2023

ZIMMER BIOMET HOLDINGS, INC.

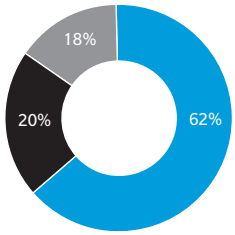
ANNUAL REPORT

ZIMMER BIOMET

Financial Highlights

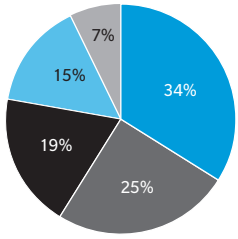
(Dollars in millions except per share amounts)

Sales by Geography



	2016	2017	2018	2019	2020	% Change 2019-2020 Reported	% Change 2019-2020 Constant Currency[1]
Americas	$4,787	$4,845	$4,837	$4,876	$4,336	(11%)	(11%)
EMEA	1,730	1,745	1,802	1,747	$1,391	(20%)	(21%)
Asia Pacific	1,151	1,213	1,294	1,359	$1,298	(5%)	(6%)
Consolidated	$7,668	$7,803	$7,933	$7,982	$7,025	(12%)	(12%)

Sales by Product Category



	2016	2017	2018	2019	2020	% Change 2019-2020 Reported	% Change 2019-2020 Constant Currency[1]
Knees	$2,751	$2,734	$2,774	$2,810	$2,390	(15%)	(15%)
Hips	1,862	1,872	1,919	1,932	1,751	(9%)	(10%)
S.E.T.	1,344	1,370	1,401	1,444	1,322	(8%)	(9%)
Dental, Spine & CMF	1,089	1,177	1,175	1,161	1,044	(10%)	(11%)
Other	622	650	664	635	518	(18%)	(19%)
Consolidated	$7,668	$7,803	$7,933	$7,982	$7,025	(12%)	(12%)

Net Sales

Zimmer Biomet recorded net sales of $7.025 billion in 2020, our net sales decreased by 12.0% compared to 2019 due to the deferral of elective surgical procedures from the COVID-19 pandemic.

Operating (Loss) Profit

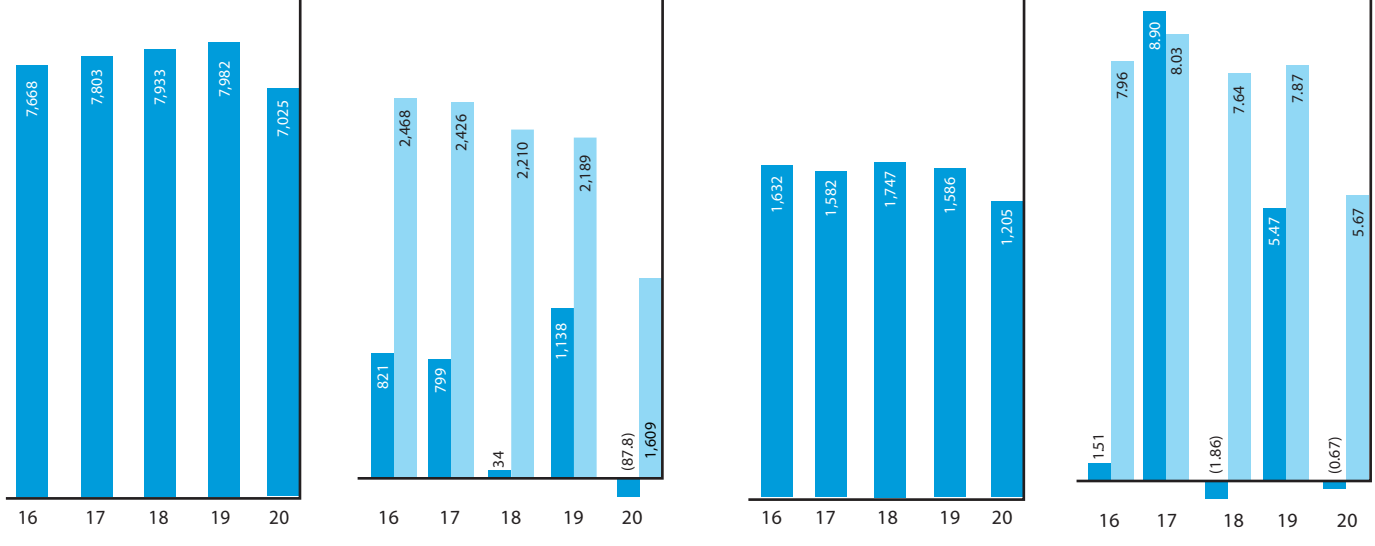
Our 2020 operating profit was adversely affected by the COVID-19 pandemic, including goodwill impairment charges resulting from decreased expected future cash flows due to the pandemic.

Operating Cash Flow

The decline in cash flow from operating activities in 2020 from 2019 was primarily the result of lower net sales due to COVID-19.

Diluted (Loss) Earnings per Share

Diluted (loss) earnings per share was negatively impacted by COVID-19.



(1) "Constant Currency" refers to changes in sales resulting from translating current and prior-period sales at the same predetermined foreign currency exchange rate. The translated results are then used to determine year-over-year percentage increases or decreases that exclude the effect of changes in foreign currency exchange rates. See the reconciliation of this non-GAAP financial measure to the most directly comparable GAAP measure on page 91.

(2) "Adjusted" refers to performance measures that exclude the effects of inventory step-up; certain inventory and manufacturing-related charges, including charges to discontinue certain product lines; intangible asset amortization; goodwill and intangible asset impairment, as applicable; quality remediation expenses; restructuring and other cost reduction initiatives; acquisition, integration and related expenses; certain litigation gains and charges; expenses to establish initial compliance with the European Union Medical Device Regulation; other charges; any related effects on our income tax provision associated with these items; the effect of Switzerland tax reform; the effect of U.S. tax reform; other certain tax adjustments; and, with respect to earnings per share information, provide for the effect of dilutive shares assuming net earnings in periods of a reported net loss. See the reconciliations of these non-GAAP financial measures to the most directly comparable GAAP measures on pages 88-90.

To Our Shareholders,

I want to open this letter by acknowledging and thanking Zimmer Biomet's more than 20,000 global team members, our dedicated and engaged Board of Directors, and you, our shareholders, for your support as we have executed on our plans.

I said early on in the COVID-19 pandemic that there isn't a playbook of historical actions that an executive team could reference to know how to navigate 2020. The year genuinely has no direct precedent. And so we, at Zimmer Biomet, looked within and focused on our Mission and Guiding Principles to move forward. In a year when health and safety was top of mind for all of us, we worked hard to keep our people safe, supported our communities, provided the products and solutions to help our patients live better lives, and continued to reshape our company for the future.

Despite the challenges posed by the global pandemic, Zimmer Biomet made steady progress during 2020 toward the continued transformation of our business. Over the last year, we have taken steps to accelerate innovation, execute on our strategy for sustained growth and deliver value to all of our stakeholders.

Key Achievements in 2020

Zimmer Biomet's headline numbers for 2020 may indicate a year of challenge. However, by many other measures, 2020 was a remarkable year. We delivered above market growth in our core large joint reconstruction businesses, launched new innovative products, executed against our restructuring plan and completed several strategic acquisitions that we project will be accretive to our top line growth.

Highlights of our accomplishments in 2020 include:

- **Innovative, Enabling Technologies and Solutions:** We added to our portfolio of innovative products and suite of integrated digital and robotic technologies that leverage data, data analytics and artificial intelligence. We had 21 product launches in 2020, including the Signature ONE™ Surgical Planner, the Persona® Revision Knee and the Avenir Complete® Hip System. In order to further build our product ecosystem, we are investing in additional technology and innovations that support informatics and operating room efficiency. In 2021, we expect to add partial knee and hip indications to the ROSA® Robotics platform as well as launch a first-to-market "smart" implant.

- **Active Portfolio Management:** As part of the ongoing transformation of our business, we completed several strategic tuck-in acquisitions, including Incisive LLC and Relign Corp. in our Sports, Extremities and Trauma segment and A&E Medical Corp. in our Dental, Spine and CMFT segment. We also signed key partnerships and began the process of spinning out our Spine and Dental businesses into a new independent, publicly traded company. For Zimmer Biomet, the spin transaction – which will be a focus for the Company in 2021 and is expected to be completed in mid-2022 – is an important step toward shifting our portfolio mix to higher-growth markets where we have a clear path to leadership and right to win.

- **Commitment to Diversity, Equity and Inclusion:** Consistent with our Guiding Principles, we committed our voices and our resources to community groups, business platforms and other organizations united to driving meaningful change and sustained social justice. In that spirit, we launched several initiatives to drive

and accelerate change both within Zimmer Biomet and around the globe, including continuing our support of Movement is Life, a multidisciplinary coalition seeking to eliminate racial, ethnic and gender disparities in muscle and joint health, committing at least $5 million over five years through the Zimmer Biomet Foundation to nonprofit organizations dedicated to combating racism and supporting diversity, equality and justice, and engaging our 20,000 global team members in cultural awareness and inclusion programming.

- **Team Member Engagement:** Acceleration of our virtual work strategies for greater efficiency, streamlined operations, and continued team member engagement remained a top priority, and we strived to ensure every member of our global organization had a direct personal connection to our Mission regardless of their work setting.
- **COVID-19 Response:** Our preparations for a global pandemic began before COVID-19 even hit. We had developed comprehensive readiness and contingency plans, which we immediately put into action, allowing us to protect our global supply chain and operate without compromising quality. Zimmer Biomet quickly secured the transportation of raw and finished goods materials, as well as personal protective equipment, for our manufacturing sites and distribution centers and enhanced safety protocols and regional health contacts prior to the pandemic spreading across all regions. Our enhanced safety protocols were shared with our suppliers to ensure as secure a supply chain as possible. Team members not directly tied to manufacturing and supply chain shifted to work from home as an added safety measure to reduce the risk of infection among supply chain personnel. All of these measures resulted in minimal impact to our operations, manufacturing and strategy and no negative impact on product quality.

Our progress during the year was recognized with Zimmer Biomet being named one of America's Most Responsible Companies by Newsweek in December 2020, along with several other awards that highlight our company as a leader in the industry.

Dear Zimmer Biomet Shareholders,

I want to take a moment to reflect on my tenure on the Board of Zimmer Biomet.

Since joining as a director nearly two decades ago, and serving as Chairman since 2013, the company has gone through significant transformation and experienced tremendous growth. Our journey has not been without its challenges, but we have remained focused on alleviating pain and improving the quality of life for people around the world.

This past year has been perhaps our most challenging, but also presented Zimmer Biomet with many new opportunities. Throughout the pandemic, heightened social justice concerns, and geo-political tensions around the globe, Zimmer Biomet continued to execute and deliver in 2020. With Bryan Hanson at the helm as President and CEO, we were able to navigate unprecedented circumstances, and I believe we are stronger as an organization as a result.

It has been a great privilege for me to help advise and lead this wonderful company, and I am immensely proud of all that we have accomplished. Our leadership team and our team members are the most talented in the industry, and

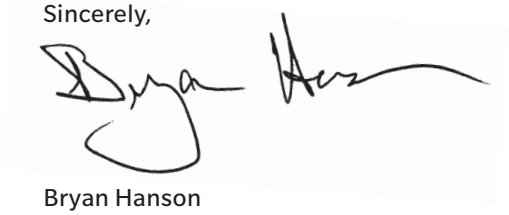
The Year Ahead: Moving Forward Our Mission in 2021

The past year was unpredictable and challenging, and tested us in ways we couldn't have imagined. We came together as one team, which has made Zimmer Biomet stronger as we enter 2021. We have demonstrated our ability to execute in the most challenging market environments and believe we are ready to face any potential road blocks that may lay ahead. We proved that our strategy is working, and we will continue to transform our business and invest in our Mission to alleviate pain and improve the quality of life for people around the world.

We are entering 2021 with increased confidence in our team, our core business and our long-term strategic plan to drive sustainable growth and deliver shareholder value.

Once again, on behalf of all of us at Zimmer Biomet, I thank you for your support. I look forward to updating you on our progress.

Sincerely,

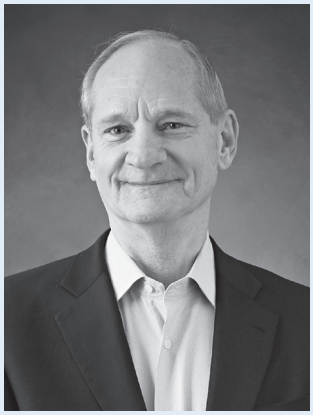


Bryan Hanson
President and CEO, Zimmer Biomet

exhibit passion and dedication on a daily basis that enable us to help millions of people live better lives. As I retire and Bryan moves into the Chairman role in May, I know I leave the company in great hands and that the best is yet to come.

Many thanks to all of you for your support of Zimmer Biomet. I look forward to the company continuing to build on its success for years to come.

Larry C. Glasscock
Chairman of the Board, Zimmer Biomet



Leadership (As of March 15, 2021)

Board of Directors

Christopher B. Begley
Retired Executive Chairman and Chief Executive Officer, Hospira, Inc.

Betsy J. Bernard
Retired President, AT&T Corp.

Gail K. Boudreaux
President and Chief Executive Officer, Anthem, Inc.

Michael J. Farrell
Chief Executive Officer, ResMed Inc.

Larry C. Glasscock
Chairman of the Board of Zimmer Biomet Holdings, Inc. and Retired Chairman, President and Chief Executive Officer, Anthem, Inc.

Robert A. Hagemann
Retired Senior Vice President and Chief Financial Officer, Quest Diagnostics Incorporated

Bryan C. Hanson
President and Chief Executive Officer, Zimmer Biomet Holdings, Inc.

Arthur J. Higgins
Consultant, Blackstone Healthcare Partners

Maria Teresa Hilado
Retired Executive Vice President and Chief Financial Officer, Allergan plc

Syed Jafry
Senior Vice President and President, Regions, Thermo Fisher Scientific, Inc.

Sreelakshmi Kolli
Senior Vice President, Chief Digital Officer, Align Technology, Inc.

Michael W. Michelson
Retired Senior Advisory Partner, KKR Management LLC, the general partner of KKR & Co. L.P.

Management Team

Bryan Hanson
President and Chief Executive Officer

Didier Deltort
President, Europe, Middle East and Africa

Rachel Ellingson
Senior Vice President, Chief Strategy Officer

Ellie Humphrey
Senior Vice President and Chief Transformation Officer

Vafa Jamali
Chief Executive Officer, "NewCo"

David Kunz
Senior Vice President, Global Quality and Regulatory Affairs

Angela Main
Senior Vice President, Global Chief Compliance Officer and Associate General Counsel, Asia Pacific

Keri Mattox
Senior Vice President, Investor Relations and Chief Communications Officer

Carrie Nichol
Vice President, Controller and Chief Accounting Officer

Chad Phipps
Senior Vice President, General Counsel and Secretary

Zeeshan Tariq
Senior Vice President and Chief Information Officer

Ivan Tornos
Group President, Global Businesses and the Americas

Kenneth Tripp
Senior Vice President, Global Operations and Logistics

Suketu Upadhyay
Executive Vice President and Chief Financial Officer

Sang Yi
President, Asia Pacific

Forward-Looking Statements

This 2020 Annual Report includes forward-looking statements that are subject to significant risks, uncertainties and changes in circumstances that could cause actual results to differ materially from the forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" immediately following the cover page of our Annual Report on Form 10-K included herein.

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 year ended December 31, 2020

Commission file number 001-16407

ZIMMER BIOMET HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**13-4151777**
(State of Incorporation)	*(IRS Employer Identification No.)*
345 East Main Street Warsaw, Indiana	**46580**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(574) 267-6131**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	ZBH	New York Stock Exchange
1.414% Notes due 2022	ZBH 22A	New York Stock Exchange
2.425% Notes due 2026	ZBH 26	New York Stock Exchange
1.164% Notes due 2027	ZBH 27	New York Stock Exchange

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

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

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

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

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

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

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

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

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

The aggregate market value of shares held by non-affiliates was$24,675,479,718 (based on the closing price of these shares on the New York Stock Exchange on June 30, 2020 and assuming solely for the purpose of this calculation that all directors and executive officers of the registrant are "affiliates"). As of February 8, 2021, 207,855,504 shares of the registrant's $.01 par value common stock were outstanding.

Documents Incorporated by Reference

Document	**Form 10-K**
Portions of the Proxy Statement with respect to the 2021 Annual Meeting of Stockholders	Part III

ZIMMER BIOMET HOLDINGS, INC.
ANNUAL REPORT
Cautionary Note Regarding Forward-Looking Statements

This Annual Report contains forward-looking statements within the meaning of federal securities laws, including, among others, statements regarding sales and earnings guidance and any statements about our expectations, plans, intentions, strategies or prospects. We generally use the words "may," "will," "expects," "believes," "anticipates," "plans," "estimates," "projects," "assumes," "guides," "targets," "forecasts," "sees," "seeks," "should," "could," "would," "predicts," "potential," "strategy," "future," "opportunity," "work toward," "intends," "guidance," "confidence," "positioned," "design," "strive," "continue," "look forward to" and similar expressions to identify forward-looking statements. All statements other than statements of historical or current fact are, or may be deemed to be, forward-looking statements. Such statements are based upon the current beliefs, expectations and assumptions of management and are subject to significant risks, uncertainties and changes in circumstances that could cause actual outcomes and results to differ materially from the forward-looking statements. These risks, uncertainties and changes in circumstances include, but are not limited to: the effects of the COVID-19 global pandemic and other adverse public health developments on the global economy, our business and operations and the business and operations of our suppliers and customers, including the deferral of elective procedures and our ability to collect accounts receivable; the risks and uncertainties related to our ability to successfully execute our restructuring plans; our ability to attract, retain and develop the highly skilled employees we need to support our business; the possibility that the anticipated synergies and other benefits from mergers and acquisitions will not be realized, or will not be realized within the expected time periods; the risks and uncertainties related to our ability to successfully integrate the operations, products, employees and distributors of acquired companies; the effect of the potential disruption of management's attention from ongoing business operations due to integration matters related to mergers and acquisitions; the effect of mergers and acquisitions on our relationships with customers, suppliers and lenders and on our operating results and businesses generally; the risks and uncertainties associated with the proposed spin-off of our Spine and Dental businesses, including, without limitation, the significant expenses, time and efforts related to implementing such transaction, the ability to complete the transaction on our expected timeline or at all, the tax-free nature of the transaction, possible disruptions in our relationships with customers, suppliers and other business partners, and the possibility that the anticipated benefits and synergies of the transaction, strategic and competitive advantages of each company, and future growth and other opportunities for each company will not be realized within the expected time periods or at all; the success of our quality and operational excellence initiatives, including ongoing quality remediation efforts at our Warsaw North Campus facility; the ability to remediate matters identified in inspectional observations or warning letters issued by the U.S. Food and Drug Administration (FDA), while continuing to satisfy the demand for our products; the impact of substantial indebtedness on our ability to service our debt obligations and/or refinance amounts outstanding under our debt obligations at maturity on terms favorable to us, or at all; the ability to retain the independent agents and distributors who market our products; dependence on a limited number of suppliers for key raw materials and outsourced activities; challenges relating to changes in and compliance with governmental laws and regulations affecting our U.S. and international businesses, including regulations of the FDA and foreign government regulators, such as more stringent requirements for regulatory clearance of products; the outcome of government investigations; competition; pricing pressures; changes in customer demand for our products and services caused by demographic changes or other factors; the impact of healthcare reform measures; reductions in reimbursement levels by third-party payors and cost containment efforts of healthcare purchasing organizations; dependence on new product development, technological advances and innovation; shifts in the product category or regional sales mix of our products and services; supply and prices of raw materials and products; control of costs and expenses; the ability to obtain and maintain adequate intellectual property protection; breaches or failures of our information technology systems or products, including by cyberattack, unauthorized access or theft; the ability to form and implement alliances; changes in tax obligations arising from tax reform measures, including European Union rules on state aid, or examinations by tax authorities; product liability, intellectual property and commercial litigation losses; changes in general industry and market conditions, including domestic and international growth rates; changes in general domestic and international economic conditions, including interest rate and currency exchange rate fluctuations; and the impact of the ongoing financial and political uncertainty on countries in the Euro zone on the ability to collect accounts receivable in affected countries.

See also the section titled "Risk Factors" (refer to Part I, Item 1A of this report) for further discussion of certain risks and uncertainties that could cause actual results and events to differ materially from the forward-looking statements. Readers of this report are cautioned not to rely on these forward-looking statements, since there can be no assurance that these forward-looking statements will prove to be accurate. Forward-looking statements speak only as of the date they are made, and we expressly disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. This cautionary note is applicable to all forward-looking statements contained in this report.

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Item 1. **Business**

Overview

Zimmer Biomet is a global leader in musculoskeletal healthcare. We design, manufacture and market orthopedic reconstructive products; sports medicine, biologics, extremities and trauma products; office based technologies; spine, craniomaxillofacial and thoracic ("CMFT") products; dental implants; and related surgical products. We collaborate with healthcare professionals around the globe to advance the pace of innovation. Our products and solutions help treat patients suffering from disorders of, or injuries to, bones, joints or supporting soft tissues. Together with healthcare professionals, we help millions of people live better lives. In this report, "Zimmer Biomet," "we," "us," "our," "the Company" and similar words refer collectively to Zimmer Biomet Holdings, Inc. and its subsidiaries. "Zimmer Biomet Holdings" refers to the parent company only.

Zimmer Biomet Holdings was incorporated in Delaware in 2001. Our history dates to 1927, when Zimmer Manufacturing Company, a predecessor, was founded in Warsaw, Indiana. On August 6, 2001, we were spun off from our former parent and became an independent public company. In 2015, we acquired LVB Acquisition, Inc. ("LVB"), the parent company of Biomet, Inc. ("Biomet"), and LVB and Biomet became our wholly-owned subsidiaries. In connection with the merger, we changed our name from Zimmer Holdings, Inc. to Zimmer Biomet Holdings, Inc.

Customers, Sales and Marketing

Our primary customers include orthopedic surgeons, neurosurgeons, oral surgeons, and other specialists, dentists, hospitals, stocking distributors, healthcare dealers and, in their capacity as agents, healthcare purchasing organizations or buying groups. These customers range from large multinational enterprises to independent clinicians and dentists.

We market and sell products through three principal channels: 1) direct to healthcare institutions, such as hospitals, referred to as direct channel accounts; 2) through stocking distributors and healthcare dealers; and 3) directly to dental practices and dental laboratories. With direct channel accounts and some healthcare dealers, inventory is generally consigned to sales agents or customers. With sales to stocking distributors, some healthcare dealers and hospitals, dental practices and dental laboratories, title to product passes upon shipment. Consignment sales represented approximately 80 percent of our net sales in 2020. No individual customer accounted for more than 1 percent of our net sales for 2020.

We stock inventory in our warehouse facilities and retain title to consigned inventory in an effort to have sufficient quantities available when products are needed for surgical procedures. Safety stock levels are determined based on a number of factors, including demand, manufacturing lead times and quantities required to maintain service levels.

We also carry trade accounts receivable balances based on credit terms that are generally consistent with local market practices.

We utilize a network of sales associates, sales managers and support personnel, some of whom are employed or contracted by independent distributors and sales agencies. We invest a significant amount of time and expense in training sales associates in how to use specific products and how to best inform surgeons of product features and uses. Sales force representatives must have strong technical selling skills and medical education to provide technical support for surgeons.

In response to the different healthcare systems throughout the world, our sales and marketing strategies and organizational structures differ by region. We utilize a global approach to sales force training, marketing and medical education to provide consistent, high quality service. Additionally, we keep current with key surgical developments and other issues related to orthopedic surgeons, neurosurgeons, other specialists, dentists and oral surgeons and the medical and dental procedures they perform.

We allocate resources to achieve our operating profit goals through three operating segments. Our operating segments are comprised of Americas and Global Businesses, Europe, Middle East and Africa ("EMEA") and Asia Pacific. The following is a summary of our operating segments. See Note 19 to our consolidated financial statements for more information regarding our segments.

Americas and Global Businesses. The Americas and Global Businesses operating segment is our largest operating segment. This segment is comprised principally of the U.S. and includes other North, Central and South American markets for all of our product categories as well as the global results for our Dental products division. This segment also includes our global manufacturing operations for all product categories and research, development engineering, medical education, and brand management for our global product category headquarter locations. The U.S. accounts for 95 percent of net sales in this region. The U.S. sales force consists of a combination of employees and independent sales agents, most of whom sell products exclusively for Zimmer Biomet. The sales force in the U.S. receives a commission on product sales and is responsible for many operating decisions and costs.

In this region, we contract with group purchasing organizations and managed care accounts and have promoted unit growth by offering volume discounts to customer healthcare institutions within a specified group. Generally, we are designated as one of several preferred purchasing sources for specified products, although members are not obligated to purchase our products. Contracts with group purchasing organizations generally have a term of three years, with extensions as warranted.

In our Dental products division, our sales force is primarily composed of employees who market our products to customers. We sell directly to dental practices or dental laboratories, or to independent stocking distributors depending on the market.

EMEA. The EMEA operating segment is our second largest operating segment. France, Germany, Italy, Spain and

the United Kingdom collectively account for 57 percent of net sales in the region. This segment also includes other key markets, including Switzerland, Benelux, Nordic, Central and Eastern Europe, the Middle East and Africa. This operating segment includes all product categories in these markets, except for Dental. Our sales force in this segment is comprised of direct sales associates, commissioned agents, independent distributors and sales support personnel. We emphasize the advantages of our clinically proven, established designs and innovative solutions and new and enhanced materials and surfaces. In most European countries, healthcare is sponsored by the government and therefore government budgets impact healthcare spending, which can affect our sales in this segment.

Asia Pacific. The Asia Pacific operating segment includes key markets such as Japan, China, Australia, New Zealand, Korea, Taiwan, India, Thailand, Singapore, Hong Kong and Malaysia. Japan is the largest market within this segment, accounting for 50 percent of the region's sales. This operating segment includes all product categories in these markets, except for Dental. In Japan and most countries in the Asia Pacific region, we maintain a network of dealers, who act as order agents on behalf of hospitals in the region, and sales associates, who build and maintain relationships with orthopedic surgeons and neurosurgeons in their markets. The knowledge and skills of these sales associates play a critical role in providing service, product information and support to surgeons.

Seasonality

Our business is seasonal in nature to some extent, as many of our products are used in elective procedures, which typically decline during the summer months and can increase at the end of the year once annual deductibles have been met on health insurance plans. Additionally, with sales to customers where title to product passes upon shipment, these customers may purchase items in large quantities if incentives are offered or if there are new product offerings in a market, which could cause period-to-period differences in sales. Due to the COVID-19 global pandemic, the typical seasonal patterns did not occur in 2020.

Distribution

We distribute our products both through large, centralized warehouses and through smaller, market specific facilities, depending on the needs of the market. We maintain large, centralized warehouses in the U.S. and Europe to be able to efficiently distribute our products to customers in those regions. In addition to these centralized warehouses, we maintain smaller distribution facilities in the U.S. and in each of the countries where we have a direct sales presence. In many locations, our inventory is consigned to the healthcare institution.

We generally ship our orders via expedited courier. Since most of our sales occur at the time of an elective procedure, we generally do not have firm orders.

Products

Our products include orthopedic reconstructive products; sports medicine, biologics, extremities and trauma products; office based technologies; spine and CMFT products; dental implants; and related surgical products.

KNEES

Total knee replacement surgeries typically include a femoral component, a patella (knee cap), a tibial tray and an articular surface (placed on the tibial tray). Knee replacement surgeries include first-time, or primary, joint replacement procedures and revision procedures for the replacement, repair or enhancement of an implant or component from a previous procedure. There are also procedures for partial reconstruction of the knee, which treat limited knee degeneration and involve the replacement of only one side, or compartment, of the knee with a unicompartmental knee prosthesis. A developing trend in knee replacement surgeries is the use of robotic technologies to assist a surgeon with implant positioning. In 2019, we entered the robotic assistance market with our ROSA® Knee System. In the future, we plan to expand the use of our ROSA® Robot to other product categories.

Our significant knee brands include the following:

- Persona® The Personalized Knee System
- NexGen® Complete Knee Solution
- Vanguard® Knee
- Oxford® Partial Knee

HIPS

Total hip replacement surgeries replace both the head of the femur and the socket portion of the pelvis (acetabulum) of the natural hip. Hip procedures include first-time, or primary, joint replacement as well as revision procedures. Hip implant procedures involve the use of bone cement to attach or affix the prosthetic components to the surrounding bone, or are press-fit into bone, which means that they have a surface that bone affixes to through either ongrowth or ingrowth technologies.

Our significant hip brands include the following:

- Taperloc® Hip System
- Zimmer® M/L Taper Hip Prosthesis
- Avenir Complete® Hip System
- Arcos® Modular Hip System
- Continuum® Acetabular System
- G7® Acetabular System

S.E.T.

Our S.E.T. product category includes sports medicine, biologics, foot and ankle, extremities and trauma products. Our sports medicine products are primarily for the repair of soft tissue injuries, most commonly used in the knee and shoulder. Our biologics products are used as early intervention for joint preservation or to support surgical procedures. Our foot and ankle and extremities products are designed to treat arthritic conditions and fractures in the foot, ankle, shoulder, elbow and wrist. Our trauma products are used to stabilize damaged or broken bones and their surrounding tissues to support the body's natural healing process.

Our significant S.E.T. brands include the following:

- JuggerKnot® Soft Anchor System
- Gel-One®[1] Cross-linked Hyaluronate
- Zimmer® Trabecular Metal™ Reverse Shoulder System
- Comprehensive® Shoulder
- Zimmer® Natural Nail® System
- A.L.P.S.® Plating System

DENTAL, SPINE and CMFT

Our Dental products division manufactures and/or distributes: 1) dental reconstructive implants – for individuals who are totally without teeth or are missing one or more teeth; 2) dental prosthetic products – aimed at providing a more natural restoration to resemble the original teeth; and 3) dental regenerative products – for soft tissue and bone rehabilitation. Our spine products division designs, manufactures and distributes medical devices and surgical instruments to deliver comprehensive solutions for individuals with back or neck pain caused by degenerative conditions, deformities or traumatic injury of the spine. A developing trend in spine surgeries is the use of robotic technologies to assist a surgeon in performing minimally invasive procedures. We have entered the robotic market with our ROSA ONE® Spine. Our CMFT division includes face and skull reconstruction products as well as products that fixate and stabilize the bones of the chest in order to facilitate healing or reconstruction after open heart surgery, trauma or for deformities of the chest.

Our significant dental, spine and CMFT brands include the following:

- Tapered Screw-Vent® Implant System
- 3i T3® Implant
- Polaris™ Spinal System
- Mobi-C® Cervical Disc
- The Tether™
- SternaLock® Blu Closure System
- SternaLock® Rigid Sternal Fixation

OTHER

Our other product category primarily includes our surgical, bone cement and office based technology products.

Research and Development

We have extensive research and development activities to develop new surgical techniques, including robotic techniques, materials, biologics and product designs. The research and development teams work closely with our strategic brand marketing function. The rapid commercialization of innovative new materials, biologics products, implant and instrument designs and surgical techniques remains one of our core strategies and continues to be an important driver of sales growth.

We are broadening our offerings in certain of our product categories and exploring new technologies, including artificial intelligence and machine learning, with possible applications in multiple areas. Our primary research and development facility is located in Warsaw, Indiana. We have other research and development personnel based in, among other places, Canada, China, France, Switzerland and other U.S. locations. As of December 31, 2020, we employed approximately 2,000 research and development employees worldwide.

We expect to continue to identify innovative technologies, which may include acquiring complementary products or businesses, establishing technology licensing arrangements or strategic alliances.

Government Regulation and Compliance

Our operations, products and customers are subject to extensive government regulation by numerous government agencies, both within and outside the U.S. Our global regulatory environment is increasingly stringent, unpredictable and complex. There is a global trend toward increased regulatory activity related to medical products.

In the U.S., numerous laws and regulations govern all the processes by which our products are brought to market. These include, among others, the Federal Food, Drug and Cosmetic Act ("FDCA") and regulations issued or promulgated thereunder. The U.S. Food and Drug Administration ("FDA") has enacted regulations that control all aspects of the development, manufacture, advertising, promotion and postmarket surveillance of medical products, including medical devices. In addition, the FDA controls the access of products to market through processes designed to ensure that only products that are safe and effective are made available to the public.

Most of our new products fall into an FDA medical device classification that requires the submission of a Premarket Notification (510(k)) to the FDA. This process requires us to demonstrate that the device to be marketed is at least as safe and effective as, that is, substantially equivalent to, a legally marketed device. We must submit information that supports our substantial equivalency claims. Before we can market the new device, we must receive an order from the FDA finding substantial equivalence and clearing the new device for commercial distribution in the U.S.

Other devices we develop and market are in a category (class) for which the FDA has implemented stringent clinical investigation and Premarket Approval ("PMA") requirements. The PMA process requires us to provide clinical and laboratory data that establishes that the new medical device is safe and effective. The FDA will approve the new device for commercial distribution if it determines that the data and information in the PMA application constitute valid scientific evidence and that there is reasonable assurance that the device is safe and effective for its intended use(s).

All of our devices marketed in the U.S. have been cleared or approved by the FDA, with the exception of some devices which are classified by FDA regulation as exempt from premarket clearance and approval or were in commercial distribution prior to May 28, 1976.

In January 2021, the FDA announced a new "Action Plan" to address software as a medical device ("SaMD") and artificial intelligence and machine learning ("AI/ML"). Certain of our new products will likely incorporate innovations related to AI/ML, and therefore we will monitor developments in this area closely to determine our compliance obligations and risks.

[1] Registered trademark of Seikagaku Corporation

Both before and after a product is commercially released, we have ongoing responsibilities under FDA regulations. The FDA reviews design and manufacturing practices, labeling and 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 inspection by the FDA for compliance with its Quality System Regulation (21 CFR Part 820) ("QSR"), among other FDA requirements, such as requirements for advertising and promotion of our devices. Our manufacturing operations, and those of our third-party manufacturers, are required to comply with the QSR, which addresses a company's responsibility for product design, testing and manufacturing quality assurance and the maintenance of records and documentation. The QSR requires that each manufacturer establish a quality system by which the manufacturer monitors the manufacturing process and maintains records that show compliance with FDA regulations and the manufacturer's written specifications and procedures relating to the devices. QSR compliance is necessary to receive and maintain FDA clearance or approval to market new and existing products and is also necessary for distributing in the U.S. certain devices exempt from FDA clearance and approval requirements. The FDA conducts announced and unannounced periodic and on-going inspections of medical device manufacturers to determine compliance with the QSR. If in connection with these inspections the FDA believes the manufacturer has failed to comply with applicable regulations and/or procedures, it may issue inspectional observations on Form FDA-483 ("Form 483") that would necessitate prompt corrective action. If FDA inspectional observations are not addressed and/or corrective action is not taken in a timely manner and to the FDA's satisfaction, the FDA may issue a warning letter (which would similarly necessitate prompt corrective action) and/or proceed directly to other forms of enforcement action, including the imposition of operating restrictions, including a ceasing of operations, on one or more facilities, enjoining and restraining certain violations of applicable law pertaining to products, seizure of products, and assessing civil or criminal penalties against our officers, employees or us. The FDA could also issue a corporate warning letter or a recidivist warning letter or negotiate the entry of a consent decree of permanent injunction with us. The FDA may also recommend prosecution to the U.S. Department of Justice ("DOJ"). Any adverse regulatory action, depending on its magnitude, may restrict us from effectively manufacturing, marketing and selling our products and could have a material adverse effect on our business, financial condition and results of operations. For information regarding certain warning letters and Form 483 inspectional observations that we are addressing, see Note 21 to our consolidated financial statements.

The FDA, in cooperation with U.S. Customs and Border Protection ("CBP"), administers controls over the import of medical devices into the U.S. and can prevent the importation of products the FDA deems to violate the FDCA or its implementing regulations. The CBP imposes its own regulatory requirements on the import of our products, including inspection and possible sanctions for noncompliance. We are also subject to foreign trade controls administered by certain U.S. government agencies, including the Bureau of Industry and Security within the Commerce Department and the Office of Foreign Assets Control within the Treasury Department ("OFAC"). In addition, exported medical products are subject to the regulatory requirements of each country to which the medical product is exported.

There are also requirements of state and local governments that we must comply with in the manufacture and marketing of our products.

In many of the countries in which our products are sold, we are subject to supranational, national, regional and local regulations affecting, among other things, the development, design, manufacturing, product standards, packaging, advertising, promotion, labeling, marketing and postmarket surveillance of medical products, including medical devices. The member countries of the European Union (the "EU") have adopted the European Medical Device Directive (the "MDD"), which creates a single set of medical device regulations for products marketed in all member countries. Compliance with the MDD and certification to a quality system (e.g., ISO 13485 certification) enable the manufacturer to place a CE mark on its products. To obtain authorization to affix the CE mark to a product, a recognized European Notified Body must assess a manufacturer's quality system and the product's conformity to the requirements of the MDD. We are subject to inspection by the Notified Bodies for compliance with these requirements. In May 2017, a new EU Medical Device Regulation ("MDR") was published that will replace the MDD and will impose significant additional premarket and postmarket requirements. The effective date for the MDR has been extended due to the COVID-19 pandemic, with it currently scheduled to become effective in May 2021. Under a corrigendum to the MDR finalized in December 2019, some low-risk medical devices being up-classified as a result of the MDR, including low-risk instruments, may now receive a transitional period to comply by May 2024.

Our quality management system is based upon the requirements of ISO 13485, the QSR, the MDD and other applicable regulations for the markets in which we sell. Our principal manufacturing sites are certified to ISO 13485 and audited at regular intervals. Additionally, our principal sites are certified under the Medical Device Single Audit Program ("MDSAP"), which is a voluntary audit program developed by regulatory authorities in five countries (i.e., Australia, Brazil, Canada, Japan, and the United States) to assess compliance with the quality management system regulatory requirements of those countries. MDSAP audits are conducted by an MDSAP-recognized auditing organization and can fulfill the needs of the participating regulatory jurisdictions, replacing standard surveillance audits by the regulatory authorities in those countries.

Further, we are subject to other supranational, national, regional, federal, state and local laws concerning healthcare fraud and abuse, including false claims and anti-kickback laws, as well as the U.S. Physician Payments Sunshine Act and similar state and foreign healthcare professional payment transparency laws. These laws are administered by, among others, the DOJ, the Office of Inspector General of the Department of Health and Human Services ("OIG-HHS"), state

attorneys general and various foreign government agencies. Many of these agencies have increased their enforcement activities with respect to medical products manufacturers in recent years. Violations of these laws are punishable by criminal and/or civil sanctions, including, in some instances, fines, imprisonment and, within the U.S., exclusion from participation in government healthcare programs, including Medicare, Medicaid and Veterans Administration health programs.

Our operations in foreign countries are subject to the extraterritorial application of the U.S. Foreign Corrupt Practices Act ("FCPA"). Our global operations are also subject to foreign anti-corruption laws, such as the United Kingdom ("UK") Bribery Act, among others. As part of our global compliance program, we seek to address anti-corruption risks proactively. On January 12, 2017, we resolved previously-disclosed FCPA matters involving Biomet and certain of its subsidiaries. As part of that settlement, we entered into a Deferred Prosecution Agreement ("DPA") with the DOJ, which concluded on February 9, 2021, six months following certification to the DOJ and the U.S. Securities and Exchange Commission ("SEC") by an independent compliance monitor that our compliance program, including its policies and procedures, is reasonably designed and implemented to prevent and detect violations of the FCPA and is functioning effectively.

Our facilities and operations are also subject to complex federal, state, local and foreign environmental and occupational safety laws and regulations, including those relating to discharges of substances in the air, water and land, the handling, storage and disposal of wastes and the clean-up of properties contaminated by pollutants. We do not expect that the ongoing costs of compliance with these environmental requirements will have a material impact on our consolidated earnings, capital expenditures or competitive position.

In addition, we are subject to federal, state and international data privacy and security laws and regulations that govern the collection, use, disclosure, transfer, storage, disposal and protection of health-related and other personal information. The FDA has issued guidance to which we may be subject concerning data security for medical devices. The FDA and the Department of Homeland Security ("DHS") have issued urgent safety communications regarding cybersecurity vulnerabilities of certain medical devices.

In addition, certain of our affiliates are subject to privacy, security and breach notification regulations promulgated under the Health Insurance Portability and Accountability Act of 1996 and the Health Information Technology for Economic and Clinical Health Act (collectively, "HIPAA"). HIPAA governs the use, disclosure, and security of protected health information by HIPAA "covered entities" and their "business associates." Covered entities are health plans, health care clearinghouses and health care providers that engage in specific types of electronic transactions. A business associate is any person or entity (other than members of a covered entity's workforce) that performs a service on behalf of a covered entity involving the use or disclosure of protected health information. The U.S. Department of Health and Human Services ("HHS") (through the Office for Civil Rights) has direct enforcement authority against covered entities and business associates with regard to compliance with HIPAA regulations. On December 10, 2020, HHS issued a notice of proposed rulemaking ("NPR") to modify the HIPAA privacy rule. The proposed modifications would remove communication barriers between providers and health plans, allow individuals more access to their health information and impose new requirements on entities that receive patient data requests. Separately, HHS (through the National Coordinator for Health Information Technology) issued a new rule, to be effective April 5, 2021, that seeks to limit "blocking" of electronic health information by imposing data access, software licensing and inter-operability requirements on healthcare providers and information technology vendors. We intend to monitor both the NPR and the "information blocking" rule and assess their impact on the use of data in our business.

In addition to the FDA guidance and HIPAA regulations described above, a number of U.S. states have also enacted data privacy and security laws and regulations that govern the collection, use, disclosure, transfer, storage, disposal and protection of personal information, such as social security numbers, medical and financial information and other information. These laws and regulations may be more restrictive and not preempted by U.S. federal laws. For example, several U.S. territories and all 50 states now have data breach laws that require timely notification to individuals, and at times regulators, the media or credit reporting agencies, if a company has experienced the unauthorized access or acquisition of personal information. Other state laws include the California Consumer Privacy Act ("CCPA"), which was signed into law on June 28, 2018 and took effect on January 1, 2020. The CCPA, among other things, contains new disclosure obligations for businesses that collect personal information about California residents and affords those individuals numerous rights relating to their personal information that may affect our ability to use personal information or share it with our business partners. A second law called the California Privacy Rights Act ("CPRA") passed via a ballot referendum in November 2020. The CPRA expands the scope of the CCPA, imposes new restrictions on behavioral advertising and establishes a new California Privacy Protection Agency which will enforce the law and issue regulations. Other states have considered and/or enacted similar privacy laws. We will continue to monitor and assess the impact of these state laws, which may impose substantial penalties for violations, impose significant costs for investigation and compliance, allow private class-action litigation and carry significant potential liability for our business.

Outside of the U.S., data protection laws, including the EU General Data Protection Regulation (the "GDPR") and member state implementing legislation, and the Brazil Lei Geral de Proteção de Dados (the "LGPD"), also apply to some of our operations in the countries in which we provide services to our customers. Legal requirements in these countries relating to the collection, storage, processing and transfer of personal data continue to evolve. The GDPR, which became effective on May 25, 2018, imposes data protection requirements that include strict obligations and restrictions on the ability to collect, analyze and transfer EU personal data, a requirement

for prompt notice of data breaches to data subjects and supervisory authorities in certain circumstances, and possible substantial fines for any violations (including possible fines for certain violations of up to the greater of 20 million Euros or 4% of total worldwide annual turnover of the preceding financial year).

Failure to comply with U.S. and international data protection laws and regulations could result in government enforcement actions (which could include civil and/or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business.

Competition

The orthopedics and broader musculoskeletal care industry is highly competitive. In the global markets for our knees, hips, and S.E.T. products, our major competitors include the DePuy Synthes Companies of Johnson & Johnson, Stryker Corporation and Smith & Nephew plc. There are smaller competitors in these product categories as well who have success by focusing on smaller subsegments of the industry.

In the spine and CMFT categories, we compete globally primarily with the spinal and biologic business of Medtronic plc, the DePuy Synthes Companies, Stryker Corporation, NuVasive, Inc. and Globus Medical, Inc.

In the dental implant category, we compete primarily with The Straumann Group, Dentsply Sirona Inc. and Nobel Biocare Services AG (part of Envista Holdings Corporation).

Competition within the industry is primarily based on technology, innovation, quality, reputation, customer service and pricing. A key factor in our continuing success in the future will be our ability to develop new products and technologies and improve existing products and technologies.

Manufacturing and Raw Materials

We manufacture our products at various sites. We also strategically outsource some manufacturing to qualified suppliers who are highly capable of producing components.

The manufacturing operations at our facilities are designed to incorporate the cellular concept for production and to implement tenets of a manufacturing philosophy focused on continuous improvement efforts in product quality, lead time reduction and capacity optimization. Our continuous improvement efforts are driven by Lean and Six Sigma methodologies. In addition, at certain of our manufacturing facilities, many of the employees are cross-trained to perform a broad array of operations.

We generally target operating our manufacturing facilities at optimal levels of total capacity. We continually evaluate the potential to in-source and outsource production as part of our manufacturing strategy to provide value to our stakeholders.

In most of our manufacturing network, we have improved our manufacturing processes to harmonize and optimize our quality systems and to protect our profitability and offset the impact of inflationary costs. We have, for example, employed computer-assisted robots and multi-axis grinders to precision polish medical devices; automated certain manufacturing and inspection processes, including on-machine inspection and process controls; purchased state-of-the-art equipment; in-sourced core products and processes; and negotiated cost reductions from third-party suppliers.

We use a diverse and broad range of raw materials in the manufacturing of our products. We purchase all of our raw materials and select components used in manufacturing our products from external suppliers. In addition, we purchase some supplies from single sources for reasons of quality assurance, sole source availability, cost effectiveness or constraints resulting from regulatory requirements. We work closely with our suppliers to assure continuity of supply while maintaining high quality and reliability. To date, we have not experienced any significant difficulty in locating and obtaining the materials necessary to fulfill our production schedules.

Intellectual Property

Patents and other proprietary rights are important to the continued success of our business. We also rely upon trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain our competitive position. We protect our proprietary rights through a variety of methods, including confidentiality agreements and proprietary information agreements with suppliers, employees, consultants and others who may have access to proprietary information. We own or control through licensing arrangements over 9,000 issued patents and patent applications throughout the world that relate to aspects of the technology incorporated in many of our products.

Human Capital

As of December 31, 2020, we employed approximately 20,000 employees worldwide, including approximately 2,000 employees dedicated to research and development. Approximately 10,000 employees are located within the U.S. and approximately 10,000 employees are located outside of the U.S., primarily throughout Europe and in Japan and China. We have approximately 8,500 employees dedicated to manufacturing our products worldwide.

Our mission is to alleviate pain and improve the quality of life for people around the world. Our commitment to patients shapes all day-to-day decisions at Zimmer Biomet. To be able to accomplish our mission we have established guiding principles. These guiding principles are central to our human capital management policies and practices. The guiding principles are:

- Respect the contributions and perspectives of all employees
- Commit to the highest standards of patient safety, quality and integrity
- Focus our resources in areas where we will make a difference
- Ensure the company's return is equivalent to the value we provide our customers and patients
- Give back to our communities and people in need.

Diversity, Equity and Inclusion

We believe that each of us as individuals can drive change every day. We remain wholly committed to creating, supporting and celebrating diverse and equal workplaces and communities. Together, we will continue to foster and embrace

diversity and inclusion within our team and our communities, and commit our voices and our resources to community groups, business platforms and other organizations united to driving meaningful change and sustained improvement.

We believe that representation matters. As of December 31, 2020, women made up approximately 36 percent of our total employee population, and approximately 23 percent of positions at Director level and above. People of Color ("POC") made up approximately 24 percent of our total employee population in the U.S., and comprise approximately 14 percent of positions at Director level and above. We recently made a statement about standing together united against hatred, discrimination and injustice. However, we understand that words are not enough; we must act and be held accountable. With this in mind, we are committing to the following initiatives to drive and accelerate change both within our own organization and around the globe. We have shared these commitments publicly and are tracking our progress against them:

- Engage our 20,000 global employees in cultural awareness and inclusion programming.
- Invest $1 million and provide executive sponsorship to support ongoing programs and elevate the impact of our employee resource groups.
- Commit at least $5 million over five years through the Zimmer Biomet Foundation to non-profit organizations dedicated to combating racism and supporting diversity, equality and justice. The Zimmer Biomet Foundation is an independent, non-profit organization established in 2018 to address the needs of our global community.
- Match, through the Zimmer Biomet Foundation, employee financial contributions to non-profit organizations, including those dedicated to combating racism and supporting diversity, equality and justice.
- Expand our student and early career internship programs to attract and develop more Black leaders.
- Continue our financial support of Movement is Life, a multidisciplinary coalition seeking to eliminate racial, ethnic and gender disparities in muscle and joint health.

Employee Engagement

We value our employees' input and to that end, from time-to-time, we conduct comprehensive employee engagement surveys that ultimately inform our actions towards improving employee engagement. Surveys attempt to assess five drivers of engagement including purpose, culture, leadership, personal growth and belonging. The key results of surveys, and commensurate action plans, are shared with our Board of Directors and with our employee base. Employee engagement is the degree to which employees invest their cognitive, emotional, and behavioral energies toward positive organizational outcomes. While we strive for engagement scores to sequentially improve, the outcomes of the surveys can be influenced by many factors that are internal and external to the company.

We believe it is critical to keep our employees engaged through frequent and transparent communication. This is accomplished through town halls, video and written messages, news and recognition on our intranet site, and various other methods. To stay connected through the COVID-19 pandemic, our Chief Executive Officer has kept employees informed of our priorities, financial results, management response and employee health and safety through frequent video messages and written communications.

Health, Safety and Wellness

The physical and mental health, financial wellbeing, and work/life balance of our employees is vital to accomplishing our mission. We sponsor wellness programs designed to enhance physical, financial and mental wellbeing for our employees. We encourage participation in these programs through regular communications, educational sessions and other incentives.

We are also acutely focused on the health and safety of our employees in the workplace. Our environmental, health and safety team monitors various metrics to ensure we are providing a safe environment to work. These results are shared with relevant regulatory agencies as required and presented to our Board of Directors.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following table sets forth certain information with respect to our executive officers as of February 15, 2021.

Name	Age	Position
Bryan Hanson	54	President and Chief Executive Officer
Didier Deltort	54	President, Europe, Middle East and Africa
Rachel Ellingson	51	Senior Vice President and Chief Strategy Officer
Carrie Nichol	41	Vice President, Controller and Chief Accounting Officer
Chad Phipps	49	Senior Vice President, General Counsel and Secretary
Ivan Tornos	45	Group President, Global Businesses and the Americas
Suketu Upadhyay	51	Executive Vice President and Chief Financial Officer
Sang Yi	58	President, Asia Pacific

Mr. Hanson was appointed President and Chief Executive Officer and a member of the Board of Directors in December 2017. Previously, Mr. Hanson served as Executive Vice President and President, Minimally Invasive Therapies Group of Medtronic plc from January 2015 until joining Zimmer Biomet. Prior to that, he was Senior Vice President and Group President, Covidien of Covidien plc from October 2014 to January 2015; Senior Vice President and Group President, Medical Devices and United States of Covidien from October 2013 to September 2014; Senior Vice President and Group President of Covidien for the Surgical Solutions business from July 2011 to October 2013; and President of Covidien's Energy-based Devices business from July 2006 to June 2011. Mr. Hanson held several other positions of increasing responsibility in sales, marketing and general management with Covidien from October 1992 to July 2006.

Mr. Deltort was appointed President, Europe, Middle East and Africa in August 2018. He is responsible for the marketing, sales and distribution of products, services and solutions in the European, Middle Eastern and African ("EMEA") regions. Prior to joining Zimmer Biomet, Mr. Deltort served as Senior Vice President and General Manager, Global Healthcare Solutions and Partnerships of Boston Scientific Corporation, based in France from May 2016 until August 2018. Before joining Boston Scientific Corporation, he spent 14 years with GE Healthcare in positions of increasing responsibility in Germany, Finland, Dubai and the United States, most recently serving as Global Senior Vice President and General Manager of the global Monitoring Solutions business as well as Managing Director of GE Healthcare Finland. Prior to GE, Mr. Deltort served at Philips, Hewlett-Packard and Marquette Electronics in various international healthcare executive roles.

Ms. Ellingson was appointed Senior Vice President and Chief Strategy Officer in April 2018 and was designated as an executive officer in January 2021. Prior to joining Zimmer Biomet, Ms. Ellingson served as a member of the executive leadership team of St. Jude Medical in positions of increasing responsibility from 2012 until 2017, most recently as Vice President, Corporate Strategy from 2015 until 2017. Before joining St. Jude Medical, Ms. Ellingson served as Vice President, Business Development and Investor Relations at AGA Medical Corporation. Prior to joining AGA Medical, Ms. Ellingson had more than 15 years of experience in investment banking, most recently with Bank of America as a Managing Director, Medical Technology Investment Banking.

Ms. Nichol was appointed Vice President, Controller and Chief Accounting Officer in October 2019. Prior to joining Zimmer Biomet, Ms. Nichol served as Senior Vice President, Controller and Chief Accounting Officer of Endo International plc ("Endo International") from April 2018 to September 2019, having served in roles of increasing responsibility from March 2015 to April 2018. Prior to her tenure at Endo International, Ms. Nichol served as Senior Vice President and Controller of Haas Group Inc. (now part of Wesco Aircraft Holdings, Inc.), where she led the global accounting and finance teams from June 2011 until March 2015. Prior to her employment with Haas Group Inc., Ms. Nichol was with IKON Office Solutions (now part of Ricoh Company, Ltd.) for a total of five years from June 2008 until June 2011 and from June 2003 until July 2005, having served most recently as the Director of Financial Reporting and Corporate Accounting. From December 2005 until June 2008, Ms. Nichol was with Advanced Metallurgical Group NV serving as Assistant Controller. Ms. Nichol began her career in public accounting with KPMG.

Mr. Phipps was appointed Senior Vice President, General Counsel and Secretary in May 2007. He has global responsibility for the Company's Legal Affairs and he serves as Secretary to the Board of Directors. Mr. Phipps also oversees the Company's Government Affairs activities. Previously, Mr. Phipps served as Associate General Counsel and Corporate Secretary from December 2005 to May 2007. He joined the Company in September 2003 as Associate Counsel and Assistant Secretary. Prior to joining the Company, he served as Vice President and General Counsel of L&N Sales and Marketing, Inc. in Pennsylvania and he practiced law with the firm of Morgan, Lewis & Bockius in Philadelphia, focusing on corporate and securities law, mergers and acquisitions and financial transactions.

Mr. Tornos joined Zimmer Biomet in November 2018 as Group President, Orthopedics, and in December 2019 was appointed Group President, Global Businesses and the Americas. Prior to joining Zimmer Biomet, Mr. Tornos served as Worldwide President of the Global Urology, Medical and Critical Care Divisions of Becton, Dickinson and Company ("BD") (and previously, C. R. Bard, Inc. ("Bard")) from June 2017 until October 2018. From June 2017 until BD's acquisition of Bard in December 2017, Mr. Tornos also continued to serve as President, EMEA of Bard, a position to which he was appointed in September 2013. Mr. Tornos joined Bard in August 2011 and, prior to his appointment as President, EMEA, served as Vice President and General Manager with leadership responsibility for Bard's business in Southern Europe, Central Europe and the Emerging Markets Region of the Middle East and Africa. Before joining Bard, Mr. Tornos served as Vice President and General Manager of the Americas Pharmaceutical and Medical/Imaging Segments of Covidien International from April 2009 to August 2011. Before that, he served as International Vice President, Business Development and Strategy with Baxter International Inc. from July 2008 to April 2009 and, prior to that, Mr. Tornos spent 11 years with Johnson & Johnson in positions of increasing responsibility.

Mr. Upadhyay was appointed Executive Vice President and Chief Financial Officer in July 2019. Prior to joining Zimmer Biomet, Mr. Upadhyay served as Senior Vice President, Global Financial Operations at Bristol-Myers Squibb from November 2016 until June 2019. Before joining Bristol-Myers Squibb, he served as Executive Vice President and Chief Financial Officer of Endo International from September 2013 to November 2016. Prior to his tenure at Endo International, Mr. Upadhyay served as Interim Chief Financial Officer as well as Senior Vice President of Finance, Corporate Controller and Principal Accounting Officer of BD. Prior to his role as BD's Interim Chief Financial Officer and Corporate Controller, Mr. Upadhyay was the Senior Vice President of Global

Financial Planning and Analysis and also held the role of Vice President and Chief Financial Officer of BD's international business. Before joining BD in 2010, Mr. Upadhyay held a number of leadership roles across AstraZeneca and Johnson & Johnson. Mr. Upadhyay spent the early part of his career in public accounting with KPMG.

Mr. Yi was appointed President, Asia Pacific in June 2015. He is responsible for the sales, marketing and distribution of products, services and solutions in the Asia Pacific region. Mr. Yi joined the Company in March 2013 as Senior Vice President, Asia Pacific. Previously, he served as Vice President and General Manager of St. Jude Medical for Asia Pacific and Australia from 2005 to 2013. Prior to that, Mr. Yi held several leadership positions over a ten-year period with Boston Scientific Corporation, ultimately serving as Vice President for North Asia.

AVAILABLE INFORMATION

Our Internet address is www.zimmerbiomet.com. We routinely post important information for investors on our website in the "Investor Relations" section, which may be accessed from our homepage at www.zimmerbiomet.com or directly at https://investor.zimmerbiomet.com. We use this website as a means of disclosing material, non-public information and for complying with our disclosure obligations under Regulation FD. Accordingly, investors should monitor the Investor Relations section of our website, in addition to following our press releases, SEC filings, public conference calls, presentations and webcasts. Our goal is to maintain the Investor Relations website as a portal through which investors can easily find or navigate to pertinent information about us, free of charge, including:

- 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"), as soon as reasonably practicable after we electronically file that material with or furnish it to the SEC;
- announcements of investor conferences and events at which our executives talk about our products and competitive strategies, as well as archives of these events;
- press releases on quarterly earnings, product announcements, legal developments and other material news that we may post from time to time;
- corporate governance information including our Corporate Governance Guidelines, Code of Business Conduct and Ethics, Code of Ethics for Chief Executive Officer and Senior Financial Officers, information concerning our Board of Directors and its committees, including the charters of the Audit Committee, Compensation and Management Development Committee, Corporate Governance Committee and Quality, Regulatory and Technology Committee, and other governance-related policies;
- stockholder services information, including ways to contact our transfer agent and information on how to sign up for direct deposit of dividends or enroll in our dividend reinvestment plan; and
- opportunities to sign up for email alerts and RSS feeds to have information provided in real time.

The information available on our website is not incorporated by reference in, or a part of, this or any other report we file with or furnish to the SEC.

Item 1A. Risk Factors

We operate in a rapidly changing economic and technological environment that presents numerous risks, many of which are driven by factors that we cannot control or predict. Our business, financial condition and results of operations may be impacted by a number of factors. In addition to the factors discussed elsewhere in this report, the following risks and uncertainties could materially harm our business, financial condition or results of operations, including causing our actual results to differ materially from those projected in any forward-looking statements. The following list of significant risk factors is not all-inclusive or necessarily in order of importance. Additional risks and uncertainties not presently known to us, or that we currently deem immaterial, also may materially adversely affect us in future periods. You should carefully consider these risks and uncertainties before investing in our securities.

Risks Related to our Business, Operations and Strategy

The COVID-19 pandemic has adversely impacted, and continues to pose risks to, our business, results of operations and financial condition, the nature and extent of which are highly uncertain and unpredictable.

Our global operations expose us to risks associated with public health crises and outbreaks of epidemic, pandemic, or contagious diseases, such as COVID-19. The global spread of COVID-19 has had, and we expect it to continue to have, an adverse impact on demand for our products, our sales, our operations, our supply chains and distribution systems, and our expenses, including as a result of preventive and precautionary measures that we, other businesses, and governments have taken and may continue to take. Due to these impacts and measures, we have experienced and expect to continue to experience significant and unpredictable reductions in the demand for our products as healthcare customers divert medical resources and priorities towards the treatment of COVID-19. During 2020, we experienced a significant decline in procedure volumes globally as healthcare systems diverted resources to meet the increasing demands of managing COVID-19, and that decline has continued. Additionally, public health bodies around the globe have at times recommended delaying elective surgeries during the COVID-19 pandemic, and patients, surgeons and medical societies are evaluating the risks of elective surgeries in the presence of infectious diseases, which we expect will continue to negatively impact demand for our products and the number of procedures performed.

As a result of the COVID-19 outbreak, we have experienced significant business disruptions, including restrictions on our ability to travel and to distribute our

products, temporary closures of, or limited operations at, certain of our facilities and the facilities of our suppliers and contract manufacturers, as well as reduction in access to our customers due to diverted resources and priorities and the business hours of hospitals as governments institute prolonged shelter-in-place and/or self-quarantine mandates. The unprecedented measures to slow the spread of the virus taken by local governments and healthcare authorities globally, including the deferral of elective surgical procedures and social distancing measures, have had, and we expect them to continue to have, a significant adverse effect on our financial position, results of operations and cash flows. These disruptions have resulted in the following among other unfavorable outcomes:

- lower revenues, profits and cash flows compared to historic trends, including a net loss recognized in 2020 and negative operating cash flows in the second quarter of 2020;
- bad debt charges as a result of being unable to collect on our accounts receivable;
- additional charges from operating our manufacturing facilities at less than normal capacity;
- goodwill impairment charges; and
- delays in certain strategic projects and investments, including our restructuring plans, which will delay or may eliminate the effectiveness of these strategic initiatives.

If preventative and precautionary measures and/or the distribution of vaccines do not curb the spread of COVID-19, our financial position, results of operations and cash flows may continue to be adversely affected. Prolonged disruptions that cause deferral of elective surgical procedures may result in the following among other potential negative outcomes:

- net losses and negative operating cash flows;
- excess inventory we cannot sell, which would result in increased inventory charges;
- our customers returning inventory to us, which would result in a reduction to our net sales;
- additional charges from operating our manufacturing facilities at less than normal capacity;
- additional goodwill impairment charges;
- failing to satisfy the covenants in our credit facilities, which may cause any outstanding amounts to be payable immediately and could affect our access to capital to fund our business; and
- downgrades to our credit ratings, which could result in increased interest expense.

In addition, the COVID-19 pandemic has adversely affected, and we expect it to continue to adversely affect, the economies and financial markets of many countries, which may result in a period of regional, national, and global economic slowdown or regional, national, or global recessions that could further negatively affect demand for our products as hospitals curtail or delay spending and individuals experiencing unemployment and/or a loss of healthcare benefits cancel or delay elective procedures, and could also increase the risk of customer defaults or delays in payments. Our customers may terminate or amend their agreements for the purchase of our products due to bankruptcy, lack of liquidity, lack of funding, operational failures or other reasons. COVID-19 and the current financial, economic and capital markets environment, and future developments in these and other areas, present material uncertainty and risk with respect to our performance, financial condition, volume of business, results of operations and cash flows. Due to the uncertain scope and duration of the pandemic and uncertain timing of global recovery and economic normalization, we are unable to estimate the impacts on our operations and financial results.

Our restructuring program may not be successful or we may not fully realize the expected cost savings and/or operating efficiencies from our restructuring initiatives.

In December 2019, our Board of Directors approved, and we initiated, a global restructuring program (the "2019 Restructuring Plan") with an objective of reducing costs to allow us to further invest in higher priority growth opportunities, which program is ongoing. Restructuring initiatives involve complex plans and actions that may include, or result in, workforce reductions, global plant closures and/or consolidations, product portfolio rationalizations and asset impairments. Additionally, as a result of restructuring initiatives, we may experience a loss of continuity, loss of accumulated knowledge and/or inefficiencies during transitional periods. Restructuring initiatives present significant risks that may impair our ability to achieve anticipated operating enhancements and/or cost reductions, or otherwise harm our business, including higher than anticipated costs in implementing our restructuring program, as well as management distraction. For more information on our restructuring program, see Note 4 to our consolidated financial statements. If we fail to achieve some or all of the expected benefits of restructuring, it could have a material adverse effect on our competitive position, business, financial condition, results of operations and cash flows.

Our success largely depends on key personnel, including our senior management, and having adequate succession plans in place. We may not be able to attract, retain and develop the highly skilled employees we need to support our business, which could harm our business.

Our future performance depends, in large part, on the continued services of our senior management and other key personnel, including our ability to attract, retain and motivate key personnel. Competition for key personnel in the various localities and business segments in which we operate is intense. Our ability to attract and retain key personnel, in particular senior management, will be dependent on a number of factors, including prevailing market conditions and compensation packages offered by companies competing for the same talent. There is no guarantee that we will have the continued service of key employees who we rely upon to execute our business strategy and identify and pursue strategic opportunities and initiatives. The loss of the services of any of our senior management or other key personnel, or our inability to attract highly qualified senior management and other key personnel, could harm our business. In particular, we may have to incur costs to replace senior officers or other key employees who leave, and our ability to execute our business strategy could be impaired if we are unable to replace such persons in a timely manner.

Effective succession planning is also important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving key employees could hinder our strategic planning and execution. Further, changes in our management team may be disruptive to our business, and any failure to successfully integrate key new hires or promoted employees could adversely affect our business and results of operations.

We may not be able to effectively integrate acquired businesses into our operations or achieve expected cost savings or profitability from our acquisitions.

Our acquisitions involve numerous risks, including:

- unforeseen difficulties in integrating personnel and sales forces, operations, manufacturing, logistics, research and development, information technology, compliance, vendor management, communications, purchasing, accounting, marketing, administration and other systems and processes;
- difficulties harmonizing and optimizing quality systems and operations;
- diversion of financial and management resources from existing operations;
- unforeseen difficulties related to entering geographic regions where we do not have prior experience;
- potential loss of key employees;
- unforeseen risks and liabilities associated with businesses acquired, including any unknown vulnerabilities in acquired technology or compromises of acquired data; and
- inability to generate sufficient revenue or realize sufficient cost savings to offset acquisition or investment costs.

As a result, if we fail to evaluate and execute acquisitions properly, we might not achieve the anticipated benefits of such acquisitions, and we may incur costs in excess of what we anticipate. These risks would likely be greater in the case of larger acquisitions.

The proposed spin-off of our Spine and Dental businesses may not be completed on the terms or timeline currently contemplated, if at all, and may not achieve the intended results.

On February 5, 2021, we announced our intention to pursue a plan to spin off our Spine and Dental businesses to form a new and independent, publicly traded company ("NewCo") through a tax-free distribution to our stockholders of publicly traded stock in NewCo. We are targeting completion of the spin-off in mid-2022. Unanticipated developments could delay, prevent or otherwise adversely affect this proposed spin-off, including but not limited to disruptions in general market conditions or potential problems or delays in obtaining various regulatory, tax and works council approvals or clearances. In addition, consummation of the proposed spin-off is subject to certain conditions, including, among others, final approval of our Board of Directors, the receipt of a favorable opinion and Internal Revenue Service ("IRS") ruling with respect to the tax-free nature of the transaction, and the effectiveness of a Form 10 registration statement with the SEC. Therefore, we cannot provide assurance that we will be able to complete the spin-off on the terms or on the timeline that we announced, or at all.

We will incur significant expenses in connection with the spin-off. In addition, completion of the proposed spin-off will require significant amounts of management's time and effort which may divert management's attention from other aspects of our business operations. The spin-off will also require modifications to our systems and processes used to operate our business. We may experience delays, increased costs and other difficulties related to these modifications which could adversely affect our business, financial condition and results of operations. Following the spin-off, we will be a smaller, less diversified company with a narrower business focus and may be more vulnerable to changing market conditions, which could adversely affect our operating results. We may also experience increased difficulties in attracting, retaining and motivating employees during the pendency of the spin-off and following its completion, which could harm our business.

Further, if the spin-off is completed, the anticipated benefits and synergies of the transaction, strategic and competitive advantages of each company, and future growth and other opportunities for each company may not be realized within the expected time periods or at all. Failure to implement the spin-off effectively could also result in a lower value to our company and our stockholders.

The proposed spin-off may result in disruptions to, and negatively impact our relationships with, our customers and other business partners.

Parties with which we do business may experience uncertainty associated with the spin-off, including with respect to current or future business relationships with us. Our business relationships may be subject to disruption as customers, vendors and others may attempt to negotiate changes in existing business relationships or consider entering into business relationships with parties other than us. These disruptions could adversely affect our business, including adversely affecting our ability to realize the anticipated benefits of the spin-off.

The spin-off could result in substantial tax liability.

We intend to obtain an opinion and an IRS ruling as to the tax-free nature of the spin-off under the U.S. Internal Revenue Code of 1986, as amended. The opinion and ruling will be based, among other things, on various factual assumptions and representations we will make. If any of these assumptions or representations are, or become, inaccurate or incomplete, reliance on the opinion and ruling may be jeopardized. If the spin-off does not qualify for tax-free treatment for U.S. federal income tax purposes, the resulting tax liability to us and to NewCo stockholders could be substantial.

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

We have manufacturing sites all over the world. In some instances, however, the manufacturing of certain of our product lines is concentrated in one or more of our plants. Damage to one or more of our facilities from weather or natural disaster-related events, vulnerabilities in our technology, cyber-attacks against our information systems or the information systems of our business partners (such as ransomware attacks), or issues in our manufacturing arising from failure to follow specific internal protocols and

procedures, compliance concerns relating to the QSR and Good Manufacturing Practice requirements, equipment breakdown or malfunction, reductions in operations and/or worker absences due to the COVID-19 pandemic or other health epidemics, or other factors could adversely affect our ability to manufacture our products. In the event of an interruption in manufacturing, we may be unable to move quickly to alternate means of producing affected products or to meet customer demand. In the event of a significant interruption, for example, as a result of a failure to follow regulatory protocols and procedures, we may experience lengthy delays in resuming production of affected products due primarily to the need for regulatory approvals. As a result, we may experience loss of market share, which we may be unable to recapture, and harm to our reputation, which could adversely affect our business, financial condition and results of operations.

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

We purchase many of the materials and components used in manufacturing our products from third-party suppliers and we outsource some key manufacturing activities. Certain of these materials and components and outsourced activities can only be obtained from a single source or a limited number of sources due to quality considerations, expertise, costs or constraints resulting from regulatory requirements. In certain cases, we may not be able to establish additional or replacement suppliers for such materials or components or outsourced activities in a timely or cost effective manner, largely as a result of FDA regulations that require validation of materials and components prior to their use in our products and the complex nature of our and many of our suppliers' manufacturing processes. A reduction or interruption in the supply of materials or components used in manufacturing our products, such as due to one or more suppliers experiencing reductions in operations and/or worker absences due to the COVID-19 pandemic or other health epidemics; an inability to timely develop and validate alternative sources if required; or a significant increase in the price of such materials or components could adversely affect our business, financial condition and results of operations.

In addition, many of our products require sterilization prior to sale and we utilize a mix of internal resources and contract sterilizers to perform this service. To the extent we or our contract sterilizers are unable to sterilize our products, whether due to capacity, availability of materials for sterilization, regulatory or other constraints, including federal and state regulations on the use of ethylene oxide, or reductions in operations and/or worker absences due to the COVID-19 pandemic or other health epidemics, we may be unable to transition to other contract sterilizers, sterilizer locations or sterilization methods in a timely or cost effective manner or at all, which could have a material impact on our results of operations and financial condition.

Moreover, we are subject to the SEC's rule regarding disclosure of the use of certain minerals, known as "conflict minerals" (tantalum, tin and tungsten (or their ores) and gold), which are mined from the Democratic Republic of the Congo and adjoining countries. This rule could adversely affect the sourcing, availability and pricing of materials used in the manufacture of our products, which could adversely affect our manufacturing operations and our profitability. In addition, we are incurring additional costs to comply with this rule, including costs related to determining the source of any relevant minerals and metals used in our products. We have a complex supply chain and we may not be able to sufficiently verify the origins of the minerals and metals used in our products through our due diligence procedures. As a result, we may face reputational challenges with our customers and other stakeholders.

We are increasingly dependent on sophisticated information technology and if we fail to effectively maintain or protect our information systems or data, including from data breaches, our business could be adversely affected.

We are increasingly dependent on sophisticated information technology for our products and infrastructure. As a result of technology initiatives, expanding privacy and cybersecurity laws, changes in our system platforms and integration of new business acquisitions, we have been consolidating and integrating the number of systems we operate and have upgraded and expanded our information systems capabilities. In addition, some of our products and services incorporate software or information technology that collects data regarding patients and patient therapy, and some products or software we provide to customers connect to our systems for maintenance and other purposes. We also have outsourced elements of our operations to third parties, and, as a result, we manage a number of third-party suppliers who may or could have access to our confidential information, including, but not limited to, intellectual property, proprietary business information and personal information of patients, employees and customers (collectively "Confidential Information").

Our information systems, and those of third-party suppliers with whom we contract, 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 technology, evolving systems and regulatory standards, changing threats and vulnerabilities, and the increasing need to protect patient and customer information. In addition, given their size and complexity, these systems could be vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by our employees, third-party vendors and/or business partners, or from cyber-attacks by malicious third parties attempting to gain unauthorized access to our products, systems or Confidential Information.

Like other large multi-national corporations, we have experienced instances of successful phishing attacks on our email systems and expect to be subject to similar attacks in the future. We also are subject to other cyber-attacks, including state-sponsored cyber-attacks, industrial espionage, insider threats, computer denial-of-service attacks, computer viruses, ransomware and other malware, payment fraud or other cyber incidents. In addition, as a result of the COVID-19 pandemic, a

significant number of our employees who are able to work remotely are doing so, and malicious cyber actors may increase malware campaigns and phishing emails targeting teleworkers, preying on the uncertainties surrounding COVID-19, which exposes us to additional cybersecurity risks. Our incident response efforts, business continuity procedures and disaster recovery planning may not be sufficient for all eventualities. If we fail to maintain or protect our information systems and data integrity effectively, we could:

- lose existing customers, vendors and business partners;
- have difficulty attracting new customers;
- have problems in determining product cost estimates and establishing appropriate pricing;
- suffer outages or disruptions in our operations or supply chain;
- have difficulty preventing, detecting, and controlling fraud;
- have disputes with customers, physicians, and other healthcare professionals;
- have regulatory sanctions or penalties imposed;
- incur increased operating expenses;
- be subject to issues with product functionality that may result in a loss of data, risk to patient safety, field actions and/or product recalls;
- incur expenses or lose revenues as a result of a data privacy breach; or
- suffer other adverse consequences.

While we have invested heavily in the protection of our data and information technology, there can be no assurance that our activities related to consolidating the number of systems we operate, upgrading and expanding our information systems capabilities, protecting and enhancing our systems and implementing new systems will be successful. We will continue to dedicate significant resources to protect against unauthorized access to our systems and work with government authorities to detect and reduce the risk of future cyber incidents; however, cyber-attacks are becoming more sophisticated, frequent and adaptive. Therefore, despite our efforts, we cannot assure that cyber-attacks or data breaches will not occur or that systems issues will not arise in the future. Any significant breakdown, intrusion, breach, interruption, corruption or destruction of these systems could have a material adverse effect on our business and reputation.

Our success depends on our ability to effectively develop and market our products against those of our competitors.

We operate in a highly competitive environment. Our present or future products could be rendered obsolete or uneconomical by technological advances by one or more of our present or future competitors or by other therapies, including biological therapies. To remain competitive, we must continue to develop and acquire new products and technologies and improve existing products and technologies. Competition is primarily on the basis of:

- technology;
- innovation;
- quality;
- reputation;
- customer service; and
- pricing.

In markets outside of the U.S., other factors influence competition as well, including:

- local distribution systems;
- complex regulatory environments; and
- differing medical philosophies and product preferences.

Our competitors may:

- have greater financial, marketing and other resources than us;
- respond more quickly to new or emerging technologies;
- undertake more extensive marketing campaigns;
- adopt more aggressive pricing policies; or
- be more successful in attracting potential customers, employees and strategic partners.

Any of these factors, alone or in combination, could cause us to have difficulty maintaining or increasing sales of our products.

If we fail to retain the independent agents and distributors upon whom we rely heavily to market our products, customers may not buy our products and our revenue and profitability may decline.

Our marketing success in the U.S. and abroad depends significantly upon our agents' and distributors' sales and service expertise in the marketplace. Many of these agents have developed professional relationships with existing and potential customers because of the agents' detailed knowledge of products and instruments. A loss of a significant number of our agents could have a material adverse effect on our business and results of operations.

If we do not introduce new products in a timely manner, our products may become obsolete over time, customers may not buy our products and our revenue and profitability may decline.

Demand for our products may change, in certain cases, in ways we may not anticipate because of:

- evolving customer needs;
- changing demographics;
- slowing industry growth rates;
- declines in the musculoskeletal implant market;
- the introduction of new products and technologies;
- evolving surgical philosophies; and
- evolving industry standards.

Without the timely introduction of new products and enhancements, our products may become obsolete over time. If that happens, our revenue and operating results would suffer. The success of our new product offerings will depend on several factors, including our ability to:

- properly identify and anticipate customer needs;
- commercialize new products in a timely manner;
- manufacture and deliver instruments and products in sufficient volumes on time;
- differentiate our offerings from competitors' offerings;
- achieve positive clinical outcomes for new products;
- satisfy the increased demands by healthcare payors, providers and patients for shorter hospital stays, faster post-operative recovery and lower-cost procedures;
- innovate and develop new materials, product designs and surgical techniques; and
- provide adequate medical education relating to new products.

In addition, new materials, product designs and surgical techniques that we develop may not be accepted quickly, in some or all markets, because of, among other factors:

- entrenched patterns of clinical practice;
- the need for regulatory clearance; and
- uncertainty with respect to third-party reimbursement.

Moreover, innovations generally require a substantial investment in research and development before we can determine their commercial viability and we may not have the financial resources necessary to fund the production. In addition, even if we are able to successfully develop enhancements or new generations of our products, these enhancements or new generations of products may not produce revenue in excess of the costs of development and they may be quickly rendered obsolete by changing customer preferences or the introduction by our competitors of products embodying new technologies or features.

If third-party payors decline to reimburse our customers for our products or reduce reimbursement levels, the demand for our products may decline and our ability to sell our products profitably may be harmed.

We sell our products and services to hospitals, doctors, dentists and other healthcare providers, which receive reimbursement for the healthcare services provided to their patients from third-party payors, such as domestic and international government programs, private insurance plans and managed care programs. These third-party payors may deny reimbursement if they determine that a product or service used in a procedure was not in accordance with cost-effective treatment methods, as determined by the third-party payor, or was used for an unapproved indication. Third-party payors may also decline to reimburse for experimental procedures and products.

In addition, third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for medical products and services. If third-party payors reduce reimbursement levels or change reimbursement models for hospitals and other healthcare providers for our products, demand for our products may decline, or we may experience increased pressure to reduce the prices of our products, which could have a material adverse effect on our sales and results of operations.

We have also experienced downward pressure on product pricing and other effects of healthcare reform in our international markets. If key participants in government healthcare systems reduce the reimbursement levels for our products, including through political changes or transitions, our sales and results of operations may be adversely affected.

The ongoing cost-containment efforts of healthcare purchasing organizations may have a material adverse effect on our results of operations.

Many customers for our products have formed group purchasing organizations in an effort to contain costs. Group purchasing organizations negotiate pricing arrangements with medical supply manufacturers and distributors, and these negotiated prices are made available to a group purchasing organization's affiliated hospitals and other members. If we are not one of the providers selected by a group purchasing organization, affiliated hospitals and other members may be less likely to purchase our products, and, if the group purchasing organization has negotiated a strict compliance contract for another manufacturer's products, we may be precluded from making sales to members of the group purchasing organization for the duration of the contractual arrangement. Our failure to respond to the cost-containment efforts of group purchasing organizations may cause us to lose market share to our competitors and could have a material adverse effect on our sales and results of operations.

Financial, Credit and Liquidity Risks

We incurred substantial additional indebtedness in connection with previous mergers and acquisitions and may not be able to meet all of our debt obligations, and the phase-out, replacement or unavailability of LIBOR and/or other interest rate benchmarks could adversely affect our indebtedness.

We incurred substantial additional indebtedness in connection with previous mergers and acquisitions. At December 31, 2020, our total indebtedness was $8.1 billion, as compared to $1.4 billion at December 31, 2014. As of December 31, 2020, our debt service obligations, comprised of principal and interest (excluding leases and equipment notes), during the next 12 months are expected to be $0.7 billion. As a result of the increase in our debt, demands on our cash resources have increased. The increased level of debt could, among other things:

- require us to dedicate a large portion of our cash flow from operations to the servicing and repayment of our debt, thereby reducing funds available for working capital, capital expenditures, research and development expenditures and other general corporate requirements;
- limit our ability to obtain additional financing to fund future working capital, capital expenditures, research and development expenditures and other general corporate requirements;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restrict our ability to make strategic acquisitions or dispositions or to exploit business opportunities;
- place us at a competitive disadvantage compared to our competitors that have less debt;
- adversely affect our credit rating, with the result that the cost of servicing our indebtedness might increase and our ability to obtain surety bonds could be impaired;
- adversely affect the market price of our common stock; and
- limit our ability to apply proceeds from a future offering or asset sale to purposes other than the servicing and repayment of debt.

In addition, the interest rates applicable to certain of our debt obligations are based on a fluctuating rate of interest determined by reference to the London Interbank Offered Rate ("LIBOR"), Euro Interbank Offered Rate ("EURIBOR") and/or Tokyo Interbank Offered Rate ("TIBOR"). Any increase in interest rates applicable to our debt obligations would increase our cost of borrowing and could adversely affect our financial position, results of operations or cash flows. Further, in July 2017, the U.K.'s Financial Conduct Authority, which regulates

LIBOR, announced that it intends to stop persuading or compelling banks to submit rates to the ICE Benchmark Administration Limited (together with any successor, "IBA"). In response to concerns regarding the future of LIBOR, the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee ("ARRC") to identify alternatives to LIBOR. The ARRC has recommended a benchmark replacement waterfall to assist issuers in continued capital market entry while safeguarding against LIBOR's discontinuation. The initial steps in the ARRC's recommended provision reference variations of the Secured Overnight Financing Rate ("SOFR"). In November 2020, the IBA announced a proposal that the cessation date for the submission and publication of certain tenors of U.S. dollar denominated LIBOR (including one-, three-, six- and twelve-month LIBOR) be extended to June 30, 2023. At this time, it is not possible to predict whether SOFR will attain market traction as a LIBOR replacement, and it remains uncertain if LIBOR in applicable tenors and applicable currencies will cease to exist after calendar year 2021, or whether additional reforms to LIBOR may be enacted, or whether alternative reference rates will gain market acceptance as a replacement for LIBOR. Further, other central banks have convened working groups to determine replacements or reforms of other interest rate benchmarks, such as EURIBOR, and it is expected, although not known, that a transition away from the use of certain of these other interest rate benchmarks will occur over the course of the next few years and alternative reference rates (such as the euro short-term rate (€STR)) will be established or gain market acceptance.

Certain of our debt obligations that are based on LIBOR will mature before the end of 2021. However, the revolving credit agreement that we entered into on November 1, 2019 (the "2019 Credit Agreement") has an initial maturity date of November 1, 2024. In anticipation of LIBOR's phase out, the 2019 Credit Agreement provides for alternative base rates as well as a transition mechanism for selecting a benchmark replacement rate for LIBOR, with such benchmark replacement rate to be mutually agreed with the general administrative agent and our lenders. There can be no assurance that we will be able to reach an agreement with our lenders on any such replacement benchmark before experiencing adverse effects due to changes in interest rates, if at all. We will continue to monitor the situation and address the potential reference rate changes in future debt obligations that we may incur. Accordingly, the potential effect of the phase-out, replacement or unavailability of LIBOR, or the unavailability of any other interest rate benchmark such as EURIBOR or TIBOR, on our cost of capital cannot yet be determined. Further, the use of an alternative base rate or a benchmark replacement rate as a basis for calculating interest with respect to any outstanding variable rate indebtedness could lead to an increase in the interest we pay and a corresponding increase in our costs of capital or otherwise have a material adverse impact on our business, financial condition or results of operations.

We may have additional tax liabilities.

We are subject to income taxes in the U.S. and many foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by tax authorities. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our financial statements in the period or periods for which that determination is made.

Changes in the tax laws of the jurisdictions where we do business, including an increase in tax rates or an adverse change in the treatment of an item of income or expense, could result in a material increase in our tax expense. For example, changes in the tax laws of foreign jurisdictions could arise as a result of the "base erosion and profit shifting" project undertaken by the Organisation for Economic Co-operation and Development ("OECD"). The OECD, which represents a coalition of member countries, has recommended changes to numerous long-standing tax principles. These changes, as adopted by countries, could increase tax uncertainty and may have a material adverse impact on our business, financial condition or results of operations.

The results of the U.S. presidential election could lead to changes in tax laws that could negatively impact our effective tax rate.

Prior to the recent U.S. presidential election, President Biden proposed an increase in the U.S. corporate income tax rate from 21% to 28%, increasing the rate of tax on certain earnings of foreign subsidiaries, imposition of an offshoring tax penalty, and a 15% minimum tax on worldwide book income. If any or all of these (or similar) proposals are ultimately enacted into law, in whole or in part, they could have a material adverse impact on our business, financial condition or results of operations.

If our independent agents and distributors are characterized as employees, we would be subject to additional tax and other liabilities.

We structure our relationships with independent agents and distributors in a manner that we believe results in an independent contractor relationship, not an employee relationship. Although we believe that our independent agents and distributors are properly characterized as independent contractors, tax or other regulatory authorities may in the future challenge our characterization of these relationships. Further, we have been subject to lawsuits challenging the characterization of these relationships in recent years. Changes in classification from independent contractor to employee can result in a change to various requirements associated with the payment of wages, tax withholding, and the provision of unemployment, health, and other traditional employer-employee related benefits. If regulatory authorities or state, federal or foreign courts were to determine that our independent agents or distributors are employees, and not independent contractors, we would be required to withhold income taxes, to withhold and pay social security, Medicare

and similar taxes and to pay unemployment and other related payroll taxes. We would also be liable for unpaid past taxes and subject to penalties. As a result, any determination that our independent agents and distributors are our employees could have a material adverse effect on our business, financial condition and results of operations.

Future material impairments in the carrying value of our intangible assets, including goodwill, would negatively affect our operating results.

Goodwill and intangible assets represent a significant portion of our assets. At December 31, 2020, we had $9.3 billion in goodwill and $7.1 billion of intangible assets. The goodwill results from our acquisition activity and represents the excess of the consideration transferred over the fair value of the net assets acquired. We assess at least annually whether events or changes in circumstances indicate that the carrying value of our intangible assets may not be recoverable. As discussed further in Note 11 to our consolidated financial statements, in the first quarter of 2020, we recorded goodwill impairment charges of $612.0 million as a result of the adverse impacts from the COVID-19 pandemic and a change in our reportable segments, and in the second quarter of 2020, we recorded $33.0 million of in-process research and development ("IPR&D") intangible asset impairments on certain IPR&D projects. If the operating performance at one or more of our reporting units falls significantly below current levels, including if elective surgical procedures are deferred longer than our current expectations due to the COVID-19 pandemic, if competing or alternative technologies emerge, if market conditions or future cash flow estimates for one or more of our businesses decline, or as a result of restructuring initiatives pursuant to which we reorganize our reporting units, we could be required to record additional impairment charges. Any write-off of a material portion of our goodwill or unamortized intangible assets would negatively affect our results of operations.

Global Operational Risks

We conduct a significant amount of our sales activity outside of the U.S., which subjects us to additional business risks and may cause our profitability to decline due to increased costs.

We sell our products in more than 100 countries and derived approximately 40 percent of our net sales in 2020 from outside the U.S. We intend to continue to pursue growth opportunities in sales internationally, including in emerging markets, which could expose us to additional risks associated with international sales and operations. Our international operations are, and will continue to be, subject to a number of risks and potential costs, including:

- changes in foreign medical reimbursement policies and programs;
- changes in foreign regulatory requirements, such as more stringent requirements for regulatory clearance of products;
- differing local product preferences and product requirements;
- fluctuations in foreign currency exchange rates;
- diminished protection of intellectual property in some countries outside of the U.S.;
- trade protection measures, import or export requirements, new or increased tariffs, trade embargoes and sanctions and other trade barriers, which may prevent us from shipping products to a particular market and may increase our operating costs;
- foreign exchange controls that might prevent us from repatriating cash earned in countries outside the U.S.;
- complex data privacy and cybersecurity requirements and labor relations laws;
- extraterritorial effects of U.S. laws such as the FCPA;
- effects of foreign anti-corruption laws, such as the UK Bribery Act;
- difficulty in staffing and managing foreign operations;
- labor force instability;
- potentially negative consequences from changes in tax laws; and
- political, social and economic instability and uncertainty, including sovereign debt issues.

Violations of foreign laws or regulations could result in fines, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business and damage to our reputation.

We are subject to risks arising from currency exchange rate fluctuations, which can increase our costs, cause our profitability to decline and expose us to counterparty risks.

A substantial portion of our foreign revenues is generated in Europe and Japan. The U.S. Dollar value of our foreign-generated revenues varies with currency exchange rate fluctuations. Significant increases in the value of the U.S. Dollar relative to the Euro, the Japanese Yen, the Swiss Franc or other currencies could have a material adverse effect on our results of operations. Although we address currency risk management through regular operating and financing activities, and, on a limited basis, through the use of derivative financial instruments, those actions may not prove to be fully effective or may create additional financial obligations for us. Further, if the counterparties to the derivative financial instrument transactions fail to honor their obligations due to financial distress or otherwise, we would be exposed to potential losses or the inability to recover anticipated gains from those transactions.

Developments relating to the UK's exit from the EU could adversely affect us.

The UK ceased to be a member of the EU on January 31, 2020, commonly referred to as "Brexit," and entered into a transition period which ended on December 31, 2020 (the "Transition Period"), during which terms for the future trading relationship between the EU and UK were negotiated. On December 30, 2020, the UK and the EU signed the UK-EU Trade and Cooperation Agreement, which applies provisionally (pending ratification by the Council of the European Union) with effect from the end of the Transition Period. As of the end of the Transition Period, the UK and the EU became separate and distinct legal and regulatory jurisdictions.

Brexit has resulted in certain new restrictions on the free movement of goods, services and people between the UK and the EU, through technical barriers to trade, rules of origin requirements, custom inspections, and/or migration

restrictions. In terms of medical products regulation and trade, the now separate UK and EU approval and regulatory regimes may, in the near term or over time, require us to make adjustments to our business and operations that could result in significant expense and take significant time to complete. Over time, Brexit could also result in increasing regulatory and/or standards divergence between the UK and the EU, which could affect the clearance and approval of medical products in each or either jurisdiction.

Despite the UK-EU Trade and Cooperation Agreement, Brexit and the perceptions as to its potential impact have adversely affected, and may continue to adversely affect, business activity and economic conditions in the UK, Europe and globally, and could continue to contribute to instability in global financial and foreign exchange markets.

Given these possibilities and others we may not anticipate, as well as the lack of comparable precedent, the full extent to which we will be affected by Brexit remains uncertain. Any of the potential negative effects of Brexit could adversely affect our business, results of operations and financial condition.

Legal, Regulatory and Compliance Risks

We are subject to costly and complex laws and governmental regulations relating to the development, design, product standards, packaging, advertising, promotion, postmarket surveillance, manufacturing, labeling and marketing of our products, non-compliance with which could adversely affect our business, financial condition and results of operations.

Our global regulatory environment is increasingly stringent, unpredictable and complex. The products we design, develop, manufacture and market are subject to rigorous regulation by the FDA and numerous other supranational, national, federal, regional, state and local governmental authorities. The process of obtaining regulatory approvals and clearances to market these products can be costly and time consuming and approvals might not be granted for future products on a timely basis, if at all. Delays in receipt of, or failure to obtain, approvals for future products could result in delayed realization of product revenues or in substantial additional costs.

Both before and after a product is commercially released, we have ongoing responsibilities under FDA regulations and other supranational, national, federal, regional, state and local requirements globally. Compliance with these requirements, including the QSR, recordkeeping regulations, labeling and promotional requirements and adverse event reporting regulations, is subject to continual review and is monitored rigorously through periodic inspections by the FDA and other regulators, which may result in observations (such as on Form 483), and in some cases warning letters, that require corrective action, or other forms of enforcement. If the FDA or another regulator were to conclude that we are not in compliance with applicable laws or regulations, or that any of our products are ineffective or pose an unreasonable health risk, they could ban such products, detain or seize adulterated or misbranded products, order a recall, repair, replacement, or refund of payment of such products, refuse to grant pending premarket approval applications, refuse to provide certificates for exports, and/or require us to notify healthcare professionals and others that the products present unreasonable risks of substantial harm to the public health. The FDA or other regulators may also impose operating restrictions, including a ceasing of operations at one or more facilities, enjoin and restrain certain violations of applicable law pertaining to our products, seizure of products and assess civil or criminal penalties against our officers, employees or us. The FDA or other regulators could also issue a corporate warning letter or a recidivist warning letter or negotiate the entry of a consent decree of permanent injunction with us, and/or recommend prosecution. Any adverse regulatory action, depending on its magnitude, may restrict us from effectively manufacturing, marketing and selling our products and could have a material adverse effect on our business, financial condition and results of operations.

In August 2018, we received a warning letter from the FDA related to observed non-conformities with current good manufacturing practice requirements of the QSR at our Warsaw North Campus manufacturing facility. As of February 14, 2021, this warning letter remained pending. Until the violations are corrected, we may become subject to additional regulatory action by the FDA as described above, the FDA may refuse to grant premarket approval applications and/or the FDA may refuse to grant export certificates, any of which could have a material adverse effect on our business, financial condition and results of operations. Additional information regarding these and other FDA regulatory matters can be found in Note 21 to our consolidated financial statements.

Governmental regulations outside the U.S. continue to become increasingly stringent and complex. In the EU, for example, the MDR is expected to become effective in May 2021 and will include significant additional premarket and post-market requirements. Complying with the requirements of this regulation requires us to incur significant expense. Additionally, the availability of EU notified body services certified to the new requirements is limited, which may delay the marketing approval for some of our products under the MDR. Any such delays, or any failure to meet the requirements of the new regulation, could adversely impact our business in the EU and other regions that tie their product registrations to the EU requirements.

Our products and operations are also often subject to the rules of industrial standards bodies, such as the International Standards Organization. If we fail to adequately address any of these regulations, our business could be harmed.

If we fail to comply with healthcare fraud and abuse or data privacy and security laws and regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

The sales, marketing and pricing of products and relationships that medical products companies have with healthcare providers are under increased scrutiny around the world. Our industry is subject to various laws and regulations pertaining to healthcare fraud and abuse, including the False Claims Act, the Anti-Kickback Statute, the Stark law, the Physician Payments Sunshine Act, the Food, Drug, and

Cosmetic Act and similar laws and regulations in the U.S. and around the world. In addition, we are subject to various laws concerning anti-corruption and anti-bribery matters (including the FCPA), sales to countries or persons subject to economic sanctions and other matters affecting our international operations. Violations of these laws are punishable by criminal and/or civil sanctions, including, in some instances, fines, imprisonment and, within the U.S., exclusion from participation in government healthcare programs, including Medicare, Medicaid and Veterans Administration health programs. These laws are administered by, among others, the DOJ, the OIG-HHS, the SEC, the OFAC, the Bureau of Industry and Security of the U.S. Department of Commerce and state attorneys general.

We are also subject to federal, state and international data privacy and security laws and regulations that govern the collection, use, disclosure, transfer, storage, disposal and protection of health-related and other personal information. The FDA has issued guidance to which we may be subject concerning data security for medical devices. The FDA and the DHS have also issued urgent safety communications regarding cybersecurity vulnerabilities of certain medical devices, which vulnerabilities may apply to some of our current or future devices.

In addition, certain of our affiliates are subject to privacy, security and breach notification regulations promulgated under HIPAA. HIPAA governs the use, disclosure, and security of protected health information by HIPAA "covered entities" and their "business associates." Covered entities are health plans, health care clearinghouses and health care providers that engage in specific types of electronic transactions. A business associate is any person or entity (other than members of a covered entity's workforce) that performs a service on behalf of a covered entity involving the use or disclosure of protected health information. HHS (through the Office for Civil Rights) has direct enforcement authority against covered entities and business associates with regard to compliance with HIPAA regulations. On December 10, 2020, HHS issued an NPR to modify the HIPAA privacy rule. Separately, HHS (through the National Coordinator for Health Information Technology) issued a new rule, to be effective April 5, 2021, that will limit "blocking" of electronic health information. We intend to monitor both the NPR and the "information blocking" rule and assess their impact on the use of data in our business.

In addition to the FDA guidance and HIPAA regulations described above, a number of U.S. states have also enacted data privacy and security laws and regulations that govern the collection, use, disclosure, transfer, storage, disposal, and protection of personal information, such as social security numbers, medical and financial information and other personal information. These laws and regulations may be more restrictive and not preempted by U.S. federal laws. For example, several U.S. territories and all 50 states now have data breach laws that require timely notification to individuals, and at times regulators, the media or credit reporting agencies, if a company has experienced the unauthorized access or acquisition of personal information. Other state laws include the CCPA, which took effect on January 1, 2020. The CCPA, among other things, contains new disclosure obligations for businesses that collect personal information about California residents and affords those individuals numerous rights relating to their personal information that may affect our ability to use personal information or share it with our business partners. A second law in California, the CPRA, passed via a ballot referendum in November 2020. The CPRA expands the scope of the CCPA and establishes a new California Privacy Protection Agency that will enforce the law and issue regulations. The CPRA is scheduled to take effect on January 1, 2023, with a lookback to January 1, 2022. Other states have considered and/or enacted similar privacy laws. We will continue to monitor and assess the impact of these state laws, which may impose substantial penalties for violations, impose significant costs for investigations and compliance, allow private class-action litigation and carry significant potential liability for our business.

Outside of the U.S., data protection laws, including the GDPR in Europe and the LGPD in Brazil, also apply to our operations in those countries in which we provide services to our customers. Legal requirements in these countries relating to the collection, storage, processing and transfer of personal data continue to evolve. The GDPR imposes, among other things, data protection requirements that include strict obligations and restrictions on the ability to collect, analyze and transfer EU personal data, a requirement for prompt notice of data breaches to data subjects and supervisory authorities in certain circumstances, and possible substantial fines for any violations (including possible fines for certain violations of up to the greater of 20 million Euros or 4% of total worldwide annual turnover of the preceding financial year). Governmental authorities around the world have enacted similar types of legislative and regulatory requirements concerning data protection, and additional governments are considering similar legal frameworks.

The interpretation and enforcement of the laws and regulations described above are uncertain and subject to change, and may require substantial costs to monitor and implement compliance with any additional requirements. Failure to comply with U.S. and international data protection laws and regulations could result in government enforcement actions (which could include substantial civil and/or criminal penalties), private litigation and/or adverse publicity and could have a material adverse impact on our business, financial condition or results of operations.

Pending and future product liability claims and litigation could adversely impact our financial condition and results of operations and impair our reputation.

Our business exposes us to potential product liability risks that are inherent in the design, manufacture and marketing of medical devices. In the ordinary course of business, we are the subject of product liability lawsuits alleging that component failures, manufacturing flaws, design defects or inadequate disclosure of product-related risks or product-related information resulted in an unsafe condition or injury to patients. As discussed further in Note 21 to our consolidated financial statements, we are defending product liability lawsuits relating to the Durom® Acetabular Component ("Durom Cup"), certain products within the M/L Taper and M/

L Taper with Kinectiv® Technology hip stems and Versys® Femoral Head implants, and the M2a-Magnum™ hip system. We are also currently defending a number of other product liability lawsuits and claims related to various other products. Any product liability claim brought against us, with or without merit, can be costly to defend. Product liability lawsuits and claims, safety alerts or product recalls, regardless of their ultimate outcome, could have a material adverse effect on our business and reputation and on our ability to attract and retain customers.

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.

Claims of intellectual property infringement and litigation regarding patent and other intellectual property rights are commonplace in our industry and are frequently time consuming and costly. At any given time, we may be involved as either plaintiff or 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 and other intellectual property litigation, such litigation could 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 proprietary rights against others, which could have a material adverse effect on our business and results of operations. As previously disclosed, in March 2019 we paid approximately $168 million related to an award of treble damages and attorneys' fees in a patent infringement lawsuit.

Our success depends in part on our proprietary technology, processes, methodologies and information. We rely on a combination of patent, copyright, trademark, trade secret and other intellectual property laws and nondisclosure, license, assignment and confidentiality arrangements to establish, maintain and protect our proprietary rights, as well as the intellectual property rights of third parties whose assets we license. However, the steps we have taken to protect our intellectual property rights, and the rights of those from whom we license intellectual property, may not be adequate to prevent unauthorized use, misappropriation or theft of our intellectual property. Further, our currently pending or future patent applications may not result in patents being issued to us, patents issued to or licensed by us in the past or in the future may be challenged or circumvented by competitors, and such patents may be found invalid, unenforceable or insufficiently broad to protect our technology or to provide us with any competitive advantage. Third parties could obtain patents that may require us to negotiate licenses to conduct our business, and the required licenses may not be available on reasonable terms or at all. We also cannot be certain that others will not independently develop substantially equivalent proprietary information.

In addition, intellectual property laws differ in various jurisdictions in which we operate and are subject to change at any time, which could further restrict our ability to protect our intellectual property and proprietary rights. In particular, a portion of our revenues is derived from jurisdictions where adequately protecting intellectual property rights may prove more challenging or impossible. We may also not be able to detect unauthorized uses or take timely and effective steps to remedy unauthorized conduct. To prevent or respond to unauthorized uses of our intellectual property, we might be required to engage in costly and time-consuming litigation or other proceedings and we may not ultimately prevail. Any failure to establish, maintain or protect our intellectual property or proprietary rights could have a material adverse effect on our business, financial condition, or results of operations.

We are involved in legal proceedings that may result in adverse outcomes.

In addition to intellectual property and product liability claims and lawsuits, we are involved in various commercial and securities litigation and claims and other legal proceedings that arise from time to time in the ordinary course of our business. For example, as discussed further in Note 21 to our consolidated financial statements, there have been four shareholder derivative actions filed purportedly on our behalf against certain of our current and former directors and officers and certain former stockholders of ours who sold shares of our common stock in secondary public offerings in 2016, alleging breaches of fiduciary duties and insider trading, based on allegations that we made materially false and/or misleading statements and/or omissions about our compliance with FDA regulations and our ability to continue to accelerate our organic revenue growth rate in the second half of 2016. Although we believe there are substantial defenses in these matters, litigation and other claims are subject to inherent uncertainties and management's view of these matters may change in the future. Given the uncertain nature of legal proceedings generally, we are not able in all cases to estimate the amount or range of loss that could result from an unfavorable outcome. We could in the future incur judgments or enter into settlements of claims that could have a material adverse effect on our results of operations in any particular period.

Risks Related to Our Organizational Documents and Jurisdiction of Incorporation

Anti-takeover provisions in our organizational documents could delay or prevent a change of control.

Certain provisions of our Restated Certificate of Incorporation, our Restated By-Laws and the Delaware General Corporation Law may have an anti-takeover effect and may delay, defer or prevent a merger, acquisition, tender offer, takeover attempt or other change of control transaction that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by our stockholders.

These provisions provide for, among other things:

- the ability of our board of directors to issue one or more series of preferred stock without further stockholder action;

- advance notice for nominations of directors by stockholders and for stockholders to include matters to be considered at our annual meetings;
- certain limitations on convening special stockholder meetings; and
- the prohibition on engaging in a "business combination" with an "interested stockholder" for three years after the time at which a person became an interested stockholder unless certain conditions are met, as set forth in Section 203 of the Delaware General Corporation Law.

These anti-takeover provisions could make it more difficult for a third party to acquire us, even if the third party's offer may be considered beneficial by many of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares.

Our Restated By-Laws designate certain Delaware courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or other employees.

Our Restated By-Laws provide that, unless we consent in writing to the selection of an alternative forum, a state court located within the State of Delaware (or, if no state court located in the State of Delaware has jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum for any stockholder (including any beneficial owner) to bring (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us or any of our directors, officers or other employees arising pursuant to any provision of the Delaware General Corporation Law or our Restated Certificate of Incorporation or our Restated By-Laws, as either may be amended from time to time, or (iv) any action asserting a claim against us or any of our directors, officers or other employees governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have received notice of and consented to the foregoing provisions. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find this choice of forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or results of operations.

Item 1B. Unresolved Staff Comments

Not Applicable.

Item 2. Properties

We own or lease approximately 350 different facilities around the world, of which approximately half are in the U.S. Our corporate headquarters is in Warsaw, Indiana. Warsaw, Indiana is also home to our most significant manufacturing, research and development ("R&D"), and other business activities for our Knees, Hips and S.E.T. product divisions. Our Spine, CMFT, Office Based Technologies and Dental products divisions also have business unit headquarters located in the U.S. that are the primary facilities for these product divisions' manufacturing, R&D and other business activities. Internationally, our EMEA regional headquarters is in Switzerland and our Asia Pacific regional headquarters is in Singapore.

We have approximately 30 manufacturing locations in the U.S. and internationally. Our most significant locations outside of the U.S. are in Switzerland, Ireland, the U.K., China, and Puerto Rico. We primarily own our manufacturing facilities in the U.S.; internationally, we occupy both owned and leased manufacturing facilities.

We maintain sales and administrative offices and warehouse and distribution facilities in more than 40 countries around the world. These local market facilities are primarily leased due to common businesses practices and to allow us to be more adaptable to changing needs in the market.

We distribute our products both through large, centralized warehouses and through smaller, market specific facilities, depending on the needs of the market. We maintain large, centralized warehouses in the U.S. and the Netherlands to be able to efficiently distribute our products to customers in the U.S. and EMEA.

We believe that all of the facilities and equipment are in good condition, well maintained and able to operate at present levels. We believe the current facilities, including manufacturing, warehousing, R&D and office space, provide sufficient capacity to meet ongoing demands.

Item 3. Legal Proceedings

Information pertaining to certain legal proceedings in which we are involved can be found in Note 21 to our consolidated financial statements included in Part II, Item 8 of this report and is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not Applicable.

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

Our common stock is traded on the New York Stock Exchange and the SIX Swiss Exchange under the symbol "ZBH." As of February 3, 2021, there were approximately 16,700 holders of record of our common stock. A substantially greater number of holders of our common stock are "street name" or beneficial holders, whose shares of record are held by banks, brokers and other financial institutions.

We expect to continue paying cash dividends on a quarterly basis; however, future dividends are subject to approval of the Board of Directors and may be adjusted as business needs or market conditions change.

The information required by this Item concerning equity compensation plans is incorporated herein by reference to Item 12 of this report.

Item 6. Selected Financial Data

The financial information for each of the past five years ended December 31 is set forth below (in millions, except per share amounts):

	2020	2019	2018	2017	2016
STATEMENT OF EARNINGS DATA					
Net sales	$ 7,024.5	$ 7,982.2	$ 7,932.9	$ 7,803.3	$ 7,668.4
Net (loss) earnings of Zimmer Biomet Holdings, Inc.	(138.9)	1,131.6	(379.2)	1,813.8	305.9
(Loss) earnings per common share					
Basic	$ (0.67)	$ 5.52	$ (1.86)	$ 8.98	$ 1.53
Diluted	(0.67)	5.47	(1.86)	8.90	1.51
Dividends declared per share of common stock	$ 0.96	$ 0.96	$ 0.96	$ 0.96	$ 0.96
Average common shares outstanding					
Basic	207.0	205.1	203.5	201.9	200.0
Diluted	207.0	206.7	203.5	203.7	202.4
BALANCE SHEET DATA					
Total assets	$24,417.7	$24,638.7	$24,126.8	$26,014.0	$26,684.4
Long-term debt	7,626.5	6,721.4	8,413.7	8,917.5	10,665.8
Other long-term obligations	2,034.9	2,083.0	2,015.7	2,291.3	3,967.2
Stockholders' equity	12,199.4	12,392.8	11,276.1	11,735.5	9,669.9

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the corresponding notes included elsewhere in this Annual Report on Form 10-K. Certain percentages presented in this discussion and analysis are calculated from the underlying whole-dollar amounts and therefore may not recalculate from the rounded numbers used for disclosure purposes. The following discussion, analysis and comparisons generally focus on the operating results for the years ended December 31, 2020 and 2019. Discussion, analysis and comparisons of the years ended December 31, 2019 and 2018 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019.

EXECUTIVE LEVEL OVERVIEW

Impact of the COVID-19 Global Pandemic

Our results have been significantly impacted by the COVID-19 global pandemic. The vast majority of our net sales are derived from products used in elective surgical procedures. As COVID-19 rapidly started to spread throughout the world in early 2020, our net sales decreased dramatically as countries took precautions to prevent the spread of the virus with lockdowns and stay-at-home measures and as hospitals deferred elective surgical procedures. This resulted in net sales declines of 9.7 percent and 38.3 percent in the first and second quarters of 2020, respectively, when compared to the same prior year periods. In the third quarter of 2020, various levels of recovery in elective surgical procedures occurred resulting in net sales growth of 2.0 percent when compared to the same prior year period. However, in the fourth quarter of 2020 we saw the pandemic worsen and elective surgical procedures were deferred again, especially late in the quarter. This was particularly prevalent in EMEA. As a result, our net sales declined in the fourth quarter of 2020 by 1.9 percent when compared to the same prior year period.

With the deferral of elective surgical procedures, we have taken prudent measures in an effort to maintain an adequate financial profile to have access to capital to fund the business during these unprecedented times. In response to the COVID-19 pandemic, we have temporarily reduced discretionary spending such as travel, meetings and other project spend that can be delayed with limited long-term detriment to the business, and we have temporarily suspended or limited production at certain manufacturing facilities. However, to date we have not experienced significant disruptions in our supply chain, or in our ability to meet our customer demands.

2020 Financial Highlights

In 2020, our net sales decreased by 12.0 percent compared to 2019 due to the deferral of elective surgical procedures from the COVID-19 pandemic. We recognized a net loss of $138.9 million in the year ended December 31, 2020. The loss was largely attributable to the impacts of COVID-19, which caused lower net sales and was the primary driver behind $645.0 million of goodwill and intangible asset impairment charges. The temporarily suspended or limited production at certain manufacturing facilities resulted in higher costs of products sold that relate to certain fixed overhead costs and hourly production worker labor expenses that are included in the cost of inventory when these facilities are operating at normal capacity. Pursuant to our 2019 Restructuring Plan, we also incurred higher restructuring and other cost reduction initiative expenses in 2020 when compared to 2019. Lastly, in 2020 we recognized net litigation-related charges of $159.8 million compared to net litigation-related charges of $41.5 million in 2019. These unfavorable items were partially offset by savings from our 2019 Restructuring Plan and lower costs for travel, meetings and other projects due to COVID-19.

2021 Outlook

We believe the COVID-19 surges that occurred late in 2020 will continue to negatively impact our net sales in 2021. However, at this time we are optimistic the rollout of vaccines around the world will change those dynamics and elective surgical procedures will be able to return to pre-pandemic levels at some point during 2021. Additionally, since the clinical need for many of our products does not go away, it is possible once patients and hospitals have confidence to return to elective surgical procedures the patient backlog from deferred procedures may have a positive effect on the underlying market growth. However, the consequences of COVID-19 continue to be fluid, and it is difficult to predict its ongoing impacts to our business and broader economic and market environments.

If the negative impacts of COVID-19 on our net sales subsides, we believe we can improve our operating profit margin since our fixed costs would not increase proportionally to net sales.

RESULTS OF OPERATIONS

We analyze sales by three geographies, the Americas, EMEA and Asia Pacific, and by the following product categories: Knees; Hips; S.E.T.; Dental, Spine & CMFT; and Other. This sales analysis differs from our reportable operating segments, which are based upon our senior management organizational structure and how we allocate resources towards achieving operating profit goals. We analyze sales by geography because the underlying market trends in any particular geography tend to be similar across product categories and because we primarily sell the same products in all geographies.

Net Sales by Geography

The following tables present net sales by geography and the components of the percentage changes (dollars in millions):

	Year Ended December 31,			Volume/		Foreign
	2020	2019	% (Dec)	Mix	Price	Exchange
Americas	$4,335.4	$4,875.8	(11.1)%	(7.9)%	(3.1)%	(0.1)%
EMEA	1,391.3	1,746.9	(20.4)	(20.5)	(0.8)	0.9
Asia Pacific	1,297.8	1,359.5	(4.5)	(4.5)	(1.5)	1.5
Total	$7,024.5	$7,982.2	(12.0)	(10.0)	(2.4)	0.4

	Year Ended December 31,			Volume/		Foreign
	2019	2018	% Inc/(Dec)	Mix	Price	Exchange
Americas	$4,875.8	$4,837.2	0.8%	4.0%	(3.0)%	(0.2)%
EMEA	1,746.9	1,801.9	(3.1)	4.3	(2.1)	(5.3)
Asia Pacific	1,359.5	1,293.8	5.1	9.1	(2.2)	(1.8)
Total	$7,982.2	$7,932.9	0.6	4.9	(2.7)	(1.6)

"Foreign Exchange" used in the tables in this report represents the effect of changes in foreign currency exchange rates on sales.

Net Sales by Product Category

The following tables present net sales by product category and the components of the percentage changes (dollars in millions):

	Year Ended December 31,			Volume/		Foreign
	2020	2019	% (Dec)	Mix	Price	Exchange
Knees	$2,389.8	$2,810.1	(15.0)%	(12.6)%	(2.7)%	0.3%
Hips	1,750.5	1,931.5	(9.4)	(7.1)	(2.8)	0.5
S.E.T.	1,322.0	1,444.1	(8.4)	(6.5)	(2.3)	0.4
Dental, Spine & CMFT	1,043.7	1,161.3	(10.1)	(9.4)	(1.2)	0.5
Other	518.5	635.2	(18.4)	(16.9)	(1.9)	0.4
Total	$7,024.5	$7,982.2	(12.0)	(10.0)	(2.4)	0.4

	Year Ended December 31,			Volume/		Foreign
	2019	2018	% Inc/(Dec)	Mix	Price	Exchange
Knees	$2,810.1	$2,773.7	1.3%	6.2%	(3.0)%	(1.9)%
Hips	1,931.5	1,918.9	0.7	5.6	(3.1)	(1.8)
S.E.T.	1,444.1	1,401.2	3.1	6.0	(1.6)	(1.3)
Dental, Spine & CMFT	1,161.3	1,175.1	(1.2)	2.1	(2.0)	(1.3)
Other	635.2	664.0	(4.3)	0.8	(4.0)	(1.1)
Total	$7,982.2	$7,932.9	0.6	4.9	(2.7)	(1.6)

The following table presents net sales by product category by geography for our Knees and Hips product categories, which represent our most significant product categories (dollars in millions):

	Year Ended December 31,				
	2020	2019	2018	2020 vs. 2019 % (Dec)	2019 vs. 2018 % Inc/(Dec)
Knees					
Americas	$1,461.1	$1,676.6	$1,642.7	(12.9)%	2.1%
EMEA	487.0	654.1	672.3	(25.6)	(2.7)
Asia Pacific	441.7	479.4	458.7	(7.8)	4.5
Total	$2,389.8	$2,810.1	$2,773.7	(15.0)	1.3
Hips					
Americas	$ 941.5	$1,016.3	$ 996.3	(7.4)%	2.0%
EMEA	407.8	499.8	519.9	(18.4)	(3.9)
Asia Pacific	401.2	415.4	402.7	(3.4)	3.2
Total	$1,750.5	$1,931.5	$1,918.9	(9.4)	0.7

Demand (Volume/Mix) Trends

Changes in volume and mix of product sales had a negative effect of 10.0 percent on year-over-year sales during the year ended December 31, 2020. Volume trends were negative in the first and second quarters of 2020 as the COVID-19 pandemic resulted in the deferral of elective surgical procedures. In the third quarter of 2020, we experienced various levels of recovery in elective surgical procedures, resulting in positive volume and mix compared to the same prior year period. However, in the fourth quarter of 2020 as the pandemic surged, volume trends again were negative compared to the same prior year period in many regions and we expect this trend to continue into 2021 until vaccines or other preventative measures lessen the spread of infection and patient reluctance.

Based upon country dynamics, volume changes varied by region in 2020. In the Americas, the U.S. volume trends varied from state-to-state depending on local infection rates and preventative measures. In EMEA, stay-at-home measures were far more prevalent than other geographies, especially in the second and fourth quarters, resulting in EMEA volume and mix trends being the worst among our geographic regions for the full year. In Asia Pacific, containment of the COVID-19 virus varied from country-to-country, but overall volume and mix trends were positive in Asia Pacific in the second half of 2020 as our three largest markets of Japan, China and Australia/New Zealand all had sales growth in the fourth quarter of 2020.

Pricing Trends

Global selling prices had a negative effect of 2.4 percent on year-over-year sales during 2020. In the majority of countries in which we operate, we continue to experience pricing pressure from governmental healthcare cost containment efforts and from local hospitals and health systems.

Foreign Currency Exchange Rates

In 2020, changes in foreign currency exchange rates had a positive effect of 0.4 percent on year-over-year sales. If foreign currency exchange rates remain at levels consistent with recent rates, we estimate they will have a less than 1 percent positive effect on sales in 2021 for the full year.

Estimated Market Trends

The following table presents estimated* 2020 global market information (dollars in billions):

	Global Market Size**	Global Historic Market % Growth***	Zimmer Biomet Market Position**
Knees	$ 9	Low-Single Digit	1
Hips	8	Low-Single Digit	1
S.E.T.	24	Mid-Single Digit	5
CMFT	3	Mid-Single Digit	3
Spine	11	Low-Single Digit	6
Dental	10	Mid-Single Digit	5

* Estimates are not precise and are based on competitor annual filings, Wall Street equity research and Company estimates
** Only includes the subsegments in these markets in which we compete
*** Represents historic growth in recent years, absent the effects of the COVID-19 pandemic, and excludes the effect of changes in foreign currency exchange rates on sales growth

Expenses as a Percent of Net Sales

	Year Ended December 31,				
	2020	2019	2018	2020 vs. 2019 Inc/(Dec)	2019 vs. 2018 Inc/(Dec)
Cost of products sold, excluding intangible asset amortization	30.3%	28.2%	28.6%	2.1%	(0.4)%
Intangible asset amortization	8.5	7.3	7.5	1.2	(0.2)
Research and development	5.3	5.6	4.9	(0.3)	0.7
Selling, general and administrative	45.2	41.9	42.6	3.3	(0.7)
Goodwill and intangible asset impairment	9.2	0.9	12.3	8.3	(11.4)
Restructuring and other cost reduction initiatives	1.7	0.6	0.4	1.1	0.2
Quality remediation	0.7	1.0	1.9	(0.3)	(0.9)
Acquisition, integration and related	0.3	0.2	1.3	0.1	(1.1)
Operating (Loss) Profit	(1.2)	14.2	0.4	(15.4)	13.8

Cost of Products Sold and Intangible Asset Amortization

We calculate gross profit as net sales minus cost of products sold and intangible asset amortization. Our gross margin percentage is gross profit divided by net sales. The following table sets forth the factors that contributed to the gross margin changes in each of 2020 and 2019 compared to the prior year:

	Year Ended December 31,	
	2020	2019
Prior year gross margin	64.5%	63.9%
Lower average selling prices	(0.7)	(0.7)
Average cost per unit	0.4	(0.4)
Excess and obsolete inventory charges	(0.5)	0.1
Discontinued products inventory charges	(0.4)	–
Royalties	0.1	0.4
Impact of foreign currency hedges	0.2	0.8
Temporarily suspended or limited production	(1.2)	–
Intangible asset amortization	(1.2)	0.2
Other	–	0.2
Current year gross margin	61.2%	64.5%

The decrease in gross margin percentage in 2020 compared to 2019 was primarily due to temporarily suspended or limited production at certain facilities, intangible asset amortization, lower average selling prices, excess and obsolete inventory charges and charges related to products we intend to discontinue. The temporary suspension or limited production at certain manufacturing facilities resulted in us immediately expensing certain fixed overhead costs and hourly production worker labor expenses that are included in the cost of inventory when these facilities are operating at normal capacity. Intangible asset amortization and excess and obsolete inventory charges did not decline ratably with the significant decline in our net sales and therefore were a significant impact to our gross margin percentage. The inventory charges on discontinued products are driven by overlapping product lines in our portfolio and we have plans to discontinue one of the product lines, or from decisions not to spend additional funds to keep certain products up-to-date with the latest quality standards or requirements, such as the European Union Medical Device Regulation ("EU MDR"), and so we have decided to discontinue those products.

Operating Expenses

Research & development ("R&D") expenses decreased in both amount and as a percentage of net sales in 2020 compared to 2019 primarily due to savings as a result of the 2019 Restructuring Plan and lower spending on travel and lower spending on certain project costs, including the EU MDR, due to COVID-19.

Selling, general & administrative ("SG&A") expenses decreased in 2020 compared to 2019, but increased as a percentage of net sales. SG&A expenses decreased due to lower variable selling and distribution expenses from the decline in our net sales, COVID-19 cost reductions for travel, consulting and other projects, savings from our 2019 Restructuring Plan and lower charges related to our compliance with the DPA. These favorable items were partially offset by higher litigation-related charges in 2020 compared to 2019. See Note 21 to our consolidated financial statements for additional information on these litigation matters. The increase in SG&A expenses as a percentage of net sales is due to various fixed expenses that did not decline ratably with the significant decline in our net sales.

In 2020, we recognized goodwill and intangible asset impairment charges of $645.0 million, including charges of $470.0 million and $142.0 million related to our EMEA and Dental reporting units, respectively, and $33.0 million of intangible asset impairment charges. In 2019, we recognized intangible asset impairment charges of $70.1 million. For more information regarding these charges, see Note 11 to our consolidated financial statements.

In December 2019, our Board of Directors approved, and we initiated, the 2019 Restructuring Plan with an overall objective of reducing costs to allow us to invest in higher priority growth opportunities. We recognized expenses of $116.9 million and $50.0 million in the years ended December 31, 2020 and 2019, respectively, attributable to restructuring and other cost reduction initiatives, primarily related to employee termination benefits, distributor contract terminations, and consulting and project management expenses associated with the 2019 Restructuring Plan. For more information regarding these expenses, see Note 4 to our consolidated financial statements.

Our quality remediation expenses declined in 2020 compared to 2019 due to the natural regression of completing our remediation milestones. Acquisition, integration and related expenses increased in 2020 compared to 2019 due to the various acquisitions we made in 2020.

On February 5, 2021, we announced our intention to pursue a plan to spin off our Spine and Dental businesses to form NewCo. We expect to incur significant expenses in 2021 to execute this plan. The significant expenses primarily include third party consulting and project management to help us separate the legacy Zimmer Biomet and NewCo businesses and to comply with all the necessary actions needed for NewCo to become an independent, publicly-traded company. Consummation of the proposed spin-off is subject to certain conditions, including final approval of our Board of Directors, the receipt of a favorable opinion and IRS ruling with respect to the tax-free nature of the transaction, and the effectiveness of a Form 10 registration statement with the SEC. Therefore, we cannot provide assurance that we will be able to complete the spin-off on the terms or on the timeline that we announced, or at all.

Other Income (Expense), net, Interest Expense, net, and Income Taxes

In 2020, we recognized income in other income (expense), net, compared to net expenses in 2019, primarily due to gains recognized from changes to the fair value of our equity investments and higher gains from certain components of pension expense in 2020.

Interest expense, net, declined in 2020 compared to 2019 due to lower average outstanding debt balances during 2020 resulting from debt repayments throughout 2019 and Euro

notes issued in the fourth quarter of 2019 that were used to refinance debt with higher interest rates. Despite continued debt repayments, our interest expense, net, may increase in 2021 due to cross-currency interest rate swaps that will mature in 2021. Based upon current market conditions, if we decide to enter into new swaps when the previous swaps mature in 2021, the new swaps would not be as favorable to us compared to the maturing swaps.

Our effective tax rate ("ETR") on (loss) earnings before income taxes was 49.9 percent and negative 24.9 percent (a tax benefit was recognized on earnings before income taxes) for the years ended December 31, 2020 and 2019, respectively. In 2020, the income tax benefit was driven by changes in estimates to uncertain tax positions, favorable tax audit settlements, jurisdictional mix of earnings and losses, and a $43.0 million tax benefit from Switzerland's Federal Act on Tax Reform and AHV Financing ("TRAF"). Other significant impacts to the ETR in 2020 included the $612.0 million goodwill impairment charge, which resulted in a loss before taxes, but had no corresponding tax benefit.

In 2019, we recognized an overall tax benefit in the year due to a $315.0 million benefit from Switzerland's TRAF in addition to the tax impact of certain restructuring transactions in Switzerland. The TRAF was effective January 1, 2020 and includes the abolishment of various favorable federal and cantonal tax regimes. The TRAF provided transitional relief measures for companies that are losing the tax benefit of a ruling, including a "step-up" for amortizable goodwill, equal to the amount of future tax benefit they would have received under their existing ruling, subject to certain limitations.

Absent discrete tax events, we expect our future ETR will be lower than the U.S. corporate income tax rate of 21.0 percent due to our mix of earnings between U.S. and foreign locations, which have lower corporate income tax rates. Our ETR in future periods could also potentially be impacted by: changes in our mix of pre-tax earnings; changes in tax rates, tax laws or their interpretation, including the European Union rules on state aid; the outcome of various federal, state and foreign audits; and the expiration of certain statutes of limitations. Currently, we cannot reasonably estimate the impact of these items on our financial results.

Segment Operating Profit

	Net Sales			Operating Profit			Operating Profit as a Percentage of Net Sales		
	Year Ended December 31,			Year Ended December 31,			Year Ended December 31,		
(dollars in millions)	2020	2019	2018	2020	2019	2018	2020	2019	2018
Americas and Global Businesses	$4,479.0	$5,035.3	$5,000.4	$1,316.9	$1,689.7	$1,706.9	29.4%	33.6%	34.1%
EMEA	1,288.6	1,623.1	1,669.5	308.9	484.0	480.7	24.0	29.8	28.8
Asia Pacific	1,256.9	1,323.8	1,263.0	420.5	472.7	431.9	33.5	35.7	34.2

In 2020, the net sales and operating profit of all of our operating segments were adversely affected by the COVID-19 pandemic. In 2020, the operating profit as a percentage of net sales for each of our segments declined compared to prior years due to the effect of fixed operating expenses that did not decline proportionally with lower net sales from the impact of COVID-19.

Non-GAAP Operating Performance Measures

We use financial measures that differ from financial measures determined in accordance with GAAP to evaluate our operating performance. These non-GAAP financial measures exclude, as applicable, certain inventory and manufacturing-related charges including charges to discontinue certain product lines; intangible asset amortization; goodwill and intangible asset impairment; restructuring and other cost reduction initiative expenses; quality remediation expenses; acquisition, integration and related expenses; certain litigation gains and charges; expenses to establish initial compliance with the EU MDR; other charges; any related effects on our income tax provision associated with these items; the impact of The Tax Cuts and Jobs Act of 2017 (the "2017 Tax Act"); the effect of Switzerland tax reform; other certain tax adjustments; and, with respect to earnings per share information, provide for the effect of dilutive shares assuming net earnings in a period of a reported net loss. We use these non-GAAP financial measures internally to evaluate the performance of the business. Additionally, we believe these non-GAAP measures provide meaningful incremental information to investors to consider when evaluating our performance. We believe these measures offer the ability to make period-to-period comparisons that are not impacted by certain items that can cause dramatic changes in reported income but that do not impact the fundamentals of our operations. The non-GAAP measures enable the evaluation of operating results and trend analysis by allowing a reader to better identify operating trends that may otherwise be masked or distorted by these types of items that are excluded from the non-GAAP measures. In addition, adjusted diluted earnings per share is used as a performance metric in our incentive compensation programs.

The following are reconciliations from our GAAP net earnings and diluted earnings per share to our non-GAAP adjusted net earnings and non-GAAP adjusted diluted earnings per share used for internal management purposes (in millions, except per share amounts):

	Year ended December 31,		
	2020	2019	2018
Net (Loss) Earnings of Zimmer Biomet Holdings, Inc.	$ (138.9)	$1,131.6	$ (379.2)
Inventory and manufacturing related charges[1]	54.2	53.9	32.5
Intangible asset amortization[2]	597.6	584.3	595.9
Goodwill and intangible asset impairment[3]	645.0	70.1	979.7
Restructuring and other cost reduction initiatives[4]	116.9	50.0	34.2
Quality remediation[5]	49.8	87.6	165.4
Acquisition, integration and related[6]	23.8	12.2	99.5
Litigation[7]	159.8	65.0	186.0
Litigation settlement gain[8]	–	(23.5)	–
European Union Medical Device Regulation[9]	25.3	30.9	3.7
Other charges[10]	10.7	119.2	82.8
Taxes on above items [11]	(253.4)	(226.2)	(239.6)
U.S. tax reform [12]	–	–	8.3
Swiss tax reform [13]	(5.0)	(315.0)	–
Other certain tax adjustments [14]	(104.2)	(13.7)	(3.8)
Adjusted Net Earnings	$1,181.6	$1,626.4	$1,565.4

	Year ended December 31,		
	2020	2019	2018
Diluted (Loss) Earnings per share	$(0.67)	$ 5.47	$(1.86)
Inventory and manufacturing related charges[1]	0.26	0.26	0.16
Intangible asset amortization[2]	2.89	2.83	2.93
Goodwill and intangible asset impairment[3]	3.12	0.34	4.81
Restructuring and other cost reduction initiatives[4]	0.56	0.24	0.17
Quality remediation[5]	0.24	0.42	0.81
Acquisition, integration and related[6]	0.12	0.06	0.49
Litigation[7]	0.77	0.31	0.91
Litigation settlement gain[8]	–	(0.11)	–
European Union Medical Device Regulation[9]	0.12	0.15	0.02
Other charges[10]	0.05	0.58	0.41
Taxes on above items [11]	(1.22)	(1.09)	(1.18)
U.S. tax reform [12]	–	–	0.04
Swiss tax reform [13]	(0.03)	(1.52)	–
Other certain tax adjustments [14]	(0.50)	(0.07)	(0.02)
Effect of dilutive shares assuming net earnings[15]	(0.04)	–	(0.05)
Adjusted Diluted EPS	$ 5.67	$ 7.87	$ 7.64

[1] Inventory and manufacturing-related charges in 2020 and 2019 were primarily related to excess and obsolete inventory charges on certain product lines we intend to discontinue and other charges. The year ended December 31, 2019 also included a $20.8 million charge incurred to terminate a raw material supply agreement. The excess and obsolete inventory charges on certain product lines are driven by overlapping product lines in our portfolio and we have plans to discontinue one of the product lines, or from decisions not to spend additional funds to keep certain products up-to-date on the latest quality standards or requirements, such as the EU MDR, and so we have decided to discontinue such products. In 2018, the charges primarily related to inventory step-up. Inventory step-up expense represents the incremental expense of inventory sold recognized at its fair value after business combination accounting is applied versus the expense that would have been recognized if sold at its cost to manufacture.

[2] We exclude intangible asset amortization from our non-GAAP financial measures because we internally assess our performance against our peers without this amortization. Due to various levels of acquisitions among our peers, intangible asset amortization can vary significantly from company to company.

[3] In 2020 we recognized goodwill impairment charges of $470.0 million and $142.0 million related to our EMEA and Dental reporting units, respectively. In 2018, we recognized a goodwill impairment charge of $975.9 million. The impairment was comprised of $401.2 million in our Spine reporting unit, $567.0 million in our EMEA reporting unit and $7.7 million in an insignificant reporting unit. In 2020, 2019 and 2018, we recognized $33.0 million, $70.1 million and $3.8 million, respectively, of intangible asset impairments from merger-related IPR&D intangible assets.

[4] In December 2019, our Board of Directors approved, and we initiated, a new global restructuring program with an objective of reducing costs to allow us to further invest in higher priority growth opportunities. Restructuring and other cost reduction initiatives also include other cost reduction initiatives that have the goal of reducing costs across the organization.

[5] We are addressing inspectional observations on Form 483 and a Warning Letter issued by the U.S. Food and Drug Administration ("FDA") following its previous inspections of our Warsaw North Campus facility, among other matters. This quality remediation has required us to devote significant financial resources and is for a discrete period of time. The majority of the expenses are related to consultants who are helping us to update previous documents and redesign certain processes.

[6] We exclude certain acquisition, integration and related gains and expenses from our non-GAAP results.

[7] We are involved in routine patent litigation, product liability litigation, commercial litigation and other various litigation matters. We review litigation matters from both a qualitative and quantitative perspective to determine if excluding the losses or gains will provide our investors with useful incremental information. Litigation matters can vary in their characteristics, frequency and significance to our operating results. The litigation charges and gains excluded from our non-GAAP financial measures in the periods presented relate to product liability matters where we have received numerous claims on specific products, patent litigation and commercial litigation related to a common matter in multiple jurisdictions. In regards to the product liability matters, due to the complexities involved and claims filed in multiple districts, the expenses associated with these matters are significant to our operating results. Once the litigation matter has been excluded from our non-GAAP financial measures in a particular period, any additional expenses or gains from changes in estimates are also excluded, even if they are not significant, to ensure consistency in our non-GAAP financial measures from period-to-period.

[8] In the first quarter of 2019, we settled a patent infringement lawsuit out of court, and the other party agreed to pay us an upfront, lump-sum amount for a non-exclusive license to the patent.

[9] The EU MDR imposes significant additional premarket and postmarket requirements. The new regulations provide a transition period until May 2021 for currently-approved medical devices to meet the additional requirements. For certain devices, this transition period can be extended until May 2024. We are excluding from our non-GAAP financial measures the incremental costs incurred to establish initial compliance with the regulations related to our currently-approved medical devices. The incremental costs primarily include third-party consulting necessary to supplement our internal resources.

[10] We have incurred other various expenses from specific events or projects that we consider highly variable or that have a significant impact to our operating results that we have excluded from our non-GAAP measures. These include costs related to legal entity, distribution and manufacturing optimization, including contract terminations, gains and losses from changes in fair value on our equity investments, as well as our costs of complying with our DPA with the U.S. government related to certain Foreign Corrupt Practices Act matters involving Biomet and certain of its subsidiaries. Under the DPA, we were subject to oversight by an independent compliance monitor, which monitorship concluded in August 2020. On February 9, 2021, the one-count criminal information filed against

us in 2017 was dismissed with prejudice and the DPA concluded. The excluded costs include the fees paid to the independent compliance monitor and to external legal counsel assisting in the matter.
(11) Represents the tax effects on the previously specified items. The tax effect for the U.S. jurisdiction is calculated based on an effective rate considering federal and state taxes, as well as permanent items. For jurisdictions outside the U.S., the tax effect is calculated based upon the statutory rates where the items were incurred.
(12) The 2017 Tax Act resulted in a net favorable provisional adjustment due to the reduction of deferred tax liabilities for unremitted earnings and revaluation of deferred tax liabilities to a 21 percent rate, which was partially offset by provisional tax charges related to the toll charge provision of the 2017 Tax Act. In 2018, we finalized our estimates of the effects of the 2017 Tax Act based upon final guidance issued by U.S. tax authorities.
(13) We recognized a tax benefit related to TRAF in addition to an impact from certain restructuring transactions in Switzerland. Also included are tax adjustments relating to the ongoing impacts of tax only amortization resulting from TRAF as well as certain restructuring transactions in Switzerland.
(14) Other certain tax adjustments relate to various discrete tax period adjustments. In 2020, the adjustments were primarily related to the resolution of or changes in estimates of significant uncertain tax positions as a result of settlements or favorable rulings. In 2019 and 2018, the adjustments were primarily related to changes in tax rates on deferred tax liabilities recorded on intangible assets recognized in acquisition-related accounting and adjustments from internal restructuring transactions that provide us access to offshore funds in a tax efficient manner.
(15) Due to the reported net loss for 2020 and 2018, the effect of dilutive shares assuming net earnings is shown as an adjustment. Diluted share count used in Adjusted Diluted EPS is (in millions):

	Year ended December 31, 2020	Year ended December 31, 2018
Diluted shares	207.0	203.5
Dilutive shares assuming net earnings	1.4	1.5
Adjusted diluted shares	208.4	205.0

LIQUIDITY AND CAPITAL RESOURCES

The COVID-19 pandemic has had an adverse effect on our liquidity and capital resource needs, primarily driven by the reduction in net sales due to elective surgical procedure deferrals. We have taken prudent measures in an effort to maintain an adequate financial profile and to have access to capital to fund the business during these unprecedented times. These measures included reductions to discretionary spending such as travel, meetings and other project spend that can be delayed with limited long-term detriment to the business. However, we continued to incur fixed expenses that resulted in lower operating cash flows in 2020 when compared to 2019.

As of December 31, 2020, we had $802.1 million in cash and cash equivalents. In addition, we had $1.0 billion available to borrow under our revolving credit agreement entered into on September 18, 2020 (the "September 2020 Credit Agreement") that contains a $1.0 billion 364-day unsecured revolving credit facility (the "September 2020 Revolving Facility") and matures on September 17, 2021, and $1.5 billion available under our five-year unsecured multicurrency revolving facility of $1.5 billion (the "2019 Multicurrency Revolving Facility") under the revolving credit agreement we entered into on November 1, 2019 (the "2019 Credit Agreement") that will mature on November 1, 2024. The terms of the 2019 Multicurrency Revolving Facility and the September 2020 Revolving Facility (collectively, the "Revolving Facilities") are described further below and in Note 13 to our consolidated financial statements.

Based on the actions described above, we believe that cash flows from operations, our cash and cash equivalents on hand, and available borrowings under our Revolving Facilities will be sufficient to meet our ongoing liquidity requirements for at least the next twelve months. At this time, we do not anticipate needing to borrow against our Revolving Facilities to fund our operations. However, due to the significant uncertainties of the COVID-19 pandemic, it is possible our needs may change. Further, there can be no assurance that, if needed, we will be able to secure additional financing on terms favorable to us, if at all.

Sources of Liquidity

Cash flows provided by operating activities were $1,204.5 million in 2020 compared to $1,585.8 million and $1,747.4 million in 2019 and 2018, respectively. The decline in cash flow from operating activities in 2020 from 2019 was primarily the result of COVID-19 reducing our cash inflows due to lower net sales while we continued to pay many fixed operating costs. Additionally, in 2020 we terminated our accounts receivable purchase arrangements in the U.S. and Japan which we estimate negatively impacted operating cash flows by approximately $300 million. The 2019 period included a payment of approximately $168 million on a patent infringement lawsuit.

Cash flows used in investing activities were $613.8 million in 2020 compared to $729.3 million and $416.6 million in 2019 and 2018, respectively. Instrument and property, plant and equipment additions reflected ongoing investments in our product portfolio and optimization of our manufacturing and logistics network. In order to preserve cash, we prioritized investments in 2020 which resulted in lower investments in property, plant and equipment, totaling $117.5 million when compared to $207.1 million in 2019. As further discussed in Note 10 to our consolidated financial statements, we made various acquisitions in 2020 requiring initial cash outlays of $235.5 million, net of acquired cash. In 2019, we paid $197.6 million to buy out certain licensing arrangements from third parties.

Cash flows used in financing activities were $421.8 million in 2020. In 2020, we issued senior notes and received $1,497.1 million in proceeds, which were used to pay our $1,500.0 million senior notes at maturity on April 1, 2020. Additionally, with cash flows generated from operations, in 2020 we prepaid $250.0 million of our floating rate senior notes that mature March 19, 2021. Further, the termination of certain accounts receivable purchase arrangements in 2020 resulted in $54.6 million of financing cash outflows to the purchasing financial institutions. These outflows represent the amount of unremitted cash that we had collected on sold accounts receivable as of December 31, 2019 that was repaid in 2020. Cash flows used in financing activities were $779.9 million in 2019. Our primary use of available cash in 2019 was for debt repayment. We received net proceeds of $549.2 million from the issuance of additional Euro-denominated senior notes which we used to repay $500.0 million of senior notes that became due on November 30, 2019. In January 2019, we borrowed an additional $200.0 million under a U.S. term loan ("U.S. Term

Loan C") and used those proceeds, along with cash on hand, to repay the remaining $225.0 million outstanding under the U.S. term loan ("U.S. Term Loan B") provided for under our 2016 credit agreement. During 2019 we also repaid the $735.0 million outstanding balance under U.S. Term Loan C, with the remainder of the proceeds from the Euro-denominated senior notes issuance and cash from operations. Overall, we had approximately $710 million of net principal repayments on our senior notes and term loans in 2019.

At December 31, 2020, we had outstanding debt of $8,126.5 million, of which $500.0 million was classified as current debt. As it relates to our current debt, following December 31, 2020, we prepaid the remaining $200.0 million principal amount outstanding on our floating rate senior notes due March 19, 2021. The remaining current debt consists of our $300.0 million senior notes due November 30, 2021. We believe we can satisfy this debt obligation with cash generated from our operations, by issuing new debt, and/or by borrowing on our revolving credit facilities.

For additional information on our debt, including types of debt, maturity dates, interest rates, debt covenants and available revolving credit facilities, see Note 13 to our consolidated financial statements.

We place our cash and cash equivalents in highly-rated financial institutions and limit the amount of credit exposure to any one entity. We invest only in high-quality financial instruments in accordance with our internal investment policy.

As of December 31, 2020, $390.1 million of our cash and cash equivalents were held in jurisdictions outside of the U.S. Of this amount, $90.8 million is denominated in U.S. Dollars and, therefore, bears no foreign currency translation risk. The balance of these assets is denominated in currencies of the various countries where we operate. We intend to repatriate at least $5.5 billion of unremitted earnings in future years.

In February, June, September and December 2020, our Board of Directors declared cash dividends of $0.24 per share. We expect to continue paying cash dividends on a quarterly basis; however, future dividends are subject to approval of the Board of Directors and may be adjusted as business needs or market conditions change.

In February 2016, our Board of Directors authorized a $1.0 billion share repurchase program effective March 1, 2016, with no expiration date. As of December 31, 2020, all $1.0 billion remained authorized.

As discussed in Note 4 to our consolidated financial statements, in December 2019, our Board of Directors approved, and we initiated, the 2019 Restructuring Plan with an objective of reducing costs to allow us to further invest in higher priority growth opportunities. The 2019 Restructuring Plan is expected to result in total pre-tax restructuring charges of approximately $350 million to $400 million, $145 million of which was incurred through December 31, 2020. We expect to reduce gross annual pre-tax operating expenses by approximately $200 million to $300 million by the end of 2023 as program benefits under the 2019 Restructuring Plan are realized.

As discussed in Note 10 to our consolidated financial statements, we completed the acquisitions of A&E Medical Corporation and Relign Corp. in 2020. These acquisitions included guaranteed deferred payments totaling $145.0 million that we are obligated to make in 2021.

As discussed in Note 17 to our consolidated financial statements, the IRS has issued proposed adjustments for years 2010 through 2012, as well as proposed adjustments for years 2013 through 2015, reallocating profits between certain of our U.S. and foreign subsidiaries. We have disputed these proposed adjustments and intend to continue to vigorously defend our positions. Although the ultimate timing for resolution of the disputed tax issues is uncertain, future payments may be significant to our operating cash flows.

As discussed in Note 21 to our consolidated financial statements, we are involved in various litigation matters with respect to which we expect to continue paying settlements over the next few years.

CONTRACTUAL OBLIGATIONS

We have entered into contracts with various third parties in the normal course of business that will require future payments. The following table illustrates our contractual obligations and certain other commitments (in millions):

Contractual Obligations	Total	2021	2022 and 2023	2024 and 2025	2026 and Thereafter
Long-term debt	$ 8,171.6	500.0	1,981.4	2,000.0	3,690.2
Interest payments	1,846.8	207.8	396.7	344.9	897.4
Operating leases	313.9	80.2	105.0	65.0	63.7
Purchase obligations	518.4	253.4	171.4	93.2	0.4
Toll charge tax liability	279.2	–	56.7	136.6	85.9
Other long-term liabilities	310.7	–	223.3	22.4	65.0
Total contractual obligations	$11,440.6	$1,041.4	$2,934.5	$2,662.1	$4,802.6

$124.4 million of the other long-term liabilities on our balance sheet as of December 31, 2020 are liabilities related to defined benefit pension plans. Defined benefit plan liabilities are based upon the underfunded status of the respective plans; they are not based upon future contributions. Due to uncertainties regarding future plan asset performance, changes in interest rates and our intentions with respect to voluntary contributions, we are unable to reasonably estimate future contributions beyond 2021. Therefore, this table does not include any amounts related to future contributions to our plans. See Note 16 to our consolidated financial statements for further information on our defined benefit plans.

Under the 2017 Tax Act, we have a $279.2 million liability remaining from a one-time tax on the mandatory deemed repatriation of post-1986 untaxed foreign earnings and profits ("toll charge") for the deemed repatriation of unremitted foreign earnings. This amount was recorded in non-current income tax liabilities on our consolidated balance sheet as of December 31, 2020. We have elected to pay the toll charge in installments over eight years.

Also included in long-term liabilities on our consolidated balance sheets are liabilities related to unrecognized tax benefits and corresponding interest and penalties thereon. Due to the uncertainties inherent in these liabilities, such as the ultimate timing and resolution of tax audits, we are unable to reasonably estimate the amount or period in which potential tax payments related to these positions will be made. Therefore, this table does not include any obligations related to unrecognized tax benefits. See Note 17 to our consolidated financial statements for further information on these tax-related accounts.

We have entered into various agreements that may result in future payments dependent upon various events such as the achievement of certain product R&D milestones, sales milestones, or, at our discretion, maintenance of exclusive rights to distribute a product. Since there is uncertainty on the timing or whether such payments will have to be made, we have not included them in this table. These estimated payments could range from $0 to $380 million.

CRITICAL ACCOUNTING ESTIMATES

Our financial results are affected by the selection and application of accounting policies and methods. Significant accounting policies which require management's judgment are discussed below.

Excess Inventory and Instruments—We must determine as of each balance sheet date how much, if any, of our inventory may ultimately prove to be unsaleable or unsaleable at our carrying cost. Similarly, we must also determine if instruments on hand will be put to productive use or remain undeployed as a result of excess supply. Accordingly, inventory and instruments are written down to their net realizable value. To determine the appropriate net realizable value, we evaluate current stock levels in relation to historical and expected patterns of demand for all of our products and instrument systems and components. The basis for the determination is generally the same for all inventory and instrument items and categories except for work-in-process inventory, which is recorded at cost. Obsolete or discontinued items are generally destroyed and completely written off. Management evaluates the need for changes to the net realizable values of inventory and instruments based on market conditions, competitive offerings and other factors on a regular basis.

Income Taxes—Our income tax expense, deferred tax assets and liabilities and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgments and estimates are required in determining the consolidated income tax expense.

We estimate income tax expense and income tax liabilities and assets by taxable jurisdiction. Realization of deferred tax assets in each taxable jurisdiction is dependent on our ability to generate future taxable income sufficient to realize the benefits. We evaluate deferred tax assets on an ongoing basis and provide valuation allowances unless we determine it is "more likely than not" that the deferred tax benefit will be realized.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations. We are subject to regulatory review or audit in virtually all of those jurisdictions and those reviews and audits may require extended periods of time to resolve. We record our income tax provisions based on our knowledge of all relevant facts and circumstances, including existing tax laws, our experience with previous settlement agreements, the status of current examinations and our understanding of how the tax authorities view certain relevant industry and commercial matters.

We recognize tax liabilities in accordance with the Financial Accounting Standards Board ("FASB") guidance on income taxes and we adjust these liabilities when our judgment changes as a result of the evaluation of new information not previously available. Due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from our current estimate of the tax liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which they are determined.

Commitments and Contingencies—We are involved in various ongoing proceedings, legal actions and claims arising in the normal course of doing business, including litigation related to product, labor and intellectual property. We establish liabilities for loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Accruals for product liability and other claims are established with the assistance of internal and external legal counsel based on current information and historical settlement information for claims, related legal fees and for claims incurred but not reported.

Goodwill and Intangible Assets—We evaluate the carrying value of goodwill and indefinite life intangible assets annually, or whenever events or circumstances indicate the carrying value may not be recoverable. We evaluate the carrying value of finite life intangible assets whenever events or circumstances indicate the carrying value may not be recoverable. Significant assumptions are required to estimate the fair value of goodwill and intangible assets, most notably estimated future cash flows generated by these assets and risk-adjusted discount rates. As such, these fair value measurements use significant unobservable inputs. Changes to these assumptions could require us to record impairment charges on these assets.

In our annual impairment test in the fourth quarter of 2020, all our reporting units exceeded their carrying values by more than 10 percent. Fair value was determined using income and market approaches. Fair value under the income approach was determined by discounting to present value the estimated future cash flows of the reporting units. Significant assumptions are incorporated into the income approach, such as estimated growth rates and risk-adjusted discount rates. Fair value under the market approach utilized the guideline public company methodology, which uses valuation indicators determined from other businesses that are similar to our reporting units.

Future impairment in our reporting units could occur if the estimates used in the income and market approaches change. If our estimates of profitability in the reporting unit decline, the fair value estimate under the income approach will decline. Additionally, changes in the broader economic environment could cause changes to our estimated discount rates and comparable company valuation indicators, which may impact our estimated fair values. Further, changes in foreign currency exchange rates could increase the cost of procuring inventory and services from foreign suppliers, which could reduce reporting unit profitability.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2 to our consolidated financial statements for information on how recent accounting pronouncements have affected or may affect our financial position, results of operations or cash flows.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

MARKET RISK

We are exposed to certain market risks as part of our ongoing business operations, including risks from changes in foreign currency exchange rates, interest rates and commodity prices that could affect our financial condition, results of operations and cash flows. We manage our exposure to these and other market risks through regular operating and financing activities and through the use of derivative financial instruments. We use derivative financial instruments solely as risk management tools and not for speculative investment purposes.

FOREIGN CURRENCY EXCHANGE RISK

We operate on a global basis and are exposed to the risk that our financial condition, results of operations and cash flows could be adversely affected by changes in foreign currency exchange rates. We are primarily exposed to foreign currency exchange rate risk with respect to transactions and net assets denominated in Euros, Swiss Francs, Japanese Yen, British Pounds, Canadian Dollars, Australian Dollars, Korean Won, Swedish Krona, Czech Koruna, Thai Baht, Taiwan Dollars, South African Rand, Russian Rubles, Indian Rupees, Turkish Lira, Polish Zloty, Danish Krone, and Norwegian Krone. We manage the foreign currency exposure centrally, on a combined basis, which allows us to net exposures and to take advantage of any natural offsets. To reduce the uncertainty of foreign currency exchange rate movements on transactions denominated in foreign currencies, we enter into derivative financial instruments in the form of foreign currency exchange forward contracts with major financial institutions. These forward contracts are designed to hedge anticipated foreign currency transactions, primarily intercompany sale and purchase transactions, for periods consistent with commitments. Realized and unrealized gains and losses on these contracts that qualify as cash flow hedges are temporarily recorded in accumulated other comprehensive income, then recognized in cost of products sold when the hedged item affects net earnings.

For contracts outstanding at December 31, 2020, we had obligations to purchase U.S. Dollars and sell Euros, Japanese Yen, British Pounds, Canadian Dollars, Australian Dollars, Korean Won, Swedish Krona, Czech Koruna, Thai Baht, Taiwan Dollars, South African Rand, Russian Rubles, Indian Rupees, Turkish Lira, Polish Zloty, Danish Krone, and Norwegian Krone and purchase Swiss Francs and sell U.S. Dollars at set maturity dates ranging from January 2021 through June 2023. The notional amounts of outstanding forward contracts entered into with third parties to purchase U.S. Dollars at December 31, 2020 were $1,605.9 million. The notional amounts of outstanding forward contracts entered into with third parties to purchase Swiss Francs at December 31, 2020 were $283.8 million.

We maintain written policies and procedures governing our risk management activities. Our policy requires that critical terms of hedging instruments be the same as hedged forecasted transactions. On this basis, with respect to cash flow hedges, changes in cash flows attributable to hedged transactions are generally expected to be offset by changes in the fair value of hedge instruments. As part of our risk management program, we also perform sensitivity analyses to assess potential changes in revenue, operating results, cash flows and financial position relating to hypothetical movements in currency exchange rates. A sensitivity analysis of changes in the fair value of foreign currency exchange forward contracts outstanding at December 31, 2020 indicated that, if the U.S. Dollar uniformly strengthened/weakened in value by 10 percent relative to all currencies, with no change in the interest differentials, the fair value of those contracts would increase or decrease earnings before income taxes in periods through June 2023 by approximately $55.0 million.

Any change in the fair value of foreign currency exchange forward contracts as a result of a fluctuation in a currency exchange rate is expected to be largely offset by a change in the value of the hedged transaction. Consequently, foreign currency exchange contracts would not subject us to material risk due to exchange rate movements because gains and losses on these contracts offset gains and losses on the assets, liabilities and transactions being hedged.

We had net assets, excluding goodwill and intangible assets, in legal entities with non-U.S. Dollar functional currencies of $1,369.0 million at December 31, 2020.

We enter into foreign currency forward exchange contracts with terms of one month to manage currency exposures for monetary assets and liabilities denominated in a currency other than an entity's functional currency. As a result, foreign currency remeasurement gains/losses recognized in earnings are generally offset with gains/losses on the foreign currency forward exchange contracts in the same reporting period.

For details about these and other financial instruments, including fair value methodologies, see Note 15 to our consolidated financial statements.

COMMODITY PRICE RISK

We purchase raw material commodities such as cobalt chrome, titanium, tantalum, polymer and sterile packaging. We enter into supply contracts generally with terms of 12 to 24

months, where available, on these commodities to alleviate the effect of market fluctuation in prices. As part of our risk management program, we perform sensitivity analyses related to potential commodity price changes. A 10 percent price change across all these commodities would not have a material effect on our consolidated financial position, results of operations or cash flows.

INTEREST RATE RISK

In the normal course of business, we are exposed to market risk from changes in interest rates that could affect our results of operations and financial condition. We manage our exposure to interest rate risks through our regular operations and financing activities.

We invest our cash and cash equivalents primarily in highly-rated corporate commercial paper and bank deposits. The primary investment objective is to ensure capital preservation. Currently, we do not use derivative financial instruments in our investment portfolio.

The majority of our debt is fixed-rate debt and therefore is not exposed to changes in interest rates. Based upon our overall interest rate exposure as of December 31, 2020, a change of 10 percent in interest rates, assuming the principal amount outstanding remains constant, would not have a material effect on interest expense, net. This analysis does not consider the effect of the change in the level of overall economic activity that could exist in such an environment.

CREDIT RISK

Financial instruments, which potentially subject us to concentrations of credit risk, are primarily cash and cash equivalents, derivative instruments and accounts receivable.

We place our cash and cash equivalents and enter into derivative transactions with highly-rated financial institutions and limit the amount of credit exposure to any one entity. We believe we do not have any significant credit risk on our cash and cash equivalents or derivative instruments.

Our concentrations of credit risks with respect to trade accounts receivable is limited due to the large number of customers and their dispersion across a number of geographic areas and by frequent monitoring of the creditworthiness of the customers to whom credit is granted in the normal course of business. Substantially all of our trade receivables are concentrated in the public and private hospital and healthcare industry in the U.S. and internationally or with distributors or dealers who operate in international markets and, accordingly, are exposed to their respective business, economic and country specific variables. Our ability to collect accounts receivable in some countries depends in part upon the financial stability of these hospital and healthcare sectors and the respective countries' national economic and healthcare systems. Most notably, in Europe healthcare is typically sponsored by the government. Since we sell products to public hospitals in those countries, we are indirectly exposed to government budget constraints. To the extent the respective governments' ability to fund their public hospital programs deteriorates, we may have to record significant bad debt expenses in the future.

While we are exposed to risks from the broader healthcare industry in Europe and around the world, there is no significant net exposure due to any individual customer. Exposure to credit risk is controlled through credit approvals, credit limits and monitoring procedures, and we believe that reserves for losses are adequate.

Zimmer Biomet Holdings, Inc.
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Zimmer Biomet Holdings, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Zimmer Biomet Holdings, Inc. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of earnings, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, including the related notes and schedule of valuation and qualifying accounts for each of the three years in the period ended December 31, 2020 appearing under Item 15(a)(2), (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill Impairment Assessment – EMEA, Dental and Americas CMFT Reporting Units

As described in Notes 2 and 11 to the consolidated financial statements, the Company's consolidated goodwill balance was $9,261.8 million as of December 31, 2020, and the goodwill associated with the EMEA reporting unit, Dental reporting unit, and Americas CMFT reporting unit, was $325.9 million, $273.7 million and $271 million, respectively. Management conducts an impairment test in the fourth quarter of each year or whenever events or changes in circumstances indicate that the carrying value of the reporting unit's assets may not be recoverable. Potential impairment of a reporting unit is identified by comparing the reporting unit's estimated fair value to its carrying amount. The Company estimated the fair value of the EMEA, Dental and Americas CMFT reporting units based on income and market approaches. As disclosed by management, fair value under the income approach was determined by discounting to present value the estimated future cash flows of the reporting unit. Fair value under the market approach utilized the guideline public company methodology, which uses valuation indicators from other businesses that are similar to the EMEA, Dental and Americas CMFT reporting units. Significant assumptions are incorporated into the discounted cash flow analysis such as revenue growth rates and risk-adjusted discount rates.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the EMEA, Dental and Americas CMFT reporting units is a critical audit matter are the significant judgment by management when developing the fair value measurement of the reporting units. This in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and in evaluating management's discounted cash flow analysis and significant assumptions, related to revenue growth rates and risk-adjusted discount rates. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the Company's reporting units. These procedures also included, among others, (i) testing management's process for developing the fair value estimate, (ii) evaluating the appropriateness of management's fair value approaches, (iii) testing the completeness, accuracy and relevance of the underlying data used in the approaches, and (iv) evaluating significant assumptions used by management in the discounted cash flow analysis, including the revenue growth rates and the risk-adjusted discount rate. Evaluating management's assumptions related to revenue growth rates involved evaluating whether the assumptions used by management were reasonable considering the past performance of the reporting units, the consistency with external data from other sources, and whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow analysis and certain significant assumptions, including the risk-adjusted discount rate.

Tax Liabilities for Unrecognized Tax Benefits

As described in Notes 2 and 17 to the consolidated financial statements, the Company has recorded tax liabilities for unrecognized tax benefits of $619.4 million as of December 31, 2020. The calculation of the Company's estimated tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across the Company's global operations. The Company's income tax filings are regularly under audit in multiple federal, state and foreign

jurisdictions. Income tax audits may require an extended period of time to reach resolution and may result in significant income tax adjustments when interpretation of tax laws or allocation of company profits is disputed.

The principal considerations for our determination that performing procedures relating to tax liabilities for unrecognized tax benefits is a critical audit matter are the significant judgment by management when determining the tax liabilities, related to a high degree of estimation uncertainty relative to the numerous and complex tax laws and regulations, frequency of income tax audits, and potential for significant adjustments as a result of such audits. This in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate the timely identification and accurate measurement of tax liabilities for unrecognized tax benefits. Also, the evaluation of audit evidence available to support the estimates is complex and required significant auditor judgment as the nature of the evidence is often highly subjective, and the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the identification, accurate measurement, and recognition of tax liabilities for unrecognized tax benefits, including controls addressing completeness of the tax liabilities. These procedures also included, among others, (i) testing certain information used in the calculation of tax liabilities for unrecognized tax benefits by jurisdiction on a sample basis, (ii) assessing the completeness of the Company's identification of tax liabilities for unrecognized tax benefits and possible outcomes for each unrecognized tax benefit, and (iii) evaluating the status and results of income tax audits with the relevant tax authorities. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's interpretation and application of relevant tax laws and regulations in various jurisdictions and assessing the reasonableness of the Company's tax positions.

/s/ PricewaterhouseCoopers LLP
Chicago, Illinois
February 22, 2021

We have served as the Company's auditor since 2000.

ZIMMER BIOMET HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EARNINGS
(in millions, except per share amounts)

	For the Years Ended December 31,		
	2020	2019	2018
Net Sales	$7,024.5	$7,982.2	$7,932.9
Cost of products sold, excluding intangible asset amortization	2,128.3	2,252.6	2,271.9
Intangible asset amortization	597.6	584.3	595.9
Research and development	372.0	449.3	391.7
Selling, general and administrative	3,177.8	3,343.8	3,379.3
Goodwill and intangible asset impairment	645.0	70.1	979.7
Restructuring and other cost reduction initiatives	116.9	50.0	34.2
Quality remediation	50.9	82.4	146.9
Acquisition, integration and related	23.8	12.2	99.5
Operating expenses	7,112.3	6,844.7	7,899.1
Operating (Loss) Profit	(87.8)	1,137.5	33.8
Other income (expense), net	25.4	(4.8)	(15.6)
Interest expense, net	(212.0)	(226.9)	(289.3)
(Loss) Earnings before income taxes	(274.4)	905.8	(271.1)
(Benefit) provision for income taxes	(137.0)	(225.7)	108.2
Net (Loss) Earnings	(137.4)	1,131.5	(379.3)
Less: Net earnings (loss) attributable to noncontrolling interest	1.5	(0.1)	(0.1)
Net (Loss) Earnings of Zimmer Biomet Holdings, Inc.	$ (138.9)	$1,131.6	$ (379.2)
(Loss) Earnings Per Common Share - Basic	$ (0.67)	$ 5.52	$ (1.86)
(Loss) Earnings Per Common Share - Diluted	$ (0.67)	$ 5.47	$ (1.86)
Weighted Average Common Shares Outstanding			
Basic	207.0	205.1	203.5
Diluted	207.0	206.7	203.5

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

ZIMMER BIOMET HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in millions)

	For the Years Ended December 31,		
	2020	2019	2018
Net (Loss) Earnings	$(137.4)	$1,131.5	$(379.3)
Other Comprehensive Income (Loss):			
Foreign currency cumulative translation adjustments, net of tax	25.6	(1.5)	(135.4)
Unrealized cash flow hedge (losses)/gains, net of tax	(33.5)	30.6	68.2
Reclassification adjustments on cash flow hedges, net of tax	(38.5)	(35.1)	23.6
Adjustments to prior service cost and unrecognized actuarial assumptions, net of tax	(9.5)	(48.5)	(17.7)
Total Other Comprehensive Loss	(55.9)	(54.5)	(61.3)
Comprehensive (Loss) Income	(193.3)	1,077.0	(440.6)
Comprehensive Income (Loss) Attributable to Noncontrolling Interest	1.5	(0.1)	(0.1)
Comprehensive (Loss) Income Attributable to Zimmer Biomet Holdings, Inc.	$(194.8)	$1,077.1	$(440.5)

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

ZIMMER BIOMET HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in millions, except share amounts)

	As of December 31,	
	2020	2019
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 802.1	$ 617.9
Accounts receivable, less allowance for credit losses	1,452.7	1,363.9
Inventories	2,450.7	2,385.0
Prepaid expenses and other current assets	377.8	357.1
Total Current Assets	5,083.3	4,723.9
Property, plant and equipment, net	2,047.7	2,077.4
Goodwill	9,261.8	9,599.7
Intangible assets, net	7,055.5	7,257.6
Other assets	969.4	980.1
Total Assets	$24,417.7	$24,638.7
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 330.0	$ 400.9
Income taxes payable	59.5	126.7
Other current liabilities	1,667.4	1,413.9
Current portion of long-term debt	500.0	1,500.0
Total Current Liabilities	2,556.9	3,441.5
Deferred income taxes, net	790.4	840.1
Long-term income tax payable	588.1	685.1
Other long-term liabilities	656.4	557.8
Long-term debt	7,626.5	6,721.4
Total Liabilities	12,218.3	12,245.9
Commitments and Contingencies (Note 21)		
Stockholders' Equity:		
Common stock, $0.01 par value, one billion shares authorized, 311.4 million (309.9 million in 2019) issued	3.1	3.1
Paid-in capital	9,121.6	8,920.1
Retained earnings	10,086.9	10,427.3
Accumulated other comprehensive loss	(297.8)	(241.9)
Treasury stock, 103.8 million shares (103.9 million shares in 2019)	(6,719.6)	(6,720.5)
Total Zimmer Biomet Holdings, Inc. stockholders' equity	12,194.2	12,388.1
Noncontrolling interest	5.2	4.7
Total Stockholders' Equity	12,199.4	12,392.8
Total Liabilities and Stockholders' Equity	$24,417.7	$24,638.7

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

ZIMMER BIOMET HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Zimmer Biomet Holdings, Inc. Stockholders								
	Common Shares		Paid-in	Retained	Accumulated Other Comprehensive	Treasury Shares		Noncontrolling	Total Stockholders'
	Number	Amount	Capital	Earnings	(Loss) Income	Number	Amount	Interest	Equity
Balance January 1, 2018	306.5	$3.1	$8,514.9	$10,022.8	$ (83.2)	(103.9)	$(6,721.8)	$(0.3)	$11,735.5
Net loss	–	–	–	(379.2)	–	–	–	(0.1)	(379.3)
Other comprehensive loss	–	–	–	–	(61.3)	–	–	–	(61.3)
Cash dividends declared ($0.96 per share)	–	–	–	(195.5)	–	–	–	–	(195.5)
Adoption of new accounting standard	–	–	–	42.9	(42.9)	–	–	–	–
Sale of shares in a subsidiary without loss of control	–	–	–	–	–	–	–	5.2	5.2
Stock compensation plans	1.4	–	171.2	0.2	–	–	0.1	–	171.5
Balance December 31, 2018	307.9	3.1	8,686.1	9,491.2	(187.4)	(103.9)	(6,721.7)	4.8	11,276.1
Net earnings	–	–	–	1,131.6	–	–	–	(0.1)	1,131.5
Other comprehensive loss	–	–	–	–	(54.5)	–	–	–	(54.5)
Cash dividends declared ($0.96 per share)	–	–	–	(197.2)	–	–	–	–	(197.2)
Stock compensation plans	2.0	–	234.0	1.7	–	–	1.2	–	236.9
Balance December 31, 2019	309.9	3.1	8,920.1	10,427.3	(241.9)	(103.9)	(6,720.5)	4.7	12,392.8
Net loss	–	–	–	(138.9)	–	–	–	1.5	(137.4)
Other comprehensive loss	–	–	–	–	(55.9)	–	–	–	(55.9)
Cash dividends declared ($0.96 per share)	–	–	–	(198.9)	–	–	–	–	(198.9)
Adoption of new accounting standard	–	–	–	(3.1)	–	–	–	–	(3.1)
Acquisition of noncontrolling interest	–	–	–	–	–	–	–	(1.0)	(1.0)
Stock compensation plans	1.5	–	201.5	0.5	–	0.1	0.9	–	202.9
Balance December 31, 2020	311.4	$3.1	$9,121.6	$10,086.9	$(297.8)	(103.8)	$(6,719.6)	$ 5.2	$12,199.4

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

ZIMMER BIOMET HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	For the Years Ended December 31,		
	2020	2019	2018
Cash flows provided by (used in) operating activities:			
Net (loss) earnings	$ (137.4)	$1,131.5	$ (379.3)
Adjustments to reconcile net (loss) earnings to net cash provided by operating activities:			
Depreciation and amortization	1,032.7	1,006.1	1,040.5
Share-based compensation	79.7	84.3	65.5
Goodwill and intangible asset impairment	645.0	70.1	979.7
Deferred income tax benefit (provision)	12.0	(538.7)	13.4
Changes in operating assets and liabilities, net of acquired assets and liabilities			
Income taxes	(291.1)	111.4	(150.8)
Receivables	(70.0)	(93.8)	213.6
Inventories	(40.8)	(125.2)	(199.5)
Accounts payable and accrued liabilities	(95.1)	(42.0)	155.9
Other assets and liabilities	69.5	(17.9)	8.4
Net cash provided by operating activities	1,204.5	1,585.8	1,747.4
Cash flows provided by (used in) investing activities:			
Additions to instruments	(291.7)	(315.9)	(276.3)
Additions to other property, plant and equipment	(117.5)	(207.1)	(162.7)
Net investment hedge settlements	53.5	48.1	69.2
Acquisition of intellectual property rights	(0.4)	(197.6)	–
Business combination investments, net of acquired cash	(235.5)	(37.1)	(15.3)
Investments in other assets	(22.2)	(19.7)	(31.5)
Net cash used in investing activities	(613.8)	(729.3)	(416.6)
Cash flows provided by (used in) financing activities:			
Proceeds from senior notes	1,497.1	549.2	749.5
Proceeds from multicurrency revolving facility	–	–	400.0
Payments on multicurrency revolving facility	–	–	(400.0)
Redemption of senior notes	(1,750.0)	(500.0)	(1,150.0)
Proceeds from term loans	–	200.0	675.0
Payments on term loans	–	(960.0)	(1,425.0)
Net payments on other debt	–	(5.3)	(3.9)
Dividends paid to stockholders	(198.5)	(196.7)	(195.2)
Proceeds from employee stock compensation plans	129.8	158.2	107.9
Net cash flows from unremitted collections from factoring programs	(54.6)	(12.2)	(36.7)
Business combination contingent consideration payments	(15.0)	(2.9)	(19.8)
Debt issuance costs	(22.3)	(3.5)	(4.9)
Other financing activities	(8.3)	(6.7)	0.9
Net cash used in financing activities	(421.8)	(779.9)	(1,302.2)
Effect of exchange rates on cash and cash equivalents	15.3	(1.5)	(10.2)
Increase in cash and cash equivalents	184.2	75.1	18.4
Cash and cash equivalents, beginning of year	617.9	542.8	524.4
Cash and cash equivalents, end of period	$ 802.1	$ 617.9	$ 542.8

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

1. Business

We design, manufacture and market orthopedic reconstructive products; sports medicine, biologics, extremities and trauma products; office based technologies; spine, craniomaxillofacial and thoracic products; dental implants; and related surgical products. We collaborate with healthcare professionals around the globe to advance the pace of innovation. Our products and solutions help treat patients suffering from disorders of, or injuries to, bones, joints or supporting soft tissues. Together with healthcare professionals, we help millions of people live better lives.

The words "Zimmer Biomet," "we," "us," "our," "the Company" and similar words refer to Zimmer Biomet Holdings, Inc. and its subsidiaries. "Zimmer Biomet Holdings" refers to the parent company only. In 2015, we completed our merger with LVB Acquisition, Inc., the parent company of Biomet, Inc. ("Biomet").

Risks and Uncertainties - Our results have been and are expected to continue to be impacted by the COVID-19 global pandemic. The vast majority of our net sales are derived from products used in elective surgical procedures which are being deferred due to lockdowns, stay-at-home measures and other precautions in certain markets. The consequences of COVID-19 continue to be extremely fluid and there are many market dynamics that are difficult to predict. The COVID-19 pandemic may have a significant unfavorable effect on our financial position, results of operations and cash flows in the near term.

2. Significant Accounting Policies

Basis of Presentation – The consolidated financial statements include the accounts of Zimmer Biomet Holdings and its subsidiaries in which it holds a controlling financial interest. All significant intercompany accounts and transactions are eliminated.

Use of Estimates - The consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"), which requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We have made our best estimates, as appropriate under GAAP, in the recognition of our assets and liabilities. These estimates have considered the impact the COVID-19 pandemic may have on our financial position, results of operations and cash flows. Such estimates included, but were not limited to, variable consideration to our customers, our allowance for doubtful accounts for expected credit losses, the net realizable value of our inventory, the fair value of our goodwill and the recoverability of other long-lived assets. Actual results could differ materially from these estimates.

Foreign Currency Translation - The financial statements of our foreign subsidiaries are translated into U.S. Dollars using period-end exchange rates for assets and liabilities and average exchange rates for operating results. Unrealized translation gains and losses are included in accumulated other comprehensive loss in stockholders' equity. When a transaction is denominated in a currency other than the subsidiary's functional currency, we remeasure the transaction into the functional currency and recognize any transactional gains or losses in earnings.

Shipping and Handling – Amounts billed to customers for shipping and handling of products are reflected in net sales and are not significant. Expenses incurred related to shipping and handling of products are reflected in selling, general and administrative ("SG&A") expenses and were $269.9 million, $292.7 million and $290.2 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Research and Development – We expense all research and development ("R&D") costs as incurred except when there is an alternative future use for the R&D. R&D costs include salaries, prototypes, depreciation of equipment used in R&D, consultant fees and service fees paid to collaborative partners. Where contingent milestone payments are due to third parties under R&D arrangements, we expense the milestone payment obligations when it is probable that the milestone results will be achieved.

Litigation – We record a liability for contingent losses, including future legal costs, settlements and judgments, when we consider it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated.

Quality remediation – We use the financial statement line item "Quality remediation" to recognize expenses related to addressing inspectional observations on Form 483 and a warning letter issued by the FDA following its inspections of our Warsaw North Campus facility, among other matters. See Note 21 for additional information about the Form 483 and warning letter. The majority of these expenses are related to consultants who are helping us to update previous documents and redesign certain processes.

Restructuring and other cost reduction initiatives – A restructuring is defined as a program that is planned and controlled by management, and materially changes either the scope of a business undertaken by an entity, or the manner in which that business is conducted. Restructuring charges include (i) employee termination benefits, (ii) contract termination costs and (iii) other related costs associated with exit or disposal activities.

In December 2019, our Board of Directors approved, and we initiated, a new global restructuring program with an objective of reducing costs to allow us to further invest in higher priority growth opportunities. Restructuring charges for the years ended December 31, 2020 and 2019 were primarily attributable to this program. Restructuring charges for the year ended December 31, 2018 were primarily attributable to project costs related to our supply chain optimization initiative.

Acquisition, integration and related – We use the financial statement line item, "Acquisition, integration and related" to recognize expenses resulting from the consummation of business mergers and acquisitions and the related integration of those businesses. Acquisition, integration and related gains and expenses are primarily composed of:

- Consulting and professional fees related to third-party integration consulting performed in a variety of areas, such as tax, compliance, logistics and human resources, and legal fees related to the consummation of mergers and acquisitions.
- Employee termination benefits related to terminating employees with overlapping responsibilities in various areas of our business.
- Dedicated project personnel expenses which include the salary, benefits, travel expenses and other costs directly associated with employees who are 100 percent dedicated to our integration of acquired businesses and employees who have been notified of termination, but are continuing to work on transferring their responsibilities.
- Contract termination expenses related to terminated contracts, primarily with sales agents and distribution agreements.
- Other various expenses to relocate facilities, integrate information technology, losses incurred on assets resulting from the applicable acquisition, and other various expenses.

Cash and Cash Equivalents – We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents. The carrying amounts reported in the balance sheet for cash and cash equivalents are valued at cost, which approximates their fair value.

Accounts Receivable – Accounts receivable consists of trade and other miscellaneous receivables. We grant credit to customers in the normal course of business and maintain an allowance for expected credit losses. We determine the allowance for credit losses by geographic market and take into consideration historical credit experience, creditworthiness of the customer and other pertinent information. We make concerted efforts to collect all accounts receivable, but sometimes we have to write-off the account against the allowance when we determine the account is uncollectible. The allowance for credit losses was $75.8 million and $65.0 million as of December 31, 2020 and 2019, respectively.

We also have receivables purchase arrangements with unrelated third parties to transfer portions of our trade accounts receivable balance. We terminated our purchase arrangements in the U.S. and Japan during the year ended December 31, 2020, but continue to have arrangements in Europe. Funds received from the transfers are recorded as an increase to cash and a reduction to accounts receivable outstanding in our consolidated balance sheets. We report the cash flows attributable to the sale of receivables to third parties in cash flows from operating activities in our consolidated statements of cash flows. Net expenses resulting from the sales of receivables are recognized in SG&A expense. Net expenses include any resulting gains or losses from the sales of receivables, credit insurance and factoring fees. Under the previous arrangement in the U.S. and Japan, any collections that we made that were unremitted to the third parties were recognized on our consolidated balance sheets under other current liabilities and in our consolidated statements of cash flows in financing activities. In Europe, we have no continuing involvement with the factored receivable.

Inventories – Inventories are stated at the lower of cost and net realizable value, with cost determined on a first-in first-out basis.

Property, Plant and Equipment – Property, plant and equipment is carried at cost less accumulated depreciation. Depreciation is computed using the straight-line method based on estimated useful lives of ten to forty years for buildings and improvements and three to eight years for machinery and equipment. Maintenance and repairs are expensed as incurred. We review property, plant and equipment for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. An impairment loss would be recognized when estimated future undiscounted cash flows relating to the asset are less than its carrying amount. An impairment loss is measured as the amount by which the carrying amount of an asset exceeds its fair value.

Software Costs – We capitalize certain computer software and software development costs incurred in connection with developing or obtaining computer software for internal use when both the preliminary project stage is completed and it is probable that the software will be used as intended. Capitalized software costs generally include external direct costs of materials and services utilized in developing or obtaining computer software and compensation and related benefits for employees who are directly associated with the software project. Capitalized software costs are included in property, plant and equipment on our balance sheet and amortized on a straight-line or weighted average estimated user basis when the software is ready for its intended use over the estimated useful lives of the software, which approximate three to fifteen years.

For cloud computing arrangements that are considered a service contract, our capitalization of implementation costs is aligned with the internal use software requirements. However, on our consolidated balance sheet these implementation costs are recognized in other noncurrent assets. On our consolidated statement of cash flows, these implementations costs are recognized in operating cash flows. The implementation costs are recognized on a straight-line basis over the expected term of the related service contract.

Instruments – Instruments are hand-held devices used by surgeons during total joint replacement and other surgical procedures. Instruments are recognized as long-lived assets and are included in property, plant and equipment. Undeployed instruments are carried at cost or realizable value. Instruments that have been deployed to be used in surgeries are carried at cost less accumulated depreciation. Depreciation is computed using the straight-line method based on average estimated useful lives, determined principally in reference to associated product life cycles, primarily five years. We review instruments for impairment whenever events or changes in circumstances indicate that the carrying value of an instrument may not be recoverable. Depreciation of instruments is recognized as SG&A expense.

Goodwill – Goodwill is not amortized but is subject to annual impairment tests. Goodwill has been assigned to reporting units. We perform annual impairment tests by either comparing a reporting unit's estimated fair value to its carrying amount or doing a qualitative assessment of a reporting unit's fair value from the last quantitative assessment to determine if there is potential impairment. We may do a qualitative assessment when the results of the previous quantitative test indicated the reporting unit's estimated fair value was significantly in excess of the carrying value of its net assets and we do not believe there have been significant changes in the reporting unit's operations that would significantly decrease its estimated fair value or significantly increase its net assets. If a quantitative assessment is performed, the fair value of the reporting unit and the fair value of goodwill are determined based upon a discounted cash flow analysis and/or use of a market approach by looking at market values of comparable companies. Significant assumptions are incorporated into our discounted cash flow analyses such as estimated growth rates and risk-adjusted discount rates. We perform this test in the fourth quarter of the year or whenever events or changes in circumstances indicate that the carrying value of the reporting unit's assets may not be recoverable. If the fair value of the reporting unit is less than its carrying value, an impairment loss is recorded in the amount that the carrying value of the business unit exceeds the fair value. See Note 11 for more information regarding goodwill.

Intangible Assets – Intangible assets are initially measured at their fair value. We have determined the fair value of our intangible assets either by the fair value of the consideration exchanged for the intangible asset or the estimated after-tax discounted cash flows expected to be generated from the intangible asset. Intangible assets with a finite life, including technology, certain trademarks and trade names, customer-related intangibles, intellectual property rights and patents and licenses are amortized on a straight-line basis over their estimated useful life or contractual life, which may range from less than one year to twenty years. Intangible assets with a finite life are tested for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable.

Intangible assets with an indefinite life, including certain trademarks and trade names and in-process research and development ("IPR&D") projects, are not amortized. Indefinite life intangible assets are assessed annually to determine whether events and circumstances continue to support an indefinite life. Intangible assets with an indefinite life are tested for impairment annually or whenever events or circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized if the carrying amount exceeds the estimated fair value of the asset. The amount of the impairment loss to be recorded would be determined based upon the excess of the asset's carrying value over its fair value. The fair values of indefinite lived intangible assets are determined based upon a discounted cash flow analysis using the relief from royalty method or a qualitative assessment may be performed for any changes to the asset's fair value from the last quantitative assessment. The relief from royalty method estimates the cost savings associated with owning, rather than licensing, assets. Significant assumptions are incorporated into these discounted cash flow analyses such as estimated growth rates, royalty rates and risk-adjusted discount rates. We may do a qualitative assessment when the results of the previous quantitative test indicated that the asset's fair value was significantly in excess of its carrying value.

In determining the useful lives of intangible assets, we consider the expected use of the assets and the effects of obsolescence, demand, competition, anticipated technological advances, changes in surgical techniques, market influences and other economic factors. For technology-based intangible assets, we consider the expected life cycles of products, absent unforeseen technological advances, which incorporate the corresponding technology. Trademarks and trade names that do not have a wasting characteristic (i.e., there are no legal, regulatory, contractual, competitive, economic or other factors which limit the useful life) are assigned an indefinite life. Trademarks and trade names that are related to products expected to be phased out are assigned lives consistent with the period in which the products bearing each brand are expected to be sold. For customer relationship intangible assets, we assign useful lives based upon historical levels of customer attrition. Intellectual property rights are assigned useful lives that approximate the contractual life of any related patent or the period for which we maintain exclusivity over the intellectual property.

Income Taxes – We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period the new tax rate is enacted.

We reduce our deferred tax assets by a valuation allowance if it is more likely than not that we will not realize some portion or all of the deferred tax assets. In making such determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operations. In the event we were to determine that we would be able to realize our deferred income tax assets in the future in excess of their net recorded amount, we would make an adjustment to the valuation allowance which would reduce the provision for income taxes.

We operate on a global basis and are subject to numerous and complex tax laws and regulations. Our income tax filings are regularly under audit in multiple federal, state and foreign jurisdictions. Income tax audits may require an extended period of time to reach resolution and may result in significant income tax adjustments when interpretation of tax laws or allocation of company profits is disputed. Because income tax adjustments in certain jurisdictions can be significant, we record accruals representing management's best estimate of

the probable resolution of these matters. To the extent additional information becomes available, such accruals are adjusted to reflect the revised estimated probable outcome.

Derivative Financial Instruments – We measure all derivative instruments at fair value and report them on our consolidated balance sheet as assets or liabilities. We maintain written policies and procedures that permit, under appropriate circumstances and subject to proper authorization, the use of derivative financial instruments solely for risk management purposes. The use of derivative financial instruments for trading or speculative purposes is prohibited by our policy. See Note 15 for more information regarding our derivative and hedging activities.

Accumulated Other Comprehensive Income (Loss) – Accumulated other comprehensive income (loss) ("AOCI") refers to gains and losses that under generally accepted accounting principles are included in comprehensive income but are excluded from net earnings as these amounts are recorded directly as an adjustment to stockholders' equity. Our AOCI is comprised of foreign currency translation adjustments, including unrealized gains and losses on net investments hedges, unrealized gains and losses on cash flow hedges and amortization of prior service costs and unrecognized gains and losses in actuarial assumptions.

Treasury Stock – We account for repurchases of common stock under the cost method and present treasury stock as a reduction of stockholders' equity. We reissue common stock held in treasury only for limited purposes.

Noncontrolling Interest – We have investments in other companies in which we have a controlling financial interest, but not 100 percent of the equity. Further information related to the noncontrolling interests of those investments have not been provided as it is not significant to our consolidated financial statements.

Accounting Pronouncements Recently Adopted

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") 2016-13, Financial Instruments – Credit Losses (Topic 326). The new guidance describes the current expected credit loss ("CECL") model which requires an estimate of expected impairment on financial instruments over the lifetime of the assets at each reporting date. Financial instruments in scope of the guidance include financial assets measured at amortized cost. Previous accounting guidance required recognition of impairment when it was probable the loss has been incurred. Under the CECL model, lifetime expected credit losses are measured and recognized at each reporting date based on historical experience, current conditions and forecasted information. We adopted this standard as of January 1, 2020. Adoption of this standard required the modified retrospective transition method, which resulted in a cumulative-effect adjustment to retained earnings of $3.1 million. The adoption primarily impacted our trade receivables. Our concentrations of credit risks are limited due to the large number of customers and their dispersion across a number of geographic areas. Substantially all of our trade receivables are concentrated in the public and private hospital and healthcare industry in the U.S. and internationally or with distributors or dealers who operate in international markets. Our historical credit losses have not been significant due to this dispersion and the financial stability of our customers. We consider credit losses immaterial to our business and, therefore, have not provided all the disclosures otherwise required by the standard.

In August 2018, the FASB issued ASU 2018-15, Intangibles-Goodwill and Other-Internal-Use Software. ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. Our policy for capitalizing implementation costs in a hosting arrangement was already aligned with the new guidance. ASU 2018-15 also provides guidance on how these implementation costs are to be recorded in the statement of earnings, balance sheet and statement of cash flows. We adopted this standard on a prospective basis as of January 1, 2020. The adoption of this standard did not have a material impact on our financial position, results of operations or cash flows.

Accounting Pronouncements Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12 Simplifying the Accounting for Income Taxes. ASU 2019-12 eliminates certain exceptions in the current rules regarding the approach for intraperiod tax allocations and the methodology for calculating income taxes in an interim period, and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill, among other things. The standard becomes effective for us in the first quarter of 2021. We are currently evaluating the impact the standard will have on our consolidated financial statements, but at this time we do not expect it to be significant.

There are no recently issued accounting pronouncements that we have not yet adopted that are expected to have a material effect on our financial position, results of operations or cash flows.

3. Revenue Recognition

We recognize revenue when our performance obligations under the terms of a contract with our customer are satisfied. This happens when we transfer control of our products to the customer, which generally occurs upon implantation or when title passes upon shipment. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring our product. Taxes collected from customers and remitted to governmental authorities are excluded from revenues.

We sell products through three principal channels: 1) direct to healthcare institutions, referred to as direct channel accounts; 2) through stocking distributors and healthcare dealers; and 3) directly to dental practices and dental laboratories. In direct channel accounts and with some healthcare dealers, inventory is generally consigned to sales agents or customers so that products are available when needed for surgical procedures. No revenue is recognized upon the placement of inventory into consignment, as we retain the ability to control the inventory. Upon implantation, we issue an

invoice and revenue is recognized. Consignment sales represented approximately 80 percent of our net sales in 2020. Pricing for products is generally predetermined by contracts with customers, agents acting on behalf of customer groups or by government regulatory bodies, depending on the market. Price discounts under group purchasing contracts are generally linked to volume of implant purchases by customer healthcare institutions within a specified group. At negotiated thresholds within a contract buying period, price discounts may increase. Payment terms vary by customer, but are typically less than 90 days.

With sales to stocking distributors, some healthcare dealers and hospitals, dental practices and dental laboratories, revenue is generally recognized when control of our product passes to the customer, which is typically upon shipment of the product. We estimate sales recognized in this manner represented approximately 20 percent of our net sales in 2020. These customers may purchase items in large quantities if incentives are offered or if there are new product offerings in a market, which could cause period-to-period differences in sales. It is our accounting policy to account for shipping and handling activities as a fulfillment cost rather than as an additional promised service. We have contracts with these customers or orders may be placed from available price lists. Payment terms vary by customer, but are typically less than 90 days.

We offer standard warranties to our customers that our products are not defective. These standard warranties are not considered separate performance obligations. In limited circumstances, we offer extended warranties that are separate performance obligations. We have very few contracts that have multiple performance obligations. Since we do not have significant multiple element arrangements and essentially all of our sales are recognized upon implantation of a product or when title passes, very little judgment is required to allocate the transaction price of a contract or determine when control has passed to a customer. Our costs to obtain contracts consist primarily of sales commissions to employees or third party agents that are earned when control of our product passes to the customer. Therefore, sales commissions are expensed as part of SG&A expenses at the same time revenue is recognized. Accordingly, we do not have significant contract assets, liabilities or future performance obligations.

We offer volume-based discounts, rebates, prompt pay discounts, right of return and other various incentives which we account for under the variable consideration model. If sales incentives may be earned by a customer for purchasing a specified amount of our product, we estimate whether such incentives will be achieved and recognize these incentives as a reduction in revenue in the same period the underlying revenue transaction is recognized. We primarily use the expected value method to estimate incentives. Under the expected value method, we consider the historical experience of similar programs as well as review sales trends on a customer-by-customer basis to estimate what levels of incentives will be earned. Occasionally, products are returned and, accordingly, we maintain an estimated refund liability based upon the expected value method that is recorded as a reduction in revenue.

We analyze sales by three geographies, the Americas; Europe, Middle East and Africa (“EMEA”); and Asia Pacific; and by the following product categories: Knees; Hips; Sports Medicine, Biologics, Foot and Ankle, Extremities and Trauma (“S.E.T.”); Dental, Spine & Craniomaxillofacial and Thoracic (“CMFT”); and Other. As discussed in Note 19, we have three operating segments which are Americas and Global Businesses, EMEA and Asia Pacific. The net sales by geography includes sales of all product categories including Dental which is included as a global business in the Americas and Global Businesses operating segment.

Our sales analysis differs from our reporting operating segments because the underlying market trends in any particular geography tend to be similar across product categories and because we primarily sell the same products in all geographies.

Net sales by geography are as follows (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Americas	$4,335.4	$4,875.8	$4,837.2
EMEA	1,391.3	1,746.9	1,801.9
Asia Pacific	1,297.8	1,359.5	1,293.8
Total	$7,024.5	$7,982.2	$7,932.9

Net sales by product category are as follows (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Knees	$2,389.8	$2,810.1	$2,773.7
Hips	1,750.5	1,931.5	1,918.9
S.E.T	1,322.0	1,444.1	1,401.2
Dental, Spine & CMFT	1,043.7	1,161.3	1,175.1
Other	518.5	635.2	664.0
Total	$7,024.5	$7,982.2	$7,932.9

In the first quarter of 2020, we updated our product category revenue reporting format to further align with our announced reorganization. Product category sales include the following changes:

- Surgical products, previously reported in the S.E.T. (Sports Medicine, Extremities and Trauma) product category, are included in the Other product category;
- Dental products are combined with Spine and CMF (Craniomaxillofacial) products into one product category;
- The CMF product category name has been changed to CMFT (Craniomaxillofacial and Thoracic), to reflect the Thoracic business, which is included in that category; and
- Other immaterial adjustments related to brand alignment within product categories in the Asia Pacific region have been made

Prior period product category sales have been reclassified to conform to the current presentation.

4. Restructuring

In December 2019, our Board of Directors approved, and we initiated, a new global restructuring program (the "2019 Restructuring Plan") with an objective of reducing costs to allow us to further invest in higher priority growth opportunities. The 2019 Restructuring Plan is expected to result in total pre-tax restructuring charges of approximately $350 million to $400 million and reduce gross annual pre-tax operating expenses by approximately $200 million to $300 million by the end of 2023 as program benefits are realized. The pre-tax restructuring charges consist of employee termination benefits; contract terminations for facilities and sales agents; and other charges, such as consulting fees, project management and relocation costs. The restructuring charges incurred in the year ended December 31, 2020 primarily related to employee termination benefits, distributor contract terminations, consulting and project management. The restructuring charges incurred in the year ended December 31, 2019, primarily related to employee termination benefits, consulting and project management. The following table summarizes the liabilities recognized related to the 2019 Restructuring Plan (in millions):

	Employee Termination Benefits	Contract Terminations	Other	Total
Balance, December 31, 2018	$ –	$ –	$ –	$ –
Additions	23.2	–	13.1	36.3
Cash payments	–	–	(9.0)	(9.0)
Balance, December 31, 2019	23.2	–	4.1	27.3
Additions	55.3	15.8	37.1	108.2
Cash payments	(41.2)	(4.9)	(26.1)	(72.2)
Foreign currency exchange rate changes	1.4	–	–	1.4
Balance, December 31, 2020	$ 38.7	$10.9	$ 15.1	$ 64.7
Expense incurred since the start of the 2019 Restructuring Plan	$ 78.5	$15.8	$ 50.2	$144.5
Expense estimated to be recognized for the 2019 Restructuring Plan	$200.0	$25.0	$150.0	$375.0

For the expense estimated to be recognized for the 2019 Restructuring Plan, we have disclosed the midpoint in our estimated range of expenses. We do not include restructuring charges in the operating profit of our reportable segments.

In our consolidated statement of earnings, we report restructuring charges in our "Restructuring and other cost reduction initiatives" financial statement line item. We report the expenses for other cost reduction initiatives with restructuring expenses because these activities also have the goal of reducing costs across the organization. However, since the cost reduction initiative expenses are not considered restructuring, they have been excluded from the amounts presented in this note.

5. Share-Based Compensation

Our share-based payments primarily consist of stock options and restricted stock units ("RSUs"). Share-based compensation expense was as follows (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Total expense, pre-tax	$79.7	$84.3	$65.5
Tax benefit related to awards	16.9	21.8	14.6
Total expense, net of tax	$62.8	$62.5	$50.9

We had two equity compensation plans in effect at December 31, 2020: the 2009 Stock Incentive Plan ("2009 Plan") and the Stock Plan for Non-Employee Directors. We have reserved the maximum number of shares of common stock available for awards under the terms of each of these plans. We have registered 44.1 million shares of common stock under these plans. The 2009 Plan provides for the grant of nonqualified stock options and incentive stock options, long-term performance awards in the form of performance shares or units, restricted stock, RSUs and stock appreciation rights. The Compensation and Management Development Committee of the Board of Directors determines the grant date for annual grants under our equity compensation plans. The date for annual grants under the 2009 Plan to our executive officers is expected to occur in the first quarter of each year following the earnings announcements for the previous quarter and full year. The Stock Plan for Non-Employee Directors provides for awards of stock options, restricted stock and RSUs to non-employee directors. It has been our practice to issue shares of common stock upon exercise of stock options from previously unissued shares, except in limited circumstances where they are issued from treasury stock. The total number of awards which may be granted in a given year and/or over the life of the plan under each of our equity compensation plans is limited. At December 31, 2020, an aggregate of 6.1 million shares were available for future grants and awards under these plans.

Stock Options

Stock options granted to date under our plans generally vest over four years and have a maximum contractual life of 10 years. As established under our equity compensation plans, vesting may accelerate upon retirement after the first anniversary date of the award if certain criteria are met. We recognize expense related to stock options on a straight-line basis over the requisite service period, less awards expected to be forfeited using estimated forfeiture rates. Due to the accelerated retirement provisions, the requisite service period of our stock options range from one to four years. Stock options are granted with an exercise price equal to the market price of our common stock on the date of grant, except in limited circumstances where local law may dictate otherwise.

A summary of stock option activity for the year ended December 31, 2020 is as follows (options in thousands):

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Intrinsic Value (in millions)
Outstanding at January 1, 2020	7,285	$107.53		
Options granted	1,370	155.68		
Options exercised	(1,028)	100.69		
Options forfeited	(175)	135.54		
Options expired	(29)	113.53		
Outstanding at December 31, 2020	7,423	$116.67	6.3	$282.0
Vested or expected to vest as of December 31, 2020	7,205	$115.92	6.2	$278.8
Exercisable at December 31, 2020	4,581	$104.20	5.0	$228.5

We use a Black-Scholes option-pricing model to determine the fair value of our stock options. Expected volatility was derived from a combination of historical volatility and implied volatility because the options that were actively traded around the grant date of our stock options did not have maturities of over one year. The expected term of the stock options has been derived from historical employee exercise behavior. The risk-free interest rate was determined using the implied yield currently available for zero-coupon U.S. government issues with a remaining term approximating the expected life of the options. The dividend yield was determined by using an estimated annual dividend and dividing it by the market price of our stock on the grant date.

The following table presents information regarding the weighted average fair value of stock options granted, the assumptions used to determine fair value, the intrinsic value of options exercised and the tax benefit of options exercised in the indicated year:

	For the Years Ended December 31,		
	2020	2019	2018
Dividend yield	0.6%	0.8%	0.8%
Volatility	22.3%	22.1%	22.1%
Risk-free interest rate	1.3%	2.4%	2.7%
Expected life (years)	5.0	5.5	5.2
Weighted average fair value of options granted	$31.65	$28.68	$26.66
Intrinsic value of options exercised (in millions)	$ 50.1	$ 76.8	$ 46.6
Tax benefit of options exercised (in millions)	$ 9.6	$ 15.8	$ 6.8

As of December 31, 2020, there was $49.9 million of unrecognized share-based payment expense related to nonvested stock options granted under our plans. That expense is expected to be recognized over a weighted average period of 2.4 years.

RSUs

We have awarded RSUs to certain of our employees. The terms of the awards are generally three or four years. Some of the awards have only service conditions while some have performance and market conditions in addition to service conditions. Future service conditions may be waived if an employee retires after the first anniversary date of the award, but performance and market conditions continue to apply. Accordingly, the requisite service period used for share-based payment expense on our RSUs range from one year to four years.

A summary of nonvested RSU activity for the year ended December 31, 2020 is as follows (RSUs in thousands):

	RSUs	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2020	1,228	$118.11
Granted	446	148.10
Vested	(281)	114.35
Forfeited	(323)	132.42
Outstanding at December 31, 2020	1,070	129.65

For the RSUs with service conditions only, the fair value of the awards was determined based upon the fair market value of our common stock on the date of grant. For the RSUs with market conditions, a Monte Carlo valuation technique was used to simulate the market conditions of the awards. The outcome of the simulation was used to determine the fair value of the awards.

We are required to estimate the number of RSUs that will vest and recognize share-based payment expense on a straight-line basis over the requisite service period. As of December 31, 2020, we estimate that approximately 646,553 outstanding RSUs will vest. If our estimate were to change in the future, the cumulative effect of the change in estimate will be recorded in that period. Based upon the number of RSUs that we expect to vest, the unrecognized share-based payment expense as of December 31, 2020 was $44.8 million and is expected to be recognized over a weighted-average period of 2.1 years. The fair value of RSUs that vested during the years ended December 31, 2020, 2019 and 2018 based upon our stock price on the date of vesting was $33.2 million, $26.3 million, and $18.7 million, respectively.

6. Inventories

Inventories consisted of the following (in millions):

	As of December 31,	
	2020	2019
Finished goods	$1,954.6	$1,875.4
Work in progress	223.7	231.0
Raw materials	272.4	278.6
Inventories	$2,450.7	$2,385.0

Amounts charged to the consolidated statements of earnings for excess and obsolete inventory, including certain product lines we intend to discontinue, in the years ended December 31, 2020, 2019 and 2018 were $250.0 million, $221.4 million and $226.1 million, respectively.

7. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in millions):

	As of December 31,	
	2020	2019
Land	$ 27.7	$ 27.6
Building and equipment	2,197.8	2,007.0
Capitalized software costs	455.8	482.4
Instruments	3,518.3	3,250.5
Construction in progress	125.3	149.3
	6,324.9	5,916.8
Accumulated depreciation	(4,277.2)	(3,839.4)
Property, plant and equipment, net	$ 2,047.7	$ 2,077.4

Depreciation expense was $435.1 million, $421.8 million and $442.6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

We had $24.4 million and $39.8 million of property, plant and equipment included in accounts payable as of December 31, 2020 and 2019, respectively.

8. Transfers of Financial Assets

We have receivables purchase arrangements with unrelated third parties to liquidate portions of our trade accounts receivable balance. The receivables relate to products sold to customers and are short-term in nature. The factorings were treated as sales of our accounts receivable. Proceeds from the transfers reflect either the face value of the accounts receivable or the face value less factoring fees.

We terminated our programs in the U.S. and Japan in the fourth quarter of 2020. Our programs were executed on a revolving basis with a maximum funding limit of $450 million combined before termination. We acted as the collection agent on behalf of the third party, but had no significant retained interests or servicing liabilities related to the accounts receivable sold. As of December 31, 2020, we had collected and remitted or repurchased all factored receivables at the time of the termination of those programs in 2020.

In Europe, we sell to a third party and have no continuing involvement or significant risk with the factored accounts receivable.

Funds received from the transfers are recorded as an increase to cash and a reduction of accounts receivable outstanding in the consolidated balance sheets. We report the cash flows attributable to the sale of the receivables to third parties in cash flows from operating activities in our consolidated statements of cash flows. Net expenses resulting from the sales of receivables are recognized in SG&A expense. Net expenses included any resulting gains or losses from the sales of receivables, credit insurance and factoring fees.

For the years ended December 31, 2020, 2019 and 2018, we sold receivables having an aggregate face value of $1,323.0 million, $3,116.2 million and $2,706.4 million to third parties in exchange for cash proceeds of $1,321.3 million, $3,113.9 million and $2,704.9 million, respectively. Expenses recognized on these sales during the years ended December 31, 2020, 2019 and 2018 were not significant. For the years ended December 31, 2020, 2019 and 2018 under the U.S. and Japan programs, we collected $1,308.3 million, $2,857.4 million and $2,273.5 million, respectively, from our customers and remitted that amount to the third party, and we effectively repurchased $146.5 million, $184.6 million and $208.9 million, respectively, of previously sold accounts receivable from the third party due to the programs' revolving nature. At December 31, 2019, we had collected $54.6 million that were unremitted to the third party, which are reflected in our consolidated balance sheets under other current liabilities. We had no unremitted amounts at December 31, 2020. The initial collection of cash from customers and its remittance to the third party is reflected in net cash provided by/(used in) financing activities in our consolidated statements of cash flows.

At December 31, 2019, the outstanding principal amount of receivables that had been derecognized under the U.S. and Japan revolving arrangements combined amounted to $270.2 million. There were no outstanding receivables derecognized at December 31, 2020 due to the termination of those arrangements in 2020.

9. Fair Value Measurements of Assets and Liabilities

The following financial assets and liabilities are recorded at fair value on a recurring basis (in millions):

	As of December 31, 2020			
		Fair Value Measurements at Reporting Date Using:		
Description	Recorded Balance	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Derivatives designated as hedges, current and long-term				
Foreign currency forward contracts	$ 0.5	$ –	$ 0.5	$ –
Derivatives not designated as hedges, current and long-term				
Foreign currency forward contracts	0.9	–	0.9	–
Total Assets	$ 1.4	$ –	$ 1.4	$ –
Liabilities				
Derivatives designated as hedges, current and long-term				
Foreign currency forward contracts	$ 48.5	$ –	$ 48.5	$ –
Interest rate swaps	83.3	–	83.3	–
Derivatives not designated as hedges, current and long-term				
Foreign currency forward contracts	3.2	–	3.2	–
Contingent payments related to acquisitions	48.2	–	–	48.2
Total Liabilities	$183.2	$ –	$135.0	$ 48.2

	As of December 31, 2019			
		Fair Value Measurements at Reporting Date Using:		
Description	Recorded Balance	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Derivatives designated as hedges, current and long-term				
Foreign currency forward contracts	$39.1	$–	$39.1	$–
Interest rate swaps	60.5	–	60.5	–
Total Assets	$99.6	$–	$99.6	$–
Liabilities				
Derivatives designated as hedges, current and long-term				
Foreign currency forward contracts	$ 0.6	$ –	$0.6	$ –
Contingent payments related to acquisitions	28.8	–	–	28.8
Total Liabilities	$29.4	$ –	$0.6	$28.8

We value our foreign currency forward contracts using a market approach based on foreign currency exchange rates obtained from active markets, and we perform ongoing assessments of counterparty credit risk.

We value our interest rate swaps using a market approach based on publicly available market yield curves, foreign currency exchange rates and the terms of our swaps, and we perform ongoing assessments of counterparty credit risk.

Contingent payments related to acquisitions consist of sales-based payments, and are valued using discounted cash flow techniques. The fair value of sales-based payments is based upon probability-weighted future revenue estimates, and increases as revenue estimates increase. See Note 10 for additional information regarding contingent payments related to acquisitions.

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

	Level 3 - Liabilities
Contingent payments related to acquisitions	
Beginning balance December 31, 2019	$ 28.8
New contingent payments related to the 2020 acquisitions	31.3
Changes in estimates	2.8
Settlements	(15.0)
Foreign currency impact	0.3
Ending balance December 31, 2020	$ 48.2

Changes in estimates for contingent payments related to acquisitions are recognized in Acquisition, integration and related expenses on our consolidated statements of earnings.

10. Acquisitions

In the fourth quarter of 2020, we completed the acquisitions of A&E Medical Corporation ("A&E Medical"), a sternal closure company, and Relign Corp. ("Relign"), an arthroscopy equipment company (collectively referred to as

the "2020 acquisitions"). The 2020 acquisitions were completed primarily to expand our product offerings in the CMFT and sports medicine markets. The total aggregate cash consideration paid in 2020 related to the 2020 acquisitions was $244.9 million, with an additional $145.0 million of guaranteed deferred payments to be made in 2021. The Company has assigned a fair value of $31.3 million for potential additional payments related to these acquisitions that are contingent on the respective acquired companies' future product sales. The estimated fair value of the aggregate contingent payment liabilities was calculated based on the probability of achieving the specified sales growth and discounting to present value the estimated payments.

The goodwill related to the 2020 acquisitions represents the excess of the consideration transferred over the fair value of the net assets acquired. The goodwill related to the 2020 acquisitions is generated from the operational synergies and cross-selling opportunities we expect to achieve from the technologies acquired. None of the goodwill related to these acquisitions is expected to be deductible for tax purposes.

The purchase price allocations as of December 31, 2020 are preliminary. We need additional time to analyze historical purchasing patterns of the acquired customer bases, which may affect the value of the customer relationships intangible asset. Additionally, as we finalize the acquired companies' tax returns and evaluate their tax attributes, the recognized tax assets and liabilities may change. There may be differences between the preliminary estimates of fair value and the final acquisition accounting. The final estimates of fair value are expected to be completed as soon as possible, but no later than one year after the respective acquisition dates.

The following table summarizes the aggregate preliminary estimates of fair value of the assets acquired and liabilities assumed related to the 2020 acquisitions (in millions):

Current assets	$ 33.6
Intangible assets subject to amortization:	
Technology	154.6
Trademarks and trade names	1.5
Customer relationships	135.7
Other	4.9
Goodwill	162.2
Other assets	5.2
Total assets acquired	497.7
Current liabilities	4.7
Deferred income taxes	70.1
Other long-term liabilities	1.7
Total liabilities assumed	76.5
Net assets acquired	$421.2

The weighted average amortization period selected for technology, trademarks and trade names, customer relationships and other intangible assets were 13 years, 12 years, 15 years and 5 years, respectively.

We have not included pro forma information and certain other information under GAAP for the 2020 acquisitions because they did not have a material impact on our financial position or results of operations.

11. Goodwill and Other Intangible Assets

The following table summarizes the changes in the carrying amount of goodwill (in millions):

	Americas and Global Businesses	EMEA	Asia Pacific	Immaterial Product Category Operating Segments	Total
Balance at January 1, 2019					
Goodwill	$ 7,712.4	$ 1,322.2	$507.2	$ 1,706.2	$11,248.0
Accumulated impairment losses	–	(567.0)	–	(1,086.6)	(1,653.6)
	7,712.4	755.2	507.2	619.6	9,594.4
Other acquisitions	–	–	–	25.0	25.0
Currency translation	(12.6)	(5.4)	0.2	(1.9)	(19.7)
Balance at December 31, 2019					
Goodwill	7,699.8	1,316.8	507.4	1,729.3	11,253.3
Accumulated impairment losses	–	(567.0)	–	(1,086.6)	(1,653.6)
	7,699.8	749.8	507.4	642.7	9,599.7
Goodwill reportable segment change	1,661.3	17.0	51.0	(1,729.3)	–
Accumulated impairment losses reportable segment change	(1,086.6)	–	–	1,086.6	–
Other acquisitions	142.4	10.9	8.9	–	162.2
Currency translation	80.2	18.2	13.5	–	111.9
Impairment	(142.0)	(470.0)	–	–	(612.0)
Balance at December 31, 2020					
Goodwill	9,583.7	1,362.9	580.8	–	11,527.4
Accumulated impairment losses	(1,228.6)	(1,037.0)	–	–	(2,265.6)
	$ 8,355.1	$ 325.9	$580.8	$ –	$ 9,261.8

As discussed further in Note 19, in connection with the 2019 Restructuring Plan, our operating segments and reportable segments have changed. Goodwill has been reallocated from our previous reportable segments to reflect the new structure. We now have five reporting units with goodwill assigned to them.

As discussed further in Note 10, we purchased A&E Medical, Relign and other immaterial companies, resulting in additional goodwill.

As of March 31, 2020, we tested three of our reporting units for impairment due to: i) the significant adverse effect the COVID-19 pandemic was expected to have on our operating results, and ii) the change in reportable segments, which changed the cash flows and asset compositions of certain reporting units. This resulted in goodwill impairment charges of $470.0 million and $142.0 million recognized for our EMEA reporting unit and Dental reporting unit, respectively. The remaining two reporting units with goodwill assigned to them were not tested for impairment as we concluded it is more likely than not the fair value of these reporting units exceeded their carrying value.

The impairment charge of $470.0 million in our EMEA reporting unit was primarily due to the COVID-19 pandemic and reportable segment change. The COVID-19 pandemic has had a significant adverse effect on both the operational and non-operational assumptions used to estimate the fair value of our EMEA reporting unit. The significant decline in our share price and that of most other publicly-traded companies resulted in us utilizing a higher risk-adjusted discount rate compared to the rate used in our previous annual goodwill impairment test to discount our future estimated cash flows to present value. On an operational basis, due to the deferral of elective surgical procedures, at the time of March 31, 2020 impairment test, we estimated that our cash flows in 2020 would be significantly lower than previously estimated in our prior annual goodwill impairment test. The change in reportable segments resulted in additional impairment due to additional assets being allocated to the EMEA reporting unit. As of December 31, 2020, $325.9 million of goodwill remained in the EMEA reporting unit.

The impairment charge of $142.0 million in our Dental reporting unit was primarily driven by the COVID-19 pandemic. Similar to our EMEA reporting unit, changes in the market caused an increase to the risk-adjusted discount rates utilized to discount our future estimated cash flows to present value, and we expected that the deferral of elective dental procedures would have an adverse effect on our cash flows. We estimated the cash flows from our Dental reporting unit might recover more slowly than our other reporting units because many dental procedures are not covered by insurance. Therefore, we estimated that economic uncertainty would likely result in patients deferring dental procedures for a longer period of time than procedures involving our other products. As of December 31, 2020, $273.7 million of goodwill remained in the Dental reporting unit.

The third reporting unit we tested for impairment, Americas CMFT, had an estimated fair value that exceeded its carrying value by less than 5 percent. The Americas CMFT reporting unit's estimated fair value was also adversely impacted by the COVID-19 pandemic similar to our EMEA and Dental reporting units.

We estimated the fair value of the EMEA, Dental and Americas CMFT reporting units based on income and market approaches. Fair value under the income approach was determined by discounting to present value the estimated future cash flows of the reporting unit. Fair value under the market approach utilized the guideline public company methodology, which uses valuation indicators from publicly-traded companies that are similar to our EMEA, Dental and Americas CMFT reporting units and considers differences between our reporting unit and the comparable companies.

In estimating the future cash flows of the reporting units, we utilized a combination of market and company-specific inputs that a market participant would use in assessing the fair value of the reporting units. The primary market input was revenue growth rates. These rates were based upon historical trends and estimated future growth drivers such as an aging global population, obesity and more active lifestyles. In the near term, the COVID-19 pandemic was expected to result in a decline to our revenue when compared to the same prior year periods. Significant company specific inputs included assumptions regarding how the reporting units could leverage operating expenses as revenue grows and the impact any of our differentiated products or new products will have on revenues.

Under the guideline public company methodology, we took into consideration specific risk differences between our reporting unit and the comparable companies, such as recent financial performance, size risks and product portfolios, among other considerations.

We perform our annual test of goodwill impairment in the fourth quarter of every year. In connection with the 2020 annual goodwill impairment test in the fourth quarter of 2020, we performed a qualitative test on our Asia Pacific reporting unit and concluded it was more likely than not the fair value of this reporting unit exceeded its carrying value. We estimated the fair value of our Americas Orthopedics, Americas CMFT, EMEA and Dental reporting units using the income and market approaches. The estimated fair values of our reporting units increased in the fourth quarter impairment test compared to the March 31, 2020 test due to the negative effects on discounted cash flows from the COVID-19 pandemic forecasted for second and third quarters of 2020 no longer being in the future cash flow estimates. As a result, the estimated fair value of each reporting unit exceeded its carrying value by more than 10 percent.

We will continue to monitor the fair value of our reporting units in our interim and annual reporting periods. If our estimated cash flows decrease, we may have to record further impairment charges in the future. Factors that could result in our cash flows being lower than our current estimates include: 1) the COVID-19 pandemic causes elective surgical procedures to be deferred longer than our estimates, or additional recurrence of the virus causes additional deferrals of elective surgical procedures, 2) decreased revenues caused by unforeseen changes in the healthcare market, or our inability to generate new product revenue from our research and development activities, and 3) our inability to achieve the estimated operating margins in our forecasts due to unforeseen factors. Additionally, changes in the broader

economic environment could cause changes to our estimated discount rates and comparable company valuation indicators, which may impact our estimated fair values.

During the year ended December 31, 2018, we recorded goodwill impairment charges related to our Spine reporting unit, our EMEA reporting unit and an insignificant reporting unit of $401.2 million, $567.0 million and $7.7 million, respectively. After the impairment in our Spine reporting unit, no goodwill balance remained.

The Spine reporting unit included goodwill from significant mergers for that reporting unit in 2015 and 2016, as well as goodwill that existed prior to those mergers. The forecasts used to recognize the goodwill related to the 2015 and 2016 mergers assumed cross sale opportunities of the combined businesses would enable the reporting unit to grow faster than the overall spine market. The primary drivers of impairment were lower than expected sales due to sales force integration issues and additional complexities of combining the spine product supply chains of the combined companies. As a result, in our forecasts we estimated it would take longer than originally anticipated to realize the benefits of the mergers. We estimated our Spine sales were currently growing below overall market growth. Consequently, we lowered our expectations of future sales growth.

The impairment charge of $567.0 million in our EMEA reporting unit in 2018 was driven by a combination of operational and non-operational factors. Sales growth in the EMEA knees and hips overall market had softened in the past two years to low single digits. Accordingly, we tempered our sales growth estimates for this reporting unit. Also, higher interest rates as well as increased volatility in our stock price compared to the overall market resulted in us utilizing a higher risk-adjusted discount rate compared to prior year tests to discount our future estimated cash flows to present value. In addition, our anticipated costs to comply with the EU MDR was expected to be higher than previously anticipated. Lastly, the weakening of European foreign currencies against the U.S. Dollar and other factors contributed to the impairment charge.

The fair values for the 2018 impairment charges were estimated using income and market approaches similar to the 2020 tests.

The components of identifiable intangible assets were as follows (in millions):

	Technology	Intellectual Property Rights	Trademarks and Trade Names	Customer Relationships	IPR&D	Other	Total
As of December 31, 2020:							
Intangible assets subject to amortization:							
Gross carrying amount	$ 3,902.0	$ 383.3	$ 677.0	$ 5,589.7	$ –	$ 152.4	$10,704.4
Accumulated amortization	(1,746.2)	(211.6)	(251.5)	(1,820.9)	–	(110.9)	(4,141.1)
Intangible assets not subject to amortization:							
Gross carrying amount	–	–	462.7	–	29.5	–	492.2
Total identifiable intangible assets	$ 2,155.8	$ 171.7	$ 888.2	$ 3,768.8	$29.5	$ 41.5	$ 7,055.5
As of December 31, 2019:							
Intangible assets subject to amortization:							
Gross carrying amount	$ 3,634.0	$ 378.3	$ 659.9	$ 5,375.0	$ –	$ 165.4	$10,212.6
Accumulated amortization	(1,487.6)	(191.9)	(207.6)	(1,489.4)	–	(95.3)	(3,471.8)
Intangible assets not subject to amortization:							
Gross carrying amount	–	–	454.9	–	61.9	–	516.8
Total identifiable intangible assets	$ 2,146.4	$ 186.4	$ 907.2	$ 3,885.6	$61.9	$ 70.1	$ 7,257.6

As discussed further in Note 10, the Company purchased A&E Medical, Relign and 3DIEMME in 2020, resulting in additional intangible assets.

In 2019, we entered into an agreement and paid $192.5 million to buy out certain licensing arrangements from an unrelated third party. This new agreement and the related payment replaced the variable royalty payments that otherwise would have been due under the terms of previous licensing arrangements through 2029. Under the new agreement, we maintain the rights to the counterparty's intellectual property provided under the previous licensing arrangements. The $192.5 million payment was recognized as an intangible asset and will be amortized through 2029, which represents the useful life of the intellectual property.

We recognized IPR&D intangible asset impairment charges of $33.0 million, $70.1 million and $3.8 million in the years ended December 31, 2020, 2019 and 2018, respectively, in "Goodwill and intangible asset impairment" on our consolidated statements of earnings. The $33.0 million charge in 2020 included a $19.0 million impairment related to a project that requires additional research and development costs to complete, which delays the cash inflows and results in a decreased estimated fair value. The remaining $14.0 million impairment charge in 2020, the $70.1 million charge from 2019 and the $3.8 million charge from 2018 are related to

terminated IPR&D projects. The termination of these projects was the result of prioritizing our internal research and development portfolio as a result of COVID-19 and to focus our engineering resources on the opportunities that most closely link to our mission. Since these projects were not a priority, their terminations are not expected to have a significant impact on our future cash flows.

Estimated annual amortization expense based upon intangible assets recognized as of December 31, 2020 for the years ending December 31, 2021 through 2025 is (in millions):

For the Years Ending December 31,	
2021	$609.6
2022	604.6
2023	597.9
2024	587.8
2025	581.2

12. Other Current Liabilities

Other current liabilities consisted of the following (in millions):

	As of December 31,	
	2020	2019
Other current liabilities:		
License and service agreements	$ 189.7	$ 179.3
Salaries, wages and benefits	319.5	314.1
Litigation and product liability	123.2	142.4
Deferred business combination payments	145.0	–
Accrued liabilities	890.0	778.1
Total other current liabilities	$1,667.4	$1,413.9

13. Debt

Our debt consisted of the following (in millions):

	As of December 31,	
	2020	2019
Current portion of long-term debt		
2.700% Senior Notes due 2020	$ –	$1,500.0
Floating Rate Notes due 2021	200.0	–
3.375% Senior Notes due 2021	300.0	–
Total short-term debt	$ 500.0	$1,500.0
Long-term debt		
Floating Rate Notes due 2021	$ –	$ 450.0
3.375% Senior Notes due 2021	–	300.0
3.150% Senior Notes due 2022	750.0	750.0
3.700% Senior Notes due 2023	300.0	300.0
3.550% Senior Notes due 2025	2,000.0	2,000.0
3.050% Senior Notes due 2026	600.0	–
3.550% Senior Notes due 2030	900.0	–
4.250% Senior Notes due 2035	253.4	253.4
5.750% Senior Notes due 2039	317.8	317.8
4.450% Senior Notes due 2045	395.4	395.4
1.414% Euro Notes due 2022	611.8	561.3
2.425% Euro Notes due 2026	611.8	561.3
1.164% Euro Notes due 2027	611.8	561.3
Japan Term Loan A	113.3	106.9
Japan Term Loan B	206.3	194.7
Debt discount and issuance costs	(48.2)	(37.1)
Adjustment related to interest rate swaps	3.1	6.4
Total long-term debt	$7,626.5	$6,721.4

At December 31, 2020, our total current and non-current debt of $8.1 billion consisted of $7.8 billion aggregate principal amount of senior notes, which included 1.5 billion of Euro-denominated senior notes ("Euro notes"), an 11.7 billion Japanese Yen term loan agreement ("Japan Term Loan A") and a 21.3 billion Japanese Yen term loan agreement ("Japan Term Loan B") that each will mature on September 27, 2022, and other debt and fair value adjustments totaling $3.1 million, partially offset by debt discount and issuance costs of $48.2 million.

On December 30, 2020, we repaid $250.0 million of the $450.0 million aggregate principal amount of our floating rate senior notes due March 19, 2021, with cash on hand. In January and February 2021, we made $100.0 million payments in each month with cash on hand to repay the remainder of the principal balance.

On March 20, 2020, we completed the offering of $600.0 million aggregate principal amount of our 3.050% senior notes due on January 15, 2026 and $900.0 million aggregate principal amount of our 3.550% senior notes due on March 20, 2030. Interest payable on the 3.050% senior notes is payable semi-annually, commencing on July 15, 2020 until maturity. Interest payable on the 3.550% senior notes is payable semi-annually, commencing on September 20, 2020 until maturity. The proceeds from the offering, together with cash on hand, were used to repay at maturity the $1.5 billion principal amount of 2.700% senior notes due on April 1, 2020.

On November 15, 2019, we completed the offering of €500 million aggregate principal amount of our 1.164% Euro notes due November 15, 2027. Interest is payable on the 1.164% Euro notes on November 15 of each year until maturity. We received net proceeds of approximately $549.2 million from this offering, which were primarily used to repay the $500 million principal amount 4.625% Senior Notes due 2019 at maturity, and the remainder of which were used to repay a portion of a U.S. term loan ("U.S. Term Loan C").

On November 1, 2019, we entered into a revolving credit agreement (the "2019 Credit Agreement"), which contains a five-year unsecured multicurrency revolving facility of $1.5 billion (the "2019 Multicurrency Revolving Facility"), which replaced the previous $1.5 billion multicurrency revolving credit facility (the "2016 Multicurrency Revolving Facility") and a U.S. term loan ("U.S. Term Loan B") under our credit agreement executed in September 2016 (as amended, the "2016 Credit Agreement"). U.S. Term Loan B was paid in full during the year ended December 31, 2019. The 2019 Credit Agreement will mature on November 1, 2024, with two one-year extensions exercisable at our discretion and subject to required lender consent. As of December 31, 2020, there were no outstanding borrowings under the 2019 Multicurrency Revolving Facility.

Borrowings under the 2019 Credit Agreement generally bear interest at floating rates. We pay a facility fee on the aggregate amount of the 2019 Multicurrency Revolving Facility. The 2019 Credit Agreement contains customary affirmative and negative covenants and events of default for unsecured financing arrangements, including, among other things, limitations on consolidations, mergers, and sales of assets. On April 23, 2020, we entered into an amendment to the 2019 Credit Agreement to temporarily increase the maximum permitted consolidated indebtedness to consolidated EBITDA ratio ("Consolidated Leverage Ratio"), temporarily increase the interest rate margin applicable to revolving loans and the facility fee, and make other administrative changes. Pursuant to the amendment, the maximum permitted Consolidated Leverage Ratio as of the last day of any period of four consecutive fiscal quarters under the 2019 Credit Agreement is (i) 5.75 to 1.00 for periods ending between April 1, 2020 and including December 31, 2020, (ii) 5.00 to 1.00 for the period ending March 31, 2021, and (iii) 4.50 to 1.00 for periods ending after April 1, 2021 (with such maximum permitted Consolidated Leverage Ratio subject to increase to 5.00 to 1.00 for a period of time in connection with a qualified material acquisition on or after July 1, 2021). We were in compliance with all covenants under the 2019 Credit Agreement as of December 31, 2020. The amendment also increased the interest rate margin applicable to revolving loans and the facility fee, each of which are determined by reference to our senior unsecured long-term debt credit rating, through March 31, 2021.

On April 23, 2020, we entered into a revolving credit agreement which was an unsecured revolving credit facility of $1.0 billion (the "April 2020 Revolving Facility"). In conjunction with a new revolving credit agreement (the "September 2020 Credit Agreement") entered into on September 18, 2020, the April 2020 Revolving Facility was terminated. We never borrowed against the April 2020 Revolving Facility. The September 2020 Credit Agreement is a $1.0 billion 364-day unsecured revolving credit facility (the "September 2020 Revolving Facility"). The September 2020 Revolving Facility will be used for general corporate purposes. The September 2020 Credit Agreement matures on September 17, 2021. Borrowings under the September 2020 Credit Agreement generally bear interest at floating rates. We pay a facility fee on the aggregate amount of the September 2020 Revolving Facility. The September 2020 Credit Agreement contains customary affirmative and negative covenants and events of default for an unsecured financing arrangement including, among other things, limitations on consolidations, mergers, and sales of assets. The September 2020 Credit Agreement requires us to maintain a Consolidated Leverage Ratio as of the last day of any period of four consecutive fiscal quarters of no greater than (i) 5.75 to 1.00 for periods ending during the period from September 18, 2020 to and including December 31, 2020, (ii) 5.00 to 1.00 for the period ending March 31, 2021, and (iii) 4.50 to 1.00 for periods ending after April 1, 2021 (with such permitted Consolidated Leverage Ratio subject to increase to 5.00 to 1.00 for a period of time in connection with a qualified material acquisition on or after July 1, 2021). We were in compliance with all covenants under the September 2020 Credit Agreement, as of December 31, 2020. As of December 31, 2020, there were no outstanding borrowings under the September 2020 Credit Agreement.

On December 14, 2018, we entered into a credit agreement (the "2018 Credit Agreement") that provided for U.S. Term Loan C, which was a two-year unsecured multi-draw term loan facility for the Company in the principal amount of $900.0 million, with a maturity date of December 14, 2020, and borrowed $675.0 million under that facility. In January 2019, we borrowed an additional $200.0 million under U.S. Term Loan C and used those proceeds, along with cash on hand, to repay the remaining $225.0 million outstanding under U.S. Term Loan B issued under the 2016 Credit Agreement. We repaid $735.0 million and $140.0 million in principal under U.S. Term Loan C during the years ended December 31, 2019 and 2018, respectively, primarily with cash from operations, which terminated the 2018 Credit Agreement and U.S Term Loan C.

On March 19, 2018, we completed the offering of $450.0 million aggregate principal amount of our floating rate senior notes due March 19, 2021 and $300.0 million aggregate principal amount of our 3.700% senior notes due March 19, 2023. Interest on the floating rate senior notes is equal to three-month LIBOR plus 0.750% and is payable quarterly, commencing on June 19, 2018, until maturity. Interest is payable on the 3.700% senior notes semi-annually, commencing on September 19, 2018, until maturity. We received net proceeds of $749.5 million from this offering.

We may, at our option, redeem our senior notes, in whole or in part, at any time upon payment of the principal, any applicable make-whole premium, and accrued and unpaid interest to the date of redemption. In addition, we may redeem, at our option, the 3.375% Senior Notes due 2021, the 3.150% Senior Notes due 2022, the 1.414% Euro notes due 2022, the 3.700% Senior Notes due 2023, the 3.550% Senior Notes due 2025, the 3.050% Senior Notes due 2026, the 2.425% Euro notes due 2026, the 1.164% Euro notes due 2027, the 3.550% Senior Notes due 2030, the 4.250% Senior Notes due 2035 and the 4.450% Senior Notes due 2045 without any make-whole premium at specified dates ranging from one month to six months in advance of the scheduled maturity date.

The estimated fair value of our senior notes as of December 31, 2020, based on quoted prices for the specific securities from transactions in over-the-counter markets (Level 2), was $8,619.0 million. The estimated fair value of Japan Term Loan A and Japan Term Loan B, in the aggregate, as of December 31, 2020, based upon publicly available market yield curves and the terms of the debt (Level 2), was $318.3 million.

We entered into interest rate swap agreements which we designated as fair value hedges of underlying fixed-rate obligations on our senior notes due 2019 and 2021. These fair value hedges were settled in 2016. In 2016, we entered into various variable-to-fixed interest rate swap agreements that were accounted for as cash flow hedges of U.S. Term Loan B. These interest rate swaps were terminated concurrently with the repayment of the remaining balance of U.S. Term Loan B in 2019. In 2018 and 2019, we entered into cross-currency

interest rate swaps that we designated as net investment hedges. The excluded component of these net investment hedges is recorded in interest expense, net. See Note 15 for additional information regarding our interest rate swap agreements.

At December 31, 2020 and 2019, the weighted average interest rate for our borrowings was 3.0 percent and 2.9 percent, respectively. We paid $193.1 million, $226.9 million, and $282.8 million in interest during 2020, 2019, and 2018, respectively.

14. Accumulated Other Comprehensive Income

AOCI refers to certain gains and losses that under GAAP are included in comprehensive income but are excluded from net earnings as these amounts are initially recorded as an adjustment to stockholders' equity. Amounts in AOCI may be reclassified to net earnings upon the occurrence of certain events.

Our AOCI is comprised of foreign currency translation adjustments, unrealized gains and losses on cash flow hedges, and amortization of prior service costs and unrecognized gains and losses in actuarial assumptions on our defined benefit plans. Foreign currency translation adjustments are reclassified to net earnings upon sale or upon a complete or substantially complete liquidation of an investment in a foreign entity. Unrealized gains and losses on cash flow hedges are reclassified to net earnings when the hedged item affects net earnings. Amounts related to defined benefit plans that are in AOCI are reclassified over the service periods of employees in the plan. See Note 16 for more information on our defined benefit plans.

The following table shows the changes in the components of AOCI, net of tax (in millions):

	Foreign Currency Translation	Cash Flow Hedges	Defined Benefit Plan Items	Total AOCI
Balance December 31, 2019	$(32.8)	$ 16.4	$(225.5)	$(241.9)
AOCI before reclassifications	25.6	(33.5)	(12.4)	(20.3)
Reclassifications to statements of earnings	–	(38.5)	2.9	(35.6)
Balance December 31, 2020	$ (7.2)	$(55.6)	$(235.0)	$(297.8)

The following table shows the reclassification adjustments from AOCI (in millions):

	Amount of Gain / (Loss) Reclassified from AOCI For the Years Ended December 31,			
Component of AOCI	2020	2019	2018	Location on Statements of Earnings
Cash flow hedges				
Foreign exchange forward contracts	$45.4	$ 38.4	$(26.2)	Cost of products sold
Interest rate swaps	–	2.8	–	Interest expense, net
Forward starting interest rate swaps	(0.6)	(0.6)	(0.6)	Interest expense, net
	44.8	40.6	(26.8)	Total before tax
	6.3	5.5	(3.2)	(Benefit) provision for income taxes
	$38.5	$ 35.1	$(23.6)	Net of tax
Defined benefit plans				
Prior service cost	$ 3.9	$ 7.3	$ 9.9	Other income (expense), net
Curtailment gain	–	7.2	–	Other income (expense), net
Unrecognized actuarial loss	(8.5)	(21.8)	(26.2)	Other income (expense), net
	(4.6)	(7.3)	(16.3)	Total before tax
	(1.7)	(2.3)	(4.3)	(Benefit) provision for income taxes
	$(2.9)	$ (5.0)	$(12.0)	Net of tax
Total reclassifications	$35.6	$ 30.1	$(35.6)	Net of tax

The following table shows the tax effects on each component of AOCI recognized in our consolidated statements of comprehensive income (loss) (in millions):

	For the Years Ended December 31,								
	Before Tax			Tax			Net of Tax		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Foreign currency cumulative translation adjustments	$ (43.4)	$ 12.1	$(148.7)	$(69.0)	$13.6	$(13.3)	$ 25.6	$ (1.5)	$(135.4)
Unrealized cash flow hedge (losses) gains	(42.7)	34.6	81.1	(9.2)	4.0	12.9	(33.5)	30.6	68.2
Reclassification adjustments on cash flow hedges	(44.8)	(40.6)	26.8	(6.3)	(5.5)	3.2	(38.5)	(35.1)	23.6
Adjustments to prior service cost and unrecognized actuarial assumptions	(20.9)	(56.4)	(22.7)	(11.4)	(7.9)	(5.0)	(9.5)	(48.5)	(17.7)
Total Other Comprehensive (Loss) Income	$(151.8)	$(50.3)	$ (63.5)	$(95.9)	$ 4.2	$ (2.2)	$(55.9)	$(54.5)	$ (61.3)

15. Derivative Instruments and Hedging Activities

We are exposed to certain market risks relating to our ongoing business operations, including foreign currency exchange rate risk, commodity price risk, interest rate risk and credit risk. We manage our exposure to these and other market risks through regular operating and financing activities. Currently, the only risks that we manage through the use of derivative instruments are interest rate risk and foreign currency exchange rate risk.

Interest Rate Risk

Derivatives Designated as Fair Value Hedges

In prior years, we entered into various fixed-to-variable interest rate swap agreements that were accounted for as fair value hedges of a portion of our 4.625% Senior Notes due in 2019 and all of our 3.375% Senior Notes due 2021. In August 2016, we received cash for these interest rate swap assets by terminating the hedging instruments with the counterparties. The 4.625% Senior Notes were repaid at maturity in 2019. The remaining unamortized balance related to the 3.375% Senior Notes as of December 31, 2020 was $3.1 million, which will be recognized using the effective interest rate method over the remaining maturity period of the 3.375% Senior Notes. As of December 31, 2020 and 2019, the following amounts were recorded on our consolidated balance sheets related to cumulative basis adjustments for fair value hedges (in millions):

	Carrying Amount of the Hedged Liabilities		Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Liabilities	
Balance Sheet Line Item	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
Long-term debt	$303.0	$306.2	$3.1	$6.4

Derivatives Designated as Cash Flow Hedges

In 2014, we entered into forward starting interest rate swaps that were designated as cash flow hedges of our thirty-year tranche of senior notes (the 4.450% Senior Notes due 2045) we expected to issue in 2015. The forward starting interest rate swaps mitigated the risk of changes in interest rates prior to the completion of the notes offering. The interest rate swaps were settled, and the remaining loss to be recognized at December 31, 2020 was $25.9 million, which will be recognized using the effective interest rate method over the remaining maturity period of the hedged notes.

In September 2016, we entered into various variable-to-fixed interest rate swap agreements with a notional amount of $375 million that were accounted for as cash flow hedges of U.S. Term Loan B. The interest rate swaps minimized the exposure to changes in the LIBOR interest rates while the variable-rate debt was outstanding. In the first quarter of 2019, we terminated these interest rate swaps concurrently with the repayment of the remaining balance of U.S. Term Loan B, and we recognized proceeds and interest income of $2.8 million related to the termination.

Foreign Currency Exchange Rate Risk

We operate on a global basis and are exposed to the risk that our financial condition, results of operations and cash flows could be adversely affected by changes in foreign currency exchange rates. To reduce the potential effects of foreign currency exchange rate movements on net earnings, we enter into derivative financial instruments in the form of foreign currency exchange forward contracts with major financial institutions. We also designated our Euro notes and other foreign currency exchange forward contracts as net investment hedges of investments in foreign subsidiaries. We are primarily exposed to foreign currency exchange rate risk with respect to transactions and net assets denominated in Euros, Swiss Francs, Japanese Yen, British Pounds, Canadian Dollars, Australian Dollars, Korean Won, Swedish Krona, Czech Koruna, Thai Baht, Taiwan Dollars, South African Rand, Russian Rubles, Indian Rupees, Turkish Lira, Polish Zloty, Danish Krone, and Norwegian Krone. We do not use derivative financial instruments for trading or speculative purposes.

Derivatives Designated as Net Investment Hedges

We are exposed to the impact of foreign exchange rate fluctuations in the investments in our wholly-owned foreign subsidiaries that are denominated in currencies other than the U.S. Dollar. In order to mitigate the volatility in foreign exchange rates, we issued Euro Notes in December 2016 and November 2019, as discussed in Note 13, and designated 100 percent of the Euro Notes to hedge our net investment in certain wholly-owned foreign subsidiaries that have a functional currency of Euro. All changes in the fair value of the hedging instrument designated as a net investment hedge are recorded as a component of AOCI in our consolidated balance sheets.

At December 31, 2020, we had receive-fixed-rate, pay-fixed-rate cross-currency interest rate swaps with notional amounts outstanding of Euro 1,450 million, Japanese Yen 7 billion and Swiss Franc 50 million. These transactions further hedge our net investment in certain wholly-owned foreign subsidiaries that have a functional currency of Euro, Japanese Yen and Swiss Franc. All changes in the fair value of a derivative instrument designated as a net investment hedge are recorded as a component of AOCI in the consolidated balance sheets. The portion of this change related to the excluded component will be amortized into earnings over the life of the derivative while the remainder will be recorded in AOCI until the hedged net investment is sold or substantially

eliminated. We recognize the excluded component in interest expense, net on our consolidated statements of earnings. The net cash received related to the receive-fixed-rate, pay-fixed-rate component of the cross-currency interest rate swaps is reflected in investing cash flows in our consolidated statements of cash flows.

Derivatives Designated as Cash Flow Hedges

Our revenues are generated in various currencies throughout the world. However, a significant amount of our inventory is produced in U.S. Dollars. Therefore, movements in foreign currency exchange rates may have different proportional effects on our revenues compared to our cost of products sold. To minimize the effects of foreign currency exchange rate movements on cash flows, we hedge intercompany sales of inventory expected to occur within the next 30 months with foreign currency exchange forward contracts. We designate these derivative instruments as cash flow hedges.

We perform quarterly assessments of hedge effectiveness by verifying and documenting the critical terms of the hedge instrument and confirming that forecasted transactions have not changed significantly. We also assess on a quarterly basis whether there have been adverse developments regarding the risk of a counterparty default. For derivatives which qualify as hedges of future cash flows, the gains and losses are temporarily recorded in AOCI and then recognized in cost of products sold when the hedged item affects net earnings. On our consolidated statements of cash flows, the settlements of these cash flow hedges are recognized in operating cash flows.

For foreign currency exchange forward contracts outstanding at December 31, 2020, we had obligations to purchase U.S. Dollars and sell Euros, Japanese Yen, British Pounds, Canadian Dollars, Australian Dollars, Korean Won, Swedish Krona, Czech Koruna, Thai Baht, Taiwan Dollars, South African Rand, Russian Rubles, Indian Rupees, Polish Zloty, Danish Krone, and Norwegian Krone and obligations to purchase Swiss Francs and sell U.S. Dollars. These derivatives mature at dates ranging from January 2021 through June 2023. As of December 31, 2020, the notional amounts of outstanding forward contracts entered into with third parties to purchase U.S. Dollars were $1,605.9 million. As of December 31, 2020, the notional amounts of outstanding forward contracts entered into with third parties to purchase Swiss Francs were $283.8 million.

Derivatives Not Designated as Hedging Instruments

We enter into foreign currency forward exchange contracts with terms of one to two months to manage currency exposures for monetary assets and liabilities denominated in a currency other than an entity's functional currency. Any foreign currency re-measurement gains/losses recognized in earnings are generally offset with gains/losses on the foreign currency forward exchange contracts in the same reporting period. The amount of these gains/losses is recorded in other income (expense), net. Outstanding contracts are recorded on the balance sheet at fair value as of the end of the reporting period. The notional amounts of these contracts are typically in a range of $1.5 billion to $2.0 billion per quarter.

Income Statement Presentation

Derivatives Designated as Cash Flow Hedges

Derivative instruments designated as cash flow hedges had the following effects, before taxes, on AOCI and net earnings on our consolidated statements of earnings, consolidated statements of comprehensive income (loss) and consolidated balance sheets (in millions):

	Amount of Gain / (Loss) Recognized in AOCI				Amount of Gain / (Loss) Reclassified from AOCI		
	Years Ended December 31,				Years Ended December 31,		
Derivative Instrument	2020	2019	2018	Location on Statement of Earnings	2020	2019	2018
Foreign exchange forward contracts	$(42.7)	$34.6	$82.8	Cost of products sold	$45.4	$38.4	$(26.2)
Interest rate swaps	–	–	(1.7)	Interest expense, net	–	2.8	–
Forward starting interest rate swaps	–	–	–	Interest expense, net	(0.6)	(0.6)	(0.6)
	$(42.7)	$34.6	$81.1		$44.8	$40.6	$(26.8)

The fair value of outstanding derivative instruments designated as cash flow hedges and recorded on the consolidated balance sheet at December 31, 2020, together with settled derivatives where the hedged item has not yet affected earnings, was a net unrealized loss of $70.1 million, or $55.6 million after taxes, which is deferred in AOCI. A loss of $18.2 million, or $16.1 million after taxes, is expected to be reclassified to earnings in cost of products sold and a loss of $0.6 million, or $0.5 million after taxes, is expected to be reclassified to earnings in interest expense, net over the next twelve months.

The following table presents the effects of fair value, cash flow and net investment hedge accounting on our consolidated statements of earnings (in millions):

	Location and Amount of Gain/(Loss) Recognized in Income on Fair Value, Cash Flow and Net Investment Hedging Relationships Years Ended December 31,					
	2020		2019		2018	
	Cost of Products Sold	Interest Expense, Net	Cost of Products Sold	Interest Expense, Net	Cost of Products Sold	Interest Expense, Net
Total amounts of income and expense line items presented in the statements of earnings in which the effects of fair value, cash flow and net investment hedges are recorded	$2,128.3	$(212.0)	$2,252.6	$(226.9)	$2,271.9	$(289.3)
The effects of fair value, cash flow and net investment hedging:						
Gain on fair value hedging relationships						
Discontinued interest rate swaps	–	3.3	–	8.2	–	8.5
Gain (loss) on cash flow hedging relationships						
Foreign exchange forward contracts	45.4	–	38.4	–	(26.2)	–
Interest rate swaps	–	–	–	2.8	–	–
Forward starting interest rate swaps	–	(0.6)	–	(0.6)	–	(0.6)
Gain on net investment hedging relationships						
Cross-currency interest rate swaps	–	53.5	–	52.2	–	25.5

Derivatives Not Designated as Hedging Instruments

The following gains/(losses) from these derivative instruments were recognized on our consolidated statements of earnings (in millions):

		Years Ended December 31,		
Derivative Instrument	Location on Statements of Earnings	2020	2019	2018
Foreign exchange forward contracts	Other income (expense), net	$10.6	$(11.0)	$24.7

These gains/(losses) do not reflect losses of $22.8 million, $3.4 million and $41.2 million in 2020, 2019 and 2018, respectively, recognized in other income (expense), net as a result of foreign currency re-measurement of monetary assets and liabilities denominated in a currency other than an entity's functional currency.

Balance Sheet Presentation

As of December 31, 2020 and 2019, all derivative instruments are recorded at fair value on our consolidated balance sheets. On our consolidated balance sheets, we recognize individual forward contracts with the same counterparty on a net asset/liability basis if we have a master netting agreement with the counterparty. Under these master netting agreements, we are able to settle derivative instrument assets and liabilities with the same counterparty in a single transaction, instead of settling each derivative instrument separately. We have master netting agreements with all of our counterparties.

The fair value of derivative instruments on a gross basis is as follows (in millions):

	As of December 31, 2020		As of December 31, 2019	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Asset Derivatives Designated as Hedges				
Foreign exchange forward contracts	Other current assets	$12.2	Other current assets	$ 41.8
Foreign exchange forward contracts	Other assets	3.7	Other assets	9.8
Cross-currency interest rate swaps	Other assets	–	Other assets	60.5
Total asset derivatives designated as hedges		$15.9		$112.1
Asset Derivatives Not Designated as Hedges				
Foreign exchange forward contracts	Other current assets	$ 1.5	Other current assets	$ –
Total asset derivatives not designated as hedges		$ 1.5		$ –

	As of December 31, 2020		As of December 31, 2019	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Liability Derivatives Designated as Hedges				
Foreign exchange forward contracts	Other current liabilities	$ 37.4	Other current liabilities	$ 7.9
Cross-currency interest rate swaps	Other current liabilities	55.0	Other current liabilities	–
Foreign exchange forward contracts	Other long-term liabilities	26.5	Other long-term liabilities	5.2
Cross-currency interest rate swaps	Other long-term liabilities	28.3	Other long-term liabilities	–
Total liability derivatives designated as hedges		$147.2		$13.1
Liability Derivatives Not Designated as Hedges				
Foreign exchange forward contracts	Other current liabilities	$ 3.8	Other current liabilities	$ –
Total liability derivatives not designated as hedges		$ 3.8		$ –

The table below presents the effects of our master netting agreements on our consolidated balance sheets (in millions):

		As of December 31, 2020			As of December 31, 2019		
Description	Location	Gross Amount	Offset	Net Amount in Balance Sheet	Gross Amount	Offset	Net Amount in Balance Sheet
Asset Derivatives							
Cash flow hedges	Other current assets	$12.2	$11.7	$ 0.5	$41.8	$7.9	$33.9
Cash flow hedges	Other assets	3.7	3.7	–	9.8	4.6	5.2
Derivatives not designated as hedges	Other current assets	1.5	0.6	0.9	–	–	–
Liability Derivatives							
Cash flow hedges	Other current liabilities	37.4	11.7	25.7	7.9	7.9	–
Cash flow hedges	Other long-term liabilities	26.5	3.7	22.8	5.2	4.6	0.6
Derivatives not designated as hedges	Other current liabilities	3.8	0.6	3.2	–	–	–

The following net investment hedge gains (losses) were recognized on our consolidated statements of comprehensive income (loss) (in millions):

	Amount of Gain / (Loss) Recognized in AOCI		
	Years Ended December 31,		
Derivative Instrument	2020	2019	2018
Euro Notes	$(151.5)	$10.7	$ 57.6
Cross-currency interest rate swaps	(143.8)	47.9	62.8
	$(295.3)	$58.6	$120.4

16. Retirement Benefit Plans

We have defined benefit pension plans covering certain U.S. and Puerto Rico employees. Plan benefits are primarily based on years of credited service and the participant's average eligible compensation. The U.S. and Puerto Rico plans are frozen; meaning there are no new participants that can join the plan and participants in the plan do not accrue additional years of service or compensation. In addition to the U.S. and Puerto Rico defined benefit pension plans, we sponsor various foreign pension arrangements, including retirement and termination benefit plans required by local law or coordinated with government sponsored plans.

We use a December 31 measurement date for our benefit plans.

Defined Benefit Plans

The components of net pension expense for our defined benefit retirement plans were as follows (in millions):

	For the Years Ended December 31,					
	U.S. and Puerto Rico			Foreign		
	2020	2019	2018	2020	2019	2018
Service cost	$ 0.7	$ 7.1	$ 8.0	$ 24.7	$ 19.0	$ 20.0
Interest cost	13.9	16.2	14.2	5.4	9.0	8.1
Expected return on plan assets	(32.9)	(32.4)	(32.9)	(13.3)	(13.4)	(14.0)
Curtailment gain	–	(7.2)	–	–	–	–
Settlements	0.5	0.8	1.2	(0.5)	–	0.2
Amortization of prior service cost	0.3	(3.4)	(5.7)	(4.2)	(3.9)	(4.2)
Amortization of unrecognized actuarial loss	7.2	19.3	23.7	1.3	2.5	2.5
Net periodic benefit (income) expense	$(10.3)	$ 0.4	$ 8.5	$ 13.4	$ 13.2	$ 12.6

In our consolidated statements of earnings, service cost is reported in the same location as other compensation costs arising from services rendered by the pertinent employees while the other components of net pension expense are reported in other income (expense), net.

The weighted average actuarial assumptions used to determine net pension expense for our defined benefit retirement plans were as follows:

	For the Years Ended December 31,					
	U.S. and Puerto Rico			Foreign		
	2020	2019	2018	2020	2019	2018
Discount rate	3.40%	4.38%	3.79%	0.73%	1.44%	1.18%
Rate of compensation increase	–	3.29%	3.29%	2.28%	2.50%	2.09%
Expected long-term rate of return on plan assets	7.75%	7.75%	7.75%	2.17%	2.14%	2.19%

The expected long-term rate of return on plan assets is based on the historical and estimated future rates of return on the different asset classes held in the plans. The expected long-term rate of return is the weighted average of the target asset allocation of each individual asset class. We believe that historical asset results approximate expected market returns applicable to the funding of a long-term benefit obligation.

Discount rates were determined for each of our defined benefit retirement plans at their measurement date to reflect the yield of a portfolio of high quality bonds matched against the timing and amounts of projected future benefit payments.

Changes in projected benefit obligations and plan assets were (in millions):

	For the Years Ended December 31,			
	U.S. and Puerto Rico		Foreign	
	2020	2019	2020	2019
Projected benefit obligation - beginning of year	$472.0	$396.0	$740.4	$631.1
Service cost	0.7	7.1	24.7	19.0
Interest cost	13.9	16.2	5.4	9.0
Plan amendments	–	3.6	0.2	–
Employee contributions	–	–	22.1	20.6
Benefits paid	(24.0)	(16.9)	(39.8)	(36.5)
Actuarial loss	55.6	68.2	12.5	77.8
Expenses paid	–	–	(0.3)	(0.3)
Settlement	(1.3)	(2.2)	(4.5)	–
Translation loss	–	–	58.6	19.7
Projected benefit obligation – end of year	$516.9	$472.0	$819.3	$740.4

	For the Years Ended December 31,			
	U.S. and Puerto Rico		Foreign	
	2020	2019	2020	2019
Plan assets at fair market value - beginning of year	$444.9	$388.5	$665.2	$585.8
Actual return on plan assets	51.4	73.5	40.0	57.8
Employer contributions	3.1	2.0	21.2	20.1
Employee contributions	–	–	22.1	20.6
Settlements	(1.3)	(2.2)	(4.5)	–
Benefits paid	(24.0)	(16.9)	(39.8)	(36.5)
Expenses paid	–	–	(0.3)	(0.3)
Translation gain	–	–	52.8	17.7
Plan assets at fair market value – end of year	$474.1	$444.9	$756.7	$665.2
Funded status	$(42.8)	$(27.1)	$(62.6)	$(75.2)

	For the Years Ended December 31,			
	U.S. and Puerto Rico		Foreign	
	2020	2019	2020	2019
Amounts recognized in consolidated balance sheet:				
Prepaid pension	$ –	$ –	$ 20.4	$ 17.6
Short-term accrued benefit liability	(0.1)	(0.2)	(1.3)	(1.1)
Long-term accrued benefit liability	(42.7)	(26.9)	(81.7)	(91.7)
Net amount recognized	$(42.8)	$(27.1)	$(62.6)	$(75.2)

The weighted average actuarial assumptions used to determine the projected benefit obligation for our defined benefit retirement plans were as follows:

	For the Years Ended December 31,					
	U.S. and Puerto Rico			Foreign		
	2020	2019	2018	2020	2019	2018
Discount rate	2.70%	3.40%	4.38%	0.61%	0.74%	1.41%
Rate of compensation increase	–	3.29%	3.29%	2.36%	2.45%	2.13%

Plans with projected benefit obligations in excess of plan assets were as follows (in millions):

	As of December 31,			
	U.S. and Puerto Rico		Foreign	
	2020	2019	2020	2019
Projected benefit obligation	$516.9	$472.0	$778.4	$698.2
Plan assets at fair market value	474.1	444.9	709.5	619.1

Total accumulated benefit obligations and plans with accumulated benefit obligations in excess of plan assets were as follows (in millions):

	As of December 31,			
	U.S. and Puerto Rico		Foreign	
	2020	2019	2020	2019
Total accumulated benefit obligations	$516.9	$472.0	$801.3	$721.5
Plans with accumulated benefit obligations in excess of plan assets:				
Accumulated benefit obligation	516.9	472.0	560.9	674.0
Plan assets at fair market value	474.1	444.9	508.6	612.9

The benefits expected to be paid out in each of the next five years and for the five years combined thereafter are as follows (in millions):

For the Years Ending December 31,	U.S. and Puerto Rico	Foreign
2021	$ 22.2	$ 32.6
2022	23.1	32.9
2023	24.1	32.9
2024	24.4	32.9
2025	25.4	34.8
2026-2030	130.5	174.5

The U.S. and Puerto Rico defined benefit retirement plans' overall investment strategy is to balance total returns by emphasizing long-term growth of capital while mitigating risk. We have established target ranges of assets held by the plans of 30 to 65 percent for equity securities, 30 to 50 percent for debt securities and 0 to 15 percent in non-traditional investments. The plans strive to have sufficiently diversified assets so that adverse or unexpected results from one asset class will not have an unduly detrimental impact on the entire portfolio. We regularly review the investments in the plans and we may rebalance them from time-to-time based upon the target asset allocation of the plans.

For the U.S. and Puerto Rico plans, we maintain an investment policy statement that guides the investment allocation in the plans. The investment policy statement describes the target asset allocation positions described above. Our benefits committee, along with our investment advisor, monitor compliance with and administer the investment policy statement and the plans' assets and oversee the general investment strategy and objectives of the plans. Our benefits committee generally meets quarterly to review performance.

The investment strategies of foreign based plans vary according to the plan provisions and local laws. The majority of the assets in foreign based plans are located in Switzerland-based plans. These assets are held in trusts and are commingled with the assets of other Swiss companies with representatives of all the companies making the investment decisions. The overall strategy is to maximize total returns while avoiding risk. The trustees of the assets have established target ranges of assets held by the plans of 30 to 50 percent in debt securities, 20 to 37 percent in equity securities, 15 to 24 percent in real estate, 3 to 15 percent in cash funds and 0 to 12 percent in other funds.

The fair value of our U.S. and Puerto Rico pension plan assets by asset category was as follows (in millions):

	As of December 31, 2020			
		Fair Value Measurements at Reporting Date Using:		
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	$ 7.3	$7.3	$ –	$ –
Equity securities	304.1	–	304.1	–
Intermediate fixed income securities	162.7	–	162.7	–
Total	$474.1	$7.3	$466.8	$ –

	As of December 31, 2019			
		Fair Value Measurements at Reporting Date Using:		
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	$ 4.7	$4.7	$ –	$ –
Equity securities	282.5	–	282.5	–
Intermediate fixed income securities	157.7	–	157.7	–
Total	$444.9	$4.7	$440.2	$ –

The fair value of our foreign pension plan assets was as follows (in millions):

	As of December 31, 2020			
		Fair Value Measurements at Reporting Date Using:		
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	$ 42.7	$ 42.7	$ –	$ –
Equity securities	163.9	126.8	37.1	–
Fixed income securities	262.5	–	262.5	–
Other types of investments	142.3	–	142.3	–
Real estate	145.3	–	–	145.3
Total	$756.7	$169.5	$441.9	$145.3

	As of December 31, 2019			
		Fair Value Measurements at Reporting Date Using:		
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents	$ 31.8	$ 31.8	$ –	$ –
Equity securities	140.9	116.0	24.9	–
Fixed income securities	245.2	–	245.2	–
Other types of investments	123.6	–	123.6	–
Real estate	123.7	–	–	123.7
Total	$665.2	$147.8	$393.7	$123.7

As of December 31, 2020 and 2019, our defined benefit pension plans' assets did not hold any direct investment in Zimmer Biomet Holdings common stock.

Equity securities are valued using a market approach, based on quoted prices for the specific security from transactions in active exchange markets (Level 1), or in some cases where we are invested in mutual or collective funds, based upon the net asset value per unit of the fund which is determined from quoted market prices of the underlying securities in the fund's portfolio (Level 2). Fixed income securities are valued using a market approach, based upon quoted prices for the specific security or from institutional bid evaluations. Real estate is valued by discounting to present value the cash flows expected to be generated by the specific properties.

The following table provides a reconciliation of the beginning and ending balances of our foreign pension plan assets measured at fair value that used significant unobservable inputs (Level 3) (in millions):

	December 31, 2020
Beginning Balance	$123.7
Gain on assets sold	0.3
Change in fair value of assets	0.7
Net purchases and sales	8.2
Translation gain	12.4
Ending Balance	$145.3

We expect that we will have minimal legally required funding requirements in 2021 for the qualified U.S. and Puerto Rico defined benefit retirement plans, and we do not expect to voluntarily contribute to these plans during 2021. Contributions to foreign defined benefit plans are estimated to be $21.0 million in 2021. We do not expect the assets in any of our plans to be returned to us in the next year.

Defined Contribution Plans

We also sponsor defined contribution plans for substantially all of the U.S. and Puerto Rico employees and certain employees in other countries.

The benefits offered under these plans are reflective of local customs and practices in the countries concerned. We expensed $49.6 million, $52.6 million and $48.9 million related to these plans for the years ended December 31, 2020, 2019 and 2018, respectively.

17. Income Taxes

A public referendum held in Switzerland passed the Federal Act on Tax Reform and AHV Financing ("TRAF"), effective January 1, 2020, and includes the abolishment of various favorable federal and cantonal tax regimes. The TRAF provides transitional relief measures for companies that are losing the tax benefit of a ruling, including a "step-up" for amortizable goodwill, equal to the amount of future tax benefit they would have received under their existing ruling, subject to certain limitations. Certain provisions of TRAF were enacted in the third quarter of 2019, resulting in us recognizing a provisional net tax benefit of $263.8 million. In the fourth quarter of 2019 and third quarter of 2020, we recognized an additional $51.2 million and $6.5 million tax benefit, respectively, related to TRAF as well as the tax impact of certain restructuring transactions in Switzerland. We received notification from the Swiss authorities in October 2020 regarding our TRAF ruling and recorded a net tax benefit of $36.5 million in the fourth quarter of 2020 based on this notification, for an overall benefit of $358.0 million.

The components of earnings (loss) before income taxes consisted of the following (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
United States operations	$(592.9)	$ (125.9)	$(382.8)
Foreign operations	318.5	1,031.7	111.7
Total	$(274.4)	$ 905.8	$(271.1)

The (benefit)/provision for income taxes and the income taxes paid consisted of the following (in millions):

Current:			
Federal	$ (96.1)	$ 65.5	$(46.2)
State	4.6	9.8	24.4
Foreign	(57.5)	237.7	116.6
	(149.0)	313.0	94.8
Deferred:			
Federal	(24.2)	(90.2)	37.9
State	(11.5)	(4.2)	(8.8)
Foreign	47.7	(444.3)	(15.7)
	12.0	(538.7)	13.4
(Benefit) provision for income taxes	$(137.0)	$(225.7)	$108.2
Net income taxes paid	$ 147.4	$ 192.5	$237.1

A reconciliation of the U.S. statutory income tax rate to our effective tax rate is as follows:

	For the Years Ended December 31,		
	2020	2019	2018
U.S. statutory income tax rate	21.0%	21.0%	21.0%
State taxes, net of federal deduction	2.4	0.8	(2.5)
Tax impact of foreign operations, including U.S. taxes on international income and foreign tax credits	14.9	(10.2)	54.3
Change in valuation allowance	1.5	1.5	(4.9)
Non-deductible expenses	(2.0)	0.4	1.7
Goodwill impairment	(46.1)	–	(75.2)
Tax rate change	3.8	0.6	(12.2)
Tax benefit relating to foreign derived intangible income and U.S. manufacturer's deduction	5.8	(4.5)	(0.2)
R&D tax credit	2.1	(1.2)	6.0
Share-based compensation	0.1	(0.4)	0.1
Net uncertain tax positions, including interest and penalties	31.4	1.9	(25.5)
U.S. tax reform	–	0.1	(3.1)
Switzerland tax reform and certain restructuring transactions	15.7	(34.8)	–
Other	(0.7)	(0.1)	0.6
Effective income tax rate	49.9%	(24.9)%	(39.9)%

Our operations in Puerto Rico benefit from various tax incentive grants. These grants expire between fiscal years 2026 and 2029.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Valuation allowances are recorded to reduce deferred income tax assets when it is more likely than not that an income tax benefit will not be realized. We reclassified certain prior period amounts to conform to the current period presentation.

The components of deferred taxes consisted of the following (in millions):

	As of December 31,	
	2020	2019
Deferred tax assets:		
Inventory	$ 297.2	$ 295.6
Net operating loss carryover	511.2	514.4
Tax credit carryover	55.1	33.8
Capital loss carryover	9.0	8.3
Product liability and litigation	53.9	40.4
Accrued liabilities	86.1	101.6
Share-based compensation	30.4	28.6
Accounts receivable	19.0	24.6
Foreign currency hedges	69.0	–
Other	19.2	16.8
Total deferred tax assets	1,150.1	1,064.1
Less: Valuation allowances	(542.1)	(546.1)
Total deferred tax assets after valuation allowances	608.0	518.0
Deferred tax liabilities:		
Fixed assets	$ 119.2	$ 77.6
Intangible assets	787.6	772.3
Foreign currency hedges	–	13.8
Other	39.8	23.0
Total deferred tax liabilities	946.6	886.7
Total net deferred income taxes	$(338.6)	$(368.7)

Net operating loss carryovers are available to reduce future federal, state and foreign taxable earnings. At December 31, 2020, $388.2 million of these net operating loss carryovers expire within a period of 1 to 20 years and $123.0 million of these net operating loss carryovers have an indefinite life. Valuation allowances for net operating loss carryovers have been established in the amount of $479.2 million and $493.4 million at December 31, 2020 and 2019, respectively.

Deferred tax assets related to tax credit carryovers are available to offset future federal and state tax liabilities. At December 31, 2020, $55.1 million of these tax credit carryovers expire within a period of 1 to 15 years. Valuation allowances for certain tax credit carryovers have been established in the amount of $42.6 million and $32.3 million at December 31, 2020 and 2019, respectively.

Deferred tax assets related to capital loss carryovers are also available to reduce future federal and foreign capital gains. At December 31, 2020, $2.2 million of these capital loss carryovers expire within a period of 1 year to 4 years and $6.8 million of these capital loss carryovers have an indefinite life. Valuation allowances for certain capital loss carryovers have been established in the amount of $9.0 million and $8.3 million at December 31, 2020 and 2019, respectively. The remaining valuation allowances booked against deferred tax assets of $11.3 million and $12.1 million at December 31, 2020 and 2019, respectively, relate primarily to accrued liabilities and intangible assets that management believes, more likely than not, will not be realized.

We intend to repatriate at least $5.5 billion of unremitted earnings, of which the additional tax related to remitting earnings is deemed immaterial as a portion of these earnings has already been taxed as toll tax or GILTI and is not subject to further U.S. federal tax. Portions of the additional tax would also be offset by allowable foreign tax credits. Of the $5.5 billion amount, we have an estimated $4.5 billion of cash and intercompany notes available to repatriate and the remainder is invested in the operations of our foreign entities. The remaining amounts earned overseas are expected to be permanently reinvested outside of the United States. If the Company decides at a later date to repatriate these earnings to the U.S., the Company would be required to provide for the net tax effects on these amounts. The Company estimates that the total tax effect of this repatriation would not be significant under current enacted tax laws and regulations and at current currency exchange rates.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Balance at January 1	$ 741.8	$685.5	$626.8
Increases related to business combinations	–	–	4.5
Increases related to prior periods	75.3	24.7	34.6
Decreases related to prior periods	(158.3)	(35.6)	(14.4)
Increases related to current period	3.4	133.2	41.9
Decreases related to settlements with taxing authorities	(14.6)	(60.2)	(3.8)
Decreases related to lapse of statute of limitations	(28.2)	(5.8)	(4.1)
Balance at December 31	$ 619.4	$741.8	$685.5
Amounts impacting effective tax rate, if recognized balance at December 31	$ 473.9	$599.2	$549.1

We recognize accrued interest and penalties related to unrecognized tax benefits as income tax expense. During 2020, we released interest and penalties of $1.7 million, and as of December 31, 2020, had a recognized liability for interest and penalties of $107.5 million, which does not include any increase related to business combinations.

During 2019, we accrued interest and penalties of $15.0 million, and as of December 31, 2019, had a recognized liability for interest and penalties of $109.2 million, which does not include any increase related to business combinations. During 2018, we accrued interest and penalties of $18.5 million, and as of December 31, 2018, had a recognized liability for interest and penalties of $94.2 million, which does not include any increase related to business combinations.

We operate on a global basis and are subject to numerous and complex tax laws and regulations. Additionally, tax laws have and continue to undergo rapid changes in both application and interpretation by various countries, including state aid interpretations and the Organization for Economic Cooperation and Development led initiatives. Our income tax filings are subject to examinations by taxing authorities throughout the world. Income tax audits may require an extended period of time to reach resolution and may result in significant income tax adjustments when interpretation of tax laws or allocation of company profits is disputed. Although ultimate timing is uncertain, the net amount of tax liability for unrecognized tax benefits may change within the next twelve months due to changes in audit status, expiration of statutes of limitations, settlements of tax assessments and other events. Management's best estimate of such change is within the range of a $260 million decrease to a $20 million increase.

We are under continuous audit by the Internal Revenue Service ("IRS") and other taxing authorities. During the course of these audits, we receive proposed adjustments from taxing authorities that may be material. Therefore, there is a possibility that an adverse outcome in these audits could have a material effect on our results of operations and financial condition. Our U.S. Federal income tax returns have been audited through 2012 and are currently under audit for years 2013-2015 and 2016-2019. The IRS started a routine examination of our 2016-2019 U.S. Federal income tax returns in November 2020.

In October 2020, we reached agreement with the IRS for tax years 2006-2012 related to the reallocation of profits between the U.S. and Puerto Rico as well as other miscellaneous adjustments.

The IRS has proposed adjustments for tax years 2010-2012, primarily related to reallocating profits between certain of our U.S. and foreign subsidiaries, which remain unsettled. We have disputed these adjustments and intend to continue to vigorously defend our positions as we pursue resolution through the administrative process with the IRS Independent Office of Appeals.

In December 2020, we received a revised Notice of Proposed Adjustment ("NOPA") from the IRS for 2013-2015 relating to transfer pricing involving our cost sharing agreement between the U.S. and Switzerland affiliated companies and reallocating profits between certain of our U.S. and foreign subsidiaries. The revised NOPA related to the cost sharing agreement proposes an increase to our U.S. Federal taxable income, which would result in additional tax expense related to 2013 of approximately $370 million, subject to interest and penalties. We strongly believe that the position of the IRS, with regard to this matter, is inconsistent with the applicable U.S. Treasury regulations governing our cost sharing agreement. We do not expect changes to our reserves relative to these matters within the next twelve months. We intend to vigorously contest the revised NOPA, and we will pursue all available administrative and, if necessary, judicial remedies. If we pursue judicial remedies in the U.S. Tax Court for years 2013-2015, a number of years will likely elapse before such matters are finally resolved. No payment of any amount related to the revised NOPA is required to be made, if at all, until all applicable proceedings have been completed. We believe the tax liability we have accrued is correct given the revised NOPA received.

State income tax returns are generally subject to examination for a period of 3 to 5 years after filing of the respective return. The state impact of any federal changes generally remains subject to examination by various states for a period of up to one year after formal notification to the states. We have various state income tax return positions in the process of examination, administrative appeals or litigation.

In other major jurisdictions, open years are generally 2012 or later.

18. Capital Stock and Earnings per Share

We are authorized to issue 250.0 million shares of preferred stock, none of which were issued or outstanding as of December 31, 2020.

The numerator for both basic and diluted earnings per share is net earnings available to common stockholders. The denominator for basic earnings per share is the weighted average number of common shares outstanding during the period. The denominator for diluted earnings per share is weighted average shares outstanding adjusted for the effect of dilutive stock options and other equity awards. The following is a reconciliation of weighted average shares for the basic and diluted share computations (in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Weighted average shares outstanding for basic net earnings per share	207.0	205.1	203.5
Effect of dilutive stock options and other equity awards	–	1.6	–
Weighted average shares outstanding for diluted net earnings per share	207.0	206.7	203.5

Since we incurred a net loss in the years ended December 31, 2020 and 2018, no dilutive stock options or other equity awards were included as diluted shares. For the year ended December 31, 2019, an average of 0.9 million options to purchase shares of common stock were not included in the computation of diluted earnings per share as the exercise prices of these options were greater than the average market price of the common stock.

19. Segment Data

We design, manufacture and market orthopedic reconstructive products; sports medicine, biologics, extremities and trauma products; spine, craniomaxillofacial and thoracic products ("CMFT"); office based technologies; dental implants; and related surgical products. Due to the 2019 Restructuring Plan that was initiated in late 2019, our operating segments have changed beginning in the first quarter of 2020. Our chief operating decision maker ("CODM") now allocates resources to achieve our operating profit goals through three operating segments. These operating segments, which also constitute our reportable segments, are Americas and Global Businesses; EMEA; and Asia Pacific. Previously, we had seven operating segments, which resulted in three reportable segments and four individually insignificant operating segments that were aggregated together and not considered a reportable segment.

Our CODM evaluates performance based upon segment operating profit exclusive of operating expenses pertaining to certain inventory and manufacturing-related charges, intangible asset amortization, goodwill and intangible asset impairment, restructuring and other cost reduction initiatives, quality remediation, acquisition, integration and related, litigation, litigation settlement gain, certain European Union Medical Device Regulation expenses, other charges and corporate functions. Corporate functions include corporate legal, finance, information technology, human resources and other corporate departments as well as stock-based compensation. Intercompany transactions have been eliminated from segment operating profit.

Our Americas and Global Businesses operating segment is comprised principally of the U.S. and includes other North, Central and South American markets for all of our product categories as well as the global results for our Dental products division. This segment also includes our global manufacturing operations for all product categories and research, development engineering, medical education, and brand management for our global product category headquarter locations. Our EMEA operating segment is comprised principally of Europe and includes the Middle East and African markets for all product categories except Dental. Our Asia Pacific operating segment is comprised principally of Japan, China and Australia and includes other Asian and Pacific markets for all product categories except Dental. The EMEA and Asia Pacific operating segments include the commercial operations as well as regional headquarter expenses to operate in those markets.

Since the Americas and Global Businesses includes additional costs related to global manufacturing operations and other centralized global product category headquarter expenses, profitability metrics in this operating segment are not comparable to the EMEA and Asia Pacific operating segments.

Our CODM does not review asset information by operating segment. Instead, our CODM reviews cash flow and other financial ratios by operating segment.

Prior period reportable segment financial information has been reclassified to conform to our new reportable segments.

Net sales and other information by segment is as follows (in millions):

	Net Sales			Operating (Loss) Profit			Depreciation and Amortization		
	Year Ended December 31,			Year Ended December 31,			Year Ended December 31,		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Americas and Global Businesses	$4,479.0	$5,035.3	$5,000.4	$1,316.9	$1,689.7	$1,706.9	$ 168.1	$ 162.0	$ 175.0
EMEA	1,288.6	1,623.1	1,669.5	308.9	484.0	480.7	77.5	77.0	75.5
Asia Pacific	1,256.9	1,323.8	1,263.0	420.5	472.7	431.9	71.3	65.3	66.8
Total	$7,024.5	$7,982.2	$7,932.9						
Corporate Functions				(437.2)	(457.9)	(409.2)	118.2	117.5	127.3
Inventory and manufacturing-related charges				(54.2)	(53.9)	(32.5)	–	–	–
Intangible asset amortization				(597.6)	(584.3)	(595.9)	597.6	584.3	595.9
Goodwill and intangible asset impairment				(645.0)	(70.1)	(979.7)	–	–	–
Restructuring and other cost reduction initiatives				(116.9)	(50.0)	(34.2)	–	–	–
Quality remediation				(49.8)	(87.6)	(165.4)	–	–	–
Acquisition, integration and related				(23.8)	(12.2)	(99.5)	–	–	–
Litigation				(159.8)	(65.0)	(186.0)	–	–	–
Litigation settlement gain				–	23.5	–	–	–	–
European Union Medical Device Regulation				(25.3)	(30.9)	(3.7)	–	–	–
Other charges				(24.5)	(120.5)	(79.6)	–	–	–
Total				$ (87.8)	$1,137.5	$ 33.8	$1,032.7	$1,006.1	$1,040.5

We conduct business in the following countries that hold 10 percent or more of our total consolidated Property, plant and equipment, net (in millions):

	As of December 31,	
	2020	2019
United States	$1,252.6	$1,295.0
Other countries	795.1	782.4
Property, plant and equipment, net	$2,047.7	$2,077.4

U.S. sales were $4,123.5 million, $4,592.1 million, and $4,560.0 million for the years ended December 31, 2020, 2019 and 2018, respectively. Sales within any other individual country were less than 10 percent of our consolidated sales in each of those years. Sales are attributable to a country based upon the customer's country of domicile.

20. Leases

We own most of our manufacturing facilities, but lease various office space, vehicles and other less significant assets throughout the world. Our contracts contain a lease if they convey a right to control the use of an identified asset, either explicitly or implicitly, in exchange for consideration. As allowed by GAAP, we have elected not to recognize a right-of-use asset nor a lease liability for leases with an initial term of twelve months or less. Additionally, we have elected not to separate non-lease components from the leased components in the valuation of our right-of-use asset and lease liability for all asset classes. Our lease contracts are a necessary part of our business, but we do not believe they are significant to our overall operations. We do not have any significant finance leases. Additionally, we do not have significant leases: where we are considered a lessor; where we sublease our assets; with an initial term of twelve months or less; with related parties; with residual value guarantees; that impose restrictions or covenants on us; or that have not yet commenced, but create significant rights and obligations against us.

Our real estate leases generally have terms of between 5 to 10 years and contain lease extension options that can vary from month-to-month extensions to up to 5 year extensions. We include extension options in our lease term if we are reasonably certain to exercise that option. In determining whether an extension is reasonably certain, we consider the uniqueness of the property for our needs, the availability of similar properties, whether the extension period payments remain the same or may change due to market rates or fixed price increases in the contract, and other economic factors. Our vehicle leases generally have terms of between 3 to 5 years and contain lease extension options on a month-to-month basis. Our vehicle leases are generally not reasonably certain to be extended.

Under GAAP, we are required to discount our lease liabilities to present value using the rate implicit in the lease, or our incremental borrowing rate for a similar term as the lease term if the implicit rate is not readily available. We generally do not have adequate information to know the implicit rate in a lease and therefore use our incremental borrowing rate. Under GAAP, the incremental borrowing rate must be on a collateralized basis, but our debt arrangements are unsecured. We have determined our incremental borrowing rate by using our credit rating to estimate our unsecured borrowing rate and applying reasonable assumptions to reduce the unsecured rate for a risk adjustment effect from collateral.

We adopted ASU 2016-02 – Leases (Topic 842) effective January 1, 2019. Since we adopted the new standard using the period of adoption transition method, we are not required to present 2018 comparative disclosures under the new standard. However, we are required to present the required annual disclosures under the previous GAAP lease accounting standard.

Information on our leases is as follows ($ in millions):

	For the Years Ended December 31,		
	2020	2019	2018
Lease cost	$83.7	$76.0	$72.2
Cash paid for leases recognized in operating cash flows	$81.4	$73.6	
Right-of-use assets obtained in exchange for new lease liabilities	$83.5	$55.0	

	As of December 31,	
	2020	2019
Right-of-use assets recognized in Other assets	$ 274.5	$ 266.7
Lease liabilities recognized in Other current liabilities	$ 75.0	$ 64.2
Lease liabilities recognized in Other long-term liabilities	$ 217.8	$ 215.5
Weighted-average remaining lease term	5.8 years	6.3 years
Weighted-average discount rate	2.3%	2.7%

Our variable lease costs are not significant.

Our future minimum lease payments as of December 31, 2020 were (in millions):

For the Years Ending December 31,	
2021	$ 80.2
2022	59.1
2023	45.9
2024	37.0
2025	28.0
Thereafter	63.7
Total	313.9
Less imputed interest	21.1
Total	$292.8

21. Commitments and Contingencies

On a quarterly and annual basis, we review relevant information with respect to loss contingencies and update our accruals, disclosures and estimates of reasonably possible losses or ranges of loss based on such reviews. We establish liabilities for loss contingencies when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. For matters where a loss is believed to be reasonably possible, but not probable, no accrual has been made.

Litigation

Durom Cup-related claims: On July 22, 2008, we temporarily suspended marketing and distribution of the Durom Cup in the U.S. Subsequently, a number of product liability lawsuits were filed against us in various U.S. and foreign jurisdictions. The plaintiffs seek damages for personal injury, and they generally allege that the Durom Cup contains defects that result in complications and premature revision of the device. We have settled the majority of these claims and others are still pending. The majority of the pending U.S. lawsuits are currently in a federal Multidistrict Litigation ("MDL") in the District of New Jersey (*In Re: Zimmer Durom Hip Cup Products Liability Litigation*). Litigation activity in the MDL is stayed pending finalization of the U.S. Durom Cup Settlement Program, an extrajudicial program created to resolve actions and claims of eligible U.S. plaintiffs and claimants. Other lawsuits are pending in various domestic and foreign jurisdictions, and additional claims may be asserted in the future. The majority of claims outside the U.S. are pending in Germany, Netherlands and Italy.

Our estimate as of December 31, 2020 of the remaining liability for all Durom Cup-related claims, including estimated legal fees, is $51.2 million. We expect to pay the majority of the Durom Cup-related claims within the next few years.

Our understanding of clinical outcomes with the Durom Cup and other large diameter hip cups continues to evolve. We rely on significant estimates in determining the provisions for Durom Cup-related claims, including our estimate of the number of claims that we will receive and the average amount we will pay per claim. The actual number of claims and the actual amount we pay per claim may differ from our estimates. Among other factors, since our understanding of the clinical outcomes is still evolving, we cannot reasonably estimate the possible loss or range of loss that may result from Durom Cup-related claims in excess of the losses we have accrued. Although we are vigorously defending these lawsuits, their ultimate resolution is uncertain.

Zimmer M/L Taper, M/L Taper with Kinectiv Technology, and Versys Femoral Head-related claims ("Metal Reaction" claims): We are a defendant in a number of product liability lawsuits relating to our M/L Taper and M/L Taper with Kinectiv Technology hip stems, and Versys Femoral Head implants. The plaintiffs seek damages for personal injury, alleging that defects in the products lead to corrosion at the head/stem junction resulting in, among other things, pain, inflammation and revision surgery.

The majority of the cases are consolidated in an MDL that was created on October 3, 2018 in the U.S. District Court for the Southern District of New York (*In Re: Zimmer M/L Taper Hip Prosthesis or M/L Taper Hip Prosthesis with Kinectiv Technology and Versys Femoral Head Products Liability Litigation*). Other related cases are pending in various state and federal courts. Additional lawsuits are likely to be filed. Following higher than expected filings and an extension of the MDL schedule given the COVID-19 pandemic, we

increased our estimate of the number of Metal Reaction-related claims that we expect to litigate in the future, resulting in additional litigation-related expense in the year ended December 31, 2020. Our estimate as of December 31, 2020 of the remaining liability for all Metal Reaction-related claims, including our estimated legal fees, is $55.7 million. Although we are vigorously defending these lawsuits, their ultimate resolution is uncertain.

Biomet metal-on-metal hip implant claims: Biomet is a defendant in a number of product liability lawsuits relating to metal-on-metal hip implants, most of which involve the M2a-Magnum hip system. Cases are currently consolidated in an MDL in the U.S. District Court for the Northern District of Indiana *(In Re: Biomet M2a Magnum Hip Implant Product Liability Litigation)* and in various state, federal and foreign courts, with the majority of domestic state court cases pending in Indiana and Florida.

On February 3, 2014, Biomet announced the settlement of the MDL. Lawsuits filed in the MDL by April 15, 2014 were eligible to participate in the settlement. Those claims that did not settle via the MDL settlement program have re-commenced litigation in the MDL under a new case management plan, or have been or are in the process of being remanded to their originating jurisdictions. The settlement does not affect certain other claims relating to Biomet's metal-on-metal hip products that are pending in various state and foreign courts, or other claims that may be filed in the future. Trials have commenced, and other trials are currently scheduled to occur in the future. Although each trial will be tried on its particular facts, a verdict and subsequent final judgment for the plaintiff in one or more of these cases could have a substantial impact on our potential liability. We continue to refine our estimates of the potential liability to resolve the remaining claims and lawsuits and recognized additional litigation-related expense in the year ended December 31, 2020. Our estimate as of December 31, 2020 of the remaining liability for all Biomet metal-on-metal hip implant claims, including estimated legal fees, is $99.0 million. Although we are vigorously defending these lawsuits, their ultimate resolution is uncertain.

Heraeus trade secret misappropriation lawsuits: In December 2008, Heraeus Kulzer GmbH (together with its affiliates, "Heraeus") initiated legal proceedings in Germany against Biomet, Inc., Biomet Europe BV (now Zimmer Biomet Nederland BV), certain other entities and certain employees alleging that the defendants misappropriated Heraeus trade secrets when developing Biomet Europe's Refobacin and Biomet Bone Cement line of cements ("European Cements"). The lawsuit sought to preclude the defendants from producing, marketing and offering for sale their then-current line of European Cements and to compensate Heraeus for any damages incurred.

Germany: On June 5, 2014, the German appeals court in Frankfurt (i) enjoined Biomet, Inc., Biomet Europe BV and Biomet Deutschland GmbH from manufacturing, selling or offering the European Cements to the extent they contain certain raw materials in particular specifications; (ii) held the defendants jointly and severally liable to Heraeus for any damages from the sale of European Cements since 2005; and (iii) ruled that no further review may be sought (the "Frankfurt Decision"). The Heraeus and Biomet parties both sought appeal against the Frankfurt Decision. In a decision dated June 16, 2016, the German Supreme Court dismissed the parties' appeals without reaching the merits, rendering that decision final

In December 2016, Heraeus filed papers to restart proceedings against Biomet Orthopaedics Switzerland GmbH (now Zimmer GmbH), seeking to require that entity to relinquish its CE certificates for the European Cements. In January 2017, Heraeus notified Biomet it had filed a claim for damages in the amount of €121.9 million for sales in Germany, which it first increased to €125.9 million and with a filing in June 2019 further increased to €146.7 million plus statutory interest. In a court filing, Heraeus indicated that it might further increase its claims in the course of the proceedings. As of December 31, 2020, these two proceedings remained pending in front of the Darmstadt court. In September 2017, Heraeus filed an enforcement action in the Darmstadt court against Biomet Europe, requesting that a fine be imposed against Biomet Europe for failure to disclose the amount of the European Cements which Biomet Orthopaedics Switzerland had ordered to be manufactured in Germany (e.g., for the Chinese market). In June 2018, the Darmstadt court dismissed Heraeus' request. Heraeus appealed the decision. Also in September 2017, Heraeus filed suit against Zimmer Biomet Deutschland in the court of first instance in Freiburg concerning the sale of the European Cements with certain changed raw materials. Heraeus sought an injunction on the basis that the continued use of the product names for the European Cements was misleading for customers and thus an act of unfair competition. On June 29, 2018, the court in Freiburg, Germany dismissed Heraeus' request for an injunction prohibiting the marketing of the European Cements under their current names on the grounds that the same request had already been decided upon by the Frankfurt Decision which became final and binding. Heraeus appealed this decision to the Court of Appeals in Karlsruhe, Germany. The appeals hearing occurred in December 2019 and on June 19, 2020, the court dismissed the appeal on different grounds, namely that the appeals court did not find any unfair competition in the continued use of the product names. Although the appeals court did not grant leave to appeal, Heraeus had initially filed a request for appeal with the German Supreme Court, but it withdrew that request in November 2020.

United States: On September 8, 2014, Heraeus filed a complaint against a Biomet supplier, Esschem, Inc. ("Esschem"), in the U.S. District Court for the Eastern District of Pennsylvania. The lawsuit contained allegations that focused on two copolymer compounds that Esschem sold to Biomet, which Biomet incorporated into certain bone cement products that compete with Heraeus' bone cement products. The complaint alleged that Biomet helped Esschem to develop

these copolymers, using Heraeus trade secrets that Biomet allegedly misappropriated. The complaint asserted a claim under the Pennsylvania Uniform Trade Secrets Act, as well as other various common law tort claims, all based upon the same trade secret misappropriation theory. Heraeus sought to enjoin Esschem from supplying the copolymers to any third party and actual damages. The complaint also sought punitive damages, costs and attorneys' fees. Although Biomet was not a party to this lawsuit, Biomet agreed, at Esschem's request and subject to certain limitations, to indemnify Esschem for any liability, damages and legal costs related to this matter. On November 3, 2014, the court entered an order denying Heraeus' motion for a temporary restraining order. On June 30, 2016, the court entered an order denying Heraeus' request to give preclusive effect to the factual findings in the Frankfurt Decision. On June 6, 2017, the court entered an order denying Heraeus' motion to add Biomet as a party to the lawsuit. On January 26, 2018, the court entered an order granting Esschem's motion for summary judgment and dismissed all of Heraeus' claims with prejudice. On February 21, 2018, Heraeus filed a notice of appeal to the U.S. Court of Appeals for the Third Circuit, which heard oral argument on the appeal on October 23, 2018. On June 21, 2019, the Third Circuit partially reversed the decision of the U.S. District Court for the Eastern District of Pennsylvania granting Esschem summary judgment and remanded the case back to the lower court. On July 5, 2019, Esschem filed a petition in the Third Circuit for rehearing *en banc* and a motion in the alternative to certify a question of state law to the Supreme Court of Pennsylvania, which was denied on August 1, 2019. On January 8, 2021, the court entered a scheduling order for the completion of fact and expert discovery and filing of dispositive motions but did not set a trial date.

On December 7, 2017, Heraeus filed a complaint against Zimmer Biomet Holdings, Inc. and Biomet, Inc. in the U.S. District Court for the Eastern District of Pennsylvania alleging a single claim of trade secret misappropriation under the Pennsylvania Uniform Trade Secrets Act based on the same factual allegations as the Esschem litigation. On March 5, 2018, Heraeus filed an amended complaint adding a second claim of trade secret misappropriation under Pennsylvania common law. Heraeus seeks to enjoin the Zimmer Biomet parties from future use of the allegedly misappropriated trade secrets and recovery of unspecified damages for alleged past use. On April 18, 2018, the Zimmer Biomet parties filed a motion to dismiss both claims. On March 8, 2019, the court stayed the case pending the Third Circuit's decision in the Esschem case described above. In September 2019, the Zimmer Biomet parties filed a motion to stay the proceedings pending (1) the court's decision on Esschem's motion for summary judgment in the Esschem case described above and (2) the outcome of the U.S. International Trade Commission complaint filed by Heraeus asserting similar claims, described below under "Regulatory Matters, Government Investigations and Other Matters." On May 2, 2020, the court granted the Zimmer Biomet parties' motion to stay the proceedings pending the outcome of the U.S. International Trade Commission complaint filed by Heraeus.

Other European Countries: Heraeus continues to pursue other related legal proceedings in Europe seeking various forms of relief, including injunctive relief and damages, against various Biomet-related and local Zimmer Biomet entities relating to the European Cements, including those described herein. On October 2, 2018, the Belgian Court of Appeal of Mons issued a judgment in favor of Heraeus relating to its request for past damages caused by the alleged misappropriation of its trade secrets, and an injunction preventing future sales of certain European Cements in Belgium (the "Belgian Decision"). We appealed this judgment to the Belgian Supreme Court. The Belgian Supreme Court dismissed our appeal in October 2019 and this decision is final. Proceedings to assess the amount of damages potentially owed to Heraeus under the Belgian Decision remain pending. Heraeus filed a suit in Belgium concerning the continued sale of the European Cements with certain changed materials. Like its former suit in Germany, Heraeus seeks an injunction on the basis that the continued use of the product names for the European Cements is misleading for customers and thus an act of unfair competition. On May 7, 2019, the Liège Commercial Court issued a judgment that Zimmer Biomet failed to inform its hospital and surgeon customers of the changes made to the composition of the cement with certain changed materials and ordered, as a sole remedy, that Zimmer Biomet send letters to those customers, which we have done. An appeals hearing took place on January 13, 2021 and a decision is pending. In November 2020, Heraeus also initiated proceedings in Belgium seeking an injunction and damages related to the distribution of the European Cements in its revised formulation. Heraeus claims that the revised formulation still misappropriates its alleged trade secrets. The proceedings are pending, and a decision is not expected in 2021.

On February 13, 2019, a Norwegian court of first instance issued a judgment in favor of Heraeus on its claim for misappropriation of trade secrets. The court awarded damages of 19,500,000 NOK, or approximately $2.3 million, plus attorneys' fees, and issued an injunction, which is not final and thus not currently being enforced, preventing Zimmer Biomet Norway from marketing in Norway bone cements identified with the current product names and bone cements making use of the trade secrets which were acknowledged in the Frankfurt Decision. We have appealed the Norwegian judgment to the court of second instance. The appeals trial is scheduled for March 2021.

On October 29, 2019, an Italian court of first instance issued a judgment in favor of Heraeus on its claim of misappropriation of trade secrets, but did not yet order an award of damages. We filed a timely appeal of the decision. As of December 31, 2020, Heraeus had not initiated damages proceedings but indicated that it might do so in the future based on the non-final first instance decision.

On January 23, 2020, a Finnish Market Court issued a judgment partly in favor of Heraeus on its claim of misappropriation of certain trade secrets. Damage claims were not raised in the proceedings. We appealed the decision to the Finnish Supreme Court. On July 3, 2020, the Finnish Supreme Court declined to review the case, rendering the Market Court decision final. As of December 31, 2020, Heraeus had not yet initiated damages proceedings against us but has indicated it intends to do so.

Heraeus is pursuing damages and injunctive relief in France in an effort to prevent us from manufacturing, marketing and selling the European Cements (the "France Litigation"). The European Cements are manufactured at our facility in Valence, France. On December 11, 2018, a hearing was held in the France Litigation before the commercial court in Romans-sur-Isère. On May 23, 2019, the commercial court ruled in our favor. On July 12, 2019, Heraeus filed an appeal to the court of second instance in Grenoble, France. Although we are vigorously defending the France Litigation, the ultimate outcome is uncertain. An adverse ruling in the France Litigation could have a material adverse effect on our business, financial condition and results of operations.

We have accrued an estimated loss relating to the collective trade secret litigation, including estimated legal costs to defend. Damages relating to the Frankfurt Decision are subject to separate proceedings, and the Belgian court appointed an expert to determine the amount of damages related to the Belgian Decision. Thus, it is reasonably possible that our estimate of the loss we may incur may change in the future. Although we are vigorously defending these lawsuits, their ultimate resolution is uncertain.

Shareholder Derivative Actions: On June 14, 2019 and July 29, 2019, two shareholder derivative actions, *Green v. Begley et al.* and *Detectives Endowment Association Annuity Fund v. Begley et al.*, were filed in the Court of Chancery in the State of Delaware. On October 2, 2019 and October 11, 2019, two additional shareholder derivative actions, *Karp v. Begley et al.* and *DiGaudio v. Begley et al.*, were filed in the U.S. District Court for the District of Delaware. The plaintiff in each action seeks to maintain the action purportedly on our behalf against certain of our current and former directors and officers (the "individual defendants") and certain former stockholders of ours who sold shares of our common stock in various secondary public offerings in 2016 (the "private equity fund defendants"). The plaintiff in each action alleges, among other things, breaches of fiduciary duties against the individual defendants and insider trading against two individual defendants and the private equity fund defendants based on factual allegations that the defendants violated federal securities laws by making materially false and/or misleading statements and/or omissions about our compliance with FDA regulations and our ability to continue to accelerate our organic revenue growth rate in the second half of 2016. On June 4, 2020, the plaintiffs in the Chancery Court actions filed a consolidated amended complaint adding three new counts and expanding the scope of the alleged material false statements. On September 14, 2020, the defendants filed motions to dismiss the Chancery Court actions. Also on September 14, 2020, the plaintiffs in the U.S. District Court actions filed a consolidated amended complaint adding certain details to their allegations. On October 9, 2020, the U.S. District Court granted the parties' joint motion to stay the U.S. District Court actions pending resolution of the motions to dismiss the Chancery Court actions. The plaintiffs in the Chancery Court and the U.S. District Court actions do not seek damages from us, but instead request damages on our behalf from the defendants of an unspecified amount, as well as attorneys' fees, costs and other relief.

Regulatory Matters, Government Investigations and Other Matters

U.S. International Trade Commission Investigation: On March 5, 2019, Heraeus filed a complaint with the U.S. International Trade Commission ("ITC") against us and certain of our subsidiaries. The complaint alleges that Biomet misappropriated Heraeus' trade secrets in the formulation and manufacture of two bone cement products now sold by Zimmer Biomet, both of which are imported from our Valence, France facility. Heraeus requested that the ITC institute an investigation and, after the investigation, issue a limited exclusion order and cease and desist orders. On April 5, 2019, the ITC ordered an investigation be instituted into whether we have committed an "unfair act" in the importation, sale for importation, or sale after importation of certain bone cement products, the threat or effect of which is to destroy or substantially injure an industry in the United States, in violation of Section 337 of the Tariff Act of 1930, as amended ("Section 337"). An evidentiary hearing in front of an administrative law judge at the ITC was held in January 2020 and an Initial Determination was issued on May 6, 2020. In the Initial Determination, the administrative law judge held that we did not violate Section 337, and thus we are not restricted from continuing to manufacture and sell the two challenged bone cement products in the United States. On July 13, 2020, the ITC issued notice of intent to review the Initial Determination and on January 12, 2021 it issued a Final Determination which affirmed the Initial Determination with modifications and terminated the investigation with a finding of no violation of Section 337. Heraeus has 60 days from the date of issuance to appeal the Final Determination to the United States Court of Appeals for the Federal Circuit. We cannot currently predict the ultimate outcome of this investigation after any appeals, but an adverse outcome in this ITC proceeding could have a material adverse effect on our business, financial condition and results of operations.

FDA warning letters: In September 2012, we received a warning letter from the FDA citing concerns relating to certain processes pertaining to products manufactured at our Ponce, Puerto Rico manufacturing facility. In September 2020, the FDA completed an inspection of the Ponce facility and issued no inspectional observations, and in November 2020, the FDA cleared the Ponce warning letter. In August 2018, we received a warning letter from the FDA related to observed non-conformities with current good manufacturing practice requirements of the QSR at our legacy Biomet manufacturing facility in Warsaw, Indiana (this facility is sometimes referred to in this report as the "Warsaw North Campus"). We have provided detailed responses to the FDA as to our corrective actions and will continue to work expeditiously to address the issues identified by the FDA during inspections in Warsaw. As of December 31, 2020, the Warsaw warning letter remained pending. Until the violations cited in the pending warning letter are corrected, we may be subject to additional regulatory action by the FDA, as described more fully below. Additionally, requests for Certificates to Foreign Governments may not be granted and premarket approval applications for Class III devices to which the QSR deviations are reasonably related will not be approved until the violations have been corrected. In

addition to responding to the warning letter described above, we are in the process of addressing various FDA Form 483 inspectional observations at certain of our manufacturing facilities, including observations issued by the FDA following an inspection of the Warsaw North Campus in January 2020, which inspection the FDA has classified as Voluntary Action Indicated ("VAI"). The ultimate outcome of these matters is presently uncertain. Among other available regulatory actions, the FDA may impose operating restrictions, including a ceasing of operations, at one or more facilities, enjoining and restraining certain violations of applicable law pertaining to products, seizure of products and assessing civil or criminal penalties against our officers, employees or us. The FDA could also issue a corporate warning letter or a recidivist warning letter or negotiate the entry of a consent decree of permanent injunction with us. The FDA may also recommend prosecution by the DOJ. Any adverse regulatory action, depending on its magnitude, may restrict us from effectively manufacturing, marketing and selling our products and could have a material adverse effect on our business, financial condition and results of operations.

DPA relating to FCPA matters: In January 2017, we resolved previously-disclosed FCPA matters involving Biomet and certain of its subsidiaries. As part of the settlement, (i) Biomet resolved matters with the SEC through an administrative cease-and-desist order; (ii) we entered into a DPA with the DOJ; and (iii) an indirect, wholly-owned subsidiary of Biomet entered into a plea agreement with the DOJ. The conduct underlying these resolutions occurred prior to our acquisition of Biomet. Under the DPA, the DOJ agreed to defer criminal prosecution of us in connection with a charged violation of the internal controls provisions of the FCPA as long as we complied with the terms of the DPA. In addition, we were subject to oversight by an independent compliance monitor. On July 17, 2020, the independent compliance monitor submitted a letter to the SEC and DOJ certifying that our compliance program, including its policies and procedures, is reasonably designed and implemented to prevent and detect violations of the FCPA and is functioning effectively. The monitorship concluded in August 2020. On February 9, 2021, the one-count criminal information filed against us in 2017 was dismissed with prejudice and the DPA concluded.

22. Subsequent Event

On February 5, 2021, we announced our intention to pursue a plan to spin off our Spine and Dental businesses to form NewCo. The planned transaction is intended to benefit our stockholders by enhancing the focus of both Zimmer Biomet and NewCo to meet the needs of patients and customers and, therefore, achieve faster growth and deliver greater value for all stakeholders. The transaction is intended to qualify as a tax-free distribution, for U.S. federal income tax purposes, to U.S. stockholders of new publicly traded stock in NewCo. We are targeting completion of the spin-off in mid-2022, subject to the satisfaction of certain conditions, including, among others, final approval of our Board of Directors, receipt of a favorable opinion and IRS ruling with respect to the tax-free nature of the transaction, and the effectiveness of a Form 10 registration statement with the SEC. Therefore, we cannot provide assurance that we will be able to complete the spin-off on the terms or on the timeline that we announced, or at all.

23. Quarterly Financial Information (Unaudited)

(in millions, except per share data)

	2020 Quarter Ended				2019 Quarter Ended			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Net sales	$1,783.8	$1,226.1	$1,929.3	$2,085.3	$1,975.5	$1,988.6	$1,892.4	$2,125.7
Gross profit	1,149.1	653.9	1,210.2	1,285.4	1,278.7	1,260.4	1,210.1	1,396.1
Net (loss) earnings of Zimmer Biomet Holdings, Inc.	(508.5)	(206.6)	242.5	333.7	246.1	133.7	431.1	320.7
(Loss) earnings per common share								
Basic	(2.46)	(1.00)	1.17	1.61	1.20	0.65	2.10	1.56
Diluted	(2.46)	(1.00)	1.16	1.59	1.20	0.65	2.08	1.54

In the three-month period ended March 31, 2020, we recorded goodwill impairment charges of $612.0 million.

Net sales in the three-month period ended December 31, 2020 include the benefit of expanded strategic sales, favorable bulk orders and shipment timing.

The TRAF has had a significant impact on our net (loss) earnings in certain quarters. See Note 17 for further discussion on the quarterly impacts of TRAF.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that are designed to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures. Because of inherent limitations, disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of disclosure controls and procedures are met.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that as of December 31, 2020, the end of the period covered by this report, our disclosure controls and procedures were effective at a reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

The management of Zimmer Biomet Holdings, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act, as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, or persons performing similar functions, and effected by the Company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

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

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020. In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework* (2013).

Based on their assessment, management has concluded that, as of December 31, 2020, the Company's internal control over financial reporting is effective based on those criteria.

The Company's independent registered public accounting firm, PricewaterhouseCoopers LLP, has audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2020, as stated in its report which appears in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

During the fourth quarter of 2020, the Audit Committee of our Board of Directors approved the engagement of PricewaterhouseCoopers LLP, our independent registered public accounting firm, to perform certain non-audit services. This disclosure is made pursuant to Section 10A(i)(2) of the Exchange Act.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item is incorporated by reference from our definitive Proxy Statement for the annual meeting of stockholders to be held on May 14, 2021 (the "2021 Proxy Statement").

We have adopted the Zimmer Biomet Code of Ethics for Chief Executive Officer and Senior Financial Officers (the "finance code of ethics"), a code of ethics that applies to our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and Corporate Controller, and other finance organization senior employees. The finance code of ethics is publicly available in the Investor Relations section of our website, which may be accessed from our homepage at www.zimmerbiomet.com or directly at https://investor.zimmerbiomet.com. If we make any substantive amendments to the finance code of ethics or grant any waiver, including any implicit waiver, from a provision of the code to our Chief Executive Officer, Chief Financial Officer, or Chief Accounting Officer and Corporate Controller, we will disclose the nature of that amendment in the Investor Relations section of our website.

Item 11. Executive Compensation

Information required by this item is incorporated by reference from our 2021 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item is incorporated by reference from our 2021 Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this item is incorporated by reference from our 2021 Proxy Statement.

Item 14. Principal Accountant Fees and Services

Information required by this item is incorporated by reference from our 2021 Proxy Statement.

Item 15. Exhibits and Financial Statement Schedules

(a) 1. Financial Statements

The following consolidated financial statements of Zimmer Biomet Holdings, Inc. and its subsidiaries are set forth in Part II, Item 8.

Report of Independent Registered Public Accounting Firm

Consolidated Statements of Earnings for the Years Ended December 31, 2020, 2019 and 2018

Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2020, 2019 and 2018

Consolidated Balance Sheets as of December 31, 2020 and 2019

Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2020, 2019 and 2018

Consolidated Statements of Cash Flows for the Years Ended December 31, 2020, 2019 and 2018

Notes to Consolidated Financial Statements

2. Financial Statement Schedule

Schedule II. Valuation and Qualifying Accounts (in millions):

Description	Balance at Beginning of Period	Additions Charged (Credited) to Expense	Deductions / Other Additions to Reserve	Effects of Foreign Currency	Balance at End of Period
Allowance for Doubtful Accounts:					
Year Ended December 31, 2018	$ 60.2	$10.7	$ (3.6)	$(1.6)	$ 65.7
Year Ended December 31, 2019	65.7	5.5	(5.3)	(0.9)	65.0
Year Ended December 31, 2020	65.0	21.8	(12.7)[1]	1.7	75.8
Deferred Tax Asset Valuation Allowances:					
Year Ended December 31, 2018	$140.6	$48.2	$206.2[2]	$(4.1)	$390.9
Year Ended December 31, 2019	390.9	(6.6)	165.7[2]	(3.9)	546.1
Year Ended December 31, 2020	546.1	(3.8)	(3.2)[2]	3.0	542.1

(1) Includes the $3.1 cumulative-effect adjustment related to the adoption of ASU 2016-13, Financial Instruments – Credit Losses (Topic 326).

(2) Primarily relate to amounts generated by tax rate changes or current year activity which have offsetting changes to the associated attribute and therefore there is no resulting impact on tax expense in the consolidated financial statements.

Other financial statement schedules are omitted because they are not applicable or the required information is shown in the financial statements or the notes thereto.

3. Exhibits

INDEX TO EXHIBITS

Exhibit No	Description
3.1	Restated Certificate of Incorporation of Zimmer Biomet Holdings, Inc., dated June 24, 2015 (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed June 26, 2015)
3.2	Restated By-Laws of Zimmer Biomet Holdings, Inc. dated February 19, 2021 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed February 22, 2021)
4.1	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934
4.2	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q filed August 5, 2019)
4.3	Indenture dated as of November 17, 2009 between Zimmer Holdings, Inc. (now known as Zimmer Biomet Holdings, Inc.) and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed December 13, 2016)
4.4	First Supplemental Indenture to the Indenture dated as of November 17, 2009 between Zimmer Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed November 17, 2009)
4.5	Form of 5.750% Note due 2039 (incorporated by reference to Exhibit 4.4 above)
4.6	Second Supplemental Indenture dated as of November 10, 2011, to the Indenture dated as of November 17, 2009 between Zimmer Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed November 10, 2011)
4.7	Form of 3.375% Note due 2021 (incorporated by reference to Exhibit 4.6 above)
4.8	Third Supplemental Indenture, dated as of March 19, 2015, to the Indenture dated as of November 17, 2009 between Zimmer Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed March 19, 2015)
4.9	Form of 3.150% Notes due 2022 (incorporated by reference to Exhibit 4.8 above)
4.10	Form of 3.550% Notes due 2025 (incorporated by reference to Exhibit 4.8 above)
4.11	Form of 4.250% Notes due 2035 (incorporated by reference to Exhibit 4.8 above)
4.12	Form of 4.450% Notes due 2045 (incorporated by reference to Exhibit 4.8 above)
4.13	Fourth Supplemental Indenture, dated as of December 13, 2016, between Zimmer Biomet Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed December 13, 2016)
4.14	Form of 1.414% Notes due 2022 (incorporated by reference to Exhibit 4.13 above)
4.15	Form of 2.425% Notes due 2026 (incorporated by reference to Exhibit 4.13 above)
4.16	Agency Agreement, dated as of December 13, 2016, by and among Zimmer Biomet Holdings, Inc., as issuer, Elavon Financial Services DAC, UK Branch, as paying agent, Elavon Financial Services DAC, as registrar and transfer agent, and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed December 13, 2016)
4.17	Amendment No. 1, dated as of January 4, 2017, to the Agency Agreement dated as of December 13, 2016, by and among Zimmer Biomet Holdings, Inc., as issuer, Elavon Financial Services DAC, UK Branch, as paying agent, Elavon Financial Services DAC, as original registrar and original transfer agent, U.S. Bank National Association, as successor registrar and successor transfer agent, and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.4 to the Registrant's Registration Statement on Form 8-A filed January 4, 2017)
4.18	Fifth Supplemental Indenture, dated as of March 19, 2018, between Zimmer Biomet Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed March 19, 2018)
4.19	Form of Floating Rate Notes due 2021 (incorporated by reference to Exhibit 4.18 above)
4.20	Form of 3.700% Notes due 2023 (incorporated by reference to Exhibit 4.18 above)

Exhibit No	Description
4.21	Sixth Supplemental Indenture, dated as of November 15, 2019, between Zimmer Biomet Holdings, Inc. and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed November 15, 2019)
4.22	Form of 1.164% Notes due 2027 (incorporated by reference to Exhibit 4.21 above)
4.23	Agency Agreement, dated as of November 15, 2019, by and between Zimmer Biomet Holdings, Inc., as issuer, Elavon Financial Services DAC, UK Branch, as paying agent, U.S. Bank National Association, as transfer agent and registrar, and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed on November 15, 2019)
4.24	Seventh Supplemental Indenture, dated as of March 20, 2020, between Zimmer Biomet Holdings, Inc. and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed March 20, 2020)
4.25	Form of 3.050% Notes due 2026 (incorporated by reference to Exhibit 4.24 above)
4.26	Form of 3.550% Notes due 2030 (incorporated by reference to Exhibit 4.24 above)
10.1*	Zimmer Biomet Holdings, Inc. Executive Performance Incentive Plan, as amended May 7, 2013 and further amended as of June 24, 2015 (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed November 9, 2015)
10.2*	Amendment to Zimmer Biomet Holdings, Inc. Executive Performance Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed January 7, 2016)
10.3*	Amendment to Zimmer Biomet Holdings, Inc. Executive Performance Incentive Plan, Effective May 7, 2020 (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q filed May 11, 2020)
10.4*	Zimmer Biomet Deferred Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed January 7, 2016)
10.5*	Restated Zimmer Biomet Holdings, Inc. Long Term Disability Income Plan for Highly Compensated Employees (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed January 7, 2016)
10.6*	Restated Benefit Equalization Plan of Zimmer Holdings, Inc. and Its Subsidiary or Affiliated Corporations Participating in the Zimmer Holdings, Inc. Savings and Investment Program (incorporated by reference to Exhibit 10.16 to the Registrant's Annual Report on Form 10-K filed February 27, 2009)
10.7*	First Amendment to the Restated Benefit Equalization Plan of Zimmer Holdings, Inc. and its Subsidiary or Affiliated Corporations Participating in the Zimmer Holdings, Inc. Savings and Investment Program (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed January 7, 2016)
10.8*	Offer Letter, dated as of December 18, 2017, by and between Zimmer Biomet Holdings, Inc. and Bryan C. Hanson (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.9*	Change in Control Severance Agreement with Bryan C. Hanson (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.10*	Chief Executive Officer Confidentiality, Intellectual Property, Non-Competition and Non-Solicitation Agreement with Bryan C. Hanson (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.11*	Offer Letter by and between Zimmer Biomet Holdings, Inc. and Ivan Tornos dated as of October 11, 2018 (incorporated by reference to Exhibit 10.10 to the Registrant's Annual Report on Form 10-K filed February 26, 2019)
10.12*	Form of Change in Control Severance Agreement with Ivan Tornos, Suketu Upadhyay, Rachel Ellingson and Carrie Nichol (incorporated by reference to Exhibit 10.11 to the Registrant's Annual Report on Form 10-K filed February 26, 2019)
10.13*	Form of Confidentiality, Non-Competition and Non-Solicitation Agreement with Ivan Tornos, Suketu Upadhyay, Rachel Ellingson and Carrie Nichol (incorporated by reference to Exhibit 10.12 to the Registrant's Annual Report on Form 10-K filed February 26, 2019)

Exhibit No	Description
10.14*	Swiss Employment Agreement by and between Zimmer GmbH and Didier Deltort dated as of June 28, 2018 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed November 1, 2018)
10.15*	Offer Letter by and between Zimmer Biomet Holdings, Inc. and Didier Deltort dated as of June 28, 2018 (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed November 1, 2018)
10.16*	Change in Control Severance Agreement by and between Zimmer GmbH and Didier Deltort dated as of October 9, 2018 (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed November 1, 2018)
10.17*	Confidentiality, Non-Competition and Non-Solicitation Agreement by and between Zimmer GmbH and Didier Deltort dated as of June 28, 2018 (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q filed November 1, 2018)
10.18*	Offer Letter between Zimmer Biomet Holdings, Inc. and Suketu Upadhyay dated June 13, 2019 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed June 19, 2019)
10.19*	Letter of Appointment by and between Zimmer Asia (HK) Limited and Sang Yi dated June 15, 2020 (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q filed August 5, 2020)
10.20*	Change in Control Severance Agreement with Sang Yi dated June 15, 2020 (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed August 5, 2020)
10.21*	Confidentiality, Non-Competition and Non-Solicitation Agreement with Sang Yi dated June 15, 2020 (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed August 5, 2020)
10.22*	Form of Change in Control Severance Agreement with Chad F. Phipps (incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K filed February 27, 2009)
10.23*	Form of Confidentiality, Non-Competition and Non-Solicitation Agreement with Chad F. Phipps (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed June 26, 2015)
10.24*	Restated Zimmer Biomet Holdings, Inc. Executive Severance Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed August 6, 2018)
10.25*	Zimmer Biomet Holdings, Inc. Amended Stock Plan for Non-Employee Directors, as amended May 5, 2015 and further amended as of June 24, 2015 (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed November 9, 2015)
10.26*	Form of Restricted Stock Unit Award Letter under the Zimmer Biomet Holdings, Inc. Stock Plan for Non-Employee Directors (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K filed February 29, 2016)
10.27*	Amended and Restated Zimmer Biomet Holdings, Inc. Deferred Compensation Plan for Non-Employee Directors, as amended May 5, 2015 and further amended as of June 24, 2015 (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed November 9, 2015)
10.28*	Form of Indemnification Agreement with Non-Employee Directors and Officers (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed July 31, 2008)
10.29*	Zimmer Biomet Holdings, Inc. Executive Physical Sub Plan (incorporated by reference to Exhibit 10.47 to the Registrant's Annual Report on Form 10-K filed February 26, 2019)
10.30*	Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (As Amended on May 3, 2016) (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed May 9, 2016)
10.32*	Form of Nonqualified Stock Option Award Agreement (four-year vesting) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.32 to the Registrant's Annual Report on Form 10-K filed February 21, 2020)
10.33*	Form of Nonqualified Stock Option Award Agreement (two-year vesting) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.37 to the Registrant's Annual Report on Form 10-K filed February 27, 2018)
10.34*	Form of Performance-Based Restricted Stock Unit Award Agreement (2018) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed May 8, 2018)

Exhibit No	Description
10.35*	Form of Performance-Based Restricted Stock Unit Award Agreement (2019) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.36 to the Registrant's Annual Report on Form 10-K filed February 26, 2019)
10.36*	Form of Performance-Based Restricted Stock Unit Award Agreement (2020) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.37 to the Registrant's Annual Report on Form 10-K filed February 21, 2020)
10.37*	Form of Restricted Stock Unit Award Agreement (four-year vesting) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.38 to the Registrant's Annual Report on Form 10-K filed February 21, 2020)
10.38*	Form of Restricted Stock Unit Award Agreement (two-year cliff vesting) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed August 6, 2018)
10.39*	Form of Nonqualified Stock Option Award Agreement (Hanson one-time award) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.40*	Form of Performance-Based Restricted Stock Unit Award Agreement (Hanson one-time award) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.41*	Form of Restricted Stock Unit Award Agreement (Hanson one-time award) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed December 21, 2017)
10.42*	Form of Performance-Based Restricted Stock Unit Award Agreement (Upadhyay one-time award) under the Zimmer Biomet Holdings, Inc. 2009 Stock Incentive Plan (incorporated by reference to Exhibit 10.43 to the Registrant's Annual Report on Form 10-K filed February 21, 2020)
10.43*	Aircraft Time Sharing Agreement by and between Zimmer, Inc. and Bryan C. Hanson (incorporated by reference to Exhibit 10.40 to the Registrant's Annual Report on Form 10-K filed February 27, 2018)
10.44*	First Amendment to Aircraft Time Sharing Agreement by and between Zimmer, Inc. and Bryan C. Hanson (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed August 5, 2019)
10.45	Credit Agreement, dated as of November 1, 2019, among Zimmer Biomet Holdings, Inc., Zimmer Biomet G.K., Zimmer Luxembourg II S.À.R.L., the other borrowing subsidiaries referred to therein, JPMorgan Chase Bank, N.A., as General Administrative Agent, JPMorgan Chase Bank, N.A., Tokyo Branch, as Japanese Administrative Agent, J.P. Morgan Europe Limited, as European Administrative Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed November 5, 2019)
10.45	First Amendment, dated as of April 23, 2020, to the Credit Agreement dated as of November 1, 2019, among Zimmer Biomet Holdings, Inc., Zimmer Biomet G.K., Zimmer Luxembourg II S.À.R.L., the other borrowing subsidiaries referred to therein, JPMorgan Chase Bank, N.A., as General Administrative Agent, JPMorgan Chase Bank, N.A., Tokyo Branch, as Japanese Administrative Agent, J.P. Morgan Europe Limited, as European Administrative Agent, and the lenders from time to time party thereto (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed April 29, 2020)
10.47	Term Loan Agreement ¥21,300,000,000, dated as of September 22, 2017, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed September 28, 2017)
10.48	First Amendment and Limited Waiver, dated as of February 25, 2020, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation, to the JP¥21,300,000,000 Term Loan Agreement dated as of September 22, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed May 11, 2020)
10.49	Second Amendment, dated as of April 28, 2020, to the Term Loan Agreement JP¥21,300,000,000 dated as of September 22, 2017, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed April 29, 2020)

Exhibit No	Description
10.50	Amended and Restated Term Loan Agreement ¥11,700,000,000, dated as of September 22, 2017, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed September 28, 2017)
10.51	First Amendment, dated as of April 23, 2018, to the Amended and Restated Term Loan Agreement ¥11,700,000,000 dated as of September 22, 2017 between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.49 to the Registrant's Annual Report on Form 10-K filed February 21, 2020)
10.52	Second Amendment and Limited Waiver, dated as of February 25, 2020, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation, to the JP¥11,700,000,000 Amended and Restated Term Loan Agreement dated as of September 22, 2017, as amended by the First Amendment dated as of April 23, 2018 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed May 11, 2020)
10.53	Third Amendment, dated as of April 28, 2020, to the Amended and Restated Term Loan Agreement JP¥11,700,000,000 dated as of September 22, 2017, between Zimmer Biomet G.K. and Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed April 29, 2020)
10.54	Amended and Restated Letter of Guarantee, dated as of September 22, 2017, made by Zimmer Biomet Holdings, Inc. in favor of Sumitomo Mitsui Banking Corporation (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed September 28, 2017)
10.55	Credit Agreement, dated as of September 18, 2020, among Zimmer Biomet Holdings, Inc., Bank of America, N.A., as Administrative Agent, and the lenders from time to time party thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed September 21, 2020)
21	List of Subsidiaries of Zimmer Biomet Holdings, Inc.
23	Consent of PricewaterhouseCoopers LLP
31.1	Certification pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 of the Chief Executive Officer, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 of the Chief Financial Officer, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None

SIGNATURES

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

ZIMMER BIOMET HOLDINGS, INC.

By: /s/ Bryan Hanson
Bryan Hanson
President and Chief Executive Officer

Dated: February 22, 2021

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

SIGNATURE	TITLE	DATE
/s/ Bryan Hanson Bryan Hanson	President, Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2021
/s/ Suketu Upadhyay Suketu Upadhyay	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 22, 2021
/s/ Carrie Nichol Carrie Nichol	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)	February 22, 2021
/s/ Christopher Begley Christopher Begley	Director	February 22, 2021
/s/ Betsy Bernard Betsy Bernard	Director	February 22, 2021
/s/ Gail Boudreaux Gail Boudreaux	Director	February 22, 2021
/s/ Michael Farrell Michael Farrell	Director	February 22, 2021
/s/ Larry Glasscock Larry Glasscock	Director	February 22, 2021
/s/ Robert Hagemann Robert Hagemann	Director	February 22, 2021
/s/ Arthur Higgins Arthur Higgins	Director	February 22, 2021
/s/ Maria Teresa Hilado Maria Teresa Hilado	Director	February 22, 2021
/s/ Syed Jafry Syed Jafry	Director	February 22, 2021
 Sreelakshmi Kolli	Director	February 22, 2021
/s/ Michael Michelson Michael Michelson	Director	February 22, 2021

ZIMMER BIOMET HOLDINGS, INC.
RECONCILIATION OF OPERATING (LOSS) PROFIT TO ADJUSTED OPERATING PROFIT
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, 2018, 2017 and 2016
(in millions, unaudited)

	For the Years Ended December 31,				
	2020	2019	2018	2017	2016
Operating (Loss) Profit	$ (87.8)	$1,137.5	$ 33.8	$ 799.3	$ 821.1
Inventory step-up and other inventory and manufacturing related charges[1]	54.2	53.9	32.5	70.8	468.3
Intangible asset amortization[1]	597.6	584.3	595.9	603.9	565.9
Goodwill and intangible asset impairment[1]	645.0	70.1	979.7	331.5	31.1
Restructuring and other cost reduction initiatives[1]	116.9	50.0	34.2	17.6	–
Quality remediation[1]	49.8	87.6	165.4	195.1	54.3
Acquisition, integration and related[1]	23.8	12.2	99.5	262.2	504.9
Litigation[1]	159.8	65.0	186.0	104.0	33.3
Litigation settlement gain[1]	–	(23.5)	–	–	–
European Union Medical Device Regulation[1]	25.3	30.9	3.7	–	–
Other charges[1]	24.5	120.5	79.6	41.2	(11.0)
Adjusted Operating Profit	$1,609.1	$2,188.5	$2,210.3	$2,425.6	$2,467.9

(1) Please refer to pages 32 and 33 of this annual report for detailed explanations of each adjustment.

ZIMMER BIOMET HOLDINGS, INC.
RECONCILIATION OF OPERATING (LOSS) PROFIT MARGIN TO ADJUSTED OPERATING PROFIT MARGIN
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, 2018, 2017 and 2016
(in millions, unaudited)

	For the Years Ended December 31,				
	2020	2019	2018	2017	2016
Operating (Loss) Profit	(1.2)%	14.2%	0.4%	10.2%	10.7%
Inventory step-up and other inventory and manufacturing related charges[1]	0.8	0.7	0.4	0.9	6.1
Intangible asset amortization[1]	8.5	7.3	7.5	7.7	7.4
Goodwill and intangible asset impairment[1]	9.2	0.9	12.4	4.2	0.4
Restructuring and other cost reduction initiatives[1]	1.7	0.6	0.4	0.2	–
Quality remediation[1]	0.7	1.1	2.1	2.5	0.7
Acquisition, integration and related[1]	0.3	0.2	1.3	3.4	6.6
Litigation[1]	2.3	0.8	2.3	1.3	0.4
Litigation settlement gain[1]	–	(0.3)	–	–	–
European Union Medical Device Regulation[1]	0.4	0.4	–	–	–
Other charges[1]	0.2	1.5	1.1	0.7	(0.1)
Adjusted Operating Profit	22.9%	27.4%	27.9%	31.1%	32.2%

(1) Please refer to pages 32 and 33 of this annual report for detailed explanations of each adjustment.

ZIMMER BIOMET HOLDINGS, INC.
RECONCILIATION OF DILUTED EPS TO ADJUSTED DILUTED EPS
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, 2018, 2017 and 2016
(unaudited)

	For the Years Ended December 31,				
	2020	2019	2018	2017	2016
Diluted (Loss) Earnings per share	$(0.67)	$ 5.47	$(1.86)	$ 8.90	$ 1.51
Inventory step-up and other inventory and manufacturing related charges[1]	0.26	0.26	0.16	0.35	2.32
Intangible asset amortization[1]	2.89	2.83	2.93	2.96	2.80
Goodwill and intangible asset impairment[1]	3.12	0.34	4.81	1.63	0.15
Restructuring and other cost reduction initiatives[1]	0.56	0.24	0.17	0.09	–
Quality remediation[1]	0.24	0.42	0.81	0.96	0.27
Acquisition, integration and related[1]	0.12	0.06	0.49	1.28	2.49
Litigation[1]	0.77	0.31	0.91	0.51	0.16
Litigation settlement gain[1]	–	(0.11)	–	–	–
European Union Medical Device Regulation[1]	0.12	0.15	0.02	–	–
Other charges[1]	0.05	0.58	0.41	0.22	(0.03)
Debt extinguishment cost	–	–	–	–	0.26
Taxes on above items[1]	(1.22)	(1.09)	(1.18)	(2.07)	(2.22)
Biomet merger-related measurement period tax adjustments	–	–	–	–	0.26
U.S. tax reform[1]	–	–	0.04	(6.25)	–
Swiss tax reform[1]	(0.03)	(1.52)	–	–	–
Other certain tax adjustments[1]	(0.50)	(0.07)	(0.02)	(0.55)	(0.01)
Effect of dilutive shares assuming net earnings[1]	(0.04)	–	(0.05)	–	–
Adjusted Diluted EPS	$ 5.67	$ 7.87	$ 7.64	$ 8.03	$ 7.96

(1) Please refer to pages 32 and 33 of this annual report for detailed explanations of each adjustment.

ZIMMER BIOMET HOLDINGS, INC.
RECONCILIATION OF SALES GROWTH RATE TO CONSTANT CURRENCY SALES GROWTH RATE
FOR THE YEAR ENDED DECEMBER 31, 2020
(unaudited)

	For the Year Ended December 31, 2020		
	Reported % Growth	Foreign Exchange Impact	Constant Currency % Growth
Geographic Segment			
Americas	(11)%	–%	(11)%
EMEA	(20)	1	(21)
Asia Pacific	(5)	1	(6)
Consolidated	(12)	–	(12)
Product Category			
Knees	(15)	–	(15)
Hips	(9)	1	(10)
S.E.T.	(8)	1	(9)
Dental, Spine & CMFT	(10)	1	(11)
Other	(18)	1	(19)
Consolidated	(12)	–	(12)

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Corporate Information (As of March 15, 2021)

Shareholder Information

Headquarters
Zimmer Biomet Holdings, Inc.
345 East Main Street
Warsaw, IN 46580, U.S.A.
+1-574-267-6131
www.zimmerbiomet.com

Stock Listing
Zimmer Biomet is listed on the
New York Stock Exchange and the
SIX Swiss Exchange under the symbol ZBH.

Independent Auditors
PricewaterhouseCoopers LLP
Chicago, IL, U.S.A.

Transfer Agent
Communications concerning stock transfer requirements, loss of certificates and change of address should be directed to Zimmer Biomet's Transfer Agent:

Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202
+1-888-552-8493 (domestic)
+1-718-575-3336 (international)
Website: www.computershare.com

Investor Relations
Zimmer Biomet invites shareholders, security analysts, portfolio managers and other interested parties to contact:

Keri Mattox
+1-215-275-2431
keri.mattox@zimmerbiomet.com

Ezgi Yagci
+1-617-549-2443
ezgi.yagci@zimmerbiomet.com

Dividend Reinvestment and Stock Purchase Plan

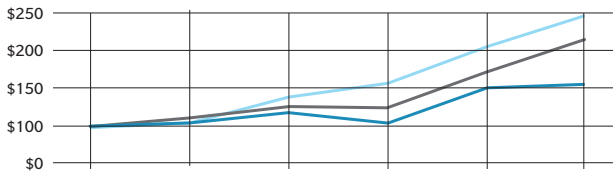
Computershare Trust Company, N.A. administers the Computershare CIP, a direct stock purchase and dividend reinvestment plan, which allows registered shareholders to purchase additional shares of Zimmer Biomet common stock through the automatic reinvestment of dividends. The plan also allows registered shareholders to purchase shares with optional cash investments of at least $25. The minimum initial investment for new investors is $10,000. Existing registered shareholders as well as new investors may enroll in the plan online at www.computershare.com/investor, or by completing and submitting an enrollment form that may be obtained by contacting Computershare at the address or telephone numbers shown above.

ZBH LISTED NYSE SIX SWISS EXCHANGE

Stock Performance Graph

Assumes $100 was invested on December 31, 2015 in Zimmer Biomet common stock and each index and that dividends were reinvested. Returns over the indicated period should not be considered indicative of future returns.

Comparison of Cumulative Total Return for years ended December 31



	Baseline	2016	2017	2018	2019	2020
Zimmer Biomet Holdings, Inc.	$100	$101	$120	$104	$151	$156
S&P 500 Stock Index	$100	$112	$136	$130	$171	$203
S&P 500 Health Care Equipment Index	$100	$106	$139	$162	$210	$246

To obtain a free copy of Zimmer Biomet's annual report on form 10-K, quarterly reports on form 10-Q, news releases, earnings releases, proxy statements, or to obtain Zimmer Biomet's financial calendar, access SEC filings, listen to earnings calls, or to look up Zimmer Biomet stock quotes, please visit http://investor.zimmerbiomet.com.

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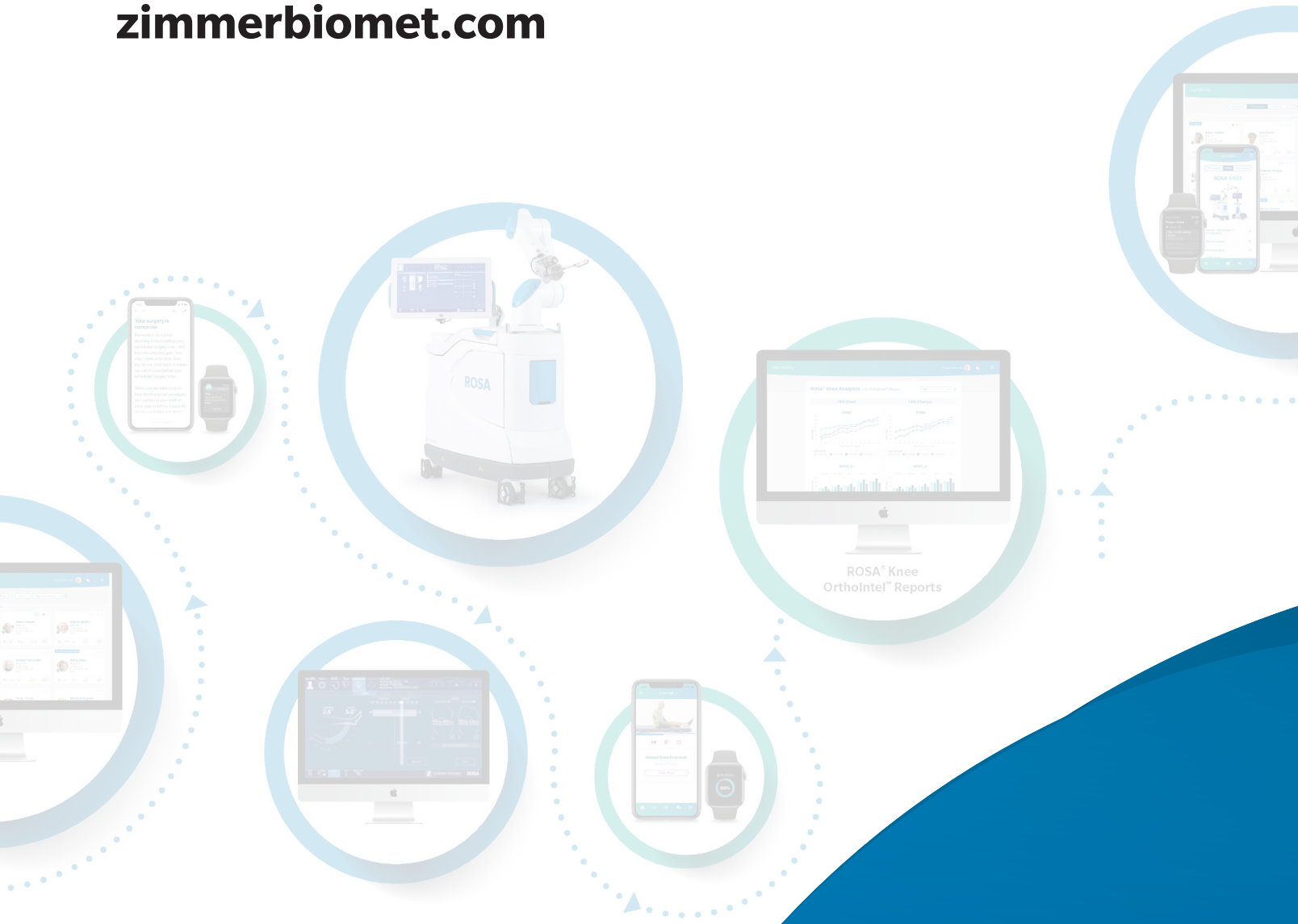

ZIMMER BIOMET

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