalent) practical expedient are not presented within the fair value hierarchy. The fair value amounts presented for these investments are intended to permit reconciliation to the total fair value of plan assets at April 27, 2018 and April 28, 2017.

U.S. Pension Benefits

(in millions)	Fair Value at April 27, 2018	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3	Investments Measured at Net Asset Value
Short-term investments	$ 181	$ 181	$ —	$ —	$ —
U.S. government securities	181	181	—	—	—
Corporate debt securities	142	—	142	—	—
Equity commingled trusts	1,322	—	—	—	1,322
Fixed income commingled trusts	298	—	—	—	298
Partnership units	537	—	—	537	—
	$ 2,661	**$ 362**	**$ 142**	**$ 537**	**$ 1,620**

(in millions)	Fair Value at April 28, 2017	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3	Investments Measured at Net Asset Value
Short-term investments	$ 168	$ 168	$ —	$ —	$ —
U.S. government securities	167	138	29	—	—
Corporate debt securities	250	—	250	—	—
Equity commingled trusts	1,127	—	—	—	1,127
Fixed income commingled trusts	299	—	—	—	299
Partnership units	468	—	—	468	—
	$ 2,479	**$ 306**	**$ 279**	**$ 468**	**$ 1,426**

The following tables provide a reconciliation of the beginning and ending balances of U.S. pension benefit assets measured at fair value that used significant unobservable inputs (Level 3):

(in millions)	Partnership Units
April 28, 2017	$ 468
Total realized losses	(42)
Total unrealized gains	141
Purchases and sales, net	(30)
APRIL 27, 2018	**$ 537**

(in millions)	Partnership Units
April 29, 2016	$ 462
Total realized gains	25
Total unrealized gains	28
Purchases and sales, net	(47)
APRIL 28, 2017	**$ 468**

Non-U.S. Pension Benefits

(in millions)	Fair Value at April 27, 2018	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3	Investments Measured at Net Asset Value
Registered investment companies	$ 1,362	$ —	$ —	$ —	$ 1,362
Insurance contracts	42	—	—	42	—
	$ 1,404	**$ —**	**$ —**	**$ 42**	**$ 1,362**

(in millions)	Fair Value at April 28, 2017	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3	Investments Measured at Net Asset Value
Registered investment companies	$ 1,191	$ —	$ —	$ —	$ 1,191
Insurance contracts	44	—	—	44	—
	$ 1,235	**$ —**	**$ —**	**$ 44**	**$ 1,191**

The following tables provide a reconciliation of the beginning and ending balances of non-U.S. pension benefit assets measured at fair value that used significant unobservable inputs (Level 3):

(in millions)	Insurance Contracts
April 28, 2017	$ 44
Total unrealized gains	2
Purchases and sales, net	(7)
Currency exchange rate changes	3
APRIL 27, 2018	**$ 42**

(in millions)	Insurance Contracts
April 29, 2016	$ 76
Total unrealized gains	2
Purchases and sales, net	(31)
Currency exchange rate changes	(3)
APRIL 28, 2017	**$ 44**

Retirement Benefit Plan Funding

It is the Company's policy to fund retirement costs within the limits of allowable tax deductions. During fiscal year 2018, the Company made discretionary contributions of approximately $215 million to the U.S. pension plan. Internationally, the Company contributed approximately $90 million for pension benefits during fiscal year 2018. The Company anticipates that it will make contributions of $91 million and $85 million to its U.S. pension benefit plans and non-U.S. pension benefit plans, respectively, in fiscal year 2019. Based on the guidelines under the U.S. Employee Retirement Income Security Act of 1974 and the various guidelines which govern the plans outside the U.S., the majority of anticipated fiscal year 2019 contributions will be discretionary. The Company believes that, along with pension assets, the returns on invested pension assets, and Company contributions, the Company will be able to meet its pension and other post-retirement obligations in the future.

Retiree benefit payments, which reflect expected future service, are anticipated to be paid as follows:

(in millions)	U.S. Pension Benefits	Non-U.S. Pension Benefits
Fiscal Year	Gross Payments	Gross Payments
2019	$ 106	$ 49
2020	115	45
2021	123	48
2022	133	51
2023	143	58
2024 – 2028	890	323
TOTAL	**$ 1,510**	**$ 574**

Post-retirement Benefit Plans

The net periodic benefit cost associated with the Company's post-retirement benefit plans was income of $9 million in fiscal year 2018 and expense of $11 million and $12 million in fiscal years 2017 and 2016, respectively. The Company's projected benefit obligation for all post-retirement benefit plans was $317 million and $323 million at April 27, 2018 and April 28, 2017, respectively. The Company's fair value of plan assets for all post-retirement benefit plans was $303 million and $289 million at April 27, 2018 and April 28, 2017, respectively. The activity during fiscal year 2018 related to the change in projected benefit obligation was not material. The decrease of $46 million in the Company's projected benefit obligation during fiscal year 2017 was due to the U.S. post-retirement benefit plan being frozen, effective January 1, 2018. The activity during fiscal years 2018 and 2017 related to the change in fair value of plan assets was not material.

Defined Contribution Savings Plans

The Company has defined contribution savings plans that cover substantially all U.S. employees and certain non-U.S. employees. The general purpose of these plans is to provide additional financial security during retirement by providing employees with an incentive to make regular savings. Company contributions to the plans are based on employee contributions and Company performance. Expense recognized under these plans was $374 million, $347 million, and $269 million in fiscal years 2018, 2017, and 2016, respectively.

Effective May 1, 2005, the Company froze participation in the original defined benefit pension plan in the U.S. and implemented two new plans: an additional defined benefit pension plan, the Personal Pension Account (PPA), and a new defined contribution plan, the Personal Investment Account (PIA). Employees in the U.S. hired on or after May 1, 2005 but before January 1, 2016 had the option to participate in either the PPA or the PIA. Participants in the PPA receive an annual allocation of their salary and bonus on which they will receive an annual guaranteed rate of return, which is based on the ten-year Treasury bond rate. Participants in the PIA also receive an annual allocation of their salary and bonus; however, they are allowed to determine how to invest their funds among identified fund alternatives. The cost associated with the PPA is included in U.S. Pension Benefits in the tables presented earlier. The defined contribution cost associated with the PIA was approximately $56 million, $58 million, and $58 million in fiscal years 2018, 2017, and 2016, respectively.

Effective January 1, 2016, the Company froze participation in the existing defined benefit (PPA) and contribution (PIA) pension plans in the U.S. and implemented a new form of benefit under the existing defined contribution plan for legacy Covidien employees and employees in the U.S. hired on or after January 1, 2016. Participants in the Medtronic Core Contribution (MCC) also receive an annual allocation of their salary and bonus and are allowed to determine how to invest their funds among identified fund alternatives. The defined contribution cost associated with the MCC was approximately $49 million, $45 million, and $12 million and in fiscal years 2018, 2017, and 2016, respectively.

Note 17 Leases

The Company leases office, manufacturing, and research facilities and warehouses, as well as transportation, data processing, and other equipment under capital and operating leases. A substantial number of these leases contain options that allow the Company to renew at the fair rental value on the date of renewal.

Future minimum payments under capitalized leases and non-cancelable operating leases at April 27, 2018 are:

(in millions) Fiscal Year	Capitalized Leases	Operating Leases
2019	$ 5	$ 234
2020	5	182
2021	4	133
2022	3	87
2023	3	43
Thereafter	6	74
Total minimum lease payments	$ 26	$ 753
Less amounts representing interest	(5)	N/A
PRESENT VALUE OF NET MINIMUM LEASE PAYMENTS	**$ 21**	**N/A**

Rent expense for all operating leases was $319 million, $294 million, and $269 million in fiscal years 2018, 2017, and 2016, respectively.

Note 18 Accumulated Other Comprehensive (Loss) Income

The following table provides changes in AOCI, net of tax and by component.

(in millions)	Unrealized Gain (Loss) on Available-for-Sale Securities	Cumulative Translation Adjustments	Net Change in Retirement Obligations	Unrealized Gain (Loss) on Derivative Financial Instruments	Total Accumulated Other Comprehensive (Loss) Income
APRIL 29, 2016	**$ (107)**	**$ (474)**	**$ (1,197)**	**$ (90)**	**$ (1,868)**
Other comprehensive (loss) income before reclassifications	52	(978)	(17)	233	(710)
Reclassifications	(14)	—	85	(106)	(35)
Other comprehensive (loss) income	38	(978)	68	127	(745)
APRIL 28, 2017	**$ (69)**	**$ (1,452)**	**$ (1,129)**	**$ 37**	**$ (2,613)**
Other comprehensive (loss) income before reclassifications	(95)	1,218	100	(272)	951
Reclassifications	(8)	(34)	67	54	79
Other comprehensive (loss) income	(103)	1,184	167	(218)	1,030
Cumulative effect of change in accounting principle[1]	(22)	—	(155)	(26)	(203)
APRIL 27, 2018	**$ (194)**	**$ (268)**	**$ (1,117)**	**$ (207)**	**$ (1,786)**

(1) See Note 1 to the consolidated financial statements for discussion regarding the adoption of accounting standards during fiscal year 2018.

The income tax on gains and losses on available-for-sale securities in other comprehensive income before reclassifications during fiscal years 2018, 2017, and 2016 was an expense of $26 million, an expense of $41 million, and a benefit of $94 million, respectively. During fiscal years 2018, 2017, and 2016, realized gains and losses on available-for-sale securities reclassified from AOCI were reduced by income taxes of $4 million fiscal year 2018 and $8 million in fiscal years 2017 and 2016. When realized, gains and losses on available-for-sale securities reclassified from AOCI are recognized within *other expense, net.* Refer to Note 6 for additional information.

During fiscal year 2018, there was no tax impact on cumulative translation adjustments. However, due to recently enacted U.S. Tax Reform and change in permanently reinvested assertion with respect to certain earnings, the Company continues to evaluate the tax impact these events may have on cumulative translation adjustments. During fiscal years 2017 and 2016, taxes were not provided on cumulative translation adjustments as substantially all translation adjustments relate to earnings that were intended to be definitely reinvested outside the U.S.

The net change in retirement obligations in other comprehensive income includes net amortization of prior service costs and actuarial losses included in net periodic benefit cost. The income tax on the net change in retirement obligations in other comprehensive income before reclassifications during fiscal years 2018, 2017, and 2016 was an expense of $14 million, an expense of $41 million, and a benefit of $85 million, respectively. During fiscal years 2018, 2017, and 2016, the gains and losses on defined benefit and pension items reclassified from AOCI were reduced by income taxes of $27 million, $23 million, and $39 million, respectively. Refer to Note 16 for additional information.

The income tax on unrealized gains and losses on derivative financial instruments in other comprehensive income before reclassifications during fiscal years 2018, 2017, and 2016 was a benefit of $132 million, an expense of $130 million, and a benefit of $51 million, respectively. During fiscal years 2018, 2017, and 2016, gains and losses on derivative financial instruments reclassified from AOCI were reduced by income taxes of $22 million, $61 million, and $121 million, respectively. When realized, cash flow hedge gains and losses reclassified from AOCI are recognized within *other expense, net* or *cost of products sold,* and forward starting interest rate derivative financial instrument gains and losses reclassified from AOCI are recognized within *interest expense, net.* Refer to Note 9 for additional information.

Note 19 Commitments and Contingencies

Legal Matters

The Company and its affiliates are involved in a number of legal actions involving product liability, intellectual property and commercial disputes, shareholder related matters, environmental proceedings, income tax disputes, and governmental proceedings and investigations, including those described below. With respect to governmental proceedings and investigations, like other companies in our industry, the Company is subject to extensive regulation by national, state and local governmental agencies in

the United States and in other jurisdictions in which the Company and its affiliates operate. As a result, interaction with governmental agencies is ongoing. The Company's standard practice is to cooperate with regulators and investigators in responding to inquiries. The outcomes of legal actions are not within the Company's complete control and may not be known for prolonged periods of time. In some actions, the enforcement agencies or private claimants seek damages, as well as other civil or criminal remedies (including injunctions barring the sale of products that are the subject of the proceeding), that could require significant expenditures, result in lost revenues or limit the Company's ability to conduct business in the applicable jurisdictions.

The Company records a liability in the consolidated financial statements on an undiscounted basis for loss contingencies related to legal actions when a loss is known or considered probable and the amount may be reasonably estimated. If the reasonable estimate of a known or probable loss is a range, and no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. If a loss is reasonably possible but not known or probable, and may be reasonably estimated, the estimated loss or range of loss is disclosed. When determining the estimated loss or range of loss, significant judgment is required. Estimates of probable losses resulting from litigation and governmental proceedings involving the Company are inherently difficult to predict, particularly when the matters are in early procedural stages, with incomplete scientific facts or legal discovery, involve unsubstantiated or indeterminate claims for damages, potentially involve penalties, fines or punitive damages, or could result in a change in business practice. At April 27, 2018 and April 28, 2017, accrued litigation was approximately $0.9 billion and $1.1 billion, respectively. The ultimate cost to the Company with respect to accrued litigation could be materially different than the amount of the current estimates and accruals and could have a material adverse impact on the Company's consolidated earnings, financial position, and/or cash flows. The Company includes accrued litigation in *other accrued expenses* and *other liabilities* on the consolidated balance sheets. While it is not possible to predict the outcome for most of the legal matters discussed below, the Company believes it is possible that the costs associated with these matters could have a material adverse impact on the Company's consolidated earnings, financial position, and/or cash flows.

Product Liability Matters

Sprint Fidelis

In 2007, a putative class action was filed in the Ontario Superior Court of Justice in Canada seeking damages for personal injuries allegedly related to the Company's Sprint Fidelis family of defibrillation leads. On October 20, 2009, the court certified a class proceeding but denied class certification on plaintiffs' claim for punitive damages. Pretrial proceedings are underway. The Company has recognized an expense for probable and estimable damages related to this matter, and accrued expenses for this matter are included within accrued litigation as discussed above.

INFUSE Litigation

The Company estimated law firms representing approximately 6,000 claimants asserted or intended to assert personal injury claims against Medtronic in the U.S. state and federal courts involving the INFUSE bone graft product. As of June 1, 2017, the Company had reached agreements to settle substantially all of these claims, resolving this litigation. The Company's accrued expenses for this matter are included within accrued litigation as discussed above.

Pelvic Mesh Litigation

The Company is currently involved in litigation in various state and federal courts against manufacturers of pelvic mesh products alleging personal injuries resulting from the implantation of those products. Two subsidiaries of Covidien supplied pelvic mesh products to one of the manufacturers, C.R. Bard (Bard), named in the litigation. The litigation includes a federal multi-district litigation in the U.S. District Court for the Northern District of West Virginia and cases in various state courts and jurisdictions outside the U.S. Generally, complaints allege design and manufacturing claims, failure to warn, breach of warranty, fraud, violations of state consumer protection laws and loss of consortium claims. In fiscal year 2016, Bard paid the Company $121 million towards the settlement of 11,000 of these claims. In May 2017, the agreement with Bard was amended to extend the terms to apply to up to an additional 5,000 claims. That agreement does not resolve the dispute between the Company and Bard with respect to claims that do not settle, if any. As part of the agreement, the Company and Bard agreed to dismiss without prejudice their pending litigation with respect to Bard's obligation to defend and indemnify the Company. The Company estimates law firms representing approximately 15,800 claimants have asserted or may assert claims involving products manufactured by Covidien's subsidiaries. As of June 1, 2018, the Company had reached agreements to settle approximately 14,400 of these claims. The Company's accrued expenses for this matter are included within accrued litigation as discussed above.

Patent Litigation

Ethicon

On December 14, 2011, Ethicon filed an action against Covidien in the U.S. District Court for the Southern District of Ohio, alleging patent infringement and seeking monetary damages and injunctive relief. On January 22, 2014, the district court entered summary judgment in Covidien's favor, and the majority of this ruling was affirmed by the Federal Circuit on August 7, 2015. Following appeal, the case was remanded back to the District Court with respect to one patent. On January 21, 2016, Covidien filed a second action in the U.S. District Court for the Southern District of Ohio, seeking a declaration of non-infringement with respect to a second set of patents held by Ethicon. The court consolidated this second action with the remaining patent issues from the first action. Following consolidation of the cases, Ethicon dismissed six of the asserted patents, leaving a single asserted patent. In addition to claims of non-infringement, the Company asserts an affirmative defense of invalidity. The Company has not recognized an expense related to damages in connection with this matter because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company is unable to reasonably estimate the range of loss, if any, that may result from this matter.

Shareholder Related Matters

INFUSE

West Virginia Pipe Trades and Phil Pace, on June 27, 2013 and July 3, 2013, respectively, filed putative class action complaints against Medtronic, Inc. and certain of its officers in the U.S. District Court for the District of Minnesota, alleging that the defendants made false and misleading public statements and engaged in a scheme to defraud regarding the INFUSE Bone Graft product during the period of December 8, 2010 through August 3, 2011. The matters were consolidated in September, 2013, and in the consolidated complaint plaintiffs alleged a class period of September 28, 2010 through August 3, 2011. On September 30, 2015, the District Court granted defendants' motion for summary judgment in the consolidated matters. Plaintiffs appealed the dismissal to the U.S. Court of Appeals for the Eighth Circuit, and in December of 2016 the Eighth Circuit Court reversed and remanded the case to the District Court for further proceedings. On January 30, 2018, the District Court issued an order certifying a class for the period of September 8, 2010 through June 28, 2011.

COVIDIEN ACQUISITION

On July 2, 2014, Lewis Merenstein filed a putative shareholder class action in Hennepin County, Minnesota, District Court seeking to enjoin the then-potential acquisition of Covidien. The lawsuit named Medtronic, Inc., Covidien, and each member of the Medtronic, Inc. Board of Directors at the time as defendants, and alleged that the directors breached their fiduciary duties to shareholders with regard to the then-potential acquisition. On August 21, 2014, Kenneth Steiner filed a putative shareholder class action in Hennepin County, Minnesota, District Court, also seeking an injunction to prevent the potential Covidien acquisition. In September 2014, the *Merenstein* and *Steiner* matters were consolidated and in December 2014, the plaintiffs filed a preliminary injunction motion seeking to enjoin the Covidien transaction. On December 30, 2014, a hearing was held on plaintiffs' motion for preliminary injunction and on defendants' motion to dismiss. On January 2, 2015, the District Court denied the plaintiffs' motion for preliminary injunction and on January 5, 2015 issued its opinion. On March 20, 2015, the District Court issued its order and opinion granting Medtronic's motion to dismiss the case. In May of 2015, the plaintiffs filed an appeal, and, in January of 2016, the Minnesota State Court of Appeals affirmed in part, reversed in part, and remanded the case to the District Court for further proceedings. In February of 2016, the Company petitioned the Minnesota Supreme Court to review the decision of the Minnesota State Court of Appeals, and on April 19, 2016 the Minnesota Supreme Court granted the Company's petition on the issue of whether most of the original claims are properly characterized as direct or derivative under Minnesota law. In August of 2017, the Minnesota Supreme Court affirmed the decision of the Minnesota State Court of Appeals, sending the matter back to the trial court for further proceedings. The Company has not recognized an expense related to damages in connection with this matter, because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company is unable to reasonably estimate the range of loss, if any, that may result from these matters.

HEARTWARE

On January 22, 2016, the St. Paul Teachers' Retirement Fund Association filed a putative class action complaint (the "Complaint") in the United States District Court for the Southern District of New York against HeartWare on behalf of all persons and entities who purchased or otherwise acquired shares of HeartWare from June 10, 2014 through January 11, 2016 (the "Class Period"). The Complaint was amended on June 29, 2016 and claims HeartWare and one of its executives violated Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 by making false and misleading statements about, among other things, HeartWare's response to a June 2014 U.S. FDA warning letter, the development of the Miniaturized Ventricular Assist Device (MVAD) System and the proposed acquisition of Valtech Cardio Ltd. The Complaint seeks to recover damages on behalf of all purchasers or acquirers of HeartWare's stock during the Class Period. In August of 2016 the Company acquired HeartWare. The Company's accrued expenses for this matter are included within accrued litigation as discussed above.

Environmental Proceedings

The Company is involved in various stages of investigation and cleanup related to environmental remediation matters at a number of sites. These projects relate to a variety of activities, including removal of solvents, metals and other hazardous substances from soil and groundwater. The ultimate cost of site cleanup and timing of future cash flows is difficult to predict given uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations, and alternative cleanup methods.

The Company is a successor to a company which owned and operated a chemical manufacturing facility in Orrington, Maine from 1967 until 1982, and is responsible for the costs of completing an environmental site investigation as required by the Maine Department of Environmental Protection (MDEP). MDEP served a compliance order on Mallinckrodt LLC and U.S. Surgical Corporation, subsidiaries of Covidien, in December 2008, which included a directive to remove a significant volume of soils at the site. After a hearing on the compliance order before the Maine Board of Environmental Protection (Maine Board) to challenge the terms of the compliance order, the Maine Board modified the MDEP order and issued a final order requiring removal of two landfills, capping of the remaining three landfills, installation of a groundwater extraction system and long-term monitoring of the site and the three remaining landfills.

The Company has proceeded with implementation of the investigation and remediation at the site in accordance with the MDEP order as modified by the Maine Board order.

The Company has also been involved in a lawsuit filed in the U.S. District Court for the District of Maine by the Natural Resources Defense Council and the Maine People's Alliance. Plaintiffs sought an injunction requiring Covidien to conduct extensive studies of mercury contamination of the Penobscot River and Bay and options for remediating such contamination, and to perform appropriate remedial activities, if necessary.

On July 29, 2002, following a March 2002 trial, the District Court entered an opinion and order which held that conditions in the Penobscot River and Bay may pose an imminent and substantial endangerment and that Covidien was liable for the

cost of performing a study of the river and bay. The District Court subsequently appointed an independent study panel to oversee the study and ordered Covidien to pay costs associated with the study. A report issued by the study panel contains recommendations for a variety of potential remedial options which could be implemented individually or in a variety of combinations, and included preliminary cost estimates for a variety of potential remedial options, which the report describes as "very rough estimates of cost," ranging from $25 million to $235 million. The report indicates that these costs are subject to uncertainties, and that before any remedial option is implemented, further engineering studies and engineering design work are necessary to determine the feasibility of the proposed remedial options. In June of 2014, a trial was held to determine if remediation was necessary and feasible, and on September 2, 2015, the District Court issued an order concluding that further engineering study and engineering design work is appropriate to determine the nature and extent of remediation in the Penobscot River and Bay. In January of 2016, the Court appointed an engineering firm to conduct the next phase of the study. The study is targeted for completion in calendar year 2018.

The Company's accrued expenses for environmental proceedings are included within accrued litigation as discussed above.

Government Matters

Since 2011, the Company has responded to requests from the U.S. Department of Justice for information about business practices relating to several neurovascular products. The requests seek information dating back to 2010, in connection with neurovascular products developed and first marketed by Covidien or one of its predecessors, including ev3. The Company has fully cooperated and continues to cooperate with the requests, which are at various stages. The Company's accrued expenses for the matters are included within accrued litigation as discussed above.

Since 2014, the Company has responded to requests from the U.S. Department of Health and Human Services and the U.S. Department of Justice for information about business practices relating to several peripheral vascular products. The requests seek information dating back to 2009, in connection with peripheral vascular products developed and first marketed by Covidien or one of its predecessors, including ev3. The Company has fully cooperated and continues to cooperate with the requests, which are at various stages. The Company has not recognized an expense related to damages in connection with this matter because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company is unable to reasonably estimate the range of loss, if any, that may result from this matter.

Income Taxes

In March 2009, the IRS issued its audit report on Medtronic, Inc. for fiscal years 2005 and 2006. Medtronic, Inc. reached agreement with the IRS on some, but not all matters related to these fiscal years. The remaining unresolved issue for fiscal years 2005 and 2006 relates to the allocation of income between Medtronic, Inc. and its wholly-owned subsidiary operating in Puerto Rico, which is one of the Company's key manufacturing sites. The U.S. Tax Court reviewed this dispute, and on June 9, 2016, issued its opinion with respect to the allocation of income between the parties for fiscal years 2005 and 2006. The U.S. Tax Court generally rejected the IRS's position, but also made certain modifications to the Medtronic, Inc. tax returns as filed. On April 21, 2017, the IRS filed their Notice of Appeal to the U.S. Court of Appeals (the Court) for the 8th Circuit regarding the Tax Court Opinion. Oral argument for the Appeal occurred on March 14, 2018.

In October 2011, the IRS issued its audit report on Medtronic, Inc. for fiscal years 2007 and 2008. Medtronic, Inc. reached agreement with the IRS on some, but not all matters related to these fiscal years. During the first quarter of fiscal year 2016, the Company finalized its agreement with the IRS on the proposed adjustments associated with the tax effects of the Company's acquisition of Kyphon Inc. (Kyphon). The settlement was consistent with the certain tax adjustment recorded during the fourth quarter of fiscal year 2015. During the first quarter of fiscal year 2017, an expected settlement was reached with the IRS for all outstanding issues for fiscal years 2007 and 2008 except for the allocation of income between Medtronic, Inc. and its wholly-owned subsidiary operating in Puerto Rico for the businesses that are the subject of the U.S. Tax Court Case for fiscal years 2005 and 2006.

In April 2014, the IRS issued its audit report on Medtronic, Inc. for fiscal years 2009, 2010, and 2011. Medtronic, Inc. reached agreement with the IRS on some but not all matters related to these fiscal years. During the first quarter of fiscal year 2017, an expected settlement was reached with the IRS for all outstanding issues for fiscal years 2009, 2010, and 2011 except for the allocation of income between Medtronic, Inc. and its wholly-owned subsidiary operating in Puerto Rico for the businesses that are the subject of the U.S. Tax Court Case for fiscal years 2005 and 2006.

In May 2017, the IRS issued its audit report on Medtronic, Inc. for fiscal years 2012, 2013, and 2014. Medtronic, Inc. reached agreement with the IRS on some but not all matters related to these fiscal years. The significant issues that remain unresolved relate to the allocation of income between Medtronic, Inc. and its wholly-owned subsidiary operating in Puerto Rico, and proposed adjustments associated with the utilization of certain net operating losses. The Company disagrees with the IRS and will attempt to resolve these matters at the IRS Appellate level.

Medtronic, Inc.'s fiscal years 2015 and 2016 U.S. federal income tax returns are currently being audited by the IRS.

Covidien and the IRS have concluded and reached agreement on its audit of Covidien's U.S. federal income tax returns for all tax years through 2012. The statute of limitations for Covidien's 2013 U.S. federal income tax returns lapsed during the first quarter of fiscal year 2018. Covidien's fiscal year 2015 U.S. federal income tax returns are currently being audited by the IRS.

While it is not possible to predict the outcome for most of the income tax matters discussed above, the Company believes it is possible that charges associated with these matters could have a material adverse impact on the Company's consolidated earnings, financial position, and/or cash flows.

See Note 14 for additional discussion of income taxes.

Guarantees

As a result of the acquisition of Covidien, the Company has a guarantee commitment related to certain contingent tax liabilities as a party to the Tax Sharing Agreement that was entered into on June 29, 2007, between Covidien, Tyco International (now Johnson Controls), and Tyco Electronics (now TE Connectivity), associated with the spin-off from Tyco. The Tax Sharing Agreement covers certain income tax liabilities for periods prior to and including the spin-off. Medtronic's share of the income tax liabilities for these periods is 42 percent, with Johnson Controls and TE Connectivity share being 27 percent and 31 percent, respectively. If Johnson Controls and TE Connectivity default on their obligations to the Company under the Tax Sharing Agreement, the Company would be liable for the entire amount of these liabilities. All costs and expenses associated with the management of these tax liabilities are being shared equally among the parties. The most significant amounts at risk under this Tax Sharing Agreement were resolved with the U.S. Tax Court and IRS Appeals resolutions reached in May 2016. However, the Tax Sharing Agreement remains in place with respect to income tax liabilities that are not the subject of such resolution, including certain state and international tax matters that remain open.

The Company has used available information to develop its best estimates for certain assets and liabilities related to periods prior to the 2007 separation, including amounts subject to or impacted by the provisions of the Tax Sharing Agreement. The actual amounts that the Company may be required to ultimately accrue or pay under the Tax Sharing Agreement, however, could vary depending upon the outcome of the unresolved tax matters. Final determination of the balances will be made in subsequent periods, primarily related to tax years that remain open for examination. These balances will also be impacted by the filing of final or amended income tax returns in certain jurisdictions where those returns include a combination of Tyco International, Covidien and/or Tyco Electronics legal entities for periods prior to the 2007 separation.

As part of the Company's Minimally Invasive Therapies Group sale of the Patient Care, Deep Vein Thrombosis, and Nutritional Insufficiency businesses to Cardinal on July 29, 2017, the Company has indemnified Cardinal for certain contingent tax liabilities related to the divested businesses that existed prior to the date of divestiture. The actual amounts that the Company may be required to ultimately accrue or pay could vary depending upon the outcome of the unresolved tax matters.

In the normal course of business, the Company and/or its affiliates periodically enter into agreements that require one or more of the Company and/or its affiliates to indemnify customers or suppliers for specific risks, such as claims for injury or property damage arising as a result of the Company or its affiliates' products, the negligence of the Company's personnel, or claims alleging that the Company's products infringe on third-party patents or other intellectual property. The Company also offers warranties on various products. The Company's maximum exposure under these guarantees is unable to be estimated. Historically, the Company has not experienced significant losses on these types of guarantees.

The Company believes the ultimate resolution of the above guarantees is not expected to have a material effect on the Company's consolidated earnings, financial position, or cash flows.

Note 20 Quarterly Financial Data (unaudited)

(in millions, except per share data)		First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
Net sales						
	2018	**$ 7,390**	**$ 7,050**	**$ 7,369**	**$ 8,144**	**$ 29,953**
	2017	7,166	7,345	7,283	7,916	29,710
Gross profit						
	2018	**$ 5,041**	**$ 4,930**	**$ 5,178**	**$ 5,749**	**$ 20,898**
	2017	4,905	5,019	5,015	5,480	20,419
Net income (loss)						
	2018	**$ 1,009**	**$ 2,013**	**$ (1,392)**	**$ 1,465**	**$ 3,095**
	2017	929	1,111	820	1,164	4,024
Net income (loss) attributable to Medtronic						
	2018	**$ 1,016**	**$ 2,017**	**$ (1,389)**	**$ 1,460**	**$ 3,104**
	2017	929	1,115	821	1,163	4,028
Basic earnings (loss) per share						
	2018	**$ 0.75**	**$ 1.49**	**$ (1.03)**	**$ 1.08**	**$ 2.29**
	2017	0.67	0.81	0.60	0.85	2.92
Diluted earnings (loss) per share						
	2018	**$ 0.74**	**$ 1.48**	**$ (1.03)**	**$ 1.07**	**$ 2.27**
	2017	0.66	0.80	0.59	0.84	2.89

The data in the schedule above has been intentionally rounded to the nearest million, and therefore, the quarterly amounts may not sum to the fiscal year-to-date amounts.

Note 21 Segment and Geographic Information

The Company's organizational structure is based upon four principal operating and reportable segments: the Cardiac and Vascular Group, the Minimally Invasive Therapies Group, the Restorative Therapies Group, and the Diabetes Group. The Company's management has chosen to organize the entity based upon therapy solutions. The four principal segments are strategic businesses that are managed separately, as each one develops and manufactures products and provides services oriented toward targeted therapy solutions.

The primary products and services from which the Cardiac and Vascular Group segment derives its revenues include products for the diagnosis, treatment, and management of cardiac rhythm disorders and cardiovascular disease, as well as services to diagnose, treat, and manage heart- and vascular-related disorders and diseases.

The primary products and services from which the Minimally Invasive Therapies Group segment derives its revenues include those focused on diseases of the respiratory system, gastrointestinal tract, renal system, lungs, pelvic region, kidneys, obesity, and other preventable complications.

The primary products and services from which the Restorative Therapies Group segment derives its revenues include those focused on neurostimulation therapies and drug delivery systems for the treatment of chronic pain, as well as various areas of the spine and brain, along with pelvic health and conditions of the ear, nose, and throat.

The primary products from which the Diabetes Group segment derives its revenues include those focused on diabetes management, including insulin pumps, continuous glucose monitoring systems, insulin pump consumables, and diabetes therapy management software.

Segment disclosures are on a performance basis, consistent with internal management reporting. Net sales of the Company's segments include end-customer revenues from the sale of products the segment develops, manufactures, and distributes. There are certain corporate and centralized expenses that are not allocated to the segments. The Company's management evaluates the performance of the segments and allocates resources based on net sales and segment earnings before interest, taxes, and amortization ("Segment EBITA"). Segment EBITA represents income before income taxes, excluding interest expense, net, amortization of intangible assets, centralized distribution costs, certain corporate charges, and other items not allocated to the segments.

The accounting policies of the segments are the same as those described in Note 1. Certain depreciable assets may be recorded by one segment, while the depreciation expense is allocated to another segment. The allocation of depreciation expense is based on the proportion of the assets used by each segment.

The following tables present reconciliations of financial information from the segments to the applicable line items in the Company's consolidated financial statements:

Net Sales

	Fiscal Year		
(in millions)	2018	2017	2016
Cardiac and Vascular Group	$ 11,354	$ 10,498	$ 10,196
Minimally Invasive Therapies Group	8,716	9,919	9,563
Restorative Therapies Group	7,743	7,366	7,210
Diabetes Group	2,140	1,927	1,864
TOTAL	**$ 29,953**	**$ 29,710**	**$ 28,833**

Segment EBITA

	Fiscal Year		
(in millions)	2018	2017	2016
Cardiac and Vascular Group	$ 4,460	$ 4,134	$ 3,986
Minimally Invasive Therapies Group	3,346	3,434	3,373
Restorative Therapies Group	3,058	2,868	2,671
Diabetes Group	634	690	667
Segment EBITA	11,498	11,126	10,697
Interest expense, net	(749)	(728)	(955)
Amortization of intangible assets	(1,823)	(1,980)	(1,931)
Corporate	(1,437)	(1,232)	(1,464)
Centralized distribution costs	(1,936)	(1,543)	(1,177)
Restructuring and associated costs	(107)	(373)	(299)
Acquisition-related items	(132)	(230)	(283)

(in millions)	Fiscal Year 2018	2017	2016
Certain litigation charges	(61)	(300)	(26)
Divestiture-related items	(115)	—	—
Gain on sale of businesses	697	—	—
Special charge	(80)	(100)	—
IPR&D impairment	(46)	—	—
Hurricane Maria	(34)	—	—
Impact of inventory step-up	—	(38)	(226)
INCOME BEFORE INCOME TAXES	**$ 5,675**	**$ 4,602**	**$ 4,336**

Total Assets and Depreciation Expense

(in millions)	Total Assets April 27, 2018	April 28, 2017	Depreciation Expense 2018	2017	2016
Cardiac and Vascular Group	$ 15,407	$ 15,192	$ 183	$ 180	$ 172
Minimally Invasive Therapies Group[1]	43,002	49,249	217	358	383
Restorative Therapies Group	15,245	15,441	146	167	135
Diabetes Group	2,900	2,641	29	29	31
Segments	76,554	82,523	575	734	721
Corporate	14,839	17,334	246	203	168
TOTAL	**$ 91,393**	**$ 99,857**	**$ 821**	**$ 937**	**$ 889**

(1) Assets of $6.3 billion classified as held for sale were included within Minimally Invasive Therapies Group at April 28, 2017.

Geographic Information

Net sales are attributed to the country based on the location of the customer taking possession of the products or in which the services are rendered. Geographic property, plant, and equipment are attributed to the country based on the physical location of the assets.

The following table presents net sales for fiscal years 2018, 2017, and 2016, and property, plant, and equipment, net at April 27, 2018 and April 28, 2017 for the Company's country of domicile, countries with significant concentrations, and all other countries:

(in millions)	Net sales 2018	2017	2016	Property, plant, and equipment, net April 27, 2018	April 28, 2017
Ireland	$ 85	$ 69	$ 79	$ 149	$ 143
United States	15,875	16,663	16,422	2,927	2,434
Rest of world	13,993	12,978	12,332	1,528	1,784
Total other countries, excluding Ireland	29,868	29,641	28,754	4,455	4,218
TOTAL	**$ 29,953**	**$ 29,710**	**$ 28,833**	**$ 4,604**	**$ 4,361**

No single customer represented over 10 percent of the Company's consolidated net sales in fiscal years 2018, 2017, or 2016.

Note 22 Guarantor Financial Information

Medtronic plc and Medtronic Global Holdings S.C.A. (Medtronic Luxco), a wholly-owned subsidiary guarantor, each have provided full and unconditional guarantees of the obligations of Medtronic, Inc., a wholly-owned subsidiary issuer, under the Senior Notes (Medtronic Senior Notes) and full and unconditional guarantees of the obligations of Covidien International Finance S.A. (CIFSA), a wholly-owned subsidiary issuer, under the Senior Notes (CIFSA Senior Notes). The guarantees of the CIFSA Senior Notes are in addition to the guarantees of the CIFSA Senior Notes by Covidien Ltd. and Covidien Group Holdings Ltd., both of which are wholly-owned subsidiary guarantors of the CIFSA Senior Notes. Effective March 28, 2017, Medtronic plc and Medtronic, Inc. each have provided a full and unconditional guarantee of the obligations of Medtronic Luxco under the Medtronic Luxco Senior Notes.

The following is a summary of these guarantees:

Guarantees of Medtronic Senior Notes

- Parent Company Guarantor - Medtronic plc
- Subsidiary Issuer - Medtronic, Inc.
- Subsidiary Guarantor - Medtronic Luxco

Guarantees of Medtronic Luxco Senior Notes

- Parent Company Guarantor - Medtronic plc
- Subsidiary Issuer - Medtronic Luxco
- Subsidiary Guarantor - Medtronic, Inc.

Guarantees of CIFSA Senior Notes

- Parent Company Guarantor - Medtronic plc
- Subsidiary Issuer - CIFSA
- Subsidiary Guarantors - Medtronic Luxco, Covidien Ltd., and Covidien Group Holdings Ltd. (CIFSA Subsidiary Guarantors)

The following presents the Company's consolidating statements of comprehensive income and condensed consolidating statements of cash flows as of and for the fiscal years ended April 27, 2018, April 28, 2017, and April 29, 2016, and condensed consolidating balance sheets at April 27, 2018 and April 28, 2017. The guarantees provided by the parent company guarantor and subsidiary guarantors are joint and several. Condensed consolidating financial information for Medtronic plc, Medtronic Luxco, Medtronic, Inc., CIFSA, and CIFSA Subsidiary Guarantors, on a stand-alone basis, is presented using the equity method of accounting for subsidiaries. The Company has presented the provisional tax impacts related to the Tax Act within the condensed consolidating financial statements for the fiscal year ended April 27, 2018, at the subsidiary which the Company reasonably expects to be affected by the Tax Act. Certain reclassifications have been made to prior year financial statements to conform to classifications used in the current year.

The Company made revisions to its condensed consolidating balance sheets of the guarantees of the Medtronic Senior Notes, Medtronic Luxco Senior Notes and the CIFSA Senior Notes, as previously presented in Note 23 in the Company's Annual Report on Form 10-K for the year ended April 28, 2017. An approximate $16.0 billion revision was made to decrease the investment in subsidiaries and shareholders' equity balances in the Medtronic, Inc. column for the Medtronic Senior Notes and Medtronic Luxco Senior Notes, as well as an approximate $16.0 billion revision to increase the investment in subsidiaries and shareholders' equity balances in the CIFSA column for the CIFSA Senior Notes. Both revisions were primarily related to an incorrect presentation of an intercompany asset sale. There is no impact to the consolidated financial statements of Medtronic plc.

During fiscal year 2018, the Company undertook certain steps to reorganize ownership of various subsidiaries. The transactions were entirely among subsidiaries under the common control of Medtronic. The reorganization has been reflected as of the beginning of the earliest period presented.

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 27, 2018
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ 1,198	$ —	$ 29,952	$ (1,197)	$ 29,953
Costs and expenses:						
Cost of products sold	—	959	—	8,884	(788)	9,055
Research and development expense	—	653	—	1,600	—	2,253
Selling, general, and administrative expense	12	1,329	—	8,633	—	9,974
Amortization of intangible assets	—	8	—	1,815	—	1,823
Restructuring charges, net	—	(7)	—	37	—	30
Acquisition-related items	—	60	—	44	—	104
Certain litigation charges	—	24	—	37	—	61
Divestiture-related items	—	15	—	99	—	114
Gain on sale of businesses	—	—	—	(697)	—	(697)
Special charge	—	80	—	—	—	80
Other expense (income), net	52	(2,329)	—	3,190	(408)	505
Operating (loss) profit	(64)	406	—	6,310	(1)	6,651
Investment loss	—	172	—	55	—	227
Interest income	—	(353)	(482)	(1,582)	2,020	(397)
Interest expense	247	1,897	234	788	(2,020)	1,146
Interest expense (income), net	247	1,544	(248)	(794)	—	749
Equity in net (income) loss of subsidiaries	(3,408)	(830)	(3,160)	—	7,398	—
Income (loss) before income taxes	3,097	(480)	3,408	7,049	(7,399)	5,675
Income tax (benefit) provision	(7)	41	—	2,546	—	2,580
Net income	3,104	(521)	3,408	4,503	(7,399)	3,095
Net loss attributable to noncontrolling interests	—	—	—	9	—	9
Net income attributable to Medtronic	3,104	(521)	3,408	4,512	(7,399)	3,104
Other comprehensive gain (loss), net of tax	1,030	788	1,030	954	(2,772)	1,030
Other comprehensive loss attributable to non-controlling interests	—	—	—	9	—	9
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO MEDTRONIC	**$ 4,134**	**$ 267**	**$ 4,438**	**$ 5,466**	**$ (10,171)**	**$ 4,134**

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 28, 2017
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ 1,199	$ —	$ 29,708	$ (1,197)	$ 29,710
Costs and expenses:						
Cost of products sold	—	932	—	9,152	(793)	9,291
Research and development expense	—	636	—	1,557	—	2,193
Selling, general, and administrative expense	12	1,163	—	8,536	—	9,711
Amortization of intangible assets	—	11	—	1,969	—	1,980
Restructuring charges, net	—	114	—	249	—	363
Acquisition-related items	—	133	—	87	—	220
Certain litigation charges	—	—	—	300	—	300
Special charge	—	100	—	—	—	100
Other expense (income), net	18	(2,472)	—	3,099	(423)	222
Operating (loss) profit	(30)	582	—	4,759	19	5,330
Interest income	—	(250)	(649)	(1,065)	1,598	(366)
Interest expense	113	1,652	62	865	(1,598)	1,094
Interest expense (income), net	113	1,402	(587)	(200)	—	728
Equity in net (income) loss of subsidiaries	(4,163)	(1,712)	(3,576)	—	9,451	—
Income (loss) before income taxes	4,020	892	4,163	4,959	(9,432)	4,602
Income tax (benefit) provision	(8)	(124)	—	710	—	578
Net income	4,028	1,016	4,163	4,249	(9,432)	4,024
Net loss attributable to noncontrolling interests	—	—	—	4	—	4
Net income attributable to Medtronic	4,028	1,016	4,163	4,253	(9,432)	4,028
Other comprehensive gain (loss), net of tax	(745)	(340)	(745)	(928)	2,014	(744)
Other comprehensive loss attributable to non-controlling interests	—	—	—	3	—	3
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO MEDTRONIC	**$ 3,283**	**$ 676**	**$ 3,418**	**$ 3,324**	**$ (7,418)**	**$ 3,283**

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 29, 2016
Medtronic Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ 1,282	$ —	$ 28,832	$ (1,281)	$ 28,833
Costs and expenses:						
Cost of products sold	—	991	—	9,045	(894)	9,142
Research and development expense	—	627	—	1,597	—	2,224
Selling, general, and administrative expense	10	991	—	8,468	—	9,469
Amortization of intangible assets	—	12	—	1,919	—	1,931
Restructuring charges, net	—	17	—	273	—	290
Acquisition-related items	—	135	—	148	—	283
Certain litigation charges	—	—	—	26	—	26
Other expense (income), net	109	(1,784)	—	2,169	(387)	107
Operating (loss) profit	(119)	293	—	5,187	—	5,361
Investment loss	—	70	—	—	—	70
Interest income	—	(237)	(706)	(448)	960	(431)
Interest expense	25	1,906	10	405	(960)	1,386
Interest expense (income), net	25	1,669	(696)	(43)	—	955
Equity in net (income) loss of subsidiaries	(3,673)	(1,405)	(2,977)	—	8,055	—
Income (loss) before income taxes	3,529	(41)	3,673	5,230	(8,055)	4,336
Income tax (benefit) provision	(9)	(279)	—	1,086	—	798
Net income	3,538	238	3,673	4,144	(8,055)	3,538
Other comprehensive gain (loss), net of tax	(684)	(854)	(684)	(673)	2,211	(684)
COMPREHENSIVE INCOME (LOSS)	**$ 2,854**	**$ (616)**	**$ 2,989**	**$ 3,471**	**$ (5,844)**	**$ 2,854**

Condensed Consolidating *Balance Sheet*

April 27, 2018
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
ASSETS						
Current assets:						
Cash and cash equivalents	$ —	$ 20	$ 1	$ 3,648	$ —	$ 3,669
Investments	—	76	—	7,482	—	7,558
Accounts receivable, net	—	—	—	5,987	—	5,987
Inventories, net	—	165	—	3,539	(125)	3,579
Intercompany receivable	37	23,480	—	33,929	(57,446)	—
Other current assets	6	178	—	2,003	—	2,187
Total current assets	43	23,919	1	56,588	(57,571)	22,980
Property, plant and equipment, net	—	1,426	—	3,178	—	4,604
Goodwill	—	1,883	—	37,660	—	39,543
Other intangible assets, net	—	12	—	21,711	—	21,723
Tax assets	—	385	—	1,080	—	1,465
Investment in subsidiaries	60,381	73,594	61,457	—	(195,432)	—
Intercompany loans receivable	3,000	6,519	19,337	34,196	(63,052)	—
Other assets	—	223	—	855	—	1,078
TOTAL ASSETS	**$ 63,424**	**$ 107,961**	**$ 80,795**	**$ 155,268**	**$ (316,055)**	**$ 91,393**
LIABILITIES AND EQUITY						
Current liabilities:						
Current debt obligations	$ —	$ —	$ 1,696	$ 362	$ —	$ 2,058
Accounts payable	—	381	—	1,247	—	1,628
Intercompany payable	—	28,401	5,542	23,503	(57,446)	—
Accrued compensation	3	787	—	1,198	—	1,988
Accrued income taxes	—	—	—	979	—	979
Other accrued expenses	16	359	4	3,052	—	3,431
Total current liabilities	19	29,928	7,242	30,341	(57,446)	10,084
Long-term debt	—	20,598	844	2,257	—	23,699
Accrued compensation and retirement benefits	—	902	—	523	—	1,425
Accrued income taxes	10	531	—	2,510	—	3,051
Intercompany loans payable	12,675	14,339	19,335	16,703	(63,052)	—
Deferred tax liabilities	—	—	—	1,423	—	1,423
Other liabilities	—	68	—	821	—	889
Total liabilities	12,704	66,366	27,421	54,578	(120,498)	40,571
Shareholders' equity	50,720	41,595	53,374	100,588	(195,557)	50,720
Noncontrolling interests	—	—	—	102	—	102
Total equity	50,720	41,595	53,374	100,690	(195,557)	50,822
TOTAL LIABILITIES AND EQUITY	**$ 63,424**	**$ 107,961**	**$ 80,795**	**$ 155,268**	**$ (316,055)**	**$ 91,393**

Condensed Consolidating *Balance Sheet*

April 28, 2017
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
ASSETS						
Current assets:						
Cash and cash equivalents	$ —	$ 45	$ 5	$ 4,917	$ —	$ 4,967
Investments	—	—	—	8,741	—	8,741
Accounts receivable, net	—	—	—	5,591	—	5,591
Inventories, net	—	155	—	3,316	(133)	3,338
Intercompany receivable	51	16,301	—	30,475	(46,827)	—
Other current assets	10	227	—	1,628	—	1,865
Current assets held for sale	—	—	—	371	—	371
Total current assets	61	16,728	5	55,039	(46,960)	24,873
Property, plant and equipment, net	—	1,311	—	3,050	—	4,361
Goodwill	—	1,883	—	36,632	—	38,515
Other intangible assets, net	—	20	—	23,387	—	23,407
Tax assets	—	727	—	823	—	1,550
Investment in subsidiaries	55,747	52,300	52,532	—	(160,579)	—
Intercompany loans receivable	3,000	6,530	16,114	25,621	(51,265)	—
Other assets	—	434	—	798	—	1,232
Noncurrent assets held for sale	—	—	—	5,919	—	5,919
TOTAL ASSETS	**$ 58,808**	**$ 79,933**	**$ 68,651**	**$ 151,269**	**$ (258,804)**	**$ 99,857**
LIABILITIES AND EQUITY						
Current liabilities:						
Current debt obligations	$ —	$ 5,000	$ 901	$ 1,619	$ —	$ 7,520
Accounts payable	—	295	—	1,260	—	1,555
Intercompany payable	—	23,380	7,111	16,336	(46,827)	—
Accrued compensation	9	734	—	1,161	—	1,904
Accrued income taxes	13	—	—	620	—	633
Other accrued expenses	—	361	4	2,253	—	2,618
Current liabilities held for sale	—	—	—	34	—	34
Total current liabilities	22	29,770	8,016	23,283	(46,827)	14,264
Long-term debt	—	21,782	1,842	2,297	—	25,921
Accrued compensation and retirement benefits	—	1,120	—	604	—	1,724
Accrued income taxes	10	1,658	—	737	—	2,405
Intercompany loans payable	8,568	13,109	10,049	19,539	(51,265)	—
Deferred tax liabilities	—	—	—	2,978	—	2,978
Other liabilities	—	153	—	1,362	—	1,515
Noncurrent liabilities held for sale	—	—	—	720	—	720
Total liabilities	8,600	67,592	19,907	51,520	(98,092)	49,527
Shareholders' equity	50,208	12,341	48,744	99,627	(160,712)	50,208
Noncontrolling interests	—	—	—	122	—	122
Total equity	50,208	12,341	48,744	99,749	(160,712)	50,330
TOTAL LIABILITIES AND EQUITY	**$ 58,808**	**$ 79,933**	**$ 68,651**	**$ 151,269**	**$ (258,804)**	**$ 99,857**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 27, 2018
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 155	$ (1,567)	$ 249	$ 16,419	$ (10,572)	$ 4,684
Investing Activities:						
Acquisitions, net of cash acquired	—	—	—	(137)	—	(137)
Proceeds from sale of businesses	—	—	—	6,058	—	6,058
Additions to property, plant, and equipment	—	(340)	—	(728)	—	(1,068)
Purchases of investments	—	(98)	(25)	(3,124)	47	(3,200)
Sales and maturities of investments	—	25	—	4,249	(47)	4,227
Capital contributions paid	—	(59)	(4,200)	—	4,259	—
Other investing activities, net	—	—	—	(22)	—	(22)
Net cash (used in) provided by investing activities	—	(472)	(4,225)	6,296	4,259	5,858
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(48)	—	(48)
Change in current debt obligations, net	—	—	(205)	(44)	—	(249)
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	—	(45)	—	(45)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	—	1	—	1
Issuance of long-term debt	—	—	—	21	—	21
Payments on long-term debt	—	(6,166)	—	(1,204)	—	(7,370)
Dividends to shareholders	(2,494)	—	—	—	—	(2,494)
Issuance of ordinary shares	403	—	—	—	—	403
Repurchase of ordinary shares	(2,171)	—	—	—	—	(2,171)
Net intercompany loan borrowings (repayments)	4,107	8,180	4,177	(16,464)	—	—
Intercompany dividends paid	—	—	—	(10,572)	10,572	—
Capital contributions received	—	—	—	4,259	(4,259)	—
Other financing activities	—	—	—	(2)	—	(2)
Net cash (used in) provided by financing activities	(155)	2,014	3,972	(24,098)	6,313	(11,954)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	114	—	114
Net change in cash and cash equivalents	—	(25)	(4)	(1,269)	—	(1,298)
Cash and cash equivalents at beginning of period	—	45	5	4,917	—	4,967
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ 20**	**$ 1**	**$ 3,648**	**$ —**	**$ 3,669**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 28, 2017
Medtronic Senior Notes and Medtronic Luxco Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 842	$ 1,902	$ 302	$ 4,721	$ (887)	$ 6,880
Investing Activities:						
Acquisitions, net of cash acquired	—	(940)	—	(384)	—	(1,324)
Additions to property, plant, and equipment	—	(369)	—	(885)	—	(1,254)
Purchases of investments	—	—	—	(4,533)	162	(4,371)
Sales and maturities of investments	—	210	—	5,308	(162)	5,356
Capital contributions paid	—	(248)	—	—	248	—
Other investing activities, net	—	—	—	22	—	22
Net cash (used in) provided by investing activities	—	(1,347)	—	(472)	248	(1,571)
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(69)	—	(69)
Change in current debt obligations, net	—	—	901	5	—	906
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	—	(2)	—	(2)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	—	12	—	12
Issuance of long-term debt	—	150	1,850	140	—	2,140
Payments on long-term debt	—	(500)	—	(363)	—	(863)
Dividends to shareholders	(2,376)	—	—	—	—	(2,376)
Issuance of ordinary shares	428	—	—	—	—	428
Repurchase of ordinary shares	(3,544)	—	—	—	—	(3,544)
Net intercompany loan borrowings (repayments)	4,650	(255)	(3,048)	(1,347)	—	—
Intercompany dividends paid	—	—	—	(887)	887	—
Capital contributions received	—	—	—	248	(248)	—
Other financing activities	—	40	—	45	—	85
Net cash (used in) provided by financing activities	(842)	(565)	(297)	(2,218)	639	(3,283)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	65	—	65
Net change in cash and cash equivalents	—	(10)	5	2,096	—	2,091
Cash and cash equivalents at beginning of period	—	55	—	2,821	—	2,876
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ 45**	**$ 5**	**$ 4,917**	**$ —**	**$ 4,967**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 29, 2016
Medtronic Senior Notes

(in millions)	Medtronic plc	Medtronic, Inc.	Medtronic Luxco	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 297	$ 402	$ 696	$ 4,635	$ (812)	$ 5,218
Investing Activities:						
Acquisitions, net of cash acquired	—	(526)	—	(687)	—	(1,213)
Additions to property, plant, and equipment	—	(334)	—	(712)	—	(1,046)
Purchases of investments	—	—	—	(5,406)	—	(5,406)
Sales and maturities of investments	—	—	—	9,924	—	9,924
Capital contributions paid	—	(11)	(4,959)	(4,900)	9,870	—
Other investing activities, net	—	—	—	(14)	—	(14)
Net cash (used in) provided by investing activities	—	(871)	(4,959)	(1,795)	9,870	2,245
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(22)	—	(22)
Change in current debt obligations, net	—	—	—	7	—	7
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	(139)	—	—	(139)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	139	—	—	139
Payments on long-term debt	—	(2,988)	—	(2,144)	—	(5,132)
Dividends to shareholders	(2,139)	—	—	—	—	(2,139)
Issuance of ordinary shares	491	—	—	—	—	491
Repurchase of ordinary shares	(2,830)	—	—	—	—	(2,830)
Net intercompany loan borrowings (repayments)	3,918	(2,459)	4,093	(5,552)	—	—
Intercompany dividends paid	—	—	—	(812)	812	—
Capital contributions received	—	4,900	—	4,970	(9,870)	—
Other financing activities	—	—	—	82	—	82
Net cash (used in) provided by financing activities	(560)	(547)	4,093	(3,471)	(9,058)	(9,543)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	113	—	113
Net change in cash and cash equivalents	(263)	(1,016)	(170)	(518)	—	(1,967)
Cash and cash equivalents at beginning of period	263	1,071	170	3,339	—	4,843
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ 55**	**$ —**	**$ 2,821**	**$ —**	**$ 2,876**

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 27, 2018
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ —	$ —	$ 29,953	$ —	$ 29,953
Costs and expenses:						
Cost of products sold	—	—	—	9,055	—	9,055
Research and development expense	—	—	—	2,253	—	2,253
Selling, general, and administrative expense	12	1	2	9,959	—	9,974
Amortization of intangible assets	—	—	—	1,823	—	1,823
Restructuring charges, net	—	—	—	30	—	30
Acquisition-related items	—	—	—	104	—	104
Certain litigation charges	—	—	—	61	—	61
Divestiture-related items	—	—	—	114	—	114
Gain on sale of businesses	—	—	—	(697)	—	(697)
Special charge	—	—	—	80	—	80
Other expense (income), net	52	1	—	452	—	505
Operating (loss) profit	(64)	(2)	(2)	6,719	—	6,651
Investment loss	—	—	—	227	—	227
Interest income	—	(60)	(498)	(562)	723	(397)
Interest expense	247	83	234	1,305	(723)	1,146
Interest expense (income), net	247	23	(264)	743	—	749
Equity in net (income) loss of subsidiaries	(3,408)	(4,233)	(3,146)	—	10,787	—
Income (loss) before income taxes	3,097	4,208	3,408	5,749	(10,787)	5,675
Income tax (benefit) provision	(7)	—	—	2,587	—	2,580
Net income	3,104	4,208	3,408	3,162	(10,787)	3,095
Net loss attributable to noncontrolling interests	—	—	—	9	—	9
Net income attributable to Medtronic	3,104	4,208	3,408	3,171	(10,787)	3,104
Other comprehensive gain (loss), net of tax	1,030	228	1,030	1,030	(2,288)	1,030
Other comprehensive loss attributable to non-controlling interests	—	—	—	9	—	9
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO MEDTRONIC	**$ 4,134**	**$ 4,436**	**$ 4,438**	**$ 4,201**	**$ (13,075)**	**$ 4,134**

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 28, 2017
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ —	$ —	$ 29,710	$ —	$ 29,710
Costs and expenses:						
Cost of products sold	—	—	—	9,291	—	9,291
Research and development expense	—	—	—	2,193	—	2,193
Selling, general, and administrative expense	12	1	2	9,696	—	9,711
Amortization of intangible assets	—	—	—	1,980	—	1,980
Restructuring charges, net	—	—	—	363	—	363
Acquisition-related items	—	—	—	220	—	220
Certain litigation charges	—	—	—	300	—	300
Special charge	—	—	—	100	—	100
Other expense (income), net	18	1	4	199	—	222
Operating (loss) profit	(30)	(2)	(6)	5,368	—	5,330
Interest income	—	(82)	(656)	(433)	805	(366)
Interest expense	113	104	62	1,620	(805)	1,094
Interest expense (income), net	113	22	(594)	1,187	—	728
Equity in net (income) loss of subsidiaries	(4,163)	(3,581)	(3,575)	—	11,319	—
Income (loss) before income taxes	4,020	3,557	4,163	4,181	(11,319)	4,602
Income tax (benefit) provision	(8)	—	—	586	—	578
Net income	4,028	3,557	4,163	3,595	(11,319)	4,024
Net loss attributable to noncontrolling interests	—	—	—	4	—	4
Net income attributable to Medtronic	4,028	3,557	4,163	3,599	(11,319)	4,028
Other comprehensive gain (loss), net of tax	(745)	(324)	(745)	(744)	1,814	(744)
Other comprehensive loss attributable to non-controlling interests	—	—	—	3	—	3
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO MEDTRONIC	**$ 3,283**	**$ 3,233**	**$ 3,418**	**$ 2,854**	**$ (9,505)**	**$ 3,283**

Consolidating *Statement of Comprehensive Income*

Fiscal Year Ended April 29, 2016
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Net sales	$ —	$ —	$ —	$ 28,833	$ —	$ 28,833
Costs and expenses:						
Cost of products sold	—	—	—	9,142	—	9,142
Research and development expense	—	—	—	2,224	—	2,224
Selling, general, and administrative expense	10	1	3	9,455	—	9,469
Amortization of intangible assets	—	—	—	1,931	—	1,931
Restructuring charges, net	—	—	—	290	—	290
Acquisition-related items	—	—	—	283	—	283
Certain litigation charges	—	—	—	26	—	26
Other expense (income), net	109	1	14	(17)	—	107
Operating (loss) profit	(119)	(2)	(17)	5,499	—	5,361
Investment loss	—	—	—	70	—	70
Interest income	—	(434)	(710)	(464)	1,177	(431)
Interest expense	25	138	10	2,390	(1,177)	1,386
Interest expense (income), net	25	(296)	(700)	1,926	—	955
Equity in net (income) loss of subsidiaries	(3,673)	(2,716)	(2,990)	—	9,379	—
Income (loss) before income taxes	3,529	3,010	3,673	3,503	(9,379)	4,336
Income tax (benefit) provision	(9)	—	—	807	—	798
Net income	3,538	3,010	3,673	2,696	(9,379)	3,538
Other comprehensive gain (loss), net of tax	(684)	59	(684)	(684)	1,309	(684)
COMPREHENSIVE INCOME (LOSS)	**$ 2,854**	**$ 3,069**	**$ 2,989**	**$ 2,012**	**$ (8,070)**	**$ 2,854**

Condensed Consolidating *Balance Sheet*

April 27, 2018
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
ASSETS						
Current assets:						
Cash and cash equivalents	$ —	$ —	$ 1	$ 3,668	$ —	$ 3,669
Investments	—	—	—	7,558	—	7,558
Accounts receivable, net	—	—	—	5,987	—	5,987
Inventories, net	—	—	—	3,579	—	3,579
Intercompany receivable	37	—	1,343	5,560	(6,940)	—
Other current assets	6	—	—	2,181	—	2,187
Total current assets	43	—	1,344	28,533	(6,940)	22,980
Property, plant and equipment, net	—	—	—	4,604	—	4,604
Goodwill	—	—	—	39,543	—	39,543
Other intangible assets, net	—	—	—	21,723	—	21,723
Tax assets	—	—	—	1,465	—	1,465
Investment in subsidiaries	60,381	31,144	60,118	—	(151,643)	—
Intercompany loans receivable	3,000	1,291	19,337	19,436	(43,064)	—
Other assets	—	—	—	1,078	—	1,078
TOTAL ASSETS	**$ 63,424**	**$ 32,435**	**$ 80,799**	**$ 116,382**	**$ (201,647)**	**$ 91,393**
LIABILITIES AND EQUITY						
Current liabilities:						
Current debt obligations	$ —	$ —	$ 1,696	$ 362	$ —	$ 2,058
Accounts payable	—	—	—	1,628	—	1,628
Intercompany payable	—	1,283	5,542	115	(6,940)	—
Accrued compensation	3	—	—	1,985	—	1,988
Accrued income taxes	—	—	—	979	—	979
Other accrued expenses	16	21	8	3,386	—	3,431
Total current liabilities	19	1,304	7,246	8,455	(6,940)	10,084
Long-term debt	—	2,111	844	20,744	—	23,699
Accrued compensation and retirement benefits	—	—	—	1,425	—	1,425
Accrued income taxes	10	—	—	3,041	—	3,051
Intercompany loans payable	12,675	100	19,335	10,954	(43,064)	—
Deferred tax liabilities	—	—	—	1,423	—	1,423
Other liabilities	—	—	—	889	—	889
Total liabilities	12,704	3,515	27,425	46,931	(50,004)	40,571
Shareholders' equity	50,720	28,920	53,374	69,349	(151,643)	50,720
Noncontrolling interests	—	—	—	102	—	102
Total equity	50,720	28,920	53,374	69,451	(151,643)	50,822
TOTAL LIABILITIES AND EQUITY	**$ 63,424**	**$ 32,435**	**$ 80,799**	**$ 116,382**	**$ (201,647)**	**$ 91,393**

Condensed Consolidating *Balance Sheet*

April 28, 2017
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
ASSETS						
Current assets:						
Cash and cash equivalents	$ —	$ 33	$ 5	$ 4,929	$ —	$ 4,967
Investments	—	—	—	8,741	—	8,741
Accounts receivable, net	—	—	—	5,591	—	5,591
Inventories, net	—	—	—	3,338	—	3,338
Intercompany receivable	51	—	1,329	7,111	(8,491)	—
Other current assets	10	—	—	1,855	—	1,865
Current assets held for sale	—	—	—	371	—	371
Total current assets	61	33	1,334	31,936	(8,491)	24,873
Property, plant and equipment, net	—	—	—	4,361	—	4,361
Goodwill	—	—	—	38,515	—	38,515
Other intangible assets, net	—	—	—	23,407	—	23,407
Tax assets	—	—	—	1,550	—	1,550
Investment in subsidiaries	55,747	50,580	51,208	—	(157,535)	—
Intercompany loans receivable	3,000	2,978	16,114	10,149	(32,241)	—
Other assets	—	—	—	1,232	—	1,232
Noncurrent assets held for sale	—	—	—	5,919	—	5,919
TOTAL ASSETS	**$ 58,808**	**$ 53,591**	**$ 68,656**	**$ 117,069**	**$ (198,267)**	**$ 99,857**
LIABILITIES AND EQUITY						
Current liabilities:						
Current debt obligations	$ —	$ 1,176	$ 901	$ 5,443	$ —	$ 7,520
Accounts payable	—	—	—	1,555	—	1,555
Intercompany payable	—	1,269	7,111	111	(8,491)	—
Accrued compensation	9	—	—	1,895	—	1,904
Accrued income taxes	13	—	—	620	—	633
Other accrued expenses	—	23	8	2,587	—	2,618
Current liabilities held for sale	—	—	—	34	—	34
Total current liabilities	22	2,468	8,020	12,245	(8,491)	14,264
Long-term debt	—	2,133	1,842	21,946	—	25,921
Accrued compensation and retirement benefits	—	—	—	1,724	—	1,724
Accrued income taxes	10	—	—	2,395	—	2,405
Intercompany loans payable	8,568	100	10,050	13,523	(32,241)	—
Deferred tax liabilities	—	—	—	2,978	—	2,978
Other liabilities	—	—	—	1,515	—	1,515
Noncurrent liabilities held for sale	—	—	—	720	—	720
Total liabilities	8,600	4,701	19,912	57,046	(40,732)	49,527
Shareholders' equity	50,208	48,890	48,744	59,901	(157,535)	50,208
Noncontrolling interests	—	—	—	122	—	122
Total equity	50,208	48,890	48,744	60,023	(157,535)	50,330
TOTAL LIABILITIES AND EQUITY	**$ 58,808**	**$ 53,591**	**$ 68,656**	**$ 117,069**	**$ (198,267)**	**$ 99,857**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 27, 2018
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 155	$ 974	$ 264	$ 4,339	$ (1,048)	$ 4,684
Investing Activities:						
Acquisitions, net of cash acquired	—	—	—	(137)	—	(137)
Proceeds from sale of businesses	—	—	—	6,058	—	6,058
Additions to property, plant, and equipment	—	—	—	(1,068)	—	(1,068)
Purchases of investments	—	—	(25)	(3,200)	25	(3,200)
Sales and maturities of investments	—	—	—	4,252	(25)	4,227
Capital contributions paid	—	(1,557)	(4,200)	—	5,757	—
Other investing activities, net	—	—	—	(22)	—	(22)
Net cash (used in) provided by investing activities	—	(1,557)	(4,225)	5,883	5,757	5,858
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(48)	—	(48)
Change in current debt obligations, net	—	—	(205)	(44)	—	(249)
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	—	(45)	—	(45)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	—	1	—	1
Issuance of long-term debt	—	—	—	21	—	21
Payments on long-term debt	—	(1,150)	—	(6,220)	—	(7,370)
Dividends to shareholders	(2,494)	—	—	—	—	(2,494)
Issuance of ordinary shares	403	—	—	—	—	403
Repurchase of ordinary shares	(2,171)	—	—	—	—	(2,171)
Net intercompany loan borrowings (repayments)	4,107	1,700	4,162	(9,969)	—	—
Intercompany dividend paid	—	—	—	(1,048)	1,048	—
Capital contributions received	—	—	—	5,757	(5,757)	—
Other financing activities	—	—	—	(2)	—	(2)
Net cash (used in) provided by financing activities	(155)	550	3,957	(11,597)	(4,709)	(11,954)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	114	—	114
Net change in cash and cash equivalents	—	(33)	(4)	(1,261)	—	(1,298)
Cash and cash equivalents at beginning of period	—	33	5	4,929	—	4,967
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ —**	**$ 1**	**$ 3,668**	**$ —**	**$ 3,669**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 28, 2017
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 842	$ 1,904	$ 302	$ 5,829	$ (1,997)	$ 6,880
Investing Activities:						
Acquisitions, net of cash acquired	—	—	—	(1,324)	—	(1,324)
Additions to property, plant, and equipment	—	—	—	(1,254)	—	(1,254)
Purchases of investments	—	—	—	(4,371)	—	(4,371)
Sales and maturities of investments	—	—	—	5,356	—	5,356
Capital contributions paid	—	(537)	—	—	537	—
Other investing activities, net	—	—	—	22	—	22
Net cash (used in) provided by investing activities	—	(537)	—	(1,571)	537	(1,571)
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(69)	—	(69)
Change in current debt obligations, net	—	—	901	5	—	906
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	—	(2)	—	(2)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	—	12	—	12
Issuance of long-term debt	—	—	1,850	290	—	2,140
Payments on long-term debt	—	—	—	(863)	—	(863)
Dividends to shareholders	(2,376)	—	—	—	—	(2,376)
Issuance of ordinary shares	428	—	—	—	—	428
Repurchase of ordinary shares	(3,544)	—	—	—	—	(3,544)
Net intercompany loan borrowings (repayments)	4,650	(1,542)	(3,048)	(60)	—	—
Intercompany dividend paid	—	—	—	(1,997)	1,997	—
Capital contributions received	—	—	—	537	(537)	—
Other financing activities	—	—	—	85	—	85
Net cash (used in) provided by financing activities	(842)	(1,542)	(297)	(2,062)	1,460	(3,283)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	65	—	65
Net change in cash and cash equivalents	—	(175)	5	2,261	—	2,091
Cash and cash equivalents at beginning of period	—	208	—	2,668	—	2,876
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ 33**	**$ 5**	**$ 4,929**	**$ —**	**$ 4,967**

Condensed Consolidating *Statement of Cash Flows*

Fiscal Year Ended April 29, 2016
CIFSA Senior Notes

(in millions)	Medtronic plc	CIFSA	CIFSA Subsidiary Guarantors	Subsidiary Non-guarantors	Consolidating Adjustments	Total
Operating Activities:						
Net cash provided by operating activities	$ 297	$ 4,208	$ 604	$ 4,114	$ (4,005)	$ 5,218
Investing Activities:						
Acquisitions, net of cash acquired	—	—	—	(1,266)	53	(1,213)
Additions to property, plant, and equipment	—	—	—	(1,046)	—	(1,046)
Purchases of investments	—	—	—	(5,406)	—	(5,406)
Sales and maturities of investments	—	—	—	9,924	—	9,924
Sales of subsidiaries	—	—	53	—	(53)	—
Capital contributions paid	—	(720)	(4,959)	—	5,679	—
Other investing activities, net	—	—	—	(14)	—	(14)
Net cash (used in) provided by investing activities	—	(720)	(4,906)	2,192	5,679	2,245
Financing Activities:						
Acquisition-related contingent consideration	—	—	—	(22)	—	(22)
Change in current debt obligations, net	—	—	—	7	—	7
Repayment of short-term borrowings (maturities greater than 90 days)	—	—	(139)	—	—	(139)
Proceeds from short-term borrowings (maturities greater than 90 days)	—	—	139	—	—	139
Payments on long-term debt	—	(2,121)	—	(3,011)	—	(5,132)
Dividends to shareholders	(2,139)	—	—	—	—	(2,139)
Issuance of ordinary shares	491	—	—	—	—	491
Repurchase of ordinary shares	(2,830)	—	—	—	—	(2,830)
Net intercompany loan borrowings (repayments)	3,918	(1,887)	4,132	(6,163)	—	—
Intercompany dividend paid	—	—	—	(4,005)	4,005	—
Capital contributions received	—	—	—	5,679	(5,679)	—
Other financing activities	—	—	—	82	—	82
Net cash (used in) provided by financing activities	(560)	(4,008)	4,132	(7,433)	(1,674)	(9,543)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	113	—	113
Net change in cash and cash equivalents	(263)	(520)	(170)	(1,014)	—	(1,967)
Cash and cash equivalents at beginning of period	263	728	170	3,682	—	4,843
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ —**	**$ 208**	**$ —**	**$ 2,668**	**$ —**	**$ 2,876**

Item 9 Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) and changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this annual report, our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) are effective.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company (as defined in Exchange Act Rule 13a-15(f)). Management conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective at April 27, 2018. Our internal control over financial reporting at April 27, 2018, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm who has also audited our consolidated financial statements, as stated in their report in the section entitled "Report of Independent Registered Public Accounting Firm," which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting at April 27, 2018, which is included in "Item 8. Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

The Company began deployment of an enterprise resource planning (ERP) software program, SAP, to the Minimally Invasive Therapies Group during fiscal year 2017. Although no specific implementation activity or related changes in internal controls occurred during the period covered by this Annual Report on Form 10-K, the system deployments will continue in the coming year with a projected completion in fiscal year 2020. There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) under the Exchange Act) during the period covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B Other Information

None.

PART III

Part III of this Annual Report on Form 10-K incorporates information by reference from the Company's 2018 definitive proxy statement, which will be filed no later than 120 days after April 27, 2018.

Item 10 Directors, Executive Officers, and Corporate Governance

The sections entitled "Proposal 1 — Election of Directors — Directors and Nominees," "Corporate Governance — Committees of the Board and Meetings," and "Share Ownership Information — Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement for our 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, are incorporated herein by reference.

Set forth below are the names and ages of our Section 16(b) executive officers of Medtronic, as well as information regarding their positions with Medtronic, their periods of service in these capacities, and their business experiences. There are no family relationships among any of the officers named, nor is there any arrangement or understanding pursuant to which any person was selected as an officer.

Omar Ishrak, age 62, has been Chairman and Chief Executive Officer of Medtronic since 2011. Prior to joining Medtronic, Mr. Ishrak served as President and Chief Executive Officer of GE Healthcare Systems, a comprehensive provider of medical imaging and diagnostic technology, from 2009 to 2011. Before that, Mr. Ishrak was President and Chief Executive Officer of GE Healthcare Clinical Systems from 2005 to 2008 and President and Chief Executive Officer of GE Healthcare Ultrasound and BMD from 1995 to 2004. Mr. Ishrak is also a current member of the Board of Directors of Intel Corporation.

Michael J. Coyle, age 56, has been Executive Vice President and Group President, Cardiac and Vascular Group of the Company since January 2015 and of Medtronic, Inc. since December 2009. Prior to that, he served as President of the Cardiac Rhythm Management division at St. Jude from 2001 to 2007, and prior positions included serving St. Jude as President of the company's Daig Catheter division and numerous leadership positions at Eli Lilly & Company.

Hooman C. Hakami, age 48, has been Executive Vice President and Group President, Diabetes Group of the Company since January 2015 and of Medtronic, Inc. since June 2014. Prior to that, he was President and Chief Executive Officer of Detection and Guidance Solutions at GE Healthcare from April 2012 to May 2014. Prior to that, he served as President and Chief Executive Officer of Interventional Systems from July 2009 to April 2012; Global Business Transformation leader for GE Healthcare from December 2008 to July 2009; and Vice President and General Manager, Global Ultrasound Services from June 2004 to December 2008. Mr. Hakami started his career with GE and has held the following financial roles: Chief Financial Officer for the Global Ultrasound division from 2001 to 2004; Chief Financial Officer for Clinical and Multi-vendor Services from 1999 to 2001; as well as various finance roles at GE Capital from 1994 to 1999; GE's Aerospace Division from 1992 to 1994 and GE Power Systems from 1991 to 1992.

Richard Kuntz, M.D., age 61, has been Senior Vice President and Chief Scientific, Clinical and Regulatory Officer of the Company since January 2015 and of Medtronic, Inc. since August 2009. Prior to that, he was Senior Vice President and President, Neuromodulation from October 2005 to August 2009; and prior to that, he was an interventional cardiologist and Chief of the Division of Clinical Biometrics at Brigham and Women's Hospital and Associate Professor of Medicine and Chief Scientific Officer of the Harvard Clinical Research Institute.

Bradley E. Lerman, age 61, has been Senior Vice President, General Counsel and Corporate Secretary of the Company since January 2015 and of Medtronic, Inc. since May 2014. Prior to that, he was Executive Vice President, General Counsel and Corporate Secretary at Federal National Mortgage Association (Fannie Mae) from October 2012 to May 2014; Senior Vice President and Chief Litigation Counsel at Pfizer, Inc. from January 2009 to September 2012; Partner at Winston & Strawn from August 1998 to January 2009; partner at Kirkland & Ellis from March 1996 to July 1998; Associate Independent Counsel from October 1994 to March 1996; and Assistant U.S. Attorney in the Northern District of Illinois from February 1986 to September 1994. Mr. Lerman is also a current member of the Board of Directors of McKesson Corporation.

Geoffrey S. Martha, age 48, has been Executive Vice President and President, Restorative Therapies Group since June 2015. Mr. Martha previously served as Senior Vice President of Strategy and Business Development of the Company beginning in January 2015 and of Medtronic, Inc. beginning in August 2011. Prior to that, he served as Managing Director of Business Development at GE Healthcare from April 2007 to July 2011; General Manager for GE Capital Technology Finance Services from November 2003 to March 2007; Senior Vice President, Business Development for GE Capital Vendor Financial Services from February 2002 to October 2003; General Manager for GE Capital Colonial Pacific Leasing from February 2001 to January 2002; and Vice President, Business Development for Potomac Federal, the GE Capital federal financing investment bank from May 1998 to January 2001.

Karen L. Parkhill, age 52, has been Executive Vice President and Chief Financial Officer since June 2016. From 2011 to 2016, Ms. Parkhill served as Vice Chairman and Chief Financial Officer of

Comerica Incorporated. Ms. Parkhill was a member of Comerica's Management Executive Committee and the Comerica Bank Board of Directors. Prior to joining Comerica, Ms. Parkhill worked for J.P. Morgan Chase & Co. in various capacities from 1992 to 2011, including serving as Chief Financial Officer of the Commercial Banking business from 2007 to 2011. Ms. Parkhill is also a current member of the Board of Directors for the Methodist Health System in Dallas.

Carol A. Surface, age 52, has been Senior Vice President and Chief Human Resources Officer of the Company since January 2015 and of Medtronic, Inc. since September 2013. Prior to that, she was the Executive Vice President and Chief Human Resources Officer at Best Buy Co., Inc. from March 2010 to September 2013, and held a series of HR leadership roles at PepsiCo Inc., from May 2000 to March 2010.

Robert ten Hoedt, age 57, has been Executive Vice President and President, EMEA of the Company since January 2015 and of Medtronic, Inc. since May 2014. Prior to that, he was Senior Vice President and President, EMEA and Canada from 2009 to 2014; Vice President CardioVascular Europe and Central Asia from 2006 to 2009; Vice President and General Manager, Vitatron from 1999 to 2006; Gastro-Uro leader from 1994 to 1999; and Marketing Manager, Neurological from 1991 to 1994.

Robert J. White, age 55, has been Executive Vice President and President, Minimally Invasive Therapies Group since December 2017. Prior to that, he was Senior Vice President and President, Asia Pacific from January 2015 to December 2017. Mr. White held various leadership positions at Covidien from 2010 to 2015 including President, Emerging Markets; President, Respiratory and Monitoring Solutions; and Vice President and General Manager, Patient Monitoring. Mr. White also held various leadership positions at GE Healthcare and IBM.

Item 11 Executive Compensation

The sections entitled "Corporate Governance — Director Compensation," "Corporate Governance — Committees of the Board and Meetings," "Compensation Discussion and Analysis," and "Executive Compensation" in Medtronic's Proxy Statement for the Company's 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, are incorporated herein by reference. The section entitled "Compensation Committee Report" in Medtronic's Proxy Statement for the Company's 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, is furnished herein by reference.

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

The sections entitled "Share Ownership Information – Significant Shareholders," "Share Ownership Information – Beneficial Ownership of Management," and "Executive Compensation — Equity Compensation Plan Information" in Medtronic's Proxy Statement for the Company's 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, are incorporated herein by reference.

Item 13 Certain Relationships and Related Transactions, and Director Independence

The sections entitled "Corporate Governance — Director Independence" and "Corporate Governance — Related Party Transactions and Other Matters" in Medtronic's Proxy Statement for the Company's 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, are incorporated herein by reference.

Item 14 Principal Accounting Fees and Services

The sections entitled "Corporate Governance — Committees of the Board and Meetings" and "Audit and Non-Audit Fees" in Medtronic's Proxy Statement for the Company's 2018 Annual General Meeting of Shareholders, which will be filed no later than 120 days after April 27, 2018, are incorporated herein by reference.

PART IV

Item 15 Exhibits and Financial Statement Schedules

(a) 1. Financial Statement Schedules

Schedule II. Valuation and Qualifying Accounts — years ended April 27, 2018, April 28, 2017, and April 29, 2016.

All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

2. Exhibits

Exhibit No.	Description
3.1	Certificate of Incorporation of Medtronic plc (incorporated by reference to Exhibit 3.1 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
3.2	Amended and Restated Memorandum and Articles of Association of Medtronic plc (incorporated by reference to Exhibit 3.2 to Medtronic plc's Registration Statement on Form S-3, filed on February 6, 2017, File No. 333-215895).
4.1	Form of Indenture between Medtronic, Inc. and Wells Fargo Bank, National Association regarding 2009 offering (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Registration Statement on Form S-3, filed on March 9, 2009, File No. 333-157777).
4.2	First Supplemental Indenture, dated March 12, 2009, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Forms of Notes thereof) (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Current Report on Form 8-K, filed on March 12, 2009, File No. 001-07707).
4.3	Second Supplemental Indenture, dated March 16, 2010, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Forms of Notes thereof) (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Current Report on Form 8-K, filed on March 16, 2010, File No. 001-07707).
4.4	Third Supplemental Indenture, dated March 15, 2011, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Forms of Notes thereof) (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Current report on Form 8-K, filed on March 16, 2011, File No. 001-07707).
4.5	Fourth Supplemental Indenture, dated March 19, 2012, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Forms of Notes thereof) (incorporated by reference to Exhibit 4.2 to Medtronic, Inc.'s Current Report on Form 8-K, filed on March 20, 2012, File No. 001-07707).
4.6	Fifth Supplemental Indenture, dated March 26, 2013, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Forms of Notes thereof) (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Current Report on Form 8-K, filed on March 26, 2013, File No. 001-07707).
4.7	Sixth Supplemental Indenture, dated February 27, 2014, between Medtronic, Inc. and Wells Fargo Bank, National Association (including the Form of Global Note thereof) (incorporated by reference to Exhibit 4.2 to Medtronic, Inc.'s Current Report on Form 8-K, filed on February 27, 2014, File No. 001-07707).
4.8	Seventh Supplemental Indenture, dated as of January 26, 2015, by and among Medtronic plc, Medtronic, Inc., Medtronic Global Holdings S.C.A. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.2 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).
4.9	Indenture, dated December 10, 2014, between Medtronic, Inc. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 to Medtronic, Inc.'s Current Report on Form 8-K filed with the Commission on December 10, 2014, File No. 001-07707).
4.10	First Supplemental Indenture, dated December 10, 2014, between Medtronic, Inc. and Wells Fargo Bank, National Association (including Form of Floating Rate Senior Notes due 2020, Form of 1.500% Senior Notes due 2018, Form of 2.500% Senior Notes due 2020, Form of 3.150% Senior Notes due 2022, Form of 3.500% Senior Notes due 2025, Form of 4.375% Senior Notes due 2035 and Form of 4.625% Senior Notes due 2045) (incorporated by reference to Exhibit 4.2 of Medtronic, Inc.'s Current Report on Form 8-K filed with the Commission on December 10, 2014, File No. 001-07707).
4.11	Second Supplemental Indenture, dated as of January 26, 2015, by and among Medtronic plc and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.3 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).

Exhibit No.	Description
4.12	Third Supplemental Indenture, dated as of January 26, 2015, by and among Medtronic Global Holdings S.C.A. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.4 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).
4.13	Indenture, dated as of October 22, 2007, by and among Covidien International Finance S.A., Covidien Ltd. and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1(a) to Covidien plc's Current Report on Form 8-K filed on October 22, 2007, File No. 001-33259).
4.14	Third Supplemental Indenture, dated as of October 22, 2007, by and among Covidien International Finance S.A., Covidien Ltd. and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1(d) to Covidien plc's Current Report on Form 8-K filed on October 22, 2007, File No. 001-33259).
4.15	Fourth Supplemental Indenture, dated as of October 22, 2007, by and among Covidien International Finance S.A., Covidien Ltd. and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1(e) to Covidien plc's Current Report on Form 8-K filed on October 22, 2007, File No. 001-33259).
4.16	Fifth Supplemental Indenture, dated as of June 4, 2009, by and among Covidien International Finance S.A., Covidien Ltd., Covidien plc and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1 to Covidien plc's Current Report on Form 8-K12G3 filed on June 5, 2009, File No. 001-33259).
4.17	Sixth Supplemental Indenture, dated as of June 28, 2010, among Covidien International Finance S.A., Covidien Ltd., Covidien plc and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1 to Covidien plc's Current Report on Form 8-K filed on June 28, 2010, File No. 001-33259).
4.18	Seventh Supplemental Indenture, dated as of May 30, 2012, among Covidien International Finance S.A., Covidien Ltd., Covidien plc and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1 to Covidien plc's Current Report on Form 8-K filed on May 30, 2012, File No. 001-33259).
4.19	Eighth Supplemental Indenture, dated as of May 16, 2013, among Covidien International Finance S.A., Covidien Ltd., Covidien plc and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.1 to Covidien plc's Current Report on Form 8-K filed on May 16, 2013, File No. 001-33259).
4.20	Ninth Supplemental Indenture, dated as of January 26, 2015, by and among Medtronic plc, Medtronic Global Holdings S.C.A., Covidien public limited company, Covidien International Finance S.A., Covidien Ltd. and Deutsche Bank Trust Company Americas (incorporated by reference to Exhibit 4.5 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).
4.21	Senior Indenture, dated as of March 28, 2017, by and among Medtronic plc, Medtronic Global Holdings S.C.A., Medtronic, Inc., and Wells Fargo Bank, N.A. (incorporated by reference to Exhibit 4.1 to Medtronic plc's Current Report on Form 8-K, filed on March 28, 2017, File No. 001-36820).
4.23	First Supplemental Indenture, dated as of March 28, 2017, by and among Medtronic plc, Medtronic Global Holdings S.C.A., Medtronic, Inc., and Wells Fargo Bank, N.A. (incorporated by reference to Exhibit 4.2 to Medtronic plc's Current Report on Form 8-K, filed on March 28, 2017, File No. 001-36820).
10.1	Amendment and Restatement Agreement, dated as of November 7, 2014, by and among Medtronic, Inc., Medtronic plc (formerly known as Medtronic Holdings Limited), Medtronic Global Holdings S.C.A., the lenders from time to time party thereto, and Bank of America, N.A., as administrative agent and issuing bank (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Current Report on Form 8-K, filed on November 10, 2014, File No. 001-07707).
10.2	Amendment dated September 30, 2015, to Amended and Restated Revolving Credit Agreement, dated as of November 7, 2014, by and among Medtronic, Inc., Medtronic Holdings Limited, Medtronic Global Holdings, SCA, the lenders from time to time party thereto, and Bank of America, N.A., as administrative agent and issuing bank (incorporated by reference to Exhibit 10.2 to Medtronic plc's Form 10-Q for the quarter ended October 30, 2015, filed on December 9, 2015, File No. 001-36820).
10.3	Tax Sharing Agreement, dated as of June 29, 2007, by and among Tyco International Ltd., Covidien Ltd. and Tyco Electronics Ltd. (incorporated by reference to Exhibit 10.1 to Covidien plc's Current Report on Form 8-K, filed on July 5, 2007, File No. 001-33259).
10.4	Form of Deed of Indemnification (incorporated by reference to Exhibit 10.1 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).
10.5	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.2 to Medtronic plc's Current Report on Form 8-K12B, filed on January 27, 2015, File No. 001-36820).
*10.6	Letter Agreement by and between Medtronic, Inc. and Omar Ishrak dated May 11, 2011 (incorporated by reference to Exhibit 10.1 to Medtronic, Inc.'s Current Report on Form 8-K, filed on May 11, 2011, File No. 001-07707).
*10.7	Change of Control Severance Plan - Section 16B Officers (as amended and restated as of January 26, 2015) (incorporated by reference to Exhibit 10.14 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.8	Amendment to Letter Agreement dated May 11, 2011 by and between Medtronic, Inc. and Omar Ishrak (incorporated by reference to Exhibit 10.1 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 29, 2011, filed September 7, 2011, File No. 001-07707).
*10.9	Amendment dated February 12, 2015 to the Letter Agreement by and between Medtronic, Inc. and Omar Ishrak dated May 11, 2011 (incorporated by reference to Exhibit 10.24 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.10	Letter Agreement by and between Medtronic, Inc. and Michael J. Coyle dated November 19, 2009 (incorporated by reference to Exhibit 10.55 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 27, 2012, filed on June 26, 2012, File No. 001-07707).
*10.11	Letter Agreement by and between Medtronic, Inc. and Carol Surface dated August 22, 2013 (incorporated by reference to Exhibit 10.44 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 25, 2014, filed on June 20, 2014, File No. 001-07707).
*10.12	Letter Agreement by and between Medtronic, Inc. and Hooman Hakami dated April 29, 2014 (incorporated by reference to Exhibit 10.5 of Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2014, filed on August 29, 2014, File No. 001-07707).
*10.13	Letter Agreement by and between Medtronic, Inc. and Bradley E. Lerman dated May 2, 2014 (incorporated by reference to Exhibit 10.4 of Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2014, filed on August 29, 2014, File No. 001-07707).

Exhibit No.	Description
*10.14	Letter Agreement by and between Medtronic, Inc. and Karen Parkhill dated May 2, 2016 (incorporated by reference to Exhibit 10.1 to Medtronic, plc's Current Report on Form 8-K, filed on May 4, 2016, File No. 001-36820).
*10.15	Form of Offer Letter Amendment (incorporated by reference to Exhibit 10.25 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.16	1998 Outside Director Stock Compensation Plan (as amended and restated effective as of January 1, 2008) (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 25, 2008, filed on, filed on March 4, 2008, File No. 001-07707).
*10.17	Amendment to the 1998 Outside Director Stock Compensation Plan (incorporated by reference to Exhibit 10.2 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.18	2003 Long-Term Incentive Plan (as amended and restated effective January 1, 2008) (incorporated by reference to Exhibit 10.4 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 28, 2008, filed on March 4, 2008, File No. 001-07707).
*10.19	Amendment to the 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.20	Form of Restricted Stock Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 28, 2005, filed on March 7, 2005, File No. 001-07707).
*10.21	Form of Non-Qualified Stock Option Agreement under 2003 Long-Term Incentive Plan (four year vesting) (incorporated by reference to Exhibit 10.1 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 28, 2005, filed on March 7, 2005, File No. 001-07707).
*10.22	Form of Non-Qualified Stock Option Agreement under 2003 Long-Term Incentive Plan (immediate vesting) (incorporated by reference to Exhibit 10.2 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 28, 2005, filed on March 7, 2005, File No. 001-07707).
*10.23	Form of Restricted Stock Units Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.20 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 29, 2005, filed on June 29, 2005, File No. 001-07707).
*10.24	Form of Performance Share Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.21 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 29, 2005, filed on June 29, 2005, File No. 001-07707).
*10.25	Form of Non-Qualified Stock Option Agreement under 2003 Long-Term Incentive Plan effective June 22, 2006 (incorporated by reference to Exhibit 10.23 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 28, 2006, filed on June 28, 2006, File No. 001-07707).
*10.26	Form of Restricted Stock Award Agreement under 2003 Long-Term Incentive Plan effective June 22, 2006 (incorporated by reference to Exhibit 10.24 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 28, 2006, filed on June 28, 2006, File No. 001-07707).
*10.27	Form of Restricted Stock Unit Award Agreement under 2003 Long-Term Incentive Plan effective June 22, 2006 (incorporated by reference to Exhibit 10.25 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 28, 2006, filed on June 28, 2006, File No. 001-07707).
*10.28	Form of Performance Award Agreement under 2003 Long-Term Incentive Plan effective June 22, 2006 (incorporated by reference to Exhibit 10.26 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 28, 2006, filed on June 28, 2006, File No. 001-07707).
*10.29	Form of Restricted Stock Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 26, 2007, filed on December 4, 2007, File No. 001-07707).
*10.30	Form of Restricted Stock Unit Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.4 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 26, 2007, filed on December 4, 2007, File No. 001-07707).
*10.31	Form of Non-Qualified Stock Option Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.39 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 25, 2008, filed on June 24, 2008, File No. 001-07707).
*10.32	Form of Restricted Stock Unit Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.40 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 25, 2008, filed on June 24, 2008, File No. 001-07707).
*10.33	Form of Restricted Stock Unit Award Agreement under 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.41 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 25, 2008, filed on June 24, 2008, File No. 001-07707).
*10.34	Israeli Amendment to the 2003 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.5 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended January 25, 2008, filed on March 4, 2008, File No. 001-07707).
*10.35	2008 Stock Award and Incentive Plan (as amended and restated effective August 27, 2009) (incorporated by reference to Exhibit 10.2 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 30, 2009, filed on December 9, 2009, File No. 001-07707).
*10.36	Amendment to the 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.4 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.37	Form of Restricted Stock Unit Award Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.2 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2008, filed on September 3, 2008, File No. 001-07707).
*10.38	Form of Restricted Stock Award Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2008, filed on September 3, 2008, File No. 001-07707).
*10.39	Form of Restricted Stock Award Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.4 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2008, filed on September 3, 2008, File No. 001-07707).
*10.40	Form of Restricted Stock Unit Award Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.5 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2008, filed on September 3, 2008, File No. 001-07707).
*10.41	Form of Non-Qualified Stock Option Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.6 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 25, 2008, filed on September 3, 2008, File No. 001-07707).
*10.42	Terms of Non-Employee Director Compensation under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.42 to Medtronic, Inc.'s Annual Report on Form 10-K for the year ended April 27, 2012, filed on June 26, 2012, File No. 001-07707).

Exhibit No.	Description
*10.43	Form of Non-Employee Director Initial Option Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.1 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 24, 2008, filed on December 3, 2008, File No. 001-07707).
*10.44	Form of Non-Employee Director Annual Option Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.2 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 24, 2008, filed on December 3, 2008, File No. 001-07707).
*10.45	Form of Non-Employee Director Deferred Unit Award Agreement under 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 24, 2008, filed on December 3, 2008, File No. 001-07707).
*10.46	Form of Non-Employee Restricted Stock Unit Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.65 to Medtronic plc's Annual Report on Form 10-K for the year ended April 24, 2015, filed on June 23, 2015, File No. 001-36820).
*10.47	Israeli Amendment to the Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.10 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.48	Form of Restricted Stock Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.1 to Medtronic plc's Quarterly Report on Form 10-K for the quarter ended July 28, 2017, filed on September 1, 2017, File No. 001-36820).
*10.49	Medtronic plc Amended and Restated 2013 Stock Award and Incentive Plan (as amended and restated generally effective December 8, 2017) (incorporated by reference to Exhibit 10.1 to Medtronic plc's Current Report on Form 8-K, filed on December 12, 2017, File No. 001-36820).
*10.50	Form of Non-qualified Stock Option Agreement Amended and Restated 2013 Stock Award and Incentive Plan.#
*10.51	Form of Restricted Stock Unit Award Agreement Amended and Restated 2013 Stock Award and Incentive Plan.#
*10.52	Form of Restricted Stock Award Agreement Amended and Restated 2013 Stock Award and Incentive Plan.#
*10.53	Form of Long Term Performance Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan#
*10.54	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.31 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.55	Form of Non-Employee Director Deferred Unit Award Agreement under the 2008 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Quarterly Report on Form 10-Q for the quarter ended October 24, 2008, filed on December 3, 2008, File No. 001-07707).
*10.56	Form of Non-Qualified Stock Option Agreement under 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.2 to Medtronic, Inc.'s Current Report on Form 8-K, filed on August 27, 2013, File No. 001-07707).
*10.57	Form of Restricted Stock Unit Award Agreement (U.S. Employees) under 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.3 to Medtronic, Inc.'s Current Report on Form 8-K, filed on August 27, 2013, File No. 001-07707).
*10.58	Form of Restricted Stock Unit Award Agreement (Non-U.S. Employees) under 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.4 to Medtronic, Inc.'s Current Report on Form 8-K, filed on August 27, 2013, File No. 001-07707).
*10.59	Form of Restricted Stock Unit Award Agreement (Time-Based) under 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.5 to Medtronic, Inc.'s Current Report on Form 8-K, filed on August 27, 2013, File No. 001-07707).
*10.60	Form of Restricted Stock Unit Award Agreement (Israeli-Employees) under 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.8 to Medtronic, Inc.'s Current Report on Form 8-K, filed on August 27, 2013, File No. 001-07707).
*10.61	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.48 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.62	Form of Restricted Stock Unit Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.49 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.63	Form of Restricted Stock Unit Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.50 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.64	Form of Restricted Stock Unit Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.51 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.65	Form of Stock Option Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.53 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.66	Form of Restricted Stock Unit Award Agreement under Amended and Restated 2013 Stock Award and Incentive Plan (incorporated by reference to Exhibit 10.54 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended January 23, 2015, filed on February 27, 2015, File No. 001-36820).
*10.67	Medtronic plc 2014 Amended and Restated Employees Stock Purchase Plan (incorporated by reference to Exhibit 10.8 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).

Exhibit No.	Description
*10.68	Medtronic plc Incentive Plan (as amended and restated effective January 26, 2015) (incorporated by reference to Exhibit 10.11 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.69	Medtronic plc Supplemental Executive Retirement Plan (as restated generally effective January 26, 2015) (incorporated by reference to Exhibit 10.15 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.70	Medtronic plc Savings and Investment Plan (as amended and restated generally effective January 26, 2015) (incorporated by reference to Exhibit 4.22 to Medtronic plc's Registration Statement on Form S-8 filed on January 28, 2015, File No. 333-201737).
*10.71	Medtronic plc Puerto Rico Employees' Savings and Investment Plan (as amended and restated generally effective January 26, 2015) (incorporated by reference to Exhibit 4.23 to Medtronic plc's Registration Statement on Form S-8 filed on January 28, 2015, File No. 333-201737).
*10.72	Medtronic plc Capital Accumulation Plan Deferral Program (as amended and restated generally effective January 26, 2015) (incorporated by reference to Exhibit 10.13 to Medtronic plc's Current Report on Form 8-K, filed on January 27, 2015, File No. 001-36820).
*10.73	Capital Accumulation Plan Deferral Program (as amended and restated generally effective January 1, 2017) (incorporated by reference to Exhibit 10.1 to Medtronic plc's Quarterly Report on Form 10-Q for the quarter ended October 28, 2016, filed on December 5, 2016, File No. 001-36820).
12.1	Computation of Ratio of Earnings to Fixed Charges.
21	List of Subsidiaries of Medtronic plc.
23	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Medtronic plc's Annual Report on Form 10-K for the year ended April 27, 2018, formatted in Extensible Business Reporting Language (XBRL): (i) consolidated statements of income, (ii) consolidated statements of comprehensive income, (iii) consolidated balance sheets, (iv) consolidated statements of cash flows, (v) consolidated statements of equity, and (vi) the notes to the consolidated financial statements.

* Exhibits that are management contracts or compensatory plans or arrangements.
\# Filed herewith.

MEDTRONIC PLC AND SUBSIDIARIES
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS

(in millions)	Balance at Beginning of Fiscal Year	Additions: Charges to Income	Additions: Charges to Other Accounts	Deductions: Other Changes (Debit) Credit	Balance at End of Fiscal Year
Allowance for doubtful accounts:					
Year ended 4/27/18	$ 155	$ 52	$ —	$ (14)[a]	$ 193
Year ended 4/28/17	$ 161	$ 39	$ —	$ (45)[a]	$ 155
Year ended 4/29/16	$ 144	$ 49	$ —	$ (32)[a]	$ 161
Inventory reserve:					
Year ended 4/27/18	$ 443	$ 170	$ —	$ (161)[b]	$ 452
Year ended 4/28/17	$ 426	$ 155	$ 28	$ (166)[b]	$ 443
Year ended 4/29/16	$ 413	$ 164	$ 10	$ (161)[b]	$ 426
Deferred tax valuation allowance:					
Year ended 4/27/18	$ 6,311	$ 434	$ 21[c]	$ (171)[d]	$ 7,166
				$ 571[e]	
Year ended 4/28/17	$ 7,032	$ 101	$ 6[c]	$ (524)[d]	$ 6,311
				$ (304)[e]	
Year ended 4/29/16	$ 5,607	$ 1,194	$ 4[c]	$ (88)[d]	$ 7,032
				$ 315[e]	

(a) Primarily consists of uncollectible accounts written off, less recoveries.
(b) Primarily reflects utilization of the inventory reserve.
(c) Reflects the impact from acquisitions.
(d) Reflects carryover attribute utilization and expiration.
(e) Primarily reflects the effects of currency fluctuations.

Item 16 Form 10-K Summary

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

Signatures

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

MEDTRONIC PUBLIC LIMITED COMPANY

Dated: June 22, 2018

By: /s/ OMAR ISHRAK
Omar Ishrak
Chairman and
Chief Executive Officer

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

MEDTRONIC PUBLIC LIMITED COMPANY

Dated: June 22, 2018

By: /s/ OMAR ISHRAK
Omar Ishrak
Chairman and
Chief Executive Officer
(Principal Executive Officer)

Dated: June 22, 2018

By: /s/ KAREN L. PARKHILL
Karen L. Parkhill
Executive Vice President and
Chief Financial Officer
(Principal Financial and
Accounting Officer)

Directors

Richard H. Anderson*
Craig Arnold*
Scott C. Donnelly*
Randall J. Hogan, III*
Omar Ishrak*
Shirley Ann Jackson, Ph.D*
Michael O. Leavitt*
James T. Lenehan*
Elizabeth G. Nabel*
Denise M. O'Leary*
Kendall J. Powell*
Robert C. Pozen*

*Bradley E. Lerman, by signing his name hereto, does hereby sign this document on behalf of each of the above named directors of the registrant pursuant to powers of attorney duly executed by such persons.

Dated: June 22, 2018

By: /s/ BRADLEY E. LERMAN
Bradley E. Lerman

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