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

# FORM 10-K

**(Mark One)**

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

**For the fiscal year ended December 31, 2020**
or

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

**For the transition period from to**

**Commission File Number 1-8036**

# WEST PHARMACEUTICAL SERVICES, INC.

**(Exact name of registrant as specified in its charter)**

| **Pennsylvania** | **23-1210010** |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification Number) |
| **530 Herman O. West Drive, Exton, PA** | **19341-0645** |
| (Address of principal executive offices) | (Zip Code) |

Registrant's telephone number, including area code: **610-594-2900**

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

| **Title of each class** | **Trading Symbol** | **Name of each exchange on which registered** |
|---|---|---|
| Common Stock, par value $.25 per share | WST | 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 þ No o

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 þ No o

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

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

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

Indicate by check mark whether the registrant 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. ☑

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2020 was approximately $16,742,194,934 based on the closing price as reported on the New York Stock Exchange.

As of January 27, 2021, there were 74,103,026 shares of the registrant's common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

| **Document** | **Parts Into Which Incorporated** |
|---|---|
| Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2021. | Part III |

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**PART I**

Unless otherwise indicated, or the context otherwise requires, references in this report to “the Company”, “we”, “us”, “our” and “West” refer to West Pharmaceutical Services, Inc. and its majority-owned subsidiaries.

All trademarks and registered trademarks used in this report are our property, either directly or indirectly through our subsidiaries, unless noted otherwise. Daikyo Crystal Zenith® (“Crystal Zenith”) is a registered trademark of Daikyo Seiko, Ltd. (“Daikyo”).

Throughout this report, references to “Notes” refer to the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K (“Form 10-K”), unless otherwise indicated.

Information in this Form 10-K is current as of February 23, 2021, unless otherwise specified.

**ITEM 1. BUSINESS**

**General**

We are a leading global manufacturer in the design and production of technologically advanced, high-quality, integrated containment and delivery systems for injectable drugs and healthcare products. Our products include a variety of primary packaging, containment solutions, reconstitution and transfer systems, and drug delivery systems, as well as contract manufacturing, analytical lab services and integrated solutions. Our customers include the leading biologic, generic, pharmaceutical, diagnostic, and medical device companies in the world. Our top priority is delivering quality products that meet the exact product specifications and quality standards customers require and expect. This focus on quality includes a commitment to excellence in manufacturing, scientific and technical expertise and management, which enables us to partner with our customers in order to deliver safe, effective drug products to patients quickly and efficiently.

**Business Segments**

Our business operations are organized into two reportable segments, Proprietary Products and Contract-Manufactured Products.

**Proprietary Products Segment**

Our Proprietary Products reportable segment offers proprietary packaging, containment and drug delivery products, along with analytical lab services and other integrated services and solutions, primarily to biologic, generic and pharmaceutical drug customers. Our packaging products include stoppers and seals for injectable packaging systems, which are designed to help ensure drug compatibility and stability with active drug products, while also supporting operational efficiency for customers. This product portfolio also includes syringe and cartridge components, including custom solutions for the specific needs of injectable drug applications, as well as administration systems that can enhance the safe delivery of drugs through advanced reconstitution, mixing and transfer technologies. We also provide films, coatings, washing, vision inspection and sterilization processes and services to enhance the quality of packaging components and mitigate the risk of contamination and compatibility issues.

This segment’s product portfolio also includes drug containment solutions, including Crystal Zenith, a cyclic olefin polymer, in the form of vials, syringes and cartridges. These products can provide a high-quality solution to glass incompatibility issues and can stand up to cold storage environments, while reducing the risk of breakage that exists with glass. In addition, we offer a variety of self-injection devices, designed to address the need to provide at-home delivery of injectable therapies. These devices are patient-centric technologies that are easy-to-use and can be combined with connected health technologies that have the potential to increase adherence.

In addition to our Proprietary Products product portfolio, we provide our customers with a range of integrated solutions, including analytical lab services, pre-approval primary packaging support and engineering development, regulatory expertise, and after-sales technical support. Offering the combination of primary packaging components, containment solutions, and drug delivery devices, as well as a broad range of integrated services, helps to position us as a leader in the integrated containment and delivery of injectable medicines.

This reportable segment has manufacturing facilities in North and South America, Europe, and Asia Pacific, with affiliated companies in Mexico and Japan. Please refer to Item 2, *Properties*, for additional information on our manufacturing and other sites.

**Contract-Manufactured Products Segment**

Our Contract-Manufactured Products reportable segment serves as a fully integrated business, focused on the design, manufacture, and automated assembly of complex devices, primarily for pharmaceutical, diagnostic, and medical device customers. These products include a variety of custom contract-manufacturing and assembly solutions, which use such technologies as multi-component molding, in-mold labeling, ultrasonic welding, clean room molding and device assembly. We manufacture customer-owned components and devices used in surgical, diagnostic, ophthalmic, injectable, and other drug delivery systems, as well as consumer products.

We have vast expertise in product design and development, including in-house mold design, process design and validation and high-speed automated assemblies.

This reportable segment has manufacturing operations in North America and Europe. Please refer to Item 2, *Properties*, for additional information on our manufacturing and other sites.

**International**

We have significant operations outside of the United States ("U.S."), which are managed through the same business segments as our U.S. operations – Proprietary Products and Contract-Manufactured Products. Sales outside of the U.S. accounted for 54.6% of our consolidated net sales in 2020. Please refer to Item 2, *Properties*, for additional information on our manufacturing and other sites.

Although the general business processes are similar to the domestic business, international operations are exposed to additional risks. These risks include currency fluctuations relative to the U.S. Dollar ("USD"), multiple tax jurisdictions and, particularly in South America, Israel and the Middle East, uncertain or changing regulatory regimes, or political and social issues, that could destabilize local markets and affect the demand for our products.

See further discussion of our international operations, the risks associated with our international operations, and our attempt to minimize some of these risks in Part I, Item 1A, *Risk Factors;* Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations* under the caption *Financial Condition, Liquidity and Capital Resources;* Part II, Item 7A, *Quantitative and Qualitative Disclosures About Market Risk;* Note 1 under the captions *Financial Instruments* and *Foreign Currency Translation;* and Note 11, *Derivative Financial Instruments*.

**Raw Materials**

We use three basic raw materials in the manufacture of our products: elastomers, aluminum and plastic. Elastomers include both synthetic and natural materials. We currently have access to adequate supplies of these raw materials to meet our production needs through agreements with suppliers.

We employ a supply chain management strategy in our business segments, which involves purchasing from integrated suppliers that control their own sources of supply. Due to regulatory control over our production processes, sole source availability, and the cost and time involved in qualifying suppliers, we rely on single-source suppliers for many critical raw materials. We generally purchase certain raw materials in the open market. This strategy increases the risk that our supply chain may be interrupted in the event of a supplier production or distribution problem. These risks are managed, when and where possible, by selecting suppliers with multiple manufacturing sites, rigorous quality control systems, surplus inventory levels and other methods of maintaining supply in case of an interruption in production or distribution.

**Intellectual Property**

Intellectual property, including patents, trademarks, copyrights, and trade secrets, is important to our business. We own or license intellectual property rights, including know-how and issued patents and pending patent applications in the U.S. and in other countries, that relate to various aspects of our products. In 2020, more than 290 patents were issued to West across the globe. Some key value-added and proprietary products and processes are exclusively licensed from Daikyo. Our intellectual property rights help protect our products and are critical to the growth of our business.

**Working Capital**

We are required to carry significant amounts of inventory to meet customer requirements. In addition, some of our supply agreements require us to purchase inventory in bulk orders, which increases inventory levels but decreases the risk of supply interruption. For a more detailed discussion of working capital, please refer to the discussion in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations* under the caption *Financial Condition, Liquidity and Capital Resources*.

**Government Regulation**

The design, development, manufacturing, marketing and labeling of certain of our products and our customers' products that incorporate our products are subject to regulation by governmental authorities in the U.S., Europe and other countries, including the U.S. Food and Drug Administration ("FDA"), the European Medicines Agency and the National Medical Products Administration (China). Regulatory authorities, including regulatory review and oversight, can impact the time and cost associated with the development and continued availability of our products, and they have the authority to take various administrative and legal actions against West, such as product recalls. There were no required material capital expenditures for adherence to our government-led regulatory standards in our facilities in 2020 outside the normal course of business and there are currently no needed or planned material expenditures for 2021.

West is also subject to various federal and state laws, and laws outside the United States, concerning fraud and abuse, global anti-corruption, and export control. With the recent increased regulations, we remain committed as a company to comply with all laws and regulations applicable to our business.

Environmental Regulations

We are subject to various national, state and local provisions regulating the discharge of materials into the environment or otherwise relating to the protection of the environment. Our compliance with these laws and regulations has not had a material impact on our financial position, results of operations or cash flows. There were no required material capital expenditures for environmental controls in our facilities in 2020 and there are currently no needed or planned material expenditures for 2021.

**Marketing**

Our Proprietary Products customers primarily include many of the major biologic, generic, and pharmaceutical drug companies in the world, which incorporate our components and other offerings into their injectable products for distribution to the point of care and ultimate end-user - the patient.

Our Contract-Manufactured Products customers include many of the world's largest pharmaceutical, diagnostic, and medical device companies. Contract-Manufactured Products components generally are incorporated into our customers' manufacturing lines for further processing or assembly.

Our products and services are sold and distributed primarily through our own sales force and distribution network, with limited use of contract sales agents and regional distributors.

Our ten largest customers accounted for 42.0% of our consolidated net sales in 2020, but none of these customers individually accounted for more than 10% of consolidated net sales. Please refer to Note 3, *Revenue*, and Note 19, *Segment Information*, for additional information on our consolidated net sales.

**Competition**

With our range of proprietary technologies, we compete with several companies across our Proprietary Products product lines. Competition for these components is based primarily on product design and performance, quality, regulatory, and scientific expertise, along with total cost.

In addition, there are a number of competitors supplying medical devices and medical device components, including a number of pharmaceutical manufacturers who are also potential customers of our medical devices and components. We compete in this market on the basis of our reputation for quality and reliability in engineering and project management, as well as our knowledge of, and experience in, compliance with regulatory requirements.

We have specialized knowledge of container closure components, which is integral to developing delivery systems. With our range of proprietary technologies, we compete with new and established companies in the area of drug delivery devices, including suppliers of prefillable syringes, auto-injectors, safety needles, and other proprietary systems.

We seek to differentiate ourselves from our competition by serving as an integrated drug containment and delivery systems global supplier that can provide pre-approval primary packaging support and engineering development, analytical lab services and integrated solutions, regulatory expertise, and after-sale technical support. Customers also appreciate the global scope of our manufacturing capability and our ability to produce many products at multiple sites.

Our Contract-Manufactured Products business operates in very competitive markets for its products. The competition varies from smaller regional companies to large global assembly manufacturers. Given the cost pressures they face, many of our customers look to reduce costs by sourcing from low-cost locations. We seek to differentiate ourselves by leveraging our global capabilities and by employing new technologies such as high-speed automated assembly, insert-molding, multi-shot precision molding, and expertise with multiple-piece closure systems.

**Research and Development Activities**

We maintain our own research-scale production facilities and laboratories for developing new products and offer contract engineering design and development services to assist customers with new product development. Our quality control, regulatory and laboratory testing capabilities are used to ensure compliance with applicable manufacturing and regulatory standards for primary and secondary pharmaceutical packaging components and delivery systems.

Commercial development of our new products and services for medical and pharmaceutical applications commonly requires several years. New products that we develop may require separate approval as medical devices, and products that are intended to be used in the packaging and delivery of pharmaceutical products are subject to both customer acceptance of our products and regulatory approval of the customer's products following our development period.

We continue to pursue innovative strategic platforms in prefillable syringes, injectable containers, advanced injection, and safety and administration systems.

We also continue to seek new innovative opportunities for acquisition, licensing, partnering or development of products, services and technologies.

**Human Capital Management**

***Our People***

As of December 31, 2020, we employed approximately 9,200 people, excluding contractors and temporary workers, in our operations throughout the world. During 2020, West hired approximately 1,900 new team members and experienced an attrition rate of 15.1%. The following table presents the approximate percentage of our employees by region:

| | |
|---|---|
| North America | 44% |
| Europe | 41% |
| Asia Pacific | 12% |
| South America | 3% |
| Total | 100% |

As of December 31, 2020, the following table presents the approximate percentage of our employees by business unit:

| | |
|---|---|
| Global Operations | 83% |
| Sales and Marketing | 5% |
| Corporate | 5% |
| Digital & Technology (D&T) | 4% |
| Research & Development | 3% |
| Total | 100% |

As of December 31, 2020, we had the following global gender demographics:

| | Men | Women |
|---|---|---|
| West Global Employees | 63% | 37% |

***Diversity and Inclusion***
We actively foster an inclusive and collaborative culture for our team members where different views and perspectives are welcomed and valued. We are convinced that this approach brings forth innovation, learning and growth for our team members on a global basis. The Chief Executive Officer ("CEO") and the executive team members review diversity and inclusion objectives throughout the year to ensure continuous focus and improvement. As of December 31, 2020, three out of the ten members of West's Leadership Team are women, with five out of the ten members being women and/or people of color.

***Training, Compliance and Talent Development***
We strongly encourage our team members to engage in continuous learning, and we provide development opportunities and build talent from within. We are proud to offer resources like our tuition reimbursement program and our online learning catalog, with approximately 1,300 courses available. We centrally manage and organize on-the-job training, instructor-led trainings and online trainings in many different languages and topics through our one global Learning Management System, where we tracked approximately 33,500 training completions during 2020 from our team members around the globe.

Our team members live the values of our ethical culture. They are responsible for adhering to our core values as they work together to support our mission to improve patient lives. West’s Code of Business Conduct, available in multiple languages on westpharma.com, provides guidance to our team members on appropriate conduct. Every team member is required to undergo Code of Business Conduct and respect in the workplace training annually.

Our focus on talent acquisition, performance management, resource planning and leadership assessment are strongly aligned with our diversity and inclusion strategies. We understand that diversity leads to greater innovation, more opportunities, better access to talent and stronger business performance.

***Compensation and Benefits***
West is committed to providing fair and competitive compensation and benefits programs to attract, retain and reward high-performing team members at all levels. We offer a comprehensive total rewards program to support the health, financial and home-life needs of our team members. Total Rewards at West are defined as the value of the Compensation and Benefits programs offered to employees, which aim to reflect the value of the job and the contribution of the individual, while linking employees’ performance to business and personal results. Based on country of employment, West may provide health care and retirement savings programs as well as paid time off, flexible work schedules, a Global Employee Assistance Program and an Employee Stock Purchase Program.

***Health, Safety and Wellness***
The health and safety of our team members has always been both a top priority and a cultural value. West's commitment to the safety of our teams starts at the top and is driven throughout our business by every level of management and by every team member across the globe. In 2020, West formed a Health, Safety, and Environment ("HSE") Executive Council consisting of C-suite and executive operations leaders to monitor and guide our HSE process. West’s global HSE team is also a critical component in leading the safety efforts at our sites. Each manufacturing location has dedicated and trained HSE professionals, responsible for general safety oversight at the site. Our Recordable Injury Rate in 2020 was 0.94 per 100 employees. Our HSE focus can also be seen in our proactive global response to the novel coronavirus ("COVID-19") pandemic which includes training and active screening of employees for COVID-19 illness; enhanced gowning and cleaning protocols at all locations; mask requirements for all employees, vendors and contractors; eliminating all non-critical international and domestic business travel; requiring administrative and support personnel to work-from-home; modifying production operations to facilitate social distancing; and regular communications regarding COVID-19 protocols, precautions and information for both on and off the job use.

**Available Information**

We maintain a website at *www.westpharma.com*. Our 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 (the "Exchange Act") are available on our website under the *Investors - SEC Filings* caption as soon as reasonably practical after we electronically file the material with, or furnish it to, the U.S. Securities and Exchange Commission ("SEC"). These filings are also available to the public over the Internet at the SEC's website, *www.sec.gov*.

In Part II of this Form 10-K, we incorporate by reference certain information from parts of other documents filed with the SEC and from our Proxy Statement for the 2021 Annual Meeting of Shareholders ("2021 Proxy Statement"), which will be filed with the SEC within 120 days following the end of our 2020 fiscal year. Our 2021 Proxy Statement will be available on our website on or about March 25, 2021, under the caption *Investors - Annual Reports & Proxy*.

Information about our corporate governance, including our Corporate Governance Principles and Code of Business Conduct, as well as information about our Directors, Board Committees, Committee Charters, and instructions on how to contact the Board, is available on our website under the *Investors - Corporate Governance* heading. We intend to make any required disclosures regarding any amendments of our Code of Business Conduct or waivers granted to any of our directors or executive officers under the caption *Investors - Code of Business Conduct* on our website. Information relating to the West Pharmaceutical Services Dividend Reinvestment Plan is also available on our website under the *Investors - Transfer Agent/Dividend Reinvestment* caption.

Information on our website does not constitute part of this document.

We will provide any of the foregoing information without charge upon written request to our Corporate Secretary, West Pharmaceutical Services, Inc., 530 Herman O. West Drive, Exton, PA 19341.

**ITEM 1A. RISK FACTORS**

The statements in this section describe material risks to our business and should be considered carefully. In addition, these statements constitute our cautionary statements under the Private Securities Litigation Reform Act of 1995.

*Our disclosure and analysis in this Form 10-K contains some forward-looking statements that are based on management's beliefs and assumptions, current expectations, estimates and forecasts. We also provide forward-looking statements in other materials we release to the public as well as oral forward-looking statements. Such statements give our current expectations or forecasts of future events. They do not relate strictly to historical or current facts. We have attempted, wherever possible, to identify forward-looking statements by using words such as "estimate," "expect," "intend," "believe," "plan," "anticipate" and other words and phrases of similar meaning. In particular, these include statements relating to future actions, business plans and prospects, new products, future performance or results of current or anticipated products, sales efforts, expenses, interest rates, foreign-exchange rates, economic effects, the outcome of contingencies, such as legal proceedings, and financial results.*

*Many of the factors that will determine our future results are beyond our ability to control or predict. Achievement of future results is subject to known or unknown risks or uncertainties, including, without limitation, the risks set forth below. Therefore, actual results could differ materially from past results and those expressed or implied in any forward-looking statement. You should bear this in mind as you consider forward-looking statements.*
*Unless required by applicable securities law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise. We also refer you to further disclosures we make on related subjects in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K to the SEC.*

***Global and Economic Risks***

**Our results of operations and financial condition may be adversely affected by the COVID-19 pandemic and other public health epidemics.**

Our results of operations and financial condition may be adversely affected if the progression of the COVID-19 pandemic interferes with our ability, or that of our employees, contractors, suppliers, customers and other business partners, to carry out and deliver on business obligations.

COVID-19 may have an adverse effect on our operations, supply chains and distribution systems. Known potential impacts are illness in our workforce as well as a reduction in access to raw materials for production and access to transportation of product. There could be other unknown and unforeseeable impacts. These impacts have increased and may continue to increase our expenses, including costs associated with preventive and precautionary measures that we, companies with which we conduct business and governments are taking. Government measures include actions that restrict or prohibit travel, which in turn may impact our operations by limiting our employees' ability to come to work, or the employees of companies upon which our supply chain depends. The impacts of the pandemic and the aforesaid measures taken by other companies and governments may cause us to experience significant and unpredictable reductions or increases in demand for certain of our products. This is especially possible in the event customers re-prioritize their needs due to the changing environment.

Despite our efforts to manage these COVID-19 related risks, their ultimate impact on the Company will be determined by factors beyond our knowledge or control, including the duration of COVID-19 and further actions taken to control its spread and mitigate its public health effects.

**Unauthorized access to our or our customers' information and systems could negatively impact our business.**

Our systems and networks, as well as those of our customers, suppliers, service providers, and banks, have and may in the future become the target of cyberattacks or information security breaches which, in turn, could result in the unauthorized release and misuse of confidential or proprietary information about our company, our employees or our customers, as well as disrupt our operations or damage our facilities or those of third parties. Additionally, our systems are subject to regulation to preserve the privacy of certain data held on those systems. We maintain an extensive network of technical security controls, policy enforcement mechanisms and monitoring systems, in order to address these threats. While these measures are designed to prevent, detect and respond to unauthorized activity in our systems, certain types of attacks could result in financial or information losses and/or reputational harm. If we cannot comply with regulations or prevent the unauthorized access, release and/or corruption of our or our customers' confidential, classified or personally identifiable information, our reputation could be damaged, and/or we could face financial losses. We may also be required to incur additional costs to modify or enhance our systems, or to try to prevent or remediate any such attacks. Modifying or enhancing our systems may result in unanticipated or prolonged disruption events, which could have a material adverse effect on our business and/or results of operations.

**Our operating results may be adversely affected by unfavorable economic and market conditions.**

The current uncertainty in the global economy, including the effects of recession or slow economic growth in the U.S., Europe, and emerging markets in Asia and South America, may negatively affect our operating results. Examples of the effects of these global economic challenges include: our suppliers' and our customers' inability to access the credit markets at commercially reasonable rates; reduction in sales due to customers decreasing their inventories in the near-term or long-term or due to liquidity difficulties; reduction in sales due to shortages of materials we purchase from our suppliers; reduction in research and development efforts and expenditures by our customers; our inability to hedge our currency and raw material risks sufficiently or at commercially reasonable prices; insolvency of suppliers or customers; inflationary pressures on our supplies or our products; and increased expenses due to growing global taxation of corporate profits or revenues or changes in, or expirations of, a country's tax laws or regulations. Our operating results in one or more geographic regions may also be affected by uncertain or changing economic conditions within that region. If economic and market conditions in the U.S. or Europe, or in emerging markets, weaken further, we may experience material adverse impacts on our business, financial condition and results of operations.

**Changes in foreign currency exchange rates could have a material adverse effect on our business and/or results of operations.**

Our business is subject to foreign currency exchange rate fluctuations. Sales outside of the U.S. accounted for 54.6% of our consolidated net sales in 2020 and we anticipate that sales from international operations will continue to represent a significant portion of our total sales in the future. In addition, many of our manufacturing facilities and suppliers are located outside of the U.S. Further, we intend to continue our expansion into emerging and/or faster-growing markets outside of the U.S. in the future. Virtually all of our international sales, assets and related operating costs and expenses are earned, valued or incurred in the currency of the local country, primarily the Euro, the Singapore Dollar ("SGD"), and the Danish Krone. In addition, we are exposed to Japanese Yen ("Yen"), as we maintain a 49% ownership interest in, and we purchase finished goods and other materials from, Daikyo. We are also exposed to currencies in emerging market countries, such as the Chinese Yuan, the Indian Rupee, the South Korean Won, and various South American currencies. Our consolidated financial statements are presented in USD, and, therefore, we must translate the reported values of our foreign assets, liabilities, revenues, and expenses into USD, which can result in significant fluctuations in the amount of those assets, liabilities, revenues, or expenses. The exchange rates between these foreign currencies and USD in recent years have fluctuated significantly and may continue to do so in the future. Increases or decreases in the value of USD compared to these foreign currencies may negatively affect the value of these items in our consolidated financial statements, which could have a material adverse effect on our operating results.

In addition to translation risks, we incur currency transaction risk when we or one of our subsidiaries enters into a purchase or sales transaction in a currency other than that entity's local currency. In order to reduce our exposure to fluctuations in certain exchange rates, we have entered, and expect to continue to enter, into hedging arrangements, including the use of financial derivatives. There can be no certainty that we will be able to enter into or maintain hedges of these currency risks, or that our hedges will be effective, which could have a significant effect on our financial condition and operating results.

**We are exposed to credit risk on accounts receivable and certain prepayments made in the normal course of business. This risk is heightened during periods when economic conditions worsen.**

A substantial majority of our outstanding trade receivables are not covered by collateral or credit insurance. In addition, we have made prepayments associated with insurance premiums and other advances in the normal course of business. While we have procedures to monitor and limit exposure to credit risk on trade receivables and other current assets, there can be no assurance such procedures will effectively limit our credit risk and avoid losses, which could have a material adverse effect on our financial condition and operating results.

**LIBOR reform may adversely affect our financial condition, results of operations and cash flows.**

Our variable-rate debt, which includes our senior unsecured, multi-currency revolving credit facility agreement dated as of March 28, 2019 (the “Credit Agreement”), and its accompanying Incremental Facility Amendment dated as of December 30, 2019 (the “Term Loan”), currently use the London Interbank Offered Rate ("LIBOR") as a benchmark for establishing the interest rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. In July 2017, the U.K. Financial Conduct Authority (the "FCA"), which regulates LIBOR, announced that the FCA will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. Such announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. If the method for calculation of LIBOR changes, if LIBOR is no longer available or if lenders have increased costs due to changes in LIBOR, we may suffer from potential increases in interest rates on our variable-rate debt, which could have a material adverse effect on our financial condition, results of operations and cash flows. Further, we may need to amend our Credit Agreement and Term Loan in connection with the replacement of LIBOR with the new standard that is established. We will continue to monitor the proposals for reform relating to LIBOR.

**No assurance can be given that we will continue to pay or declare dividends.**

We have historically paid dividends. However, there can be no assurance that we will pay or declare dividends in the future. The actual declaration and payment of future dividends, the amount of any such dividends, and the establishment of record and payment dates, if any, are subject to determination by our Board of Directors each quarter after its review of our then-current strategy, applicable debt covenants and financial performance and position, among other things. Our declaration and payment of future dividends is subject to risks and uncertainties, including: deterioration of our financial performance or position; inability to declare a dividend in compliance with applicable laws or debt covenants; an increase in our cash needs or decrease in available cash; and the business judgment of the Board of Directors that a declaration of a dividend is not in our best interest.

***Industry Risks***

**Our sales and profitability are largely dependent on the sale of drug products delivered by injection and the packaging of drug products. If the drug products developed by our customers in the future use another delivery system or are reconfigured to require less frequent dosing, our sales and profitability could suffer.**

Our business depends to a substantial extent on customers’ continued sales and development of products that are delivered by injection. If (i) our customers fail to continue to sell, develop and deploy injectable products; (ii) our customers reconfigure their drug product or develop new drug products requiring less frequent dosing; or (iii) we are unable to develop new products that assist in the delivery of drugs by alternative methods, our sales and profitability may suffer.

**If we are unable to provide comparative value advantages, timely fulfill customer orders, or resist pricing pressure, we will have to reduce our prices, which may reduce our profit margins.**

We compete with several companies across our major product lines. Because of the special nature of these products, competition is based primarily on product design and performance, although total cost is becoming increasingly important as pharmaceutical companies continue with aggressive cost-control programs across their operations. Companies often compete on the basis of price. We aim to differentiate ourselves from our competition by being a “full-service, value-added” global supplier that is able to provide pre-sale compatibility studies, engineering support, and other services and sophisticated post-sale technical support on a global basis. However, we face continued pricing pressure from our customers and competitors. If we are unable to resist or offset the effects of continued pricing pressure through our value-added services, improved operating efficiencies and reduced expenditures, or if we have to reduce our prices, our sales and profitability may suffer.

**Consolidation in the pharmaceutical and healthcare industries could adversely affect our future revenues and operating income.**

The pharmaceutical and healthcare industries continue to experience a significant amount of consolidation. As a result of this consolidation, competition to provide goods and services to customers has increased. In addition, group purchasing organizations and integrated health delivery networks have served to concentrate purchasing decisions for some customers, which has placed pricing pressure on suppliers. Further consolidation within the industries we serve could exert additional pressure on the prices of our products.

**The medical technology industry is very competitive and customer demands and/or new products in the marketplace could cause a reduction in demand.**

The medical technology industry is subject to rapid technological changes, and we face significant competition across our product lines and in each market in which our products are sold. We face this competition from a wide range of companies, including large medical device companies, some of which have greater financial and marketing resources than we do. We also face competition from firms that are more specialized than we are with respect to particular markets. In some instances, competitors, including pharmaceutical companies, also offer, or are attempting to develop, alternative therapies for diseases that may be delivered via their own, or without, a medical device. The development of new or improved products, processes or technologies by other companies (such as needle-free injection technology) may reduce customer demand for our products or render some of our products or proposed products obsolete or less competitive. In addition, any failure or inability to meet increased customer quality expectations could cause a reduction in demand.

***Business and Operational Risks***

**Disruption in our manufacturing facilities could have a material adverse effect on our ability to make and sell products and have a negative impact on our reputation, performance or financial condition.**

We have manufacturing sites throughout the world. In some instances, however, the manufacturing of certain product lines is concentrated in one or only a few of our plants. The functioning of our manufacturing and distribution assets and systems could be disrupted for reasons either within or beyond our control, including, without limitation: extreme weather or longer-term climatic changes; natural disasters; pandemic; war; accidental damage; disruption to the supply of material or services; product quality and safety issues; systems failure; workforce actions; or environmental matters. There is a risk that incident management systems in place may prove inadequate and that any disruption may materially adversely affect our ability to make and sell products and, therefore, materially adversely affect our reputation, performance or financial condition.

**Our international sales and operations are subject to risks and uncertainties that vary by country and which could have a material adverse effect on our business and/or results of operations.**

We conduct business in most of the major pharmaceutical markets in the world. Our international operations and our ability to implement our overall business strategy (including our plan to continue expanding into emerging and/or faster-growing markets outside of the U.S.) are subject to risks and uncertainties that can vary by country, and include: transportation delays and interruptions; political and economic instability and disruptions, including the United Kingdom's withdrawal from the European Union; imposition of duties and tariffs; import and export controls; the risks of divergent business expectations or cultural incompatibility inherent in establishing and maintaining operations in foreign countries; difficulties in staffing and managing multi-national operations; labor strikes and/or disputes; and potentially adverse tax consequences. Limitations on our ability to enforce legal rights and remedies with third parties or our joint venture partners outside of the U.S. could also create exposure. In addition, we may not be able to operate in compliance with foreign laws and regulations, or comply with applicable customs, currency exchange control regulations, transfer pricing regulations or any other laws or regulations to which we may be subject, in the event that these laws or regulations change. Any of these events could have an adverse effect on our international operations in the future by reducing the demand for our products or decreasing the prices at which we can sell our products, or otherwise have an adverse effect on our financial condition, results of operations and cash flows.

**Disruptions in the supply of key raw materials could adversely impact our operations.**

We generally purchase our raw materials and supplies required for the production of our products in the open market. For reasons of quality assurance, sole source availability or cost effectiveness, many components and raw materials are available and/or purchased only from a single supplier. Due to the stringent regulations and requirements of the FDA and other regulatory authorities regarding the manufacture of our products and the availability of such raw materials, we may not be able to quickly establish additional or replacement sources for these components or raw materials or do so without excessive cost. As a result, a reduction or interruption in supply, or an inability to secure alternative sources of raw materials or components, could have a material adverse effect on our business and/or results of operations.

**Raw material and energy prices have a significant impact on our profitability. If raw material and/or energy prices increase, and we cannot pass those price increases on to our customers, our profitability and financial condition may suffer.**

We use three basic raw materials in the manufacture of our products: elastomers (which include synthetic and natural material), aluminum and plastic. In addition, our manufacturing facilities consume a wide variety of energy products to fuel, heat and cool our operations. Supply and demand factors, which are beyond our control, generally affect the price of our raw materials and utility costs. If we are unable to pass along increased raw material prices and energy costs to our customers, our profitability, and thus our financial condition, may be adversely affected. The prices of many of these raw materials and utilities are cyclical and volatile. For example, the prices of certain commodities, particularly petroleum-based raw materials, have in the recent past exhibited rapid changes, affecting the cost of synthetic elastomers and plastic. While we generally attempt to pass along increased costs to our customers in the form of sales price increases, historically there has been a time delay between raw material and/or energy price increases and our ability to increase the prices of our products. In some circumstances, we may not be able to increase the prices of our products due to competitive pressure and other factors.

**If we are not timely or successful in new-product innovation or the development and commercialization of proprietary multi-component systems, our future revenues and operating income could be adversely affected.**

Our growth partly depends on new-product innovation and the development and commercialization of proprietary multi-component systems for injectable drug administration and other healthcare applications. Product development and commercialization is inherently uncertain and is subject to a number of factors outside of our control, including any necessary regulatory approvals and commercial acceptance for the products. The ultimate timing and successful commercialization of new products and systems requires substantial evaluations of the functional, operational, clinical, and economic viability of our products. In addition, the timely and adequate availability of filling capacity is essential to both conducting definitive stability trials and the timing of commercialization of customers' products in Crystal Zenith vials, syringes and cartridges. Delays, interruptions or failures in developing and commercializing new-product innovations or proprietary multi-component systems could adversely affect future revenues and operating income. In addition, adverse conditions may also result in future charges to recognize impairment in the carrying value of our goodwill and other intangible assets, which could have a material adverse effect on our financial results.

**We may not succeed in finding and completing acquisitions or other strategic transactions, which could have an adverse effect on our business and results of operations.**

We have historically engaged in acquisition activity, and we may in the future engage in acquisitions or other strategic transactions, such as joint ventures or investments in other entities. We may be unable to identify suitable targets, opportunistic or otherwise, for acquisitions or other strategic transactions in the future. If we identify a suitable candidate, our ability to successfully implement the strategic transaction would depend on a variety of factors, including our ability to obtain financing on acceptable terms and to comply with the restrictions contained in our debt agreements. Strategic transactions involve risks, including those associated with integrating the operations or maintaining the operations as separate (as applicable), financial reporting, disparate technologies, and personnel of acquired companies, joint ventures or related companies; managing geographically dispersed operations or other strategic investments; the diversion of management's attention from other business concerns; the inherent risks in entering markets or lines of business in which we have either limited or no direct experience; the potential loss of key employees, customers and strategic partners of acquired companies, joint ventures or companies in which we may make strategic investments; and potentially other unknown risks. We may not successfully integrate any businesses or technologies we may acquire or strategically develop in the future and may not achieve anticipated revenue and cost benefits relating to any such strategic transactions. Strategic transactions may be expensive, time consuming and may strain our resources. Strategic transactions may not be accretive to our earnings and may negatively impact our results of operations as a result of, among other things, the incurrence of debt, one-time write-offs of goodwill, additional carrying costs of patent or trademark portfolios, and amortization expenses of other intangible assets. In addition, strategic transactions that we may pursue could result in dilutive issuances of equity securities.

**Product defects could adversely affect the results of our operations.**

The design, manufacture and marketing of pharmaceutical packaging and medical devices involve certain inherent risks. Manufacturing or design defects, unanticipated use of our products, or inadequate disclosure of risks relating to the use of our products can lead to injury or other adverse events. These events could lead to recalls or safety alerts relating to our products (either voluntary or required by the FDA or similar governmental authorities in other countries), and could result, in certain cases, in the removal of a product from the market. A recall could result in significant costs, as well as negative publicity and damage to our reputation that could reduce demand for our products. Personal injuries relating to the use of our products can also result in product liability claims being brought against us. In some circumstances, such adverse events could also cause delays in new product approvals. Please refer to Note 3, *Revenue*, for the discussion of the voluntary recall of our Vial2Bag® product line.

**A loss of key personnel or highly skilled employees could disrupt our operations.**

Our future success depends, in large part, on our ability to retain key employees, including our executive officers and individuals in technical, marketing, sales, and research positions. Competition for experienced employees, particularly for persons with specialized skills, can be intense. Our ability to recruit such talent will depend on a number of factors, including compensation and benefits, work location and work environment. If we cannot effectively recruit and retain qualified executives and employees, our business could be adversely affected. Although we believe that we will be able to attract and retain talented personnel and replace key personnel should the need arise, our inability to do so on a timely basis could disrupt the operations of the unit affected or our overall operations. In addition, because of the complex nature of many of our products and programs, we are generally dependent on an educated and highly skilled engineering staff and workforce. Our operations could be disrupted by a shortage of available skilled employees.

**Our results of operations and earnings may not meet guidance or expectations.**

We provide public guidance on our expected results of operations for future periods. This guidance is comprised of forward-looking statements subject to risks and uncertainties, including the risks and uncertainties described in this Form 10-K and in our other public filings and public statements, and is based on assumptions we make at the time we provide such guidance. Our guidance may not always be accurate. If, in the future, our results of operations for a particular period do not meet our guidance or the expectations of investment analysts, or if we reduce our guidance for future periods, the market price of our common stock could decline significantly.

**If we fail to comply with our obligations under our distributorship or license agreements with Daikyo or the agreements are terminated early or not renewed, we could lose license rights and access to certain product and technology that are important to our business.**

Key value-added and proprietary products and processes are licensed from our affiliate, Daikyo, including but not limited to, Crystal Zenith, FluroTec® and B2-coating technologies. Our rights to these products and processes are licensed pursuant to agreements that expire in 2027. However, if the agreements are terminated early or not renewed, our business could be adversely impacted. Please refer to Note 7, *Affiliated Companies*, for information relating to the increase in our ownership interest in Daikyo in 2019.

***Legal and Regulatory Risks***

**We are subject to regulation by governments around the world, and if these regulations are not complied with, existing and future operations may be curtailed, and we could be subject to liability.**

The design, development, manufacturing, marketing and labeling of certain of our products and our customers' products that incorporate our products are subject to regulation by governmental authorities in the U.S., Europe and other countries, including the FDA, the European Medicines Agency and the National Medical Products Administration (China). Complying with governmental regulation can be costly and can result in required modification or withdrawal of existing products and a substantial delay in the introduction of new products. Failure to comply with applicable regulatory requirements or failure to obtain regulatory approval for a new product could result in expenses and actions that could adversely affect our business and financial performance.

**Products that incorporate our technologies and medical devices that we produce are subject to regulations and extensive approval or clearance processes, which make the timing and success of new-product commercialization difficult to predict.**

The process of obtaining and maintaining FDA and other required regulatory approvals is expensive and time-consuming. Historically, most medical devices that incorporate our technologies and medical devices that we produce have been subject to the FDA's 510(k) marketing approval process, which typically lasts from six to nine months. Supplemental or full pre-market approval reviews require a significantly longer period, delaying commercialization. Changes in regulation on a global scale must be monitored and actions taken to ensure ongoing compliance. Pharmaceutical products that incorporate our technologies and medical devices that we produce are subject to the FDA's New Drug Application process, which typically takes a number of years to complete. Additionally, biotechnology products that incorporate our technologies and medical devices that we produce are subject to the FDA's Biologics License Application process, which also typically takes a number of years to complete. Outside of the U.S., sales of medical devices and pharmaceutical or biotechnology products are subject to international regulatory requirements that vary from country to country. The time required to obtain approval for sale internationally may be longer or shorter than that required for FDA approval. There is no certainty that any regulatory approval may be obtained or maintained indefinitely, and our ability to launch products to the market and maintain market presence is not guaranteed.

**Changes in the regulation of drug products and devices may increase competitive pressure and adversely affect our business.**

An effect of the governmental regulation of our medical devices and our customers' drug products, devices, and manufacturing processes is that compliance with regulations makes it difficult to change components and devices produced by one supplier with those from another supplier, due to the large amount of data and information that customers must generate to demonstrate that the components and devices are equivalent and pose no additional risk to the patient. The regulation of our medical devices and our customers' products that incorporate our components and devices has increased over time. If the applicable regulations were to be modified in a way that reduced the level of data and information needed to prove equivalency for a change from one supplier's components or devices to those made by another, it is likely that the competitive pressure would increase and adversely affect our sales and profitability.

**If we are not successful in protecting our intellectual property rights, our ability to compete may be affected.**

Our patents, trademarks and other intellectual property are important to our business. We rely on patent, trademark, copyright, trade secret, and other intellectual property laws, as well as nondisclosure and confidentiality agreements and other methods, to protect our proprietary products, information, technologies and processes. We also have obligations with respect to the non-use and non-disclosure of third-party intellectual property. We may need to engage in litigation or similar activities to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of proprietary rights of others. Any such litigation could require us to expend significant resources and divert the efforts and attention of our management and other personnel from our business operations. There can be no assurance that the steps we will take to prevent misappropriation, infringement or other violation of our intellectual property or the intellectual property of others will be successful. In addition, effective patent, trademark, copyright, and trade secret protection may be unavailable or limited for some of our proprietary products in some countries. Failure to protect our intellectual property or successfully invalidate or defend against intellectual property protections of third parties could harm our business and results of operations. In addition, if relevant and effective patent protection is not available or has expired, we may not be able to prevent competitors from independently developing products and services similar or duplicative to ours.

**Significant developments in U.S. policies could have a material adverse effect on our business and/or results of operations.**

Changes in U.S. social, political, regulatory, and economic conditions, or in laws and policies governing foreign trade, manufacturing, development, immigration, and investment, could have an adverse effect on our financial condition, results of operations and cash flows.

**Our operations must comply with environmental statutes and regulations, and any failure to comply could result in extensive costs which would harm our business.**

The manufacture of some of our products has involved, and may continue to involve, the use, transportation, storage, and disposal of hazardous or toxic materials and is subject to various environmental protection and occupational health and safety laws and regulations in the countries in which we operate. This has exposed us in the past, and could expose us in the future, to risks of accidental contamination and events of non-compliance with environmental laws. Any such occurrences could result in regulatory enforcement or personal injury and property damage claims or could lead to a shutdown of some of our operations, which could have an adverse effect on our business and results of operations. We currently incur costs to comply with environmental laws and regulations and these costs may become more significant.

**Healthcare reform may adversely affect our results of operations.**

Changes in the U.S. or international healthcare systems could result in reduced demand for our products, as our sales depend, in part, on the extent to which pharmaceutical companies and healthcare providers and facilities are reimbursed by government authorities, private insurers and other third-party payers for the costs of our products. The coverage policies and reimbursement levels of third-party payers, which can vary among public and private sources, may affect which products customers purchase and the prices they are willing to pay for these products in a particular jurisdiction. Legislative or administrative reforms to reimbursement systems in the U.S. or abroad (for example, those under consideration in France, Germany, Italy and the United Kingdom) could significantly reduce reimbursement for our customers' products, which could in turn reduce the demand for our products.

Moreover, in the coming years, additional changes could be made to global governmental healthcare programs that could significantly impact the success of our products. We will continue to evaluate healthcare reform, as well as trends and changes that may be encouraged by healthcare legislation globally and that may potentially impact our business over time.

**The uncertain effects of climate change and potential climate change legislation could lead to business interruption, significantly increased costs and/or other adverse consequences to our business.**

Climate change and potential climate change legislation may present risks to our operations, including business interruption, significantly increased costs and/or other adverse consequences to our business. Some of the potential impacts of climate change to our business include physical risks to our facilities, water and energy supply limitations or interruptions, disruptions to our supply chain and impairment of other resources. In addition, if legislation or regulations are enacted or promulgated in the U.S., Europe or Asia or any other jurisdictions in which we do business that limit or reduce allowable greenhouse gas emissions and other emissions, such restrictions could have a significant effect on our operating and financial decisions, including those involving capital expenditures to reduce emissions, and our results of operations. Our manufacturing operations may not be able to operate as planned if we are not able to comply with new legal and regulatory legislation around climate change, or it may become too costly to operate in a profitable manner. Additionally, suppliers' added expenses could be passed on to us in the form of higher prices and we may not be able to pass on such expenses to our customers through price increases.

**ITEM IB. UNRESOLVED STAFF COMMENTS**

As of the filing of this Form 10-K, there were no unresolved comments from the Staff of the SEC.

**ITEM 2. PROPERTIES**

Our corporate headquarters are located at 530 Herman O. West Drive, Exton, Pennsylvania.

The following table summarizes our facilities by segment and geographic region. All facilities shown are owned except where otherwise noted.

| ***Type of Facility/ Country*** | ***Location*** | ***Segment*** |
|---|---|---|
| **Manufacturing:** | | |
| *North America* | | |
| United States of America | Phoenix, AZ (2) | Contract Manufactured Products |
| | Scottsdale, AZ (1) (2) | Proprietary Products |
| | Tempe, AZ (2) | Contract Manufactured Products |
| | St. Petersburg, FL (1) | Proprietary Products |
| | Grand Rapids, MI | Contract Manufactured Products |
| | Kinston, NC | Proprietary Products |
| | Kearney, NE | Proprietary Products |
| | Jersey Shore, PA | Proprietary Products |
| | Williamsport, PA | Contract Manufactured Products |
| Puerto Rico | Cayey | Proprietary Products and Contract Manufactured Products |
| *South America* | | |
| Brazil | Sao Paulo | Proprietary Products |
| *Europe* | | |
| Denmark | Horsens | Proprietary Products |
| England | St. Austell | Proprietary Products |
| France | Le Nouvion | Proprietary Products |
| | Le Vaudreuil | Proprietary Products |
| Germany | Eschweiler (1) (2) | Proprietary Products |
| | Stolberg | Proprietary Products |
| Ireland | Waterford | Proprietary Products |
| | Dublin (2) | Contract Manufactured Products |
| Serbia | Kovin | Proprietary Products |
| *Asia Pacific* | | |
| China | Qingpu | Proprietary Products |
| India | Sri City | Proprietary Products |
| Singapore | Jurong (2) | Proprietary Products |
| **Mold-and-Die Tool Shop:** | | |
| *North America* | | |
| United States of America | Upper Darby, PA | Proprietary Products |

| *Type of Facility/ Country* | *Location* | *Segment* |
|---|---|---|
| *Europe* | | |
| England | Bodmin (2) | Proprietary Products |
| | | |
| **Contract Analytical Laboratory:** | | |
| *North America* | | |
| United States of America | Exton, PA | Proprietary Products |
| | | |
| **Technology Center:** | | |
| *Asia Pacific* | | |
| India | Bangalore (2) | Proprietary Products, Contract Manufactured Products |

(1) This manufacturing facility is also used for research and development activities.
(2) This facility is leased in whole or in part.

Our Proprietary Products reportable segment leases facilities located in Scottsdale, AZ, Germany, and Israel for research and development, as well as other activities. Sales offices in various locations are leased under contractual arrangements.

**ITEM 3. LEGAL PROCEEDINGS**

None.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**INFORMATION ABOUT OUR EXECUTIVE OFFICERS**

The executive officers of the Company are set forth in this table. Generally, executive officers are elected by the Board of Directors annually at the regular meeting of the Board of Directors following the Annual Meeting of Shareholders. Additionally, executive officers may be elected upon hire or due to a promotion.

| **Name** | **Age** | **Position** |
|---|---|---|
| Silji Abraham | 49 | Senior Vice President, Chief Technology Officer since December 2020. Senior Vice President, Chief Digital and Transformation Officer from February 2018 to December 2020. Prior to joining West, he most recently served as Executive Vice President and Chief Information Officer of MilliporeSigma, a subsidiary of Merck KGaA, Darmstadt, Germany. Prior to this role, he served as Chief Information Officer at Sigma-Aldrich Corporation, a leading life science and technology company, and worked in various leadership roles at Invensys Operations Management, ArvinMeritor and Chrysler Group. |
| Bernard J. Birkett | 52 | Senior Vice President and Chief Financial Officer since June 2018. In addition, Treasurer from June 2018 to December 2019 and Principal Accounting Officer from October 2019 to April 2020. Prior to joining West, he spent more than 20 years at Merit Medical Systems, Inc., a leading manufacturer of disposable medical devices, where he served in a number of senior global leadership roles, including Chief Financial Officer and Treasurer, Controller for Europe, Middle East and Africa (EMEA) and Vice President of International Finance. |

| | | |
|---|---|---|
| Annette F. Favorite | 56 | Senior Vice President and Chief Human Resources Officer since October 2015. Prior to joining West, she spent more than 25 years at IBM Corporation, an information technology services company, in a number of strategic and global human resources roles, including Vice President, Global Talent Management, Vice President of Human Resources for Worldwide Software Sales, and Human Resources Leader for the company's Southwest European Region, based out of Spain. |
| Eric M. Green | 51 | Chief Executive Officer since April 2015 and President since December 2015. Prior to joining West, he was Executive Vice President and President of the Research Markets business unit at Sigma-Aldrich Corporation from 2013 to 2015. From 2009 to 2013, he served as Vice President and Managing Director, International, where he was responsible for Asia Pacific and Latin America, and prior thereto, held various commercial and operational roles. |
| Quintin J. Lai | 54 | Vice President, Corporate Development, Strategy and Investor Relations since January 2016. Prior to joining West, he was Vice President of Investor Relations and Corporate Strategy at Sigma-Aldrich Corporation from 2012 to 2015. From 2002 to 2012, he was at Robert W. Baird & Company, where he held various roles, including Managing Director and Senior Equity Research Analyst of the Life Science Tools and Diagnostic sector and Associate Director of Equity Research. |
| Kimberly Banks MacKay | 55 | Senior Vice President, General Counsel and Corporate Secretary since December 2020. Prior to joining West, from April 2019 to November 2020, she served as Senior Vice President, General Counsel and Corporate Secretary at the Segal Group in New York, a privately held firm specializing in employee benefits and investment consulting. Prior to Segal, she served for over 15 years in a variety of Legal leadership roles for Novartis, a global healthcare company, including Head of U.S. Legal for Novartis Business Service. |
| David A. Montecalvo | 55 | Senior Vice President and Chief Operations and Supply Chain Officer since February 2019. Senior Vice President, Global Operations and Supply Chain from September 2016 until February 2019. Prior to joining West, he served in a number of senior leadership roles at Medtronic plc, a medical device company, including Vice President, Contract Manufacturing Operations, for the company's Restorative Therapies Group, Vice President, Business Operations Integration, where he was responsible for directing and leading the global operations integration of Covidien plc into Medtronic, and Vice President, Product Development and Operations for Medtronic Cardiovascular. Prior thereto, he held senior operations and product development roles at Urologix, Inc. and LecTec Corporation. |
| Chad R. Winters | 42 | Vice President, Chief Accounting Officer and Corporate Controller since May 2020. Vice President and Corporate Controller since October 2019. Prior to joining West, he served as Senior Vice President of Finance & Accounting and Controller of Amneal Pharmaceuticals, Inc., a specialty pharmaceutical company. Prior to Amneal, he held roles of increasing responsibility at the Chemours Company, UGI Corporation, and PricewaterhouseCoopers LLP. |

**PART II**

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

Our common stock is listed on the New York Stock Exchange ("NYSE") under the symbol "WST."

As of January 27, 2021, we had 718 shareholders of record, which excludes beneficial owners whose shares were held by brokerage firms, depositaries and other institutional firms in "street names" for their customers.

**Dividends**

Our common stock paid a quarterly dividend of $0.15 per share in each of the first three quarters of 2019; $0.16 per share in the fourth quarter of 2019 and each of the first three quarters of 2020; and $0.17 per share in the fourth quarter of 2020.

**Issuer Purchases of Equity Securities**

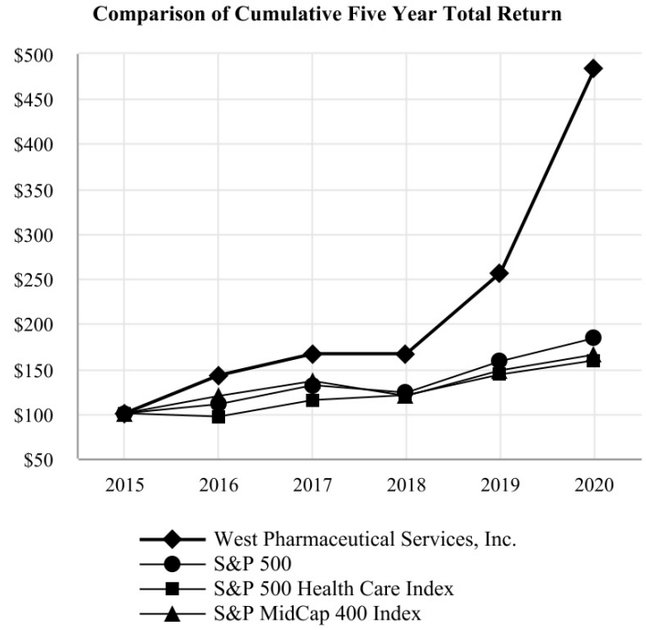
In December 2019, we announced a share repurchase program for calendar-year 2020 authorizing the repurchase of up to 848,000 shares of our common stock from time to time on the open market or in privately-negotiated transactions as permitted under Exchange Act Rule 10b-18. During the year ended December 31, 2020, we purchased 761,500 shares of our common stock under the now completed program at a cost of $115.5 million, or an average price of $151.65 per share. During the three months ended December 31, 2020, there were no purchases of our common stock made by us or any of our "affiliated purchasers" as defined in Rule 10b-18(a)(3) under the Exchange Act.

In December 2020, we announced a share repurchase program for calendar-year 2021 authorizing the repurchase of up to 631,000 shares of our common stock from time to time on the open market or in privately-negotiated transactions as permitted under Exchange Act Rule 10b-18. The number of shares to be repurchased and the timing of such transactions will depend on a variety of factors, including market conditions. This share repurchase program is expected to be completed by December 31, 2021.

**Performance Graph**

The following performance graph compares the cumulative total return to holders of our common stock with the cumulative total return of the following Standard & Poor's ("S&P") indices, for the five years ended December 31, 2020: 500, 500 Health Care Index, and MidCap 400 Index. The performance graph does not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of the stock involved, and is not intended to forecast or be indicative of possible future performance of the Company's common stock. Due to the increase in our market capitalization, we have decided to replace the S&P MidCap 400 Index with the S&P 500 Health Care Index for comparison purposes, which will be used going forward.

Cumulative total return to shareholders is measured by dividing total dividends (assuming dividend reinvestment) plus the per-share price change for the period by the share price at the beginning of the period. The Company's cumulative shareholder return is based on an investment of $100 on December 31, 2015 and is compared to the cumulative total return of the S&P indices mentioned above over the period with a like amount invested.



**ITEM 6. SELECTED FINANCIAL DATA**

FIVE-YEAR SUMMARY
West Pharmaceutical Services, Inc. and Subsidiaries

| (in millions, except per share data) | 2020 | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|---|
| SUMMARY OF OPERATIONS | | | | | |
| Net sales (1) | $ 2,146.9 | $ 1,839.9 | $ 1,717.4 | $ 1,599.1 | $ 1,509.1 |
| Operating profit † | 406.9 | 296.6 | 240.3 | 225.8 | 195.2 |
| Net income | 346.2 | 241.7 | 206.9 | 150.7 | 143.6 |
| Net income per share: | | | | | |
| Basic (2) | $ 4.68 | $ 3.27 | $ 2.80 | $ 2.04 | $ 1.96 |
| Diluted (3) | 4.57 | 3.21 | 2.74 | 1.99 | 1.91 |
| Weighted average common shares outstanding | 73.9 | 74.0 | 73.9 | 73.9 | 73.3 |
| Weighted average shares assuming dilution | 75.8 | 75.4 | 75.4 | 75.8 | 75.0 |
| Dividends declared per common share | $ 0.66 | $ 0.62 | $ 0.58 | $ 0.54 | $ 0.50 |
| YEAR-END FINANCIAL POSITION | | | | | |
| Cash and cash equivalents | $ 615.5 | $ 439.1 | $ 337.4 | $ 235.9 | $ 203.0 |
| Working capital | 870.3 | 717.1 | 610.7 | 464.0 | 400.9 |
| Total assets | 2,793.8 | 2,341.4 | 1,978.9 | 1,862.8 | 1,716.7 |
| Total invested capital: | | | | | |
| Total debt | 255.2 | 257.3 | 196.1 | 197.0 | 228.6 |
| Total equity | 1,854.5 | 1,573.2 | 1,396.3 | 1,279.9 | 1,117.5 |
| Total invested capital | $ 2,109.7 | $ 1,830.5 | $ 1,592.4 | $ 1,476.9 | $ 1,346.1 |
| PERFORMANCE MEASUREMENTS (4) | | | | | |
| Gross margin (a) | 35.8 % | 32.9 % | 31.8 % | 32.1 % | 33.2 % |
| Operating profitability (b) † | 19.0 % | 16.1 % | 14.0 % | 14.1 % | 12.9 % |
| Effective tax rate (5) | 18.1 % | 20.2 % | 17.2 % | 36.4 % | 28.7 % |
| Return on invested capital (c) † | 16.9 % | 13.8 % | 13.0 % | 10.2 % | 10.4 % |
| Net debt-to-total invested capital (d) | N/A | N/A | N/A | N/A | 2.2 % |
| Research and development expenses | $ 46.9 | $ 38.9 | $ 40.3 | $ 39.1 | $ 36.8 |
| Operating cash flow | 472.5 | 367.2 | 288.6 | 263.3 | 219.4 |
| Stock price range | $305-124.53 | $152.12-93.08 | $125.09-82.74 | $103.36-77.97 | $86.50-53.88 |

(1) Results for reporting periods beginning after January 1, 2018 are presented under Accounting Standards Codification ("ASC") 606, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for those periods.

(2) Based on weighted average common shares outstanding.

(3) Based on weighted average shares, assuming dilution.

(4) Performance measurements represent indicators commonly used in the financial community. Certain of the following performance measures are not in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) and should not be used as a substitute for the comparable U.S. GAAP financial measures. The non-U.S. GAAP financial measures are included as management uses them in evaluating our results of operations and believes that this information provides users with a valuable insight into our overall performance and financial position.

(a) Net sales minus cost of goods and services sold, including applicable depreciation and amortization, divided by net sales.

(b) Operating profit divided by net sales.
(c) Operating profit multiplied by one minus the effective tax rate divided by average total invested capital.
(d) Net debt (total debt less cash and cash equivalents) divided by total invested capital less cash and cash equivalents.

(5) As a result of the Tax Cuts and Jobs Act (the "2017 Tax Act"), the federal statutory rate was reduced from 35.0% to 21.0% effective for tax years beginning after December 31, 2017. Please refer to Note 17, *Income Taxes*, for further discussion of the 2017 Tax Act.

† Reflects our adoption of the guidance issued by the Financial Accounting Standards Board ("FASB") regarding the presentation of net periodic pension and postretirement benefit cost (net benefit cost).

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

### OVERVIEW

The following discussion is intended to further the reader's understanding of the consolidated financial condition and results of operations of our Company. It should be read in conjunction with our consolidated financial statements and the accompanying footnotes included in Part II, Item 8 of this Form 10-K. These historical financial statements may not be indicative of our future performance. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains a number of forward-looking statements, all of which are based on our current expectations and could be affected by the uncertainties and risks discussed in Part I, Item 1A of this Form 10-K.

### Non-U.S. GAAP Financial Measures

For the purpose of aiding the comparison of our year-over-year results, we may refer to net sales and other financial results excluding the effects of changes in foreign currency exchange rates. Organic net sales exclude the impact from acquisitions and/or divestitures and translate the current-period reported sales of subsidiaries whose functional currency is other than USD at the applicable foreign exchange rates in effect during the comparable prior-year period. We may also refer to adjusted consolidated operating profit and adjusted consolidated operating profit margin, which exclude the effects of unallocated items. The unallocated items are not representative of ongoing operations, and generally include restructuring and related charges, certain asset impairments, and other specifically-identified income or expense items. The re-measured results excluding effects from currency translation, the impact from acquisitions and/or divestitures, and excluding the effects of unallocated items are not in conformity with U.S. GAAP and should not be used as a substitute for the comparable U.S. GAAP financial measures. The non-U.S. GAAP financial measures are incorporated in our discussion and analysis as management uses them in evaluating our results of operations and believes that this information provides users with a valuable insight into our overall performance and financial position.

### Our Operations

We are a leading global manufacturer in the design and production of technologically advanced, high-quality, integrated containment and delivery systems for injectable drugs and healthcare products. Our products include a variety of primary packaging, containment solutions, reconstitution and transfer systems, and drug delivery systems, as well as contract manufacturing, analytical lab services and integrated solutions. Our customers include the leading biologic, generic, pharmaceutical, diagnostic, and additional medical device companies in the world. Our top priority is delivering quality products that meet the exact product specifications and quality standards customers require and expect. This focus on quality includes a commitment to excellence in manufacturing, scientific and technical expertise and management, which enables us to partner with our customers in order to deliver safe, effective drug products to patients quickly and efficiently.

Our business operations are organized into two reportable segments, Proprietary Products and Contract-Manufactured Products. Our Proprietary Products reportable segment offers proprietary packaging, containment and drug delivery products, along with analytical lab services and other integrated services and solutions, primarily to biologic, generic and pharmaceutical drug customers. Our Contract-Manufactured Products reportable segment serves as a fully integrated business, focused on the design, manufacture, and automated assembly of complex devices, primarily for pharmaceutical, diagnostic, and medical device customers. We also maintain collaborations to share technologies and market products with affiliates in Japan and Mexico.

**2020 Financial Performance Summary**

The following tables present a reconciliation from U.S. GAAP to non-U.S. GAAP financial measures:

| ($ in millions) | Operating Profit | Income tax expense | Net income | Diluted EPS |
|---|---|---|---|---|
| Year ended December 31, 2020 GAAP | $ 406.9 | $ 72.5 | $ 346.2 | $ 4.57 |
| Unallocated items: | | | | |
| Restructuring and severance related charges | 7.0 | 1.7 | 5.3 | 0.07 |
| Pension settlement [1] | — | 0.9 | 2.9 | 0.04 |
| Amortization of acquisition-related intangible assets [2] | 0.6 | 0.1 | 3.6 | 0.05 |
| Cost investment impairment | 2.5 | — | 2.5 | 0.03 |
| Year ended December 31, 2020 adjusted amounts (non-U.S. GAAP) | $ 417.0 | $ 75.2 | $ 360.5 | $ 4.76 |

During 2020, we recorded a tax benefit of $20.8 million associated with stock-based compensation.

| ($ in millions) | Operating Profit | Income tax expense | Net income | Diluted EPS |
|---|---|---|---|---|
| Year ended December 31, 2019 GAAP | $ 296.6 | $ 59.0 | $ 241.7 | $ 3.21 |
| Unallocated items: | | | | |
| Restructuring and related charges | 4.9 | 1.2 | 3.7 | 0.04 |
| Gain on restructuring-related sale of assets | (1.7) | (0.4) | (1.3) | (0.02) |
| Pension settlement [1] | — | 0.8 | 2.7 | 0.04 |
| Argentina currency devaluation | 1.0 | — | 1.0 | 0.01 |
| Tax Recovery [3] | (4.4) | (1.5) | (2.9) | (0.04) |
| Tax law Changes [4] | — | 0.3 | (0.3) | — |
| Year ended December 31, 2019 adjusted amounts (non-U.S. GAAP) | $ 296.4 | $ 59.4 | $ 244.6 | $ 3.24 |

During 2019, we recorded a tax benefit of $10.3 million associated with stock-based compensation.

| ($ in millions) | Operating Profit | Income tax expense | Net income | Diluted EPS |
|---|---|---|---|---|
| Year ended December 31, 2018 GAAP | $ 240.3 | $ 41.4 | $ 206.9 | $ 2.74 |
| Restructuring and related charges | 9.1 | 1.9 | 7.2 | 0.09 |
| Gain on restructuring-related sale of assets | (1.1) | (0.2) | (0.9) | (0.01) |
| Argentina currency devaluation | 1.1 | — | 1.1 | 0.02 |
| Tax law Changes [4] | — | 2.5 | (2.5) | (0.03) |
| Year ended December 31, 2018 adjusted amounts (non-U.S. GAAP) | $ 249.4 | $ 45.6 | $ 211.8 | $ 2.81 |

During 2018, we recorded a tax benefit of $14.3 million associated with stock-based compensation.

(1) The Company recorded a pension settlement charge within other nonoperating (income) expense, as it determined that normal-course lump-sum payments for each of our U.S. qualified and non-qualified defined benefit pension plan exceeded the threshold for settlement accounting.

(2) The Company recorded $0.6 million of amortization expense within operating profit associated with an acquisition of an intangible asset during the second quarter of 2020. Additionally, the company recorded $3.1 million of amortization expense in association with an acquisition of increased ownership interest in Daikyo.

(3) The Company recorded a net tax recovery related to previously-paid international excise taxes, following a favorable court ruling.

(4) The Company recorded a net tax benefit in December 31, 2019 and December 31, 2018 of $0.3 million and $2.5 million, respectively, due to the impact of federal law changes enacted during the respective years.

**RESULTS OF OPERATIONS**

We evaluate the performance of our segments based upon, among other things, segment net sales and operating profit. Segment operating profit excludes general corporate costs, which include executive and director compensation, stock-based compensation, certain pension and other retirement benefit costs, and other corporate facilities and administrative expenses not allocated to the segments. Also excluded are items that we consider not representative of ongoing operations. Such items are referred to as other unallocated items for which further information can be found above in the reconciliation from U.S. GAAP to non-U.S. GAAP financial measures.

Percentages in the following tables and throughout this *Results of Operations* section may reflect rounding adjustments.

**Net Sales**

The following table presents net sales, consolidated and by reportable segment:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Proprietary Products | $ 1,648.6 | $ 1,398.6 | $ 1,308.6 | 17.9 % | 6.9 % |
| Contract-Manufactured Products | 498.6 | 441.5 | 409.1 | 12.9 % | 7.9 % |
| Intersegment sales elimination | (0.3) | (0.2) | (0.3) | 50.0 % | (33.3)% |
| Consolidated net sales | $ 2,146.9 | $ 1,839.9 | $ 1,717.4 | 16.7 % | 7.1 % |

***2020 compared to 2019***

Consolidated net sales increased by $307.0 million, or 16.7%, in 2020, including a favorable foreign currency translation impact of $5.7 million. Excluding foreign currency translation effects, as well as incremental sales of $1.2 million from the acquisition of our distributor in South Korea in 2019, consolidated net sales increased by $300.1 million, or 16.3%.

**Proprietary Products –** Proprietary Products net sales increased by $250.0 million, or 17.9%, in 2020, including a favorable foreign currency translation impact of $2.2 million. Excluding foreign currency translation effects, as well as $1.2 million of incremental sales in 2020 from the acquisition of our distributor in South Korea in 2019, net sales increased by $246.6 million, or 17.6%, primarily due to growth in our high-value product offerings, including our FluroTec-coated components, Westar® components, Daikyo® and NovaPure® components, Daikyo Crystal Zenith® products, and our self-injection delivery platforms, all of which included approximately $99 million in COVID-19 related activity for vaccines, antiviral treatments and treatment of underlying COVID-19 symptoms.

**Contract-Manufactured Products –** Contract-Manufactured Products net sales increased by $57.1 million, or 12.9%, in 2020, including a favorable foreign currency translation impact of $3.5 million. Excluding foreign currency translation effects, net sales increased by $53.5 million, or 12.1%, due to an increase in the sale of healthcare-related injection and diagnostic devices.

The intersegment sales elimination, which is required for the presentation of consolidated net sales, represents the elimination of components sold between our segments.

***2019 compared to 2018***

Consolidated net sales increased by $122.5 million, or 7.1%, in 2019, including an unfavorable foreign currency translation impact of $52.2 million. Excluding foreign currency translation effects, as well as incremental sales of $3.3 million from the acquisition of our distributor in South Korea in 2019, consolidated net sales increased by $171.4 million or 10.0%.

**Proprietary Products** – Proprietary Products net sales increased by $90.0 million, or 6.9%, in 2019, including an unfavorable foreign currency translation impact of $43.1 million. Excluding foreign currency translation effects, as well as incremental sales of $3.3 million from the acquisition of our distributor in South Korea in 2019, net sales increased by $129.8 million, or 9.9%, primarily due to growth in our high-value product offerings, including our Daikyo components, our ready-to-use seals, stoppers, and plungers, our NovaPure® components and Crystal Zenith products, and our self-injection systems and FluroTec-coated components.

**Contract-Manufactured Products** – Contract-Manufactured Products net sales increased by $32.4 million, or 7.9%, in 2019, including an unfavorable foreign currency translation impact of $9.1 million. Excluding foreign currency translation effects, net sales increased by $41.5 million, or 10.1%, due to an increase in the sale of healthcare-related injection and diagnostic devices.

The intersegment sales elimination, which is required for the presentation of consolidated net sales, represents the elimination of components sold between our segments.

**Gross Profit**

The following table presents gross profit and related gross margins, consolidated and by reportable segment:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Proprietary Products: | | | | | |
| Gross profit | $ 682.2 | $ 540.4 | $ 485.4 | 26.2 % | 11.3 % |
| Gross profit margin | 41.4 % | 38.6 % | 37.1 % | | |
| Contract-Manufactured Products: | | | | | |
| Gross profit | $ 85.6 | $ 65.5 | $ 60.0 | 30.7 % | 9.2 % |
| Gross profit margin | 17.2 % | 14.8 % | 14.7 % | | |
| Unallocated items | $ — | $ (0.2) | $ — | | |
| Consolidated gross profit | $ 767.8 | $ 605.7 | $ 545.4 | 26.8 % | 11.1 % |
| Consolidated gross profit margin | 35.8 % | 32.9 % | 31.8 % | | |

***2020 compared to 2019***

Consolidated gross profit increased by $162.1 million, or 26.8%, in 2020, including a favorable foreign currency translation impact of $1.0 million. Consolidated gross profit margin increased by 2.9 margin points in 2020.

**Proprietary Products –** Proprietary Products gross profit increased by $141.8 million, or 26.2%, in 2020, including a favorable foreign currency translation impact of $0.3 million. Proprietary Products gross profit margin increased by 2.8 margin points in 2020, due to a favorable mix of products sold, production efficiencies, and sales price increases, partially offset by increased overhead costs including compensation costs and COVID-19 related expenses.

**Contract-Manufactured Products –** Contract-Manufactured Products gross profit increased by $20.1 million, or 30.7%, in 2020, including a favorable foreign currency translation impact of $0.7 million. Contract-Manufactured Products gross profit margin increased by 2.4 margin points in 2020, due to a favorable mix of products sold and production efficiencies, partially offset by increased overhead costs including compensation costs.

***2019 compared to 2018***

Consolidated gross profit increased by $60.3 million, or 11.1%, in 2019, including an unfavorable foreign currency translation impact of $15.7 million. Consolidated gross profit margin increased by 1.1 margin points in 2019.

**Proprietary Products** – Proprietary Products gross profit increased by $55.0 million, or 11.3%, in 2019, including an unfavorable foreign currency translation impact of $14.3 million. Proprietary Products gross profit margin increased by 1.5 margin points in 2019, due to a favorable mix of products sold, production efficiencies, and sales price increases, partially offset by increased overhead costs.

**Contract-Manufactured Products** – Contract-Manufactured Products gross profit increased by $5.5 million, or 9.2%, in 2019, including an unfavorable foreign currency translation impact of $1.4 million. Contract-Manufactured Products gross profit margin increased by 0.1 margin points in 2019, due to production efficiencies and lower material costs, partially offset by increased overhead costs and an unfavorable mix of products sold.

**Research and Development ("R&D") Costs**

The following table presents consolidated R&D costs:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Consolidated R&D costs | $ 46.9 | $ 38.9 | $ 40.3 | 20.6 % | (3.5)% |

***2020 compared to 2019***
Consolidated R&D costs increased by $8.0 million, or 20.6%, in 2020, as compared to 2019. Efforts remain focused on the continued investment in self-injection systems development, fluid transfer admixture devices, elastomeric packaging components, and formulation development.

***2019 compared to 2018***
Consolidated R&D costs decreased by $1.4 million, or 3.5%, in 2019, primarily due to an increase in customer-funded R&D projects via customer development agreements.

All of the R&D costs incurred during 2020, 2019 and 2018 related to Proprietary Products.

**Selling, General and Administrative ("SG&A") Costs**

The following table presents SG&A costs, consolidated and by reportable segment and corporate and unallocated items:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Proprietary Products | $ 197.5 | $ 189.9 | $ 185.0 | 4.0 % | 2.6 % |
| Contract-Manufactured Products | 15.5 | 16.2 | 16.5 | (4.3)% | (1.8)% |
| Corporate and unallocated items | 89.0 | 66.6 | 61.4 | 33.6 % | 8.5 % |
| Consolidated SG&A costs | $ 302.0 | $ 272.7 | $ 262.9 | 10.7 % | 3.7 % |
| *SG&A as a % of net sales* | *14.1 %* | *14.8 %* | *15.3 %* | | |

***2020 compared to 2019***
Consolidated SG&A costs increased by $29.3 million, or 10.7%, in 2020 with no foreign currency translation impact.

**Proprietary Products –** Proprietary Products SG&A costs increased by $7.6 million, or 4.0%, in 2020, primarily due to an increase in compensation costs, partially offset by a reduction in travel expenses and incremental costs incurred in 2019 associated with our voluntary recall.

**Contract-Manufactured Products –** Contract-Manufactured Products SG&A costs decreased by $0.7 million, or 4.3%, in 2020, due to a reduction in travel expenses.

**Corporate and unallocated items –** Corporate SG&A costs increased by $22.4 million, or 33.6%, in 2020, primarily due to increases in stock-based compensation costs, incentive compensation costs and an increase in consulting service costs.

***2019 compared to 2018***
Consolidated SG&A costs increased by $9.8 million, or 3.7%, in 2019, including the impact of foreign currency translation, which decreased SG&A costs by $0.3 million.

**Proprietary Products –** Proprietary Products SG&A costs increased by $4.9 million, or 2.6%, in 2019, primarily due to an increase in compensation costs, incremental costs associated with our voluntary recall and the acquisition of our distributor in South Korea in 2019, partially offset by ongoing cost control measures. Foreign currency translation decreased Proprietary Products SG&A costs by $0.3 million.

**Contract-Manufactured Products –** Contract-Manufactured Products SG&A costs decreased by $0.3 million, or 1.8%, in 2019, due to ongoing cost control measures.

**Corporate and unallocated items –** Corporate SG&A costs increased by $5.2 million, or 8.5%, in 2019, primarily due to increases in stock-based compensation costs and incentive compensation costs, partially offset by a decrease in U.S. pension costs due to the cessation of our U.S. qualified and non-qualified defined benefit pension plans as of January 1, 2019 (except for interest crediting) and ongoing cost control measures.

**Other Expense (Income)**

The following table presents other expense and income items, consolidated and by reportable segment and corporate and unallocated items:

| Expense (Income) | Year Ended December 31, | | |
|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 |
| Proprietary Products | $ 3.3 | $ (2.0) | $ (6.3) |
| Contract-Manufactured Products | 1.5 | 0.2 | (0.8) |
| Corporate and unallocated items | 7.2 | (0.7) | 9.0 |
| Consolidated other expense (income) | $ 12.0 | $ (2.5) | $ 1.9 |

Other expense and income items, consisting of foreign exchange transaction gains and losses, gains and losses on the sale of fixed assets, development and licensing income, contingent consideration, and miscellaneous income and charges, are generally recorded within segment results.

***2020 compared to 2019***
Consolidated other expense (income) changed by $14.5 million in 2020.

**Proprietary Products –** Proprietary Products other expense (income) changed by $5.3 million in 2020, primarily due to an increase in the fixed asset impairments recorded, partially offset by a decrease in the SmartDose contingent consideration charge. Please refer to Note 12, *Fair Value Measurements*, for further discussion of this item.

**Contract-Manufactured Products –** Contract-Manufactured Products other expense (income) changed by $1.3 million in 2020 as compared to 2019, primarily due to an increase in foreign exchange transaction losses.

**Corporate and unallocated items –** Corporate and unallocated items changed by $7.9 million in 2020. During 2020, we recorded $4.6 million in restructuring and related charges and a $2.5 million impairment charge related to a cost investment. We expect that our 2020 restructuring plan will provide annualized savings in the range of $3.5 million to $4.5 million. In 2019, offsetting the $4.9 million restructuring and related charge and $1.0 million charge as a result of the continued devaluation of Argentina's currency, the Company recorded a $1.9 million gain on the sale of fixed assets as a result of our 2018 restructuring plan and recognized a tax recovery of $4.7 million related to previously-paid international excise taxes, following a favorable court ruling.

***2019 compared to 2018***
Consolidated other expense (income) changed by $4.4 million in 2019.

**Proprietary Products –** Proprietary Products other expense (income) decreased by $4.3 million in 2019, primarily due to increased contingent consideration costs. Please refer to Note 12, Fair Value Measurements, for further discussion of this item.

**Contract-Manufactured Products –** Contract-Manufactured Products other expense (income) changed by $1.0 million in 2019, primarily due to a decrease in gains on the sale of fixed assets during 2019.

**Corporate and unallocated items –** Corporate and unallocated items changed by $9.7 million in 2019. During 2019, we recorded $4.9 million in restructuring and related charges, a $1.9 million gain on the sale of fixed assets as a result of our restructuring plan, and a charge of $1.0 million as a result of the continued devaluation of Argentina's currency. In addition, during 2019, we recognized a tax recovery of $4.7 million related to previously-paid international excise taxes, following a favorable court ruling. Please refer to Note 16, Other Expense (Income), for further discussion of these items.

**Operating Profit**

The following table presents operating profit and adjusted operating profit, consolidated and by reportable segment, corporate and unallocated items:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Proprietary Products | $ 434.5 | $ 313.6 | $ 266.4 | 38.6 % | 17.7 % |
| Contract-Manufactured Products | 68.6 | 49.1 | 44.3 | 39.7 % | 10.8 % |
| Corporate | (86.1) | (66.3) | (61.3) | 29.9 % | 8.2 % |
| Adjusted consolidated operating profit | $ 417.0 | $ 296.4 | $ 249.4 | 40.7 % | 18.8 % |
| Adjusted consolidated operating profit margin | 19.4 % | 16.1 % | 14.5 % | | |
| Unallocated items | (10.1) | 0.2 | (9.1) | | |
| Consolidated operating profit | $ 406.9 | $ 296.6 | $ 240.3 | 37.2 % | 23.4 % |
| Consolidated operating profit margin | 19.0 % | 16.1 % | 14.0 % | | |

***2020 compared to 2019***

Consolidated operating profit increased by $110.3 million, or 37.2%, in 2020, including a favorable foreign currency translation impact of $0.8 million.

**Proprietary Products –** Proprietary Products operating profit increased by $120.9 million, or 38.6%, in 2020, including a favorable foreign currency translation impact of $0.2 million, due to the factors described above, most notably the sales increase in our high-value product offerings, inclusive of COVID-19 related activity.

**Contract-Manufactured Products –** Contract-Manufactured Products operating profit increased by $19.5 million, or 39.7%, in 2020, including a favorable foreign currency translation impact of $0.6 million, due to the factors described above, most notably the sales increase in our products with a more favorable gross profit margin.

**Corporate –** Corporate costs increased by $19.8 million, or 29.9%, in 2020, which decreased operating profit, due to the factors described above most notably an increase in stock-based compensation costs and incentive compensation costs.

**Unallocated items –** Please refer to the 2020 Financial Performance Summary section above and *Other Expense (Income)* section for details.

Excluding the unallocated items, our adjusted consolidated operating profit margin increased by 3.3 margin points in 2020.

***2019 compared to 2018***

Consolidated operating profit increased by $56.3 million, or 23.4%, in 2019, including a favorable foreign currency translation impact of $0.6 million.

**Proprietary Products –** Proprietary Products operating profit increased by $47.2 million, or 17.7%, in 2019, including a favorable foreign currency translation impact of $0.6 million, due to the factors described above.

**Contract-Manufactured Products –** Contract-Manufactured Products operating profit increased by $4.8 million, or 10.8%, in 2019, due to the factors described above.

**Corporate –** Corporate costs increased by $5.0 million, or 8.2%, in 2019, which decreased operating profit, due to the factors described above.

**Unallocated items –** Please refer to the *Other Expense (Income)* section for details.

Excluding the unallocated items, our adjusted consolidated operating profit margin increased by 1.6 margin points in 2019.

**Interest Expense, Net**

The following table presents interest expense, net, by significant component:

| | Year Ended December 31, | | | % Change | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020/2019 | 2019/2018 |
| Interest expense | $ 9.6 | $ 9.4 | $ 9.3 | 2.1 % | 1.1 % |
| Capitalized interest | (1.4) | (0.9) | (0.9) | 55.6 % | — % |
| Interest income | (1.4) | (3.8) | (2.1) | (63.2)% | 81.0 % |
| Interest expense, net | $ 6.8 | $ 4.7 | $ 6.3 | 44.7 % | (25.4)% |

***2020 compared to 2019***

Interest expense, net, increased by $2.1 million, or 44.7%, in 2020, due to a decrease in interest income in 2020 resulting from lower interest rates compared to the prior year, partially offset by an increase in capitalized interest due to an increase in capital expenditures in 2020.

***2019 compared to 2018***

Interest expense, net, decreased by $1.6 million, or 25.4%, in 2019, due to an increase in interest income in 2019 resulting from higher interest rates on our deposit accounts and higher average cash and cash equivalents balances.

**Other Nonoperating (Income) Expense**

***2020 compared to 2019***

Other nonoperating (income) expense changed by $1.3 million in 2020, primarily due to a decrease in the interest cost component of our net periodic benefit expense, partially offset by an increase in pension settlement charges. A pension settlement charge of $3.7 million was recorded in 2020, as we determined that normal-course lump-sum payments for each of our U.S. qualified and non-qualified defined benefit pension plans exceeded the threshold for settlement accounting under U.S. GAAP for the year.

***2019 compared to 2018***

Other nonoperating (income) expense changed by $6.8 million in 2019, primarily due to a decrease in the expected return on pension plan assets and a pension settlement charge of $3.5 million recorded in 2019, as we determined that normal-course lump-sum payments for each of our U.S. qualified and non-qualified defined benefit pension plans exceeded the threshold for settlement accounting under U.S. GAAP for the year. Effective January 1, 2019, except for interest crediting, benefit accruals under these defined benefit pension plans ceased.

**Income Taxes**

The provision for income taxes was $72.5 million, $59.0 million, and $41.4 million for the years 2020, 2019, and 2018, respectively, and the effective tax rate was 18.1%, 20.2%, and 17.2%, respectively.

During 2020, we recorded a tax benefit of $20.8 million associated with stock-based compensation, an increase from the tax benefit of $10.3 million associated with stock-based compensation in 2019, and incurred less tax on international operations versus the prior year, which both contributed to the effective tax rate decline from 20.2% in 2019 to 18.1% in 2020.

During 2019, we recorded a net tax benefit of $0.3 million due to the impact of federal law changes enacted during the year, as well as a tax benefit of $10.3 million associated with stock-based compensation.

During 2018, we recorded a net tax benefit of $2.5 million for the estimated impact of the 2017 Tax Act and a tax benefit of $14.3 million associated with stock-based compensation. Please refer to Note 17, Income Taxes, for further discussion of the 2017 Tax Act.

Please refer to Note 17, *Income Taxes*, for further discussion of our income taxes.

**Equity in Net Income of Affiliated Companies**

Equity in net income of affiliated companies represents the contribution to earnings from our 25% ownership interest in Daikyo, which increased to 49% during the fourth quarter of 2019, and our 49% ownership interest in five companies majority-owned by a long-time partner located in Mexico. Please refer to Note 7, *Affiliated Companies*, for further discussion. Equity in net income of affiliated companies was $17.4 million, $8.9 million, and $7.6 million for the years 2020, 2019, and 2018, respectively. Equity in net income of affiliated companies increased by $8.5 million, or 95.5%, in 2020, primarily due to favorable operating results at Daikyo and the Mexico affiliates and increase in ownership of Daikyo starting in the fourth quarter of 2019. Equity in net income of affiliated companies increased by $1.3 million, or 17.1%, in 2019, primarily due to favorable operating results at Daikyo.

**FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES**

**Cash Flows**

The following table presents cash flow data for the years ended December 31:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Net cash provided by operating activities | $ 472.5 | $ 367.2 | $ 288.6 |
| Net cash used in investing activities | $ (179.5) | $ (228.0) | $ (100.8) |
| Net cash used in financing activities | $ (137.1) | $ (36.8) | $ (80.7) |

**Net Cash Provided by Operating Activities**

***2020 compared to 2019***
Net cash provided by operating activities increased by $105.3 million in 2020, primarily due to improved operating results and changes in assets and liabilities.

***2019 compared to 2018***
Net cash provided by operating activities increased by $78.6 million in 2019, primarily due to improved operating results and changes in assets and liabilities.

**Net Cash Used in Investing Activities**

***2020 compared to 2019***
Net cash used in investing activities decreased by $48.5 million in 2020, primarily due to 2019 investing activities that did not recur in 2020, such as our increase in Daikyo ownership and the acquisition of our South Korea distributor in 2019. These reductions in investing activities were offset in 2020 by an increase in capital expenditures to support our increased customer demands.

***2019 compared to 2018***
Net cash used in investing activities increased by $127.2 million in 2019, primarily due to the increase in our ownership interest in Daikyo, an increase in capital expenditures, and the acquisition of our distributor in South Korea in 2019.

**Net Cash Used in Financing Activities**

***2020 compared to 2019***
Net cash used in financing activities increased by $100.3 million in 2020, primarily due an increase in purchases under our share repurchases program and given 2019 included new long-term borrowings while no such new borrowings occurred in 2020.

***2019 compared to 2018***
Net cash used in financing activities decreased by $43.9 million in 2019, primarily due to borrowings of $90.0 million under our Term Loan, partially offset by net repayments of our outstanding long-term borrowings under our Credit Facility and increases in purchases under our share repurchases programs and dividend payments.

**Liquidity and Capital Resources**

The table below presents selected liquidity and capital measures as of:

| ($ in millions) | December 31, 2020 | December 31, 2019 |
|---|---|---|
| Cash and cash equivalents | $ 615.5 | $ 439.1 |
| Accounts receivable, net | $ 385.3 | $ 319.3 |
| Inventories | $ 321.3 | $ 235.7 |
| Accounts payable | $ 213.1 | $ 156.8 |
| Debt | $ 255.2 | $ 257.3 |
| Equity | $ 1,854.5 | $ 1,573.2 |
| Working Capital | $ 870.3 | $ 717.1 |

Cash and cash equivalents include all instruments that have maturities of ninety days or less when purchased. Working capital is defined as current assets less current liabilities.

**Cash and cash equivalents –** Our cash and cash equivalents balance at December 31, 2020 consisted of cash held in depository accounts with banks around the world and cash invested in high-quality, short-term investments. The cash and cash equivalents balance at December 31, 2020 included $293.5 million of cash held by subsidiaries within the U.S. and $322.0 million of cash held by subsidiaries outside of the U.S. In response to the 2017 Tax Act, we reevaluated our position regarding permanent reinvestment of foreign subsidiary earnings and profits through 2017 (with the exception of China and Mexico) and decided that those profits were no longer permanently reinvested. As of January 1, 2018, we reasserted indefinite reinvestment related to all post-2017 unremitted earnings in all of our foreign subsidiaries. In general, it is our practice and intention to permanently reinvest the earnings of our foreign subsidiaries and repatriate earnings only when the tax impact is de minimis, and that position has not changed subsequent to the one-time transition tax under the 2017 Tax Act, except as noted above. Accordingly, no deferred taxes have been provided for withholding taxes or other taxes that would result upon repatriation of approximately $345.6 million of undistributed earnings from foreign subsidiaries to the U.S., as those earnings continue to be permanently reinvested. Further, it is impracticable for us to estimate any future tax costs for any unrecognized deferred tax liabilities associated with our indefinite reinvestment assertion, because the actual tax liability, if any, would be dependent on complex analysis and calculations considering various tax laws, exchange rates, circumstances existing when there is a repatriation, sale or liquidation, or other factors.

**Working capital -** Working capital at December 31, 2020 increased by $153.2 million, or 21.4%, as compared to December 31, 2019, including an increase of $3.2 million due to foreign currency translation. Excluding the impact of currency exchange rates, cash and cash equivalents, accounts receivable, inventories, and total current liabilities increased by $156.0 million, $52.5 million, $73.7 million, and $119.1 million, respectively. The increase in accounts receivable was due to increased sales activity. The increase in inventories that occurred in the period was to ensure we have sufficient inventory on hand to support the needs of our customers. The increase in total current liabilities was primarily due to increases in accounts payable, accrued salaries, wages and benefits, accrued expenses, and income taxes payable.

**Debt and credit facilities** - The $2.1 million decrease in total debt at December 31, 2020, as compared to December 31, 2019, resulted from debt repayments under our Term Loan.

Our sources of liquidity include our Credit Facility. At December 31, 2020, we had no outstanding borrowings under the Credit Facility. At December 31, 2020, the borrowing capacity available under the Credit Facility, including outstanding letters of credit of $2.5 million, was $297.5 million. We do not expect any significant limitations on our ability to access this source of funds. Please refer to Note 10, *Debt*, for further discussion of our Credit Facility.

Pursuant to the financial covenants in our debt agreements, we are required to maintain established interest coverage ratios and to not exceed established leverage ratios. In addition, the agreements contain other customary covenants, none of which we consider restrictive to our operations. At December 31, 2020, we were in compliance with all of our debt covenants, and we expect to continue to be in compliance with the terms of these agreements throughout 2021.

We believe that cash on hand and cash generated from operations, together with availability under our Credit Facility, will be adequate to address our foreseeable liquidity needs based on our current expectations of our business operations, capital expenditures and scheduled payments of debt obligations.

**Commitments and Contractual Obligations**

The following table summarizes our commitments and contractual obligations at December 31, 2020. These obligations are not expected to have a material impact on liquidity.

| | | Payments Due By Period | | | |
|---|---|---|---|---|---|
| ($ in millions) | Total | Less than 1 year | 1 - 3 years (through 2023) | 3 - 5 years (through 2025) | More than 5 years |
| Purchase obligations [1] | $ 118.4 | $ 41.4 | $ 76.6 | $ 0.4 | $ — |
| Debt (excluding unamortized debt issuance costs) | 255.8 | 2.3 | 46.5 | 134.0 | 73.0 |
| Interest on debt and cross-currency swap [2] | 30.3 | 7.0 | 11.6 | 7.3 | 4.4 |
| Operating lease obligations | 85.2 | 12.4 | 19.7 | 15.6 | 37.5 |
| Other long-term liabilities [3] | 7.4 | 0.7 | 1.2 | 2.4 | 3.1 |
| Total contractual obligations [4] | $ 497.1 | $ 63.8 | $ 155.6 | $ 159.7 | $ 118.0 |

(1) Our business creates a need to enter into various commitments with suppliers, including for the purchase of raw materials and finished goods. In accordance with U.S. GAAP, these purchase obligations are not reflected in the accompanying consolidated balance sheets. These purchase commitments do not exceed our projected requirements and are in the normal course of business.

(2) For fixed-rate long-term debt, interest was based on principal amounts and fixed coupon rates at year-end. Future interest payments on variable-rate debt were calculated using principal amounts and the applicable ending interest rate at year-end. Interest on floating-rate derivative instruments was based on notional amounts and floating interest rates contractually obligated at year-end.

(3) Represents acquisition-related contingencies. In connection with certain business acquisitions, we agreed to make payments to the sellers if and when certain operating milestones are achieved, such as sales and operating income targets.

(4) This table does not include obligations pertaining to pension and postretirement benefits because the actual amount and timing of future contributions may vary significantly depending upon plan asset performance, benefit payments, and other factors. In 2021, we expect to contribute $3.6 million to pension plans, of which $2.9 million is for international plans. In addition, we expect to contribute $0.7 million for other retirement benefits in 2021. Please refer to Note 15, *Benefit Plans*, for estimated benefit payments over the next ten years.

*Reserves for uncertain tax positions* - The table above does not include $10.4 million of total gross unrecognized tax benefits as of December 31, 2020. Due to the high degree of uncertainty regarding the timing of potential cash flows, we cannot reasonably estimate the settlement periods for amounts which may be paid.

*Letters of credit* - We have letters of credit totaling $2.5 million supporting the reimbursement of workers' compensation and other claims paid on our behalf by insurance carriers. Our accrual for insurance obligations was $3.0 million at December 31, 2020, of which $0.9 million is in excess of our deductible and, therefore, is reimbursable by the insurance company.

**OFF-BALANCE SHEET ARRANGEMENTS**

At December 31, 2020, we had no off-balance sheet financing arrangements other than unconditional purchase obligations incurred in the ordinary course of business and outstanding letters of credit related to various insurance programs.

**CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Management's discussion and analysis addresses consolidated financial statements that are prepared in accordance with U.S. GAAP. The application of these principles requires management to make estimates and assumptions, some of which are subjective and complex, that affect the amounts reported in the consolidated financial statements. We believe the following accounting policies and estimates are critical to understanding and evaluating our results of operations and financial position:

**Revenue Recognition:** Our revenue results from the sale of goods or services and reflects the consideration to which we expect to be entitled in exchange for those goods or services. We record revenue based on a five-step model, in accordance with ASC Topic 606 ("ASC 606"). Following the identification of a contract with a customer, we identify the performance obligations (goods or services) in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, and recognize the revenue when (or as) we satisfy the performance obligations by transferring the promised goods or services to our customers. A good or service is transferred when (or as) the customer obtains control of that good or service.

We recognize the majority of our revenue, primarily relating to Proprietary Products product sales, at a point in time following the transfer of control of our products to our customers, which typically occurs upon shipment or delivery, depending on the terms of the related agreements.

We recognize revenue relating to our Contract-Manufactured Products product sales and certain Proprietary Products product sales over time, as our performance does not create an asset with an alternative use to us and we have an enforceable right to payment for performance completed to date.

We recognize revenue relating to our development and tooling agreements over time, as our performance creates or enhances an asset that the customer controls as the asset is created or enhanced.

For revenue recognized over time, revenue is recognized by applying a method of measuring progress toward complete satisfaction of the related performance obligation. When selecting the method for measuring progress, we select the method that best depicts the transfer of control of goods or services promised to our customers.

Revenue for our Contract-Manufactured Products product sales, certain Proprietary Products product sales, and our development and tooling agreements is recorded under an input method, which recognizes revenue on the basis of our efforts or inputs to the satisfaction of a performance obligation (for example, resources consumed, labor hours expended, costs incurred, time elapsed, or machine hours used) relative to the total expected inputs to the satisfaction of that performance obligation. The input method that we use is based on costs incurred.

The majority of the performance obligations within our contracts are satisfied within one year or less. Performance obligations satisfied beyond one year include those relating to a nonrefundable customer payment of $20.0 million received in June 2013 in return for the exclusive use of the SmartDose technology platform within a specific therapeutic area. As of December 31, 2020, there was $4.7 million of unearned income related to this payment, of which $0.9 million was included in other current liabilities and $3.8 million was included in other long-term liabilities. The unearned income is being recognized as income on a straight-line basis over the remaining term of the agreement. The agreement does not include a future minimum purchase commitment from the customer.

Our revenue can be generated from contracts with multiple performance obligations. When a sales agreement involves multiple performance obligations, each obligation is separately identified and the transaction price is allocated based on the amount of consideration we expect to be entitled in exchange for transferring the promised good or service to the customer.

Some customers receive pricing rebates upon attaining established sales volumes. We record rebate costs when sales occur based on our assessment of the likelihood that the required volumes will be attained. We also maintain an allowance for product returns, as we believe that we are able to reasonably estimate the amount of returns based on our substantial historical experience and specific identification of customer claims.

Contract assets and liabilities result from transactions with revenue recorded primarily over time. If the measure of remaining rights exceeds the measure of the remaining performance obligations, we record a contract asset. Contract assets are recorded on the consolidated balance sheet in accounts receivable, net, and other assets (current and noncurrent portions, respectively). Contract assets included in accounts receivable, net, relate to the unbilled amounts of our product sales for which we have recognized revenue over time. Contract assets included in other assets represent the remaining performance obligations of our development and tooling agreements. Conversely, if the measure of the remaining performance obligations exceeds the measure of the remaining rights, we record a contract liability. Contract liabilities are recorded on the consolidated balance sheet in other liabilities (current and noncurrent portions, respectively) and represent cash payments received in advance of our performance.

**Impairment of Long-Lived Assets:** Long-lived assets, including property, plant and equipment and operating lease right-of-use assets, are tested for impairment whenever circumstances indicate that the carrying value of these assets may not be recoverable. An asset is considered impaired if the carrying value of the asset exceeds the sum of the future expected undiscounted cash flows to be derived from the asset. Once an asset is considered impaired, an impairment loss is recorded within other expense (income) for the difference between the asset's carrying value and its fair value. For assets held and used in the business, management determines fair value using estimated future cash flows to be derived from the asset, discounted to a net present value using an appropriate discount rate. For assets held for sale or for investment purposes, management determines fair value by estimating the proceeds to be received upon sale of the asset, less disposition costs.

**Impairment of Goodwill and Other Intangible Assets:** Goodwill is tested for impairment at least annually, following the completion of our annual budget and long-range planning process, or whenever circumstances indicate that the carrying value of these assets may not be recoverable. Goodwill is tested for impairment at the reporting unit level, which is the same as, or one level below, our operating segments. A goodwill impairment charge represents the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the total amount of goodwill allocated to that reporting unit. Considerable management judgment is necessary to estimate fair value. Amounts and assumptions used in our goodwill impairment test, such as future sales, future cash flows and long-term growth rates, are consistent with internal projections and operating plans. Amounts and assumptions used in our goodwill impairment test are also largely dependent on the continued sale of drug products delivered by injection and the packaging of drug products, as well as our timeliness and success in new-product innovation or the development and commercialization of proprietary multi-component systems. Changes in the estimate of fair value, including the estimate of future cash flows, could have a material impact on our future results of operations and financial position. Accounting guidance also allows entities to first assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance, to determine whether it is necessary to perform the quantitative goodwill impairment test. We elected to follow this guidance for our annual impairment test. Based upon our assessment, we determined that it was not more likely than not that the fair value of each of our reporting units was less than its carrying amount and determined that it was not necessary to perform the quantitative goodwill impairment test.

Intangible assets with finite lives are amortized using the straight-line method over their estimated useful lives, and reviewed for impairment whenever circumstances indicate that the carrying value of these assets may not be recoverable.

**Employee Benefits:** We maintain funded and unfunded defined benefit pension plans in the U.S. and a number of other countries that cover employees who meet eligibility requirements. In addition, we sponsor postretirement benefit plans which provide healthcare benefits for eligible employees who retire or become disabled. Postretirement benefit plans are limited to only those active employees who met the eligibility requirements as of January 1, 2017. The measurement of annual cost and obligations under these defined benefit pension and postretirement plans are subject to a number of assumptions, which are specific for each of our U.S. and foreign plans. The assumptions, which are reviewed at least annually, are relevant to both the plan assets (where applicable) and the obligation for benefits that will ultimately be provided to our employees. Two of the most critical assumptions in determining pension expense are the discount rate and expected long-term rate of return on plan assets. Other assumptions reflect demographic factors such as retirement age, rates of compensation increases, mortality and turnover and are evaluated periodically and updated to reflect our actual experience. For our funded plans, we consider the current and expected asset allocations of our plan assets, as well as historical and expected rates of return, in estimating the long-term rate of return on plan assets. One of the most critical assumptions in determining retiree mental plan expense is the discount rate. Under U.S. GAAP, differences between actual and expected results are generally accumulated in other comprehensive income (loss) as actuarial gains or losses and subsequently amortized into earnings over future periods.

Changes in key assumptions could have a material impact on our future results of operations and financial position. We estimate that every 25-basis point reduction in our long-term rate of return assumption would increase pension expense by $0.6 million, and every 25-basis point reduction in our discount rate would decrease pension expense by $0.1 million. A decrease in the discount rate increases the present value of benefit obligations. Our net pension underfunded balance at December 31, 2020 was $40.8 million, compared to $43.8 million at December 31, 2019. Our underfunded balance for other postretirement benefits was $6.1 million at December 31, 2020, compared to $6.6 million at December 31, 2019.

**Income Taxes:** We estimate income taxes payable based upon current domestic and international tax legislation. In addition, deferred income taxes are recognized by applying enacted statutory tax rates to tax loss carryforwards and temporary differences between the tax basis and financial statement carrying values of our assets and liabilities. The enacted statutory tax rate applied is based on the rate expected to be applicable at the time of the forecasted utilization of the loss carryforward or reversal of the temporary difference. Valuation allowances on deferred tax assets are established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. The realizability of deferred tax assets is subject to our estimates of future taxable income, generally at the respective subsidiary company and country level. Changes in tax legislation, business plans and other factors may affect the ultimate recoverability of tax assets or final tax payments, which could result in adjustments to tax expense in the period such change is determined.

When accounting for uncertainty in income taxes recognized in our financial statements, we apply a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Please refer to Note 1, *Basis of Presentation and Summary of Significant Accounting Policies* and Note 2, *New Accounting Standards*, to our consolidated financial statements for additional information on our significant accounting policies, recently adopted accounting standards, and accounting standards issued but not yet adopted.

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

Our ongoing business operations expose us to various risks, such as fluctuating interest rates, foreign currency exchange rates and increasing commodity prices. These risk factors can impact our results of operations, cash flows and financial position. To manage these market risks, we periodically enter into derivative financial instruments, such as interest rate swaps, options and foreign exchange contracts for periods consistent with, and for notional amounts equal to or less than, the related underlying exposures. We do not purchase or hold any derivative financial instruments for investment or trading purposes. All derivatives are recorded in our consolidated balance sheet at fair value.

**Foreign Currency Exchange Risk**

Sales outside of the U.S. accounted for 54.6% of our consolidated net sales in 2020. Virtually all of these sales and related operating costs are denominated in the currency of the local country and translated into USD for consolidated reporting purposes. Although the majority of the assets and liabilities of these subsidiaries are denominated in the functional currency of the subsidiary, they may also hold assets or liabilities denominated in other currencies. These items may give rise to foreign currency transaction gains and losses. As a result, our results of operations and financial position are exposed to changing currency exchange rates. We periodically use forward exchange contracts to hedge certain transactions or to manage month-end balance sheet exposures on cross-currency intercompany loans.

We have entered into forward exchange contracts, designated as fair value hedges, to manage our exposure to fluctuating foreign exchange rates on cross-currency intercompany loans. As of December 31, 2020 and December 31, 2019, the total amount of these forward exchange contracts were SGD 601.5 million and $13.4 million.

In addition, we have entered into several foreign currency contracts, designated as cash flow hedges, for periods of up to eighteen months, intended to hedge the currency risk associated with a portion of our forecasted transactions denominated in foreign currencies. As of December 31, 2020, we had outstanding foreign currency contracts to purchase and sell certain pairs of currencies, as follows:

| (in millions) | | Sell | |
|---|---|---|---|
| **Currency** | **Purchase** | **USD** | **Euro** |
| USD | 57.0 | — | 49.2 |
| Yen | 7,194.1 | 42.7 | 22.0 |
| SGD | 42.9 | 25.0 | 5.0 |

In November and December 2019, in conjunction with the repayment of the outstanding long-term borrowings under our Credit Facility denominated in Euro and Yen, we de-designated these borrowings as hedges of our net investments in certain European subsidiaries and Daikyo. The amounts recorded as a cumulative translation adjustment in accumulated other comprehensive loss related to these borrowings (prior to de-designation) will remain in accumulated other comprehensive loss indefinitely, unless certain future events occur, such as the disposition of the operations for which the net investment hedges relate.

In December 2019, in conjunction with the repayment of the outstanding long-term borrowings under our Credit Facility denominated in Yen, we entered into a forward exchange contract, designated as a cash flow hedge, to manage our exposure to fluctuating foreign exchange rates. This forward exchange contract matured on December 30, 2019.

In December 2019, we entered into a five-year floating-to-floating forward-starting cross-currency swap (the “cross-currency swap”) for $90 million, which we designated as a hedge of our net investment in Daikyo. The notional amount of the cross-currency swap is ¥9.6 billion ($87.8 million) as of December 31, 2020. Under the cross-currency swap, we receive floating interest rate payments based on three-month USD LIBOR plus a margin, in return for paying floating interest rate payments based on three-month Yen LIBOR plus a margin.

**Interest Rate Risk**

As a result of our normal borrowing activities, we have long-term debt with both fixed and variable interest rates. Long-term debt consists of our Term Loan and Series A, B and C notes.

The following table summarizes our interest rate risk-sensitive instruments (excluding unamortized debt issuance costs):

| ($ in millions) | 2021 | 2022 | 2023 | 2024 | 2025 | Thereafter | Carrying Value | Fair Value |
|---|---|---|---|---|---|---|---|---|
| **Current Debt:** | | | | | | | | |
| U.S. dollar denominated | $2.3 | | | | | | $2.3 | $2.3 |
| Average interest rate - variable | 1.13% | | | | | | | |
| **Long-Term Debt:** | | | | | | | | |
| U.S. dollar denominated | | $42.0 | | $53.0 | | $73.0 | $168.0 | $180.7 |
| Average interest rate - fixed | | 3.67% | | 3.82% | | 4.02% | | |
| U.S. dollar denominated | | $2.3 | $2.2 | $81.0 | | | $85.5 | $85.5 |
| Average interest rate - variable | | 1.13% | 1.13% | 1.13% | | | | |

**Commodity Price Risk**

Many of our proprietary products are made from synthetic elastomers, which are derived from the petroleum refining process. We purchase the majority of our elastomers via long-term supply contracts, some of which contain clauses that provide for surcharges related to fluctuations in crude oil prices. In recent years, raw material costs have fluctuated due to crude oil price fluctuations. We expect this volatility to continue and will continue to pursue pricing and hedging strategies, and ongoing cost control initiatives, to offset the effects on gross profit.

From November 2017 through December 2020, we purchased several series of call options for a total of 472,477 barrels of crude oil to mitigate our exposure to such oil-based surcharges and protect operating cash flows with regards to a portion of our forecasted elastomer purchases.

During 2020, the loss recorded in cost of goods and services sold related to these options was $0.2 million. During 2019, the loss recorded in cost of goods and services sold related to these options was $0.4 million.

As of December 31, 2020, we had outstanding contracts to purchase 141,734 barrels of crude oil from January 2021 to June 2022, at a weighted-average strike price of $59.14 per barrel.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

### CONSOLIDATED STATEMENTS OF INCOME

West Pharmaceutical Services, Inc. and Subsidiaries for the years ended December 31, 2020, 2019 and 2018
(in millions, except per share data)

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Net sales | $ 2,146.9 | $ 1,839.9 | $ 1,717.4 |
| Cost of goods and services sold | 1,379.1 | 1,234.2 | 1,172.0 |
| Gross profit | 767.8 | 605.7 | 545.4 |
| Research and development | 46.9 | 38.9 | 40.3 |
| Selling, general and administrative expenses | 302.0 | 272.7 | 262.9 |
| Other expense (income) (Note 16) | 12.0 | (2.5) | 1.9 |
| Operating profit | 406.9 | 296.6 | 240.3 |
| Interest expense | 8.2 | 8.5 | 8.4 |
| Interest income | (1.4) | (3.8) | (2.1) |
| Other nonoperating (income) expense | (1.2) | 0.1 | (6.7) |
| Income before income taxes | 401.3 | 291.8 | 240.7 |
| Income tax expense | 72.5 | 59.0 | 41.4 |
| Equity in net income of affiliated companies | (17.4) | (8.9) | (7.6) |
| Net income | $ 346.2 | $ 241.7 | $ 206.9 |
| | | | |
| Net income per share: | | | |
| Basic | $ 4.68 | $ 3.27 | $ 2.80 |
| Diluted | $ 4.57 | $ 3.21 | $ 2.74 |
| | | | |
| Weighted average shares outstanding: | | | |
| Basic | 73.9 | 74.0 | 73.9 |
| Diluted | 75.8 | 75.4 | 75.4 |

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

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

West Pharmaceutical Services, Inc. and Subsidiaries for the years ended December 31, 2020, 2019 and 2018
(in millions)

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Net income | $ 346.2 | $ 241.7 | $ 206.9 |
| Other comprehensive income (loss), net of tax: | | | |
| Foreign currency translation adjustments | 40.1 | 4.9 | (39.2) |
| Defined benefit pension and other postretirement plans: | | | |
| Prior service cost arising during period, net of tax of $0 | — | — | (0.3) |
| Net actuarial loss arising during period, net of tax of $(0.7), $(0.3), and $(0.2) | (2.5) | (1.9) | (0.7) |
| Settlement effects arising during period, net of tax of $0.9, $0.8, and $0 | 2.9 | 2.7 | — |
| Less: amortization of actuarial (gain) loss, net of tax of $0, $0, and $0.3 | (0.1) | (0.2) | 1.1 |
| Less: amortization of prior service credit, net of tax of $(0.1), $(0.1) and $(0.5). | (0.5) | (0.5) | (1.5) |
| Net gain (loss) on equity affiliate accumulated other comprehensive income, net of tax of $0, $0, and $(0.1) | 0.2 | — | (0.1) |
| Net (loss) gain on derivatives, net of tax of $(0.6), $(0.2), and $1.5 | (1.1) | (0.4) | 3.8 |
| Other comprehensive income (loss), net of tax | 39.0 | 4.6 | (36.9) |
| Comprehensive income | $ 385.2 | $ 246.3 | $ 170.0 |

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

**CONSOLIDATED BALANCE SHEETS**

West Pharmaceutical Services, Inc. and Subsidiaries at December 31, 2020 and 2019

| (in millions, except per share data) | 2020 | 2019 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $ 615.5 | $ 439.1 |
| Accounts receivable, net | 385.3 | 319.3 |
| Inventories | 321.3 | 235.7 |
| Other current assets | 51.6 | 64.6 |
| Total current assets | 1,373.7 | 1,058.7 |
| Property, plant and equipment | 2,035.5 | 1,820.1 |
| Less: accumulated depreciation and amortization | 1,092.3 | 980.8 |
| Property, plant and equipment, net | 943.2 | 839.3 |
| Operating lease right-of-use assets | 68.3 | 70.1 |
| Investments in affiliated companies | 214.7 | 192.7 |
| Goodwill | 111.1 | 107.8 |
| Intangible assets, net | 30.5 | 29.8 |
| Deferred income taxes | 16.0 | 14.0 |
| Pension and other postretirement benefits | 12.9 | 4.3 |
| Other noncurrent assets | 23.4 | 24.7 |
| Total Assets | $ 2,793.8 | $ 2,341.4 |
| LIABILITIES AND EQUITY | | |
| Current liabilities: | | |
| Notes payable and other current debt | $ 2.3 | $ 2.3 |
| Accounts payable | 213.1 | 156.8 |
| Pension and other postretirement benefits | 2.3 | 2.2 |
| Accrued salaries, wages and benefits | 106.0 | 73.0 |
| Income taxes payable | 26.0 | 6.4 |
| Operating lease liabilities | 10.1 | 9.6 |
| Other current liabilities | 143.6 | 91.3 |
| Total current liabilities | 503.4 | 341.6 |
| Long-term debt | 252.9 | 255.0 |
| Deferred income taxes | 10.4 | 15.5 |
| Pension and other postretirement benefits | 57.5 | 52.5 |
| Operating lease liabilities | 60.4 | 62.4 |
| Deferred compensation benefits | 22.9 | 17.8 |
| Other long-term liabilities | 31.8 | 23.4 |
| Total Liabilities | 939.3 | 768.2 |
| Commitments and contingencies (Note 18) | | |
| Equity: | | |
| Preferred stock, 3.0 million shares authorized; 0 shares issued and outstanding in 2020 and 2019 | — | — |
| Common stock, par value $0.25 per share; 200 million shares authorized; shares issued: 75.3 million in 2020 and 2019; shares outstanding: 74.0 million and 74.1 million in 2020 and 2019 | 18.8 | 18.8 |
| Capital in excess of par value | 267.3 | 272.7 |
| Retained earnings | 1,846.7 | 1,549.4 |
| Accumulated other comprehensive loss | (110.6) | (149.6) |
| Treasury stock, at cost (1.3 million and 1.2 million shares in 2020 and 2019) | (167.7) | (118.1) |
| Total Equity | 1,854.5 | 1,573.2 |
| Total Liabilities and Equity | $ 2,793.8 | $ 2,341.4 |

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

**CONSOLIDATED STATEMENT OF EQUITY**

West Pharmaceutical Services, Inc. and Subsidiaries for the years ended December 31, 2020, 2019 and 2018

(in millions)

| | Common Shares Issued | Common Stock | Capital in Excess of Par Value | Number of Treasury Shares | Treasury Stock | Retained earnings | Accumulated other comprehensive loss | Total |
|---|---|---|---|---|---|---|---|---|
| Balance, December 31, 2017 | 75.2 | $ 18.8 | $ 309.3 | 1.3 | $ (109.1) | $ 1,178.2 | $ (117.3) | $ 1,279.9 |
| Effect of modified retrospective application of a new accounting standard | — | — | — | — | — | 11.4 | — | 11.4 |
| Net income | — | — | — | — | — | 206.9 | — | 206.9 |
| Activity related to stock-based compensation | 0.1 | — | (27.3) | (0.9) | 76.2 | — | — | 48.9 |
| Shares purchased under share repurchase program | — | — | — | 0.8 | (70.8) | — | — | (70.8) |
| Dividends declared ($0.58 per share) | — | — | — | — | — | (43.1) | — | (43.1) |
| Other comprehensive income, net of tax | — | — | — | — | — | — | (36.9) | (36.9) |
| Balance, December 31, 2018 | 75.3 | 18.8 | 282.0 | 1.2 | (103.7) | 1,353.4 | (154.2) | 1,396.3 |
| Net income | — | — | — | — | — | 241.7 | — | 241.7 |
| Activity related to stock-based compensation | — | — | (11.1) | (0.8) | 65.6 | — | — | 54.5 |
| Shares purchased under share repurchase program | — | — | — | 0.8 | (83.1) | — | — | (83.1) |
| Purchase of investment in affiliated companies | — | — | 1.8 | — | 3.1 | — | — | 4.9 |
| Dividends declared ($0.62 per share) | — | — | — | — | — | (45.7) | — | (45.7) |
| Other comprehensive loss, net of tax | — | — | — | — | — | — | 4.6 | 4.6 |
| Balance, December 31, 2019 | 75.3 | 18.8 | 272.7 | 1.2 | (118.1) | 1,549.4 | (149.6) | 1,573.2 |
| Effect of modified retrospective application of a new accounting standard (see Note 2) | — | — | — | — | — | (0.1) | — | (0.1) |
| Net income | — | — | — | — | — | 346.2 | — | 346.2 |
| Activity related to stock-based compensation | — | — | (5.4) | (0.7) | 65.9 | — | — | 60.5 |
| Shares purchased under share repurchase program | — | — | — | 0.8 | (115.5) | — | — | (115.5) |
| Dividends declared ($0.66 per share) | — | — | — | — | — | (48.8) | — | (48.8) |
| Other comprehensive income, net of tax | — | — | — | — | — | — | 39.0 | 39.0 |
| Balance, December 31, 2020 | 75.3 | $ 18.8 | $ 267.3 | 1.3 | $ (167.7) | $ 1,846.7 | $ (110.6) | $ 1,854.5 |

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

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

West Pharmaceutical Services, Inc. and Subsidiaries for the years ended December 31, 2020, 2019 and 2018
(in millions)

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Cash flows from operating activities: | | | |
| Net income | $ 346.2 | $ 241.7 | $ 206.9 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation | 104.7 | 100.0 | 101.7 |
| Amortization | 4.4 | 3.4 | 2.7 |
| Stock-based compensation | 34.0 | 24.4 | 15.1 |
| Non-cash restructuring charges | — | 2.3 | 2.2 |
| Pension settlement charge | 3.7 | 3.5 | — |
| Contingent consideration payments in excess of acquisition-date liability | (0.9) | (0.5) | (0.6) |
| Fixed asset impairments and sale of equipment, net | 7.7 | 0.8 | 1.8 |
| Deferred income taxes | (5.8) | 15.3 | 0.9 |
| Pension and other retirement plans, net | 4.6 | (2.6) | (7.9) |
| Equity in undistributed earnings of affiliates, net of dividends | (15.8) | (6.7) | (5.9) |
| Changes in assets and liabilities: | | | |
| Increase in accounts receivable | (46.6) | (33.3) | (43.8) |
| Increase in inventories | (73.7) | (18.6) | (7.0) |
| Decrease (increase) in other current assets | 5.5 | 2.6 | (6.2) |
| Increase in accounts payable | 36.6 | 25.3 | 0.4 |
| Changes in other assets and liabilities | 67.9 | 9.6 | 28.3 |
| Net cash provided by operating activities | 472.5 | 367.2 | 288.6 |
| Cash flows from investing activities: | | | |
| Capital expenditures | (174.4) | (126.4) | (104.7) |
| Purchase of investment in affiliated companies | — | (85.1) | — |
| Acquisition of business | — | (18.9) | — |
| Other, net | (5.1) | 2.4 | 3.9 |
| Net cash used in investing activities | (179.5) | (228.0) | (100.8) |
| Cash flows from financing activities: | | | |
| Borrowings under revolving credit agreements | — | 108.5 | — |
| Repayments under revolving credit agreements | — | (136.3) | — |
| Issuance of long-term debt | — | 90.0 | — |
| Debt issuance cost | — | (1.2) | — |
| Repayments of long-term debt | (2.3) | (0.1) | (0.1) |
| Dividend payments | (48.1) | (45.1) | (42.1) |
| Proceeds from stock-based compensation awards | 22.4 | 25.1 | 27.4 |
| Employee stock purchase plan contributions | 6.4 | 5.4 | 4.9 |
| Shares purchased under share repurchase programs | (115.5) | (83.1) | (70.8) |
| Net cash used in financing activities | (137.1) | (36.8) | (80.7) |
| Effect of exchange rates on cash | 20.5 | (0.7) | (5.6) |
| Net increase in cash and cash equivalents | 176.4 | 101.7 | 101.5 |
| Cash, including cash equivalents at beginning of period | 439.1 | 337.4 | 235.9 |
| Cash, including cash equivalents at end of period | $ 615.5 | $ 439.1 | $ 337.4 |
| Supplemental cash flow information: | | | |
| Interest paid, net of amounts capitalized | $ 8.1 | $ 8.6 | $ 8.4 |
| Income taxes paid, net | $ 48.4 | $ 47.5 | $ 42.0 |
| Accrued capital expenditures | $ 31.3 | $ 17.0 | $ 15.0 |
| Dividends declared, not paid | $ 12.6 | $ 11.8 | $ 11.3 |
| Purchase of investment in affiliated companies, treasury stock | $ — | $ 4.9 | $ — |

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

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1: Basis of Presentation and Summary of Significant Accounting Policies**

**Principles of Consolidation:** The consolidated financial statements include the accounts of West after the elimination of intercompany transactions. We have no participation or other rights in variable interest entities.

In April 2019, we acquired the business of our distributor in South Korea for $18.9 million. As a result of the acquisition, we recorded inventories, property, plant and equipment, goodwill and a customer relationships intangible asset of $4.5 million, $0.6 million, $2.6 million and $11.2 million, respectively. The goodwill was recorded within our Proprietary Products reportable segment. The results of this acquisition have been included in our consolidated financial statements since the acquisition date.

West has been actively monitoring the novel coronavirus (“COVID-19”) situation and its impact globally. Our production facilities continued to operate during the year as they had prior to the COVID-19 pandemic, other than for enhanced safety measures intended to prevent the spread of the virus and higher levels of production at certain plant locations to meet additional customer demand. The remote working arrangements and travel restrictions imposed by various governments had limited impact on our ability to maintain operations during the year, as our manufacturing operations have generally been exempted from stay-at-home orders.

**Use of Estimates:** The financial statements are prepared in conformity with U.S. GAAP. These principles require management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingencies in the financial statements. Actual amounts realized may differ from these estimates.

**Cash and Cash Equivalents:** Cash equivalents include time deposits, certificates of deposit and all highly liquid short-term instruments with maturities of three months or less at the time of purchase.

**Accounts Receivable:** Our accounts receivable balance was net of an allowance for doubtful accounts of $1.1 million and $0.5 million at December 31, 2020 and 2019, respectively. Under the current expected credit loss model, we have adopted a provision matrix approach, utilizing historical loss rates based on the number of days past due, adjusted to reflect current economic conditions and forecasts of future economic conditions.

**Inventories:** Inventories are valued at the lower of cost (on a first-in, first-out basis) and net realizable value. The following is a summary of inventories at December 31:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Raw materials | $ 133.5 | $ 100.9 |
| Work in process | 54.9 | 37.4 |
| Finished goods | 132.9 | 97.4 |
| | $ 321.3 | $ 235.7 |

**Property, Plant and Equipment**: Property, plant and equipment assets are carried at cost. Maintenance and minor repairs and renewals are charged to expense as incurred. Costs incurred for computer software developed or obtained for internal use are capitalized for application development activities and immediately expensed for preliminary project activities or post-implementation activities. Upon sale or retirement of depreciable assets, costs and related accumulated depreciation are eliminated, and gains or losses are recognized in other expense (income). Depreciation and amortization are computed principally using the straight-line method over the estimated useful lives of the assets, or the remaining term of the lease, if shorter.

**Leases:** Operating lease right-of-use assets are initially measured at cost, which comprises the initial amount of the lease liability adjusted for lease payments made at or before the lease commencement date, plus any initial direct costs incurred less any lease incentives received. Operating lease right-of-use assets are subsequently measured throughout the lease term at the carrying amount of the lease liability, plus initial direct costs, plus (minus) any prepaid (accrued) lease payments, less the unamortized balance of lease incentives received. Lease expense for lease payments is recognized on a straight-line basis over the lease term. Operating lease liabilities are initially measured at the present value of the unpaid lease payments at the lease commencement date. We had no finance leases as of December 31, 2020. Please refer to Note 6, *Leases*, for additional information.

**Impairment of Long-Lived Assets**: Long-lived assets, including property, plant and equipment and operating lease right-of-use assets, are tested for impairment whenever circumstances indicate that the carrying value of these assets may not be recoverable. An asset is considered impaired if the carrying value of the asset exceeds the sum of the future expected undiscounted cash flows to be derived from the asset. Once an asset is considered impaired, an impairment loss is recorded within other expense (income) for the difference between the asset's carrying value and its fair value. For assets held and used in the business, management determines fair value using estimated future cash flows to be derived from the asset, discounted to a net present value using an appropriate discount rate. For assets held for sale or for investment purposes, management determines fair value by estimating the proceeds to be received upon sale of the asset, less disposition costs.

**Impairment of Goodwill and Other Intangible Assets:** Goodwill is tested for impairment at least annually, following the completion of our annual budget and long-range planning process, or whenever circumstances indicate that the carrying value of these assets may not be recoverable. Goodwill is tested for impairment at the reporting unit level, which is the same as, or one level below, our operating segments. A goodwill impairment charge represents the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the total amount of goodwill allocated to that reporting unit. Accounting guidance also allows entities to first assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance, to determine whether it is necessary to perform the quantitative goodwill impairment test. We elected to follow this guidance for our annual impairment test. Based upon our assessment, we determined that it was not more likely than not that the fair value of each of our reporting units was less than its carrying amount and determined that it was not necessary to perform the quantitative goodwill impairment test.

Intangible assets with finite lives are amortized using the straight-line method over their estimated useful lives of 3 to 25 years, and reviewed for impairment whenever circumstances indicate that the carrying value of these assets may not be recoverable.

**Employee Benefits:** The measurement of the obligations under our defined benefit pension and postretirement medical plans are subject to a number of assumptions. These include the rate of return on plan assets (for funded plans) and the rate at which the future obligations are discounted to present value. For our funded plans, we consider the current and expected asset allocations of our plan assets, as well as historical and expected rates of return, in estimating the long-term rate of return on plan assets. U.S. GAAP requires the recognition of an asset or liability for the funded status of a defined benefit postretirement plan, as measured by the difference between the fair value of plan assets, if any, and the benefit obligation. For a pension plan, the benefit obligation is the projected benefit obligation; for any other postretirement plan, such as a retiree health plan, the benefit obligation is the accumulated postretirement benefit obligation. Please refer to Note 15, *Benefit Plans*, for a more detailed discussion of our pension and other retirement plans.

**Financial Instruments**: All derivatives are recognized as either assets or liabilities in the balance sheet and recorded at their fair value. For a derivative designated as hedging the exposure to variable cash flows of a forecasted transaction (referred to as a cash flow hedge), the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income ("OCI"), net of tax, and subsequently reclassified into earnings when the forecasted transaction affects earnings. For a derivative designated as hedging the exposure to changes in the fair value of a recognized asset or liability or a firm commitment (referred to as a fair value hedge), the derivative's gain or loss is recognized in earnings in the period of change together with the offsetting loss or gain on the hedged item. For a derivative designated as hedging the foreign currency exposure of a net investment in a foreign operation, the gain or loss is reported in OCI, net of tax, as part of the cumulative translation adjustment. The ineffective portion of any derivative used in a hedging transaction is recognized immediately into earnings. Derivative financial instruments that are not designated as hedges are also recorded at fair value, with the change in fair value recognized immediately into earnings. We do not purchase or hold any derivative financial instrument for investment or trading purposes.

**Foreign Currency Translation**: Foreign currency transaction gains and losses are recognized in the determination of net income. Foreign currency translation adjustments of subsidiaries and affiliates operating outside of the U.S. are accumulated in other comprehensive loss, a separate component of equity.

**Revenue Recognition:** Our revenue results from the sale of goods or services and reflects the consideration to which we expect to be entitled in exchange for those goods or services. We record revenue based on a five-step model, in accordance with Accounting Standards Codification ("ASC") 606. Following the identification of a contract with a customer, we identify the performance obligations (goods or services) in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, and recognize the revenue when (or as) we satisfy the performance obligations by transferring the promised goods or services to our customers. A good or service is transferred when (or as) the customer obtains control of that good or service. Some customers receive pricing rebates upon attaining established sales volumes. We record rebate costs when sales occur based on our assessment of the likelihood that the required volumes will be attained. We also maintain an allowance for product returns, as we believe that we are able to reasonably estimate the amount of returns based on our substantial historical experience and specific identification of customer claims. Please refer to Note 3, *Revenue*, for additional information.

**Shipping and Handling Costs**: Shipping and handling costs are included in cost of goods and services sold. Shipping and handling costs billed to customers in connection with the sale are included in net sales.

**Research and Development**: Research and development expenditures are for the creation, engineering and application of new or improved products and processes. Expenditures include primarily salaries and outside services for those directly involved in research and development activities and are primarily expensed as incurred.

**Environmental Remediation and Compliance Costs**: Environmental remediation costs are accrued when such costs are probable and reasonable estimates are determinable. Cost estimates include investigation, cleanup and monitoring activities; such estimates are adjusted, if necessary, based on additional findings. Environmental compliance costs are expensed as incurred as part of normal operations.

**Litigation**: From time to time, we are involved in legal proceedings, investigations and claims generally incidental to our normal business activities. In accordance with U.S. GAAP, we accrue for loss contingencies when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These estimates are based on an analysis made by internal and external legal counsel considering information known at the time. Legal costs in connection with loss contingencies are expensed as incurred.

**Income Taxes:** Deferred income taxes are recognized by applying enacted statutory tax rates to tax loss carryforwards and temporary differences between the tax basis and financial statement carrying values of our assets and liabilities. The enacted statutory tax rate applied is based on the rate expected to be applicable at the time of the forecasted utilization of the loss carryforward or reversal of the temporary difference. Valuation allowances on deferred tax assets are established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. The realizability of deferred tax assets is subject to our estimates of future taxable income, generally at the respective subsidiary company and the country level. In response to the 2017 Tax Act, we reevaluated our position regarding permanent reinvestment of foreign subsidiary earnings and profits through 2017 (with the exception of China and Mexico) and decided that those profits were no longer permanently reinvested. As of January 1, 2018, we reasserted indefinite reinvestment related to all post-2017 unremitted earnings in all of our foreign subsidiaries. Please refer to Note 17, *Income Taxes*, for additional information. We recognize interest costs related to income taxes in interest expense and penalties within other expense (income). The tax law ordering approach is used for purposes of determining whether an excess tax benefit has been realized during the year.

**Stock-Based Compensation**: Under the fair value provisions of U.S. GAAP, stock-based compensation cost is measured at the grant date based on the value of the award and is recognized as expense over the vesting period. In order to determine the fair value of stock options on the grant date, we use the Black-Scholes valuation model. Please refer to Note 14, *Stock-Based Compensation*, for a more detailed discussion of our stock-based compensation plans.

**Net Income Per Share**: Basic net income per share is computed by dividing net income attributable to common shareholders by the weighted average number of shares of common stock outstanding during each period. Net income per share assuming dilution considers the dilutive effect of outstanding stock options and other stock awards based on the treasury stock method. The treasury stock method assumes the use of exercise proceeds to repurchase common stock at the average fair market value in the period.

**Note 2: New Accounting Standards**

**Recently Adopted Standards**

In December 2019, the Financial Accounting Standards Board (“FASB”) issued guidance which simplifies the accounting for income taxes by removing certain exceptions to the general principles in ASC Topic 740 and by clarifying and amending existing ASC Topic 740 guidance. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2020. We early adopted this guidance, which did not have a material impact to our financial statements.

In April 2019, the FASB issued guidance which clarifies and improves areas related to the new credit losses, hedging, and recognition and measurement standards. This guidance is effective for the same fiscal years in which the original standards are effective or, if already implemented, annual periods beginning after the issuance of this guidance. We adopted this guidance as of January 1, 2020, on a prospective basis. The adoption did not have a material impact on our financial statements.

In August 2018, the FASB issued guidance which modifies the disclosure requirements for defined benefit pension plans and other postretirement plans. The guidance removes disclosures that no longer are considered cost beneficial, clarifies the specific requirements of disclosures, and adds disclosure requirements identified as relevant. This guidance is effective for fiscal years ending after December 15, 2020. We adopted this guidance and the respective disclosure updates are reflected in our financial statements, which did not have a material impact.

In August 2018, the FASB issued guidance to align 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 (and hosting arrangements that include an internal-use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by this update. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. We adopted this guidance as of January 1, 2020, on a prospective basis. The adoption did not have a material impact on our financial statements.

In August 2018, the FASB issued guidance which modifies the disclosure requirements on fair value measurements by removing, modifying, or adding certain disclosures. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. We adopted this guidance as of January 1, 2020. The adoption did not have a material impact on our financial statements. Please refer to Note 12, *Fair Value Measurements*, for additional details.

In June 2016, the FASB issued guidance which provides financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments held by a reporting entity, including accounts receivable, at each reporting date. Under the previous guidance, an entity reflected credit losses on financial assets measured on an amortized cost basis only when it was probable that losses had incurred, generally considering only past events and current conditions when determining incurred loss. The new guidance requires the recognition of an allowance that reflects the current estimate of credit losses expected to be incurred over the life of the financial asset, based not only on historical experience and current conditions, but also on reasonable and supportable forecasts. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. We adopted this guidance as of January 1, 2020, on a modified retrospective basis, to the accounts receivable and contract asset balances as of January 1, 2020. Under the current expected credit loss model, we have adopted a provision matrix approach, utilizing historical loss rates based on the number of days past due, adjusted to reflect current economic conditions and forecasts of future economic conditions. The effect of the adoption on the financial statement line items of accounts receivable and contract assets was not material as of January 1, 2020. As a result of our adoption, we recorded a cumulative-effect adjustment of $0.1 million within retained earnings in our consolidated balance sheet as of January 1, 2020, to reflect the incremental estimated lifetime expected credit losses on the accounts receivable balance as of January 1, 2020. We have not presented the amortized cost basis within each credit quality indicator by year of origination as all of our accounts receivable are due within one year or less.

**Standards Issued Not Yet Adopted**

In March 2020, the FASB issued guidance which provides optional expedients and exceptions to address the impact of reference rate reform where contracts, hedging relationships and other transactions that reference the London Interbank Offered Rate ("LIBOR") or another reference rate need to be discontinued. This guidance was effective upon issuance and generally can be applied through December 31, 2022. We are currently evaluating the impact to our financial statements, the transition, and disclosure requirements of this guidance.

**Note 3: Revenue**

**Adoption of ASC 606**

On January 1, 2018, we adopted ASC 606, on a modified retrospective basis, applied to those contracts which were not completed as of January 1, 2018. As a result of our adoption, we recorded a cumulative-effect adjustment of $11.4 million within retained earnings in our consolidated balance sheet as of January 1, 2018, to reflect a change in the timing of revenue recognition under ASC 606, from point in time to over time, on our Contract-Manufactured Products product sales, certain Proprietary Products product sales, development and tooling agreements, as well as an acceleration on a portion of the remaining unearned income from a nonrefundable customer payment.

**Revenue Recognition**

Our revenue results from the sale of goods or services and reflects the consideration to which we expect to be entitled in exchange for those goods or services. We record revenue based on a five-step model, in accordance with ASC 606. Following the identification of a contract with a customer, we identify the performance obligations (goods or services) in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, and recognize the revenue when (or as) we satisfy the performance obligations by transferring the promised goods or services to our customers. A good or service is transferred when (or as) the customer obtains control of that good or service.

We recognize the majority of our revenue, primarily relating to Proprietary Products product sales, at a point in time, following the transfer of control of our products to our customers, which typically occurs upon shipment or delivery, depending on the terms of the related agreements.

We recognize revenue relating to our Contract-Manufactured Products product sales and certain Proprietary Products product sales over time, as our performance does not create an asset with an alternative use to us and we have an enforceable right to payment for performance completed to date.

We recognize revenue relating to our development and tooling agreements over time, as our performance creates or enhances an asset that the customer controls as the asset is created or enhanced.

For revenue recognized over time, revenue is recognized by applying a method of measuring progress toward complete satisfaction of the related performance obligation. When selecting the method for measuring progress, we select the method that best depicts the transfer of control of goods or services promised to our customers.

Revenue for our Contract-Manufactured Products product sales, certain Proprietary Products product sales, and our development and tooling agreements is recorded under an input method, which recognizes revenue on the basis of our efforts or inputs to the satisfaction of a performance obligation (for example, resources consumed, labor hours expended, costs incurred, time elapsed, or machine hours used) relative to the total expected inputs to the satisfaction of that performance obligation. The input method that we use is based on costs incurred.

The majority of the performance obligations within our contracts are satisfied within one year or less. Performance obligations satisfied beyond one year include those relating to a nonrefundable customer payment of $20.0 million received in June 2013 in return for the exclusive use of the SmartDose technology platform within a specific therapeutic area. As of December 31, 2020, there was $4.7 million of unearned income related to this payment, of which $0.9 million was included in other current liabilities and $3.8 million was included in other long-term liabilities. The unearned income is being recognized as income on a straight-line basis over the remaining term of the agreement. The agreement does not include a future minimum purchase commitment from the customer.

Our revenue can be generated from contracts with multiple performance obligations. When a sales agreement involves multiple performance obligations, each obligation is separately identified and the transaction price is allocated based on the amount of consideration we expect to be entitled in exchange for transferring the promised good or service to the customer.

Some customers receive pricing rebates upon attaining established sales volumes. We record rebate costs when sales occur based on our assessment of the likelihood that the required volumes will be attained. We also maintain an allowance for product returns, as we believe that we are able to reasonably estimate the amount of returns based on our substantial historical experience and specific identification of customer claims.

The following table presents the approximate percentage of our net sales by market group:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Biologics | 31 % | 25 % | 21 % |
| Generics | 20 % | 20 % | 21 % |
| Pharma | 26 % | 31 % | 34 % |
| Contract-Manufactured Products | 23 % | 24 % | 24 % |
| | 100 % | 100 % | 100 % |

The following table presents the approximate percentage of our net sales by product category:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| High-Value Product Components | 46 % | 42 % | 41 % |
| High-Value Product Delivery Devices | 5 % | 5 % | 3 % |
| Standard Packaging | 26 % | 29 % | 32 % |
| Contract-Manufactured Products | 23 % | 24 % | 24 % |
| | 100 % | 100 % | 100 % |

The following table presents the approximate percentage of our net sales by geographic location:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Americas | 48 % | 48 % | 48 % |
| Europe, Middle East, Africa | 43 % | 44 % | 44 % |
| Asia Pacific | 9 % | 8 % | 8 % |
| | 100 % | 100 % | 100 % |

**Contract Assets and Liabilities**

Contract assets and liabilities result from transactions with revenue primarily recorded over time. If the measure of remaining rights exceeds the measure of the remaining performance obligations, we record a contract asset. Contract assets are recorded on the consolidated balance sheet in accounts receivable, net, and other assets (current and noncurrent portions, respectively). Contract assets included in accounts receivable, net, relate to the unbilled amounts of our product sales for which we have recognized revenue over time. Contract assets included in other assets represent the remaining performance obligations of our development and tooling agreements. Conversely, if the measure of the remaining performance obligations exceeds the measure of the remaining rights, we record a contract liability. Contract liabilities are recorded on the consolidated balance sheet within other liabilities (current and noncurrent portions, respectively) and represent cash payments received in advance of our performance.

The following table summarizes our contract assets and liabilities, excluding contract assets included in accounts receivable, net:

| | ($ in millions) |
|---|---|
| Contract assets, December 31, 2019 | $ 9.8 |
| Contract assets, December 31, 2020 | 10.9 |
| Change in contract assets - increase (decrease) | $ 1.1 |
| | |
| Deferred income, December 31, 2019 | $ (34.9) |
| Deferred income, December 31, 2020 | (57.1) |
| Change in deferred income - (increase) decrease | $ (22.2) |

The Company has entered into new capacity reservation agreements, which include the receipt of up-front cash and therefore caused an increase in the deferred income account balance. The Company expects revenue related to the capacity reservation agreements to be recognized over the next 1 to 2 years.

The increase in deferred income during 2020 was primarily due to additional cash payments of $100.3 million received in advance of satisfying future performance obligations, partially offset by the recognition of revenue of $83.9 million, including $26.9 million of revenue that was included in deferred income at the beginning of the year.

**Practical Expedients and Exemptions**

We have elected to disregard the effects of a significant financing component, as we expect, at the inception of our contracts, that the period between when we transfer a promised good or service to the customer and when the customer pays for that good or service will be one year or less.

In addition, we have elected to omit the disclosure of the majority of our remaining performance obligations, which are satisfied within one year or less.

**Supply Chain Financing**

We have entered into supply chain financing agreements with certain banks, pursuant to which we offer for sale certain accounts receivable to such banks from time to time, subject to the terms of the applicable agreements. These transactions result in a reduction in accounts receivable, as the agreements transfer effective control over, and credit risk related to, the receivables to the banks. These agreements do not allow for recourse in the event of uncollectibility, and we do not retain any interest in the underlying accounts receivable once sold. As of December 31, 2020 and 2019, we derecognized accounts receivable of $14.1 million and $10.1 million, respectively, under these agreements. Discount fees related to the sale of such accounts receivable on our consolidated income statements for 2020 and 2019 were not material.

**Voluntary Recall**

On January 24, 2019, we issued a voluntary recall of our Vial2Bag® product line due to reports of potential unpredictable or variable dosing under certain conditions. Our fourth quarter 2018 results included an $11.3 million provision for product returns, recorded as a reduction of sales, partially offset by a reduction in cost of goods sold reflecting our inventory balance for these devices at December 31, 2018. During 2019, we recorded a net provision of $5.4 million for inventory returns from our customers and related in-house inventory, partially offset by a reduction in our provision for product returns. On October 21, 2020 we received market clearance from the FDA for our Vial2BagAdvanced™ 20mm Admixture Device and continue to work to get the products back on the market.

**Note 4: Net Income Per Share**

The following table reconciles the shares used in the calculation of basic net income per share to those used for diluted net income per share:

| (in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Net income | $ 346.2 | $ 241.7 | $ 206.9 |
| Weighted average common shares outstanding | 73.9 | 74.0 | 73.9 |
| Dilutive effect of equity awards, based on the treasury stock method | 1.9 | 1.4 | 1.5 |
| Weighted average shares assuming dilution | 75.8 | 75.4 | 75.4 |

During 2020, 2019 and 2018, there were 0.0 million, 0.1 million, and 0.4 million shares, respectively, from stock-based compensation plans not included in the computation of diluted net income per share because their impact was antidilutive.

In December 2019, we announced a share repurchase program for calendar-year 2020 authorizing the repurchase of up to 848,000 shares of our common stock from time to time on the open market or in privately-negotiated transactions as permitted under Exchange Act Rule 10b-18. There were no shares purchased during the three months ended December 31, 2020. During the year ended December 31, 2020, we purchased 761,500 shares of our common stock under the now completed program at a cost of $115.5 million, or an average price of $151.65 per share.

In December 2020, we announced a share repurchase program for calendar-year 2021 authorizing the repurchase of up to 631,000 shares of our common stock from time to time on the open market or in privately-negotiated transactions as permitted under Exchange Act Rule 10b-18. The number of shares to be repurchased and the timing of such transactions will depend on a variety of factors, including market conditions. This share repurchase program is expected to be completed by December 31, 2021.

**Note 5: Property, Plant and Equipment**

A summary of gross property, plant and equipment at December 31 is presented in the following table:

| ($ in millions) | Expected useful lives (years) | 2020 | 2019 |
|---|---|---|---|
| Land | | $ 24.8 | $ 22.1 |
| Buildings and improvements | 15-35 | 618.1 | 572.9 |
| Machinery and equipment | 5-12 | 911.8 | 817.0 |
| Molds and dies | 4-7 | 131.2 | 123.8 |
| Computer hardware and software | 3-10 | 157.5 | 155.6 |
| Construction in progress | | 192.1 | 128.7 |
| | | $ 2,035.5 | $ 1,820.1 |

Depreciation expense for the years ended December 31, 2020, 2019 and 2018 was $104.7 million, $100.0 million and $101.7 million, respectively.

We capitalize interest on borrowings during the active construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets and is amortized over the useful lives of the assets. Capitalized interest for the years ended December 31, 2020, 2019 and 2018 was $1.4 million, $1.0 million and $0.9 million, respectively.

During 2019 and 2018, as part of our 2018 restructuring plan, we recorded within other expense (income) $0.3 million and $2.2 million, respectively, for non-cash asset write-downs associated with the discontinued use of certain equipment. During 2019 and 2018, as part of our restructuring plans, we recorded within other expense (income) $1.9 million and $1.1 million, respectively, for gains on the sale of fixed assets.

**Note 6: Leases**

**Adoption of ASC 842**

On January 1, 2019, we adopted ASC 842, using the modified retrospective approach that allows companies to apply ASC 842 as of the effective date and on a prospective basis. As a result, we were not required to adjust our comparative period financial information for effects of ASC 842 or present the new required lease disclosures for periods prior to the date of adoption. As of December 31, 2020, we had operating leases primarily related to land, buildings, and machinery and equipment, with lease terms through 2047. Certain of our operating leases provide us with an option, exercisable at our sole discretion, to terminate the lease or extend the lease term for one year or more. We had no finance leases as of December 31, 2020 and 2019.

The operating lease right-of-use assets are initially measured at cost, which comprises the initial amount of the lease liability adjusted for lease payments made at or before the lease commencement date, plus any initial direct costs incurred less any lease incentives received. The operating lease right-of-use assets are subsequently measured throughout the lease term at the carrying amount of the lease liability, plus initial direct costs, plus (minus) any prepaid (accrued) lease payments, less the unamortized balance of lease incentives received. Lease expense for lease payments is recognized on a straight-line basis over the lease term. The operating lease liabilities are initially measured at the present value of the unpaid lease payments at the lease commencement date.

Judgments used in applying ASC 842 include determining: i) whether a contract is, or contains, a lease; ii) the discount rate to be used to discount the unpaid lease payments to present value; iii) the lease term; and iv) the lease payments. We determine if a contract is, or contains, a lease at contract inception. A lease exists when a contract conveys to the customer the right to control the use of identified property, plant, or equipment for a period of time in exchange for consideration. The definition of a lease embodies two conditions: 1) there is an identified asset in the contract that is land or a depreciable asset (i.e., property, plant, and equipment); and 2) the customer has the right to control the use of the identified asset. ASC 842 requires a lessee to discount its unpaid lease payments using the interest rate implicit in the lease or, if that rate cannot be readily determined, its incremental borrowing rate. As all of our operating leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. Our incremental borrowing rate for a lease is the rate of interest we would have to pay on a collateralized basis to borrow an amount equal to the lease payments under similar terms. The lease term for all of our operating leases includes the noncancellable period of the lease plus any additional periods covered by either a lessee option to extend (or not to terminate) the lease that the lessee is reasonably certain to exercise, or an option to extend (or not to terminate) the lease controlled by the lessor. Lease payments included in the measurement of the operating lease right-of-use assets and lease liabilities are comprised of fixed payments (including in-substance fixed payments), variable payments that depend on an index or rate, and the exercise price of a lessee option to purchase the underlying asset if the lessee is reasonably certain to exercise.

The components of lease expense were as follows:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Operating lease cost | $ 12.8 | $ 12.9 |
| Short-term lease cost | 0.8 | 0.8 |
| Variable lease cost | 3.8 | 3.3 |
| Total lease cost | $ 17.4 | $ 17.0 |

Lease expense for 2018 was $14.5 million.

Supplemental information related to leases was as follows:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Cash paid for amounts included in the measurement of lease liabilities: | | |
| Operating cash flows from operating leases | $ 12.6 | $ 12.5 |
| | | |
| Right-of-use assets obtained in exchange for new operating lease liabilities | 6.1 | 9.1 |

As of December 31, 2020 and December 31, 2019, the weighted average remaining lease term for operating leases was 11.1 years and 11.7 years and the weighted average discount rate was 3.68% and 3.76%, respectively.

Maturities of lease liabilities as of December 31, 2020 were as follows:

| ($ in millions)<br>Year | Operating Leases |
|---|---|
| 2021 | $ 12.4 |
| 2022 | 10.4 |
| 2023 | 9.3 |
| 2024 | 8.7 |
| 2025 | 6.9 |
| Thereafter | 37.5 |
| | 85.2 |
| Less: imputed lease interest | (14.7) |
| Total lease liabilities | $ 70.5 |

**Practical Expedients and Exemptions**

We have elected to adopt practical expedients around the combination of lease and non-lease components and the portfolio approach relating to discount rates. These practical expedients were applied consistently to all leases.

We have elected not to recognize operating lease right-of-use assets and operating lease liabilities for all short-term leases (leases with an initial lease term of 12 months or less). We recognize the lease payments associated with our short-term leases as an expense over the lease term.

**Note 7: Affiliated Companies**

At December 31, 2020, the following affiliated companies were accounted for under the equity method:

| | Location | Ownership interest |
|---|---|---|
| The West Company Mexico, S.A. de C.V. | Mexico | 49% |
| Aluplast S.A. de C.V. | Mexico | 49% |
| Pharma Tap S.A. de C.V. | Mexico | 49% |
| Pharma Rubber S.A. de C.V. | Mexico | 49% |
| I&W Pharma Group LLC | United States | 49% |
| Daikyo | Japan | 49% |

On November 1, 2019, in connection with the amendment of certain commercial agreements with Daikyo, we increased our ownership interest from 25% to 49% in Daikyo in exchange for $85.1 million in cash and $4.9 million in shares of our treasury stock to certain stockholders of Daikyo.

Unremitted income of affiliated companies included in consolidated retained earnings amounted to $98.2 million, $82.4 million and $75.8 million at December 31, 2020, 2019 and 2018, respectively. Dividends received from affiliated companies were $1.6 million in 2020, $2.2 million in 2019 and $1.7 million in 2018.

Our equity in net unrealized gains of Daikyo’s investment securities and derivative instruments, as well as pension adjustments, included in accumulated other comprehensive loss was $0.6 million, $0.4 million and $0.4 million at December 31, 2020, 2019 and 2018, respectively.

Our purchases from, and royalty payments made to, affiliates totaled $143.3 million, $115.1 million and $86.3 million, respectively, in 2020, 2019 and 2018, of which $33.6 million and $20.8 million was due and payable as of December 31, 2020 and 2019, respectively. The majority of these transactions related to a distributorship agreement with Daikyo that allows us to purchase and re-sell Daikyo products. Sales to affiliates were $9.7 million, $9.2 million and $9.6 million, respectively, in 2020, 2019 and 2018, of which $1.4 million and $1.9 million was receivable as of December 31, 2020 and 2019, respectively.

At December 31, 2020 and 2019, the aggregate carrying amount of our investment in affiliated companies that are accounted for under the equity method was $201.9 million and $179.3 million, respectively, and the aggregate carrying amount of our investment in affiliated companies that are not accounted for under the equity method was $12.8 million and $13.4 million, respectively. We have elected to record these investments, for which fair value was not readily determinable, at cost, less impairment, adjusted for subsequent observable price changes. We test these investments for impairment whenever circumstances indicate that the carrying value of the investments may not be recoverable.

**Note 8: Goodwill and Intangible Assets**

The changes in the carrying amount of goodwill by reportable segment were as follows:

| ($ in millions) | Proprietary Products | Contract-Manufactured Products | Total |
|---|---|---|---|
| Balance, December 31, 2018 | $ 76.0 | $ 29.8 | $ 105.8 |
| Goodwill recorded due to acquisition | 2.6 | — | 2.6 |
| Foreign currency translation | (0.5) | (0.1) | (0.6) |
| Balance, December 31, 2019 | 78.1 | 29.7 | 107.8 |
| Foreign currency translation | 2.8 | 0.5 | 3.3 |
| Balance, December 31, 2020 | $ 80.9 | $ 30.2 | $ 111.1 |

In April 2019, we acquired the business of our distributor in South Korea. As a result of the acquisition, we recorded goodwill of $2.6 million. The goodwill was recorded within our Proprietary Products reportable segment.

As of December 31, 2020, we had no accumulated goodwill impairment losses.

Intangible assets and accumulated amortization as of December 31 were as follows:

| | 2020 | | | 2019 | | |
|---|---|---|---|---|---|---|
| ($ in millions) | Cost | Accumulated Amortization | Net | Cost | Accumulated Amortization | Net |
| Patents and licensing | $ 25.9 | $ (17.9) | $ 8.0 | $ 21.5 | $ (16.0) | $ 5.5 |
| Technology | 3.3 | (1.7) | 1.6 | 3.3 | (1.5) | 1.8 |
| Trademarks | 2.0 | (1.8) | 0.2 | 2.0 | (1.8) | 0.2 |
| Customer relationships | 40.9 | (23.4) | 17.5 | 40.3 | (21.6) | 18.7 |
| Customer contracts | 11.1 | (7.9) | 3.2 | 11.0 | (7.4) | 3.6 |
| | $ 83.2 | $ (52.7) | $ 30.5 | $ 78.1 | $ (48.3) | $ 29.8 |

As a result of the acquisition of our South Korean distributor in April 2019, we recorded a customer relationships intangible asset of $11.2 million, which is being amortized over ten years.

The cost basis of intangible assets includes a foreign currency translation gain of $1.3 million and a foreign currency translation loss of $0.3 million for the years ended December 31, 2020 and 2019, respectively. Amortization expense for the years ended December 31, 2020, 2019 and 2018 was $4.4 million, $3.4 million and $2.7 million, respectively. Estimated annual amortization expense for the next five years is as follows: 2021 - $3.8 million, 2022 - $3.8 million, 2023 - $3.7 million, 2024 - $3.6 million and 2025 - $3.4 million.

**Note 9: Other Current Liabilities**

Other current liabilities as of December 31 included the following:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Deferred income | $ 51.0 | $ 27.5 |
| Dividends payable | 12.6 | 11.8 |
| Accrued commissions, rebates and royalties | 10.0 | 9.7 |
| Accrued retirement plans (excluding pension) | 8.4 | 7.9 |
| Accrued taxes other than income | 15.4 | 6.5 |
| Accrued professional services | 3.7 | 5.9 |
| Accrued interest | 3.3 | 3.3 |
| Restructuring and severance related charges | 7.8 | 2.6 |
| Short term derivative instruments | 9.5 | 0.2 |
| Other | 21.9 | 15.9 |
| Total other current liabilities | $ 143.6 | $ 91.3 |

**Note 10: Debt**

The following table summarizes our long-term debt obligations, net of unamortized debt issuance costs and current maturities, at December 31. The interest rates shown in parentheses are as of December 31, 2020.

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Term Loan, due December 31, 2024 (1.13%) | $ 87.7 | $ 90.0 |
| Series A notes, due July 5, 2022 (3.67%) | 42.0 | 42.0 |
| Series B notes, due July 5, 2024 (3.82%) | 53.0 | 53.0 |
| Series C notes, due July 5, 2027 (4.02%) | 73.0 | 73.0 |
| | 255.7 | 258.0 |
| Less: unamortized debt issuance costs | 0.5 | 0.7 |
| Total debt | 255.2 | 257.3 |
| Less: current portion of long-term debt | 2.3 | 2.3 |
| Long-term debt, net | $ 252.9 | $ 255.0 |

***Credit Agreement - Credit Facility***

In March 2019, we entered into the Credit Agreement that replaced our prior revolving credit facility, which was scheduled to expire in October 2020. The Credit Agreement, which expires in March 2024, contains the Credit Facility of $300.0 million, with sublimits of up to $30.0 million for swing line loans for domestic borrowers in USD and a $20.0 million swing line loan for our German Holding Company and up to $30.0 million for the issuance of standby letters of credit. The Credit Facility may be increased from time-to-time by the greater of $350.0 million and earnings before interest, taxes, depreciation and amortization ("EBITDA") for the preceding twelve month period in the aggregate through an increase in the Credit Facility, subject to the satisfaction of certain conditions. Borrowings under the Credit Facility bear interest at either the base rate (the per annum interest rate of the highest of the Prime Rate, the Federal Funds Rate plus 50 basis points or the daily LIBOR, plus 1.00%) or at the applicable LIBOR rate, plus a tiered margin based on the ratio of our net consolidated debt to our modified EBITDA, ranging from 0 to 37.5 basis points for base rate loans and 87.5 to 137.5 basis points for LIBOR rate loans. The Credit Agreement contains financial covenants providing that we shall not permit the ratio of our net consolidated debt to our modified EBITDA to be greater than 3.5 to 1; provided that, no more than three times during the term of the Credit Agreement, upon the occurrence of a qualified acquisition for each of our four fiscal quarters immediately following such qualified acquisition, the ratio shall be increased to 4.0 to 1. The Credit Agreement also contains customary limitations on liens securing our indebtedness, fundamental changes (mergers, consolidations, liquidations and dissolutions), asset sales, distributions and acquisitions. As of December 31, 2020 and 2019, total unamortized debt issuance costs of $0.4 million and $1.1 million, respectively, were recorded in other noncurrent assets and are being amortized as additional interest expense over the term of the Credit Facility. A portion of these costs relate to our prior revolving credit facility.

At December 31, 2020, we had no outstanding borrowings under the Credit Facility. At December 31, 2020, the borrowing capacity available under the Credit Facility, including outstanding letters of credit of $2.5 million, was $297.5 million.

***Credit Agreement Amendment - Term Loan***

In December 2019, we entered into a First Amendment and Incremental Facility Amendment (the "First Amendment") to the Credit Agreement. Pursuant to the First Amendment and the Credit Agreement, we established the Term Loan in the amount of $90.0 million, which is due on December 31, 2024. Borrowings under the Term Loan bear interest at the three-month LIBOR plus 87.5 basis points. As of December 31, 2020, there were unamortized debt issuance costs remaining of $0.1 million, which are being amortized as additional interest expense over the term of the Term Loan.

At December 31, 2020, we had $87.7 million in borrowings under the Term Loan, of which $2.3 million was classified as current and $85.4 million was classified as long-term. Please refer to Note 11, *Derivative Financial Instruments*, for a discussion of the foreign currency hedge associated with the Term Loan.

***Private Placement***

In 2012, we concluded a private placement issuance of $168.0 million in senior unsecured notes. The total amount of the private placement issuance was divided into three tranches - $42.0 million 3.67% Series A Notes due July 5, 2022, $53.0 million 3.82% Series B Notes due July 5, 2024, and $73.0 million 4.02% Series C Notes due July 5, 2027 (the "Notes"). The Notes rank pari passu with our other senior unsecured debt. The weighted average of the coupon interest rates on the Notes is 3.87%. As of December 31, 2020 and 2019, there were unamortized debt issuance costs remaining of $0.4 million and $0.5 million, respectively, which are being amortized as additional interest expense over the term of the Notes.

***Covenants***

Pursuant to the financial covenants in our debt agreements, we are required to maintain established interest coverage ratios and to not exceed established leverage ratios. In addition, the agreements contain other customary covenants, none of which we consider restrictive to our operations. At December 31, 2020, we were in compliance with all of our debt covenants.

Interest costs incurred during 2020, 2019 and 2018 were $9.6 million, $9.4 million and $9.3 million, respectively. The aggregate annual maturities of long-term debt, excluding unamortized debt issuance costs, were as follows: $2.3 million in 2021, 2022 $44.2 million, 2023 - $2.2 million, 2024 - $134.0 million, 2025 - $0.0 million, and thereafter - $73.0 million.

**Note 11: Derivative Financial Instruments**

Our ongoing business operations expose us to various risks, such as fluctuating interest rates, foreign currency exchange rates and increasing commodity prices. To manage these market risks, we periodically enter into derivative financial instruments, such as interest rate swaps, options and foreign exchange contracts for periods consistent with, and for notional amounts equal to or less than, the related underlying exposures. We do not purchase or hold any derivative financial instruments for investment or trading purposes. All derivatives are recorded in our consolidated balance sheet at fair value.

**Foreign Currency Exchange Rate Risk**

We have entered into forward exchange contracts, designated as fair value hedges, to manage our exposure to fluctuating foreign exchange rates on cross-currency intercompany loans. As of December 31, 2020 and December 31, 2019, the total amount of these forward exchange contracts was SGD 601.5 million and $13.4 million.

In addition, we have entered into several foreign currency contracts, designated as cash flow hedges, for periods of up to eighteen months, intended to hedge the currency risk associated with a portion of our forecasted transactions denominated in foreign currencies. As of December 31, 2020, we had outstanding foreign currency contracts to purchase and sell certain pairs of currencies, as follows:

| (in millions) | | Sell | |
|---|---|---|---|
| **Currency** | **Purchase** | **USD** | **Euro** |
| USD | 57.0 | — | 49.2 |
| Yen | 7,194.1 | 42.7 | 22.0 |
| SGD | 42.9 | 25.0 | 5.0 |

In November and December 2019, in conjunction with the repayment of the outstanding long-term borrowings under our Credit Facility denominated in Euro and Yen, we de-designated these borrowings as hedges of our net investments in certain European subsidiaries and Daikyo. The amounts recorded as cumulative translation adjustments within accumulated other comprehensive loss related to these borrowings (prior to de-designation) will remain in accumulated other comprehensive loss indefinitely, unless certain future events occur, such as the disposition of the operations for which the net investment hedges relate.

In December 2019, in conjunction with the repayment of the outstanding long-term borrowings under our Credit Facility denominated in Yen, we entered into a forward exchange contract, designated as a cash flow hedge, to manage our exposure to fluctuating foreign exchange rates. This forward exchange contract matured on December 30, 2019.

In December 2019, we entered into a five-year floating-to-floating forward-starting cross-currency swap (the “cross-currency swap”) for $90 million, which we designated as a hedge of our net investment in Daikyo. The notional amount of the cross-currency swap is ¥9.6 billion ($87.8 million) as of December 31, 2020. Under the cross-currency swap, we receive floating interest rate payments based on three-month USD LIBOR plus a margin, in return for paying floating interest rate payments based on three-month Yen LIBOR plus a margin.

**Commodity Price Risk**

Many of our proprietary products are made from synthetic elastomers, which are derived from the petroleum refining process. We purchase the majority of our elastomers via long-term supply contracts, some of which contain clauses that provide for surcharges related to fluctuations in crude oil prices. The following economic hedges did not qualify for hedge accounting treatment since they did not meet the highly effective requirement at inception.

From November 2017 through December 2020, we purchased several series of call options for a total of 472,477 barrels of crude oil to mitigate our exposure to such oil-based surcharges and protect operating cash flows with regards to a portion of our forecasted elastomer purchases.

As of December 31, 2020, we had outstanding contracts to purchase 141,734 barrels of crude oil from January 2021 to June 2022, at a weighted-average strike price of $59.14 per barrel.

**Effects of Derivative Instruments on Financial Position and Results of Operations**

Please refer to Note 12, *Fair Value Measurements*, for the balance sheet location and fair values of our derivative instruments as of December 31, 2020 and 2019.

The following table summarizes the effects of derivative instruments designated as fair value hedges in our consolidated statements of income for the years ended December 31:

| | Amount of Gain Recognized in Income | | Location on Statement of Income |
|---|---|---|---|
| ($ in millions) | 2020 | 2019 | |
| **Fair Value Hedges:** | | | |
| Hedged item (intercompany loan) | $ 28.5 | $ (15.3) | Other expense (income) |
| Derivative designated as hedging instrument | (28.5) | 15.3 | Other expense (income) |
| Amount excluded from effectiveness testing | (6.1) | (6.9) | Other expense (income) |
| Total | $ (6.1) | $ (6.9) | |

We recognize in earnings the initial value of forward point components on a straight-line basis over the life of the fair value hedge. The amounts recognized in earnings, pre-tax, for forward point components for the years ended December 31, 2020 and 2019 were $6.3 million and $8.7 million, respectively. We expect to recognize $1.8 million in earnings, pre-tax, for forward point components in 2021.

The following table summarizes the effects of derivative instruments designated as fair value, cash flow, and net investment hedges on OCI and earnings, net of tax, for the years ended December 31:

| ($ in millions) | Amount of Gain (Loss) Recognized in OCI 2020 | Amount of Gain (Loss) Recognized in OCI 2019 | Amount of (Gain) Loss Reclassified from Accumulated OCI into Income 2020 | Amount of (Gain) Loss Reclassified from Accumulated OCI into Income 2019 | Location of (Gain) Loss Reclassified from Accumulated OCI into Income |
|---|---|---|---|---|---|
| **Fair Value Hedges:** | | | | | |
| Foreign currency hedge contracts | $ 4.0 | $ 4.8 | $ (4.3) | $ (4.6) | Other expense (income) |
| Total | $ 4.0 | $ 4.8 | $ (4.3) | $ (4.6) | |
| **Cash Flow Hedges:** | | | | | |
| Foreign currency hedge contracts | $ (0.6) | $ 0.8 | $ 0.2 | $ (0.9) | Net sales |
| Foreign currency hedge contracts | (0.6) | (0.2) | (0.1) | (0.6) | Cost of goods and services sold |
| Forward treasury locks | — | — | 0.3 | 0.3 | Interest expense |
| Total | $ (1.2) | $ 0.6 | $ 0.4 | $ (1.2) | |
| **Net Investment Hedges:** | | | | | |
| Foreign currency-denominated debt | $ — | $ 0.6 | $ — | $ — | Other expense (income) |
| Cross-currency swap | (3.2) | (1.1) | — | — | Other expense (income) |
| Total | $ (3.2) | $ (0.5) | $ — | $ — | |

The following table summarizes the effects of derivative instruments designated as fair value, cash flow, and net investment hedges by line item in our consolidated statements of income for the years ended December 31:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Net sales | $ 0.2 | $ (0.9) |
| Cost of goods and services sold | (0.1) | (0.6) |
| Other expense (income) | (4.3) | (4.6) |
| Interest expense | 0.3 | 0.3 |

The following table summarizes the effects of derivative instruments not designated as hedges in our consolidated statements of income for the years ended December 31:

| ($ in millions) | Amount of Loss (Gain) Recognized in Income 2020 | Amount of Loss (Gain) Recognized in Income 2019 | Location on Statement of Income |
|---|---|---|---|
| Commodity call options | $ 0.2 | $ 0.4 | Cost of goods and services sold |
| Total | $ 0.2 | $ 0.4 | |

During 2020 and 2019, there was no material ineffectiveness related to our hedges.

**Note 12: Fair Value Measurements**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The following fair value hierarchy classifies the inputs to valuation techniques used to measure fair value into one of three levels:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.
- Level 3: Unobservable inputs that reflect the reporting entity's own assumptions.

The following tables present the assets and liabilities recorded at fair value on a recurring basis:

| ($ in millions) | Balance at December 31, 2020 | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| | | Level 1 | Level 2 | Level 3 |
| Assets: | | | | |
| Deferred compensation assets | $ 12.8 | $ 12.8 | $ — | $ — |
| Foreign currency contracts | 3.0 | — | 3.0 | — |
| Commodity call options | 0.3 | — | 0.3 | — |
| | $ 16.1 | $ 12.8 | $ 3.3 | $ — |
| Liabilities: | | | | |
| Contingent consideration | $ 3.6 | $ — | $ — | $ 3.6 |
| Deferred compensation liabilities | 14.5 | 14.5 | — | — |
| Cross-currency swap | 5.6 | — | 5.6 | — |
| Foreign currency contracts | 9.7 | — | 9.7 | — |
| | $ 33.4 | $ 14.5 | $ 15.3 | $ 3.6 |

| ($ in millions) | Balance at December 31, 2019 | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| | | Level 1 | Level 2 | Level 3 |
| Assets: | | | | |
| Deferred compensation assets | $ 11.3 | $ 11.3 | $ — | $ — |
| Foreign currency contracts | 7.7 | — | 7.7 | — |
| Commodity call options | 0.1 | — | 0.1 | — |
| | $ 19.1 | $ 11.3 | $ 7.8 | $ — |
| Liabilities: | | | | |
| Contingent consideration | $ 3.3 | $ — | $ — | $ 3.3 |
| Deferred compensation liabilities | 12.8 | 12.8 | — | — |
| Cross-currency swap | 1.4 | — | 1.4 | — |
| Foreign currency contracts | 0.3 | — | 0.3 | — |
| | $ 17.8 | $ 12.8 | $ 1.7 | $ 3.3 |

Deferred compensation assets are included within other noncurrent assets and are valued using a market approach based on quoted market prices in an active market. The fair value of our foreign currency contracts, included within other current and other noncurrent assets, as well as other current and other long-term liabilities, is valued using an income approach based on quoted forward foreign exchange rates and spot rates at the reporting date. The fair value of our commodity call options, included within other current and other noncurrent assets, is valued using a market approach. The fair value of our contingent consideration, included within other current and other long-term liabilities, is discussed further in the section related to Level 3 fair value measurements. The fair value of deferred compensation liabilities is based on quoted prices of the underlying employees' investment selections and is included within other long-term liabilities. The fair value of the cross-currency swap, included within other long-term liabilities, is valued using a market approach. Please refer to Note 11, *Derivative Financial Instruments*, for further discussion of our derivatives.

**Level 3 Fair Value Measurements**

The fair value of the contingent consideration liability related to the SmartDose technology platform (the "SmartDose contingent consideration") was initially determined using a probability-weighted income approach, and is revalued at each reporting date or more frequently if circumstances dictate. Changes in the fair value of this obligation are recorded as income or expense within other expense (income) in our consolidated statements of income. The significant unobservable inputs used in the fair value measurement of the SmartDose contingent consideration are the sales projections, the probability of success factors, and the discount rate. Significant increases or decreases in any of those inputs in isolation would result in a significantly lower or higher fair value measurement. Sales projections were derived using upside, base and downside forecasted cases for each partnership and applying probability-weighted scenarios of 10%, 50% and 40% to the three cases, respectively, to reflect the likelihood of West meeting the estimated sales projection targets. The probability of success factors included the probabilities of successful FDA approval for each partnership drug, which was estimated in a range of 19% to 100% based on the development phase of each respective drug, and the probability of the successful execution of supply agreements with each partnership, which was estimated in the range of 25% to 100% based on historical, current, and future supply agreements with the respective partnerships. The fair value of this liability utilized a risk-adjusted discount rate of 19% to present value the cash flows. The discount rate is calculated by determining the after-tax required returns on debt and equity and weighting each return by the respective percent of debt and equity to total capital. Key inputs for the discount rate include the risk-free rate on the 20-Year United States Treasury maturity, equity risk premium, company-specific risk premium, pre-tax cost of debt, and U.S. tax rate, among others. As development and commercialization of the SmartDose technology platform progresses, we may need to update the sales projections, the probability of success factors, and the discount rate used. This could result in a material increase or decrease to the SmartDose contingent consideration.

The following table provides a summary of changes in our Level 3 fair value measurements:

| | ($ in millions) |
|---|---|
| Balance, December 31, 2018 | $ 1.7 |
| Increase in fair value recorded in earnings | 2.1 |
| Payments | (0.5) |
| Balance, December 31, 2019 | 3.3 |
| Increase in fair value recorded in earnings | 1.2 |
| Payments | (0.9) |
| Balance, December 31, 2020 | $ 3.6 |

**Other Financial Instruments**

We believe that the carrying amounts of our cash and cash equivalents and accounts receivable approximate their fair values due to their near-term maturities.

The estimated fair value of long-term debt is based on quoted market prices for debt issuances with similar terms and maturities, and is classified as Level 2 within the fair value hierarchy. At December 31, 2020, the estimated fair value of long-term debt was $265.7 million compared to a carrying amount of $252.9 million. At December 31, 2019, the estimated fair value of long-term debt was $263.3 million and the carrying amount was $255.0 million.

**Note 13: Accumulated Other Comprehensive Loss**

The following table presents the changes in the components of accumulated other comprehensive loss, net of tax:

| ($ in millions) | (Losses) gains on derivatives | Change in equity affiliate investment AOCI | Defined benefit pension and other postretirement plans | Foreign currency translation | Total |
|---|---|---|---|---|---|
| Balance, December 31, 2018 | $ (0.4) | $ 0.4 | $ (40.4) | $ (113.8) | $ (154.2) |
| Other comprehensive income (loss) before reclassifications | 5.4 | — | (1.9) | 4.9 | 8.4 |
| Amounts reclassified out | (5.8) | — | 2.0 | — | (3.8) |
| Other comprehensive (loss) income, net of tax | (0.4) | — | 0.1 | 4.9 | 4.6 |
| Balance, December 31, 2019 | (0.8) | 0.4 | (40.3) | (108.9) | (149.6) |
| Other comprehensive income (loss) before reclassifications | 2.8 | 0.2 | (2.5) | 40.1 | 40.6 |
| Amounts reclassified out | (3.9) | — | 2.3 | — | (1.6) |
| Other comprehensive (loss) income, net of tax | (1.1) | 0.2 | (0.2) | 40.1 | 39.0 |
| Balance, December 31, 2020 | $ (1.9) | $ 0.6 | $ (40.5) | $ (68.8) | $ (110.6) |

A summary of the reclassifications out of accumulated other comprehensive loss is presented in the following table ($ in millions):

| Detail of components | 2020 | 2019 | Location on Statement of Income |
|---|---|---|---|
| Gains (losses) on derivatives: | | | |
| Foreign currency contracts | $ (0.2) | $ 1.0 | Net sales |
| Foreign currency contracts | 0.1 | 1.0 | Cost of goods and services sold |
| Foreign currency contracts | 5.9 | 6.9 | Other expense (income) |
| Forward treasury locks | (0.4) | (0.5) | Interest expense |
| Total before tax | 5.4 | 8.4 | |
| Tax (expense) benefit | (1.5) | (2.6) | |
| Net of tax | $ 3.9 | $ 5.8 | |
| Amortization of defined benefit pension and other postretirement plans: | | | |
| Prior service credit | 0.6 | 0.6 | (a) |
| Actuarial gains (losses) | (0.1) | 0.2 | (a) |
| Settlements | (3.7) | (3.5) | (a) |
| Total before tax | (3.2) | (2.7) | |
| Tax benefit (expense) | 0.9 | 0.7 | |
| Net of tax | $ (2.3) | $ (2.0) | |
| Total reclassifications for the period, net of tax | $ 1.6 | $ 3.8 | |

(a) These components are included in the computation of net periodic benefit cost. Please refer to Note 15, *Benefit Plans*, for additional details.

**Note 14: Stock-Based Compensation**

The West Pharmaceutical Services, Inc. 2016 Omnibus Incentive Compensation Plan (the “2016 Plan”) provides for the granting of stock options, stock appreciation rights, restricted stock awards and performance awards to employees and non-employee directors. A committee of the Board of Directors determines the terms and conditions of awards to be granted. Vesting requirements vary by award. At December 31, 2020, there were 2,761,911 shares remaining in the 2016 Plan for future grants.

Stock options and stock appreciation rights reduce the number of shares available by one share for each award granted. All other awards under the 2016 Plan will reduce the total number of shares available for grant by an amount equal to 2.5 times the number of shares awarded. If awards made under previous plans would entitle a plan participant to an amount of West stock in excess of the target amount, the additional shares (up to a maximum threshold amount) will be distributed under the 2016 Plan.

The following table summarizes our stock-based compensation expense recorded within selling, general and administrative expenses for the years ended December 31:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Stock option and appreciation rights | $ 10.2 | $ 9.1 | $ 8.6 |
| Performance share units, stock-settled | 16.6 | 9.5 | 2.5 |
| Performance share units, cash-settled | 0.4 | 0.1 | — |
| Performance share units, dividend equivalents | 0.6 | 0.2 | 0.1 |
| Employee stock purchase plan | 1.1 | 0.9 | 0.9 |
| Deferred compensation plans and restricted share awards | 5.1 | 4.6 | 3.0 |
| Total stock-based compensation expense | $ 34.0 | $ 24.4 | $ 15.1 |

The Company estimates expected forfeitures. The amount of unrecognized compensation expense for all non-vested awards as of December 31, 2020 was approximately $31.7 million, which is expected to be recognized over a weighted average period of 1.6 years.

***Stock Options***

Stock options granted to employees vest in equal increments. All awards expire 10 years from the date of grant. Upon the exercise of stock options, shares are issued in exchange for the exercise price of the options.

The following table summarizes changes in outstanding options:

| (in millions, except per share data) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Options outstanding, January 1 | 2.7 | 3.0 | 3.5 |
| Granted | 0.2 | 0.3 | 0.5 |
| Exercised | (0.5) | (0.6) | (1.0) |
| Forfeited | — | — | — |
| Options outstanding, December 31 | 2.4 | 2.7 | 3.0 |
| Options exercisable, December 31 | 1.6 | 1.6 | 1.7 |

| Weighted Average Exercise Price | 2020 | 2019 | 2018 |
|---|---|---|---|
| Options outstanding, January 1 | $ 67.02 | $ 58.93 | $ 48.76 |
| Granted | 178.11 | 103.40 | 90.36 |
| Exercised | 49.99 | 46.42 | 35.95 |
| Forfeited | 103.51 | 92.71 | 75.32 |
| Options outstanding, December 31 | $ 81.37 | $ 67.02 | $ 58.93 |
| Options exercisable, December 31 | $ 62.42 | $ 53.12 | $ 45.32 |

As of December 31, 2020, the weighted average remaining contractual life of options outstanding and of options exercisable was 5.9 years and 4.8 years, respectively.

As of December 31, 2020, the aggregate intrinsic value of total options outstanding was $481.2 million, of which $351.7 million represented vested options.

The fair value of the options was estimated on the date of grant using a Black-Scholes option valuation model that used the following weighted average assumptions in 2020, 2019 and 2018: a risk-free interest rate of 1.3%, 2.3%, and 2.7%, respectively; stock volatility of 22.4%, 22.5%, and 19.8%, respectively; and dividend yields of 0.4%, 0.7%, and 0.7%, respectively. Stock volatility is estimated based on historical data and the impact from expected future trends. Expected lives, which are based on prior experience, averaged 5.7 years for 2020, 2019 and 2018. The weighted average grant date fair value of options granted in 2020, 2019 and 2018 was $40.28, $24.72 and $20.16, respectively. Stock option expense is recognized over the vesting period, net of forfeitures.

For the years ended December 31, 2020, 2019 and 2018, the intrinsic value of options exercised was $88.8 million, $46.9 million and $61.3 million, respectively. The grant date fair value of options vested during those same periods was $8.4 million, $7.5 million and $8.3 million, respectively.

***Stock Appreciation Rights***

Stock appreciation rights ("SARs") granted to eligible international employees vest in equal annual increments over 4 years of continuous service. All awards expire 10 years from the date of grant. The fair value of each cash-settled SAR is adjusted at the end of each reporting period, with the resulting change reflected in expense. As of December 31, 2020, SARs outstanding were 27,679, of which 24,051 were cash-settled and 3,628 were stock-settled. Upon exercise of a cash-settled SAR, the employee receives cash for the difference between the grant date price and the fair market value of the Company's stock on the date of exercise. As a result of the cash settlement feature, cash-settled SARs are recorded within other long-term liabilities. Upon exercise of a stock-settled SAR, shares are issued in exchange for the exercise price of the stock-settled SAR. As a result of the stock settlement feature, stock-settled SARs are recorded within equity.

The following table summarizes changes in outstanding SARs:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| SARs outstanding, January 1 | 35,993 | 39,819 | 51,368 |
| Granted | 3,272 | 3,364 | 3,480 |
| Exercised | (11,261) | (6,790) | (14,629) |
| Forfeited | (325) | (400) | (400) |
| SARs outstanding, December 31 | 27,679 | 35,993 | 39,819 |
| SARs exercisable, December 31 | 27,182 | 27,781 | 30,285 |

| Weighted Average Exercise Price | 2020 | 2019 | 2018 |
|---|---|---|---|
| SARs outstanding, January 1 | $ 52.36 | $ 46.48 | $ 38.55 |
| Granted | 190.97 | 102.51 | 89.64 |
| Exercised | 35.37 | 42.08 | 28.45 |
| Forfeited | 71.43 | 63.43 | 63.43 |
| SARs outstanding, December 31 | $ 75.43 | $ 52.36 | $ 46.48 |
| SARs exercisable, December 31 | $ 40.23 | $ 40.73 | $ 36.91 |

***Performance Awards***

In addition to stock options and SAR awards, we grant performance share unit ("PSU") awards to eligible employees. These awards are earned based on the Company's performance against pre-established targets, including annual growth rate of revenue and return on invested capital, over a specified performance period. Depending on the achievement of the targets, recipients of stock-settled PSU awards are entitled to receive a certain number of shares of common stock, whereas recipients of cash-settled PSU awards are entitled to receive a payment in cash per unit based on the fair market value of a share of our common stock at the end of the performance period.

The following table summarizes changes in our outstanding stock-settled PSU awards:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Non-vested stock-settled PSU awards, January 1 | 264,622 | 296,037 | 341,944 |
| Granted at target level | 53,659 | 84,309 | 102,307 |
| Adjustments above/(below) target | (14,004) | (50,556) | (2,284) |
| Vested and converted | (70,074) | (48,964) | (121,984) |
| Forfeited | (11,404) | (16,204) | (23,946) |
| Non-vested stock-settled PSU awards, December 31 | 222,799 | 264,622 | 296,037 |

| Weighted Average Grant Date Fair Value | 2020 | 2019 | 2018 |
|---|---|---|---|
| Non-vested stock-settled PSU awards, January 1 | $ 92.80 | $ 76.84 | $ 64.38 |
| Granted at target level | 177.31 | 103.40 | 90.45 |
| Adjustments above/(below) target | 77.02 | 83.89 | 33.86 |
| Vested and converted | 173.22 | 102.51 | 93.00 |
| Forfeited | 104.43 | 69.09 | 68.65 |
| Non-vested stock-settled PSU awards, December 31 | $ 116.37 | $ 92.80 | $ 76.84 |

Shares earned under PSU awards may vary from 0% to 200% of an employee's targeted award. The fair value of stock-settled PSU awards is based on the market price of our stock at the grant date and is recognized as expense over the performance period, adjusted for estimated target outcomes and net of forfeitures. The weighted average grant date fair value of stock-settled PSU awards granted during the years 2020, 2019 and 2018 was $177.31, $103.40 and $90.45, respectively. Including forfeiture and above-target achievement expectations, we expect that the stock-settled PSU awards will convert to 92,792 shares to be issued over an average remaining term of one year.

The fair value of cash-settled PSU awards is also based on the market price of our stock at the grant date. These awards are revalued at the end of each quarter based on changes in our stock price. As a result of the cash settlement feature, cash-settled PSU awards are recorded within other long-term liabilities.

The following table summarizes changes in our outstanding cash-settled PSU awards:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Non-vested cash-settled PSU awards, January 1 | 1,981 | 1,592 | 1,972 |
| Granted at target level | 732 | 806 | 560 |
| Adjustments above/(below) target | (99) | (206) | (30) |
| Vested and converted | (502) | (211) | (910) |
| Forfeited | — | — | — |
| Non-vested cash-settled PSU awards, December 31 | 2,112 | 1,981 | 1,592 |

| Weighted Average Grant Date Fair Value | 2020 | 2019 | 2018 |
|---|---|---|---|
| Non-vested cash-settled PSU awards, January 1 | $ 93.28 | $ 79.48 | $ 92.25 |
| Granted at target level | 190.71 | 102.51 | 89.64 |
| Adjustments above/(below) target | 74.43 | 56.95 | 41.53 |
| Vested and converted | 173.22 | 102.51 | 93.00 |
| Forfeited | — | — | — |
| Non-vested cash-settled PSU awards, December 31 | $ 130.13 | $ 93.28 | $ 79.48 |

***Employee Stock Purchase Plan***

We also offer an Employee Stock Purchase Plan ("ESPP"), which provides for the sale of our common stock to eligible employees at 85% of the current market price on the last trading day of each quarterly offering period. Payroll deductions are limited to 25% of the employee's base salary, not to exceed $25,000 in any one calendar year. In addition, employees may not buy more than 2,000 shares during any offering period (8,000 shares per year). Purchases under the ESPP were 36,494 shares, 51,391 shares and 55,669 shares for the years 2020, 2019 and 2018, respectively. At December 31, 2020, there were approximately 3,793,218 shares available for issuance under the ESPP.

***Deferred Compensation Plans and Restricted Share Awards***

Our deferred compensation plans include a Non-Qualified Deferred Compensation Plan for Non-Employee Directors, under which non-employee directors may defer all or part of their annual cash retainers. The deferred fees may be credited to a stock-equivalent account. Amounts credited to this account are converted into deferred stock units based on the fair market value of one share of our common stock on the last day of the quarter. For deferred stock units ultimately paid in cash, a liability is calculated at an amount determined by multiplying the number of units by the fair market value of our common stock at the end of each reporting period. In addition, deferred stock awards are granted on the date of our annual meeting, and are distributed in shares of common stock. In 2020, we granted 10,302 deferred stock awards, with a weighted grant date fair value of $194.29. Similarly, a non-qualified deferred compensation plan for eligible employees provides for the conversion of compensation into deferred stock units. As of December 31, 2020, the two deferred compensation plans held a total of 358,890 deferred stock units, including 6,274 units to be paid in cash.

In addition, during 2020, we granted 8,721 restricted share awards at a weighted grant-date fair value of $200.35 per share to employees under the 2016 Plan. During 2019, we granted 13,308 restricted share awards at a weighted grant-date fair value of $116.39 per share to employees under the 2016 Plan. During 2018, we granted 15,942 restricted share awards at a weighted grant-date fair value of $96.77 per share to employees under the 2016 Plan. The fair value of these awards is based on the market price of our stock at the grant date and is recognized as expense over the vesting period.

***Annual Incentive Plan***

Under our annual incentive plan, participants are paid bonuses on the attainment of certain financial goals, which they can elect to receive in either cash or shares of our common stock. If the employee elects payment in shares, they are also given a restricted incentive stock award equal to one share for each four bonus shares issued. The incentive stock awards vest at the end of four years, provided that the participant has not made a disqualifying disposition of their bonus shares. Incentive stock award grants were 350 shares, 1,300 shares and 1,500 shares in 2020, 2019 and 2018, respectively. Incentive stock forfeitures of 0 shares, 0 shares, and 200 shares occurred in 2020, 2019 and 2018, respectively. Compensation expense is recognized over the vesting period based on the fair market value of common stock on the award date: $156.49 per share granted in 2020, $106.14 per share granted in 2019 and $93.00 per share granted in 2018.

**Note 15: Benefit Plans**

Certain of our U.S. and international subsidiaries sponsor defined benefit pension plans. In addition, we provide minimal death benefits for certain U.S. retirees and pay a portion of healthcare costs for retired U.S. salaried employees and their dependents. Benefits for participants are coordinated with Medicare when possible. We also sponsor a defined contribution plan for certain salaried and hourly U.S. employees. Our 401(k) plan contributions were $16.8 million for 2020, $15.6 million for 2019 and $6.5 million for 2018. The increase in 401(k) plan contributions in 2019 was in response to the cessation of our U.S. qualified and non-qualified defined benefit pension plans as of January 1, 2019 (except for interest crediting).

***Pension and Other Retirement Benefits***

The components of net periodic benefit cost and other amounts recognized in OCI were as follows:

| | Pension benefits | | | Other retirement benefits | | |
|---|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020 | 2019 | 2018 |
| **Net periodic benefit cost:** | | | | | | |
| Service cost | $ 1.5 | $ 1.4 | $ 10.8 | $ — | $ — | $ — |
| Interest cost | 7.1 | 9.2 | 9.4 | 0.2 | 0.2 | 0.2 |
| Expected return on plan assets | (11.7) | (12.0) | (15.7) | — | — | — |
| Amortization of prior service credit | 0.1 | 0.1 | (1.3) | (0.7) | (0.7) | (0.7) |
| Amortization of actuarial loss (gain) | 2.0 | 2.1 | 3.8 | (1.9) | (2.3) | (2.4) |
| Settlement loss | 3.7 | 3.5 | — | — | — | — |
| Net periodic benefit cost | $ 2.7 | $ 4.3 | $ 7.0 | $ (2.4) | $ (2.8) | $ (2.9) |
| **Other changes in plan assets and benefit obligations recognized in OCI, pre-tax:** | | | | | | |
| Net loss (gain) arising during period | $ 1.8 | $ 1.5 | $ 3.5 | $ (0.4) | $ 0.1 | $ (1.4) |
| Prior service credit arising during period | — | — | 0.3 | — | — | — |
| Amortization of prior service credit | (0.1) | (0.1) | 1.3 | 0.7 | 0.7 | 0.7 |
| Amortization of actuarial (loss) gain | (2.0) | (2.1) | (3.8) | 1.9 | 2.3 | 2.4 |
| Settlement loss | (3.7) | (3.5) | — | — | — | — |
| Foreign currency translation | 1.8 | 0.6 | (1.2) | — | — | — |
| Total recognized in OCI | $ (2.2) | $ (3.6) | $ 0.1 | $ 2.2 | $ 3.1 | $ 1.7 |
| Total recognized in net periodic benefit cost and OCI | $ 0.5 | $ 0.7 | $ 7.1 | $ (0.2) | $ 0.3 | $ (1.2) |

Net periodic benefit cost by geographic location is as follows:

| | Pension benefits | | | Other retirement benefits | | |
|---|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020 | 2019 | 2018 |
| U.S. plans | $ 1.2 | $ 2.4 | $ 4.8 | $ (2.4) | $ (2.8) | $ (2.9) |
| International plans | 1.5 | 1.9 | 2.2 | — | — | — |
| Net periodic benefit cost | $ 2.7 | $ 4.3 | $ 7.0 | $ (2.4) | $ (2.8) | $ (2.9) |

The service cost component included within net periodic benefit cost is considered employee compensation and is therefore presented within the selling, general, and administrative and costs of goods and services sold financial statement line items of our consolidated statements of income. The remaining components of net periodic benefit cost are reported separately and are therefore presented within the other nonoperating (income) expense financial statement line item of our consolidated statements of income.

During 2020 and 2019, we recorded $3.7 million and $3.5 million in pension settlement charges within other nonoperating (income) expense, respectively, as we determined that normal-course lump-sum payments for each of our U.S. qualified and non-qualified defined benefit pension plans exceeded the threshold for settlement accounting under U.S. GAAP for the year. Effective January 1, 2019, except for interest crediting, benefit accruals under these defined benefit pension plans ceased.

During 2020, we did not contribute to our U.S. qualified defined benefit pension plan. During 2019, we contributed $2.6 million to our U.S. qualified defined benefit pension plan.

The following table presents the changes in the benefit obligation and the fair value of plan assets, as well as the funded status of the plans:

| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2020 | 2019 |
| **Change in benefit obligation:** | | | | |
| Benefit obligation, January 1 | $ (287.9) | $ (267.0) | $ (6.6) | $ (6.0) |
| Service cost | (1.5) | (1.4) | — | — |
| Interest cost | (7.1) | (9.2) | (0.2) | (0.2) |
| Participants' contributions | (0.3) | (0.3) | (0.1) | (0.7) |
| Actuarial (loss) gain | (22.1) | (30.8) | 0.5 | (0.2) |
| Benefits paid | 6.2 | 6.8 | 0.3 | 0.5 |
| Curtailment gain | 0.1 | — | — | — |
| Settlement loss | 18.6 | 15.0 | — | — |
| Foreign currency translation | (4.9) | (1.0) | — | — |
| Benefit obligation, December 31 | $ (298.9) | $ (287.9) | $ (6.1) | $ (6.6) |
| | | | | |
| **Change in plan assets:** | | | | |
| Fair value of assets, January 1 | $ 244.1 | $ 214.5 | $ — | $ — |
| Actual return on plan assets | 31.8 | 41.3 | — | — |
| Employer contribution | 4.8 | 8.0 | 0.2 | (0.2) |
| Participants' contributions | 0.3 | 0.3 | 0.1 | 0.7 |
| Benefits paid | (6.0) | (6.3) | (0.3) | (0.5) |
| Settlement loss | (18.6) | (15.0) | — | — |
| Foreign currency translation | 1.7 | 1.3 | — | — |
| Fair value of assets, December 31 | $ 258.1 | $ 244.1 | $ — | $ — |
| | | | | |
| Funded status at end of year | $ (40.8) | $ (43.8) | $ (6.1) | $ (6.6) |

International pension plan assets, at fair value, included in the preceding table were $43.9 million and $39.4 million at December 31, 2020 and 2019, respectively.

Amounts recognized in the balance sheet were as follows:

| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2020 | 2019 |
| Noncurrent assets | $ 12.9 | $ 4.3 | $ — | $ — |
| Current liabilities | (1.6) | (1.5) | (0.7) | (0.7) |
| Noncurrent liabilities | (52.1) | (46.6) | (5.4) | (5.9) |
| | $ (40.8) | $ (43.8) | $ (6.1) | $ (6.6) |

The amounts in accumulated other comprehensive loss, pre-tax, consisted of:

| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2020 | 2019 |
| Net actuarial loss (gain) | $ 67.3 | $ 69.4 | $ (5.4) | $ (7.0) |
| Prior service cost (credit) | 0.8 | 0.8 | (0.4) | (1.0) |
| Total | $ 68.1 | $ 70.2 | $ (5.8) | $ (8.0) |

The accumulated benefit obligation for all defined benefit pension plans was $293.9 million and $283.9 million at December 31, 2020 and 2019, respectively, including $83.1 million and $73.9 million, respectively, for international pension plans.

As of December 31, 2020 and December 31, 2019, our U.S. qualified defined benefit pension plan had plan assets in excess of its obligations. As of December 31, 2020 and December 31, 2019, our other defined benefit pension plans had projected benefit obligations and accumulated benefit obligations in excess of plan assets.

Benefit payments expected to be paid under our defined benefit pension and other retirement benefit plans in the next ten years are as follows:

| ($ in millions) | Domestic | International | Total |
|---|---|---|---|
| 2021 | $ 21.9 | $ 2.4 | $ 24.3 |
| 2022 | 14.8 | 3.0 | 17.8 |
| 2023 | 14.4 | 2.5 | 16.9 |
| 2024 | 14.0 | 3.2 | 17.2 |
| 2025 | 13.2 | 3.9 | 17.1 |
| 2026 to 2030 | 54.5 | 20.2 | 74.7 |
| | $ 132.8 | $ 35.2 | $ 168.0 |

In 2021, we expect to contribute $3.6 million to pension plans, of which $2.9 million is for international plans. In addition, we expect to contribute $0.7 million for other retirement benefits in 2021. We periodically consider additional, voluntary contributions depending on the investment returns generated by pension plan assets, changes in benefit obligation projections and other factors.

Weighted average assumptions used to determine net periodic benefit cost were as follows:

| | Pension benefits | | | Other retirement benefits | | |
|---|---|---|---|---|---|---|
| | 2020 | 2019 | 2018 | 2020 | 2019 | 2018 |
| Discount rate | 2.61 % | 2.70 % | 2.91 % | 3.20 % | 4.20 % | 3.45 % |
| Rate of compensation increase | 2.33 % | 2.41 % | 4.00 % | — | — | — |
| Expected long-term rate of return on assets | 5.10 % | 5.54 % | 6.71 % | — | — | — |

Weighted average assumptions used to determine the benefit obligations were as follows:

| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| | 2020 | 2019 | 2020 | 2019 |
| Discount rate | 2.10 % | 2.79 % | 2.30 % | 4.20 % |
| Rate of compensation increase | 2.58 % | 2.49 % | — | — |

The discount rate used to determine the benefit obligations for U.S. pension plans was 2.60% and 3.35% as of December 31, 2020 and 2019, respectively. The weighted average discount rate used to determine the benefit obligations for all international plans was 0.89% and 1.28% as of December 31, 2020 and 2019, respectively. The rate of compensation increase for U.S. plans was 4.25% for 2018, while the weighted average rate for all international plans was 2.58% for 2020 and 2.49% for 2019. Other retirement benefits were only available to U.S. employees. The expected long-term rate of return for U.S. plans, which accounts for 83.0% of global plan assets, was 5.10% for 2020, 5.60% for 2019 and 7.00% for 2018.

The assumed healthcare cost trend rate used to determine benefit obligations was 6.50% for all participants in 2020, decreasing to 5.00% by 2027. The assumed healthcare cost trend rate used to determine net periodic benefit cost was 6.25% for all participants in 2020, decreasing to 5.00% by 2024.

The defined pension plan benefit obligation increased for the year ended December 31, 2020 primarily due to a decrease in the discount rate used to calculate the obligation. The net actuarial losses will be impacted in future periods by actual asset returns, discount rate changes, currency exchange rate fluctuations, actual demographic experience, and certain other factors. The other retirement plan benefit obligation decreased slightly due to the activity mentioned above.

The Company has cash balance plans and other plans with promised interest crediting rates. For these plans, the interest crediting rates are set in line with plan rules or country legislation and do not change with market conditions. The weighted average interest crediting rating used to determine net periodic benefit cost by geographic location for our pension plans, at December 31, were as follows:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| U.S. plans | 3.30 % | 3.30 % | 3.30 % |
| International plans | 0.52 % | 0.85 % | 0.41 % |

The weighted average asset allocations by asset category for our pension plans, at December 31, were as follows:

| | 2020 | 2019 |
|---|---|---|
| Equity securities | 34 % | 33 % |
| Debt securities | 64 % | 65 % |
| Other | 2 % | 2 % |
| | 100 % | 100 % |

Our U.S. pension plan is managed as a balanced portfolio comprised of two components: equity and fixed income debt securities. Equity investments are used to maximize the long-term real growth of fund assets, while fixed income investments are used to generate current income, provide for a more stable periodic return and provide some protection against a prolonged decline in the market value of equity investments. Temporary funds may be held as cash. We maintain a long-term strategic asset allocation policy which provides guidelines for ensuring that the fund’s investments are managed with the short-term and long-term financial goals of the fund, while allowing the flexibility to react to unexpected changes in capital markets.

Diversification across and within asset classes is the primary means by which we mitigate risk. We maintain guidelines for all asset and sub-asset categories in order to avoid excessive investment concentrations. Fund assets are monitored on a regular basis. If at any time the fund asset allocation is not within the acceptable allocation range, funds will be reallocated. We also review the fund on a regular basis to ensure that the investment returns received are consistent with the short-term and long-term goals of the fund and with comparable market returns. We are prohibited from pledging fund securities and from investing pension fund assets in our own stock, securities on margin or derivative securities.

The following are the U.S. target asset allocations and acceptable allocation ranges:

| | Target allocation | Allocation range |
|---|---|---|
| Equity securities | 30% | 27% - 33% |
| Debt securities | 70% | 67% - 73% |
| Other | —% | 0% - 3% |

The following tables present the fair value of our pension plan assets, utilizing the fair value hierarchy discussed in Note 12, *Fair Value Measurements*. In accordance with U.S. GAAP, certain pension plan assets measured at net asset value ("NAV") have not been classified in the fair value hierarchy.

| | Balance at December 31, | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| ($ in millions) | 2020 | Level 1 | Level 2 | Level 3 |
| Cash | $ 1.5 | $ 1.5 | $ — | $ — |
| Equity securities: | | | | |
| International mutual funds | 20.6 | — | 20.6 | — |
| Fixed income securities: | | | | |
| Mutual funds | 18.7 | — | 18.7 | — |
| Other mutual funds | 2.9 | — | 2.9 | — |
| Pension plan assets in the fair value hierarchy | $ 43.7 | $ 1.5 | $ 42.2 | $ — |
| Pension plan assets measured at NAV | 214.4 | | | |
| Pension plan assets at fair value | $ 258.1 | | | |

| | Balance at December 31, | Basis of Fair Value Measurements | | |
|---|---|---|---|---|
| ($ in millions) | 2019 | Level 1 | Level 2 | Level 3 |
| Cash | $ 2.2 | $ 2.2 | $ — | $ — |
| Equity securities: | | | | |
| International mutual funds | 15.5 | 1.3 | 14.2 | — |
| Fixed income securities: | | | | |
| Mutual funds | 21.7 | 3.8 | 17.9 | — |
| Pension plan assets in the fair value hierarchy | $ 39.4 | $ 7.3 | $ 32.1 | $ — |
| Pension plan assets measured at NAV | 204.7 | | | |
| Pension plan assets at fair value | $ 244.1 | | | |

**Note 16: Other Expense (Income)**

Other expense (income) consisted of:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Restructuring and related charges: | | | |
| Severance and post-employment benefits | $ 4.6 | $ 2.6 | $ 3.1 |
| Asset-related charges | — | 0.3 | 2.2 |
| Other charges | — | 2.0 | 3.8 |
| Total restructuring and related charges | $ 4.6 | $ 4.9 | $ 9.1 |
| Fixed asset impairments and sale of equipment, net | 7.7 | 0.8 | 1.8 |
| Argentina currency devaluation | — | 1.0 | 1.1 |
| Brazil tax recovery | — | (4.7) | — |
| Development and licensing income | (0.9) | (0.9) | (0.9) |
| Contingent consideration | 1.2 | 2.1 | (2.6) |
| Foreign exchange transaction gains | (1.5) | (4.6) | (5.5) |
| Other items | 0.9 | (1.1) | (1.1) |
| Total other expense (income) | $ 12.0 | $ (2.5) | $ 1.9 |

***Restructuring and Related Charges***

In July 2020, our Board of Directors approved a restructuring plan designed to optimize certain organizational structures within the Company to better support our continued growth and business priorities. These changes are expected to be implemented over a period of up to twenty-four months from the date of the approval. The plan is expected to require restructuring and related charges of approximately $15 million to $17 million. Since its approval, we recorded a net pre-tax amount equal to $4.6 million in restructuring related charges associated with this plan. All charges recorded to date are severance related and recorded within other expense (income) in the consolidated statements of income. Once fully completed, we expect the plan will provide us with annualized savings in the range of $3.5 million to $4.5 million.

The following table presents activity related to our restructuring obligations related to our 2020 restructuring plan:

| ($ in millions) | Severance and benefits | Asset-related charges | Other charges | Total |
|---|---|---|---|---|
| Balance, December 31, 2019 | $ — | $ — | $ — | $ — |
| Charges | 4.6 | — | — | 4.6 |
| Cash payments | — | — | — | — |
| Balance, December 31, 2020 | $ 4.6 | $ — | $ — | $ 4.6 |

In February 2018, our Board of Directors approved a restructuring plan designed to realign our manufacturing capacity with demand. These changes were expected to be implemented over a period of up to twenty-four months from the date of the approval. The plan was expected to require restructuring and related charges of approximately $16.0 million. Since its approval, we recorded $13.7 million in restructuring and related charges associated with this plan. The plan is now considered complete.

During 2019, we recorded $4.9 million in restructuring and related charges associated with this plan, consisting of $2.6 million for severance charges, $0.3 million for non-cash asset write-downs associated with the discontinued use of certain equipment, and $2.0 million for other non-cash charges.

During 2018, we recorded $8.8 million in restructuring and related charges associated with this plan, consisting of $3.1 million for severance charges, $2.2 million for non-cash asset write-downs associated with the discontinued use of certain equipment, and $3.5 million for other non-cash charges.

The following table presents activity related to our restructuring obligations related to our 2018 restructuring plan:

| ($ in millions) | Severance and benefits | Asset-related charges | Other charges | Total |
|---|---|---|---|---|
| Balance, December 31, 2018 | $ 2.3 | $ — | $ — | $ 2.3 |
| Charges | 2.6 | 0.3 | 2.0 | 4.9 |
| Cash payments | (3.5) | — | — | (3.5) |
| Non-cash asset write-downs | — | (0.3) | (2.0) | (2.3) |
| Balance, December 31, 2019 | $ 1.4 | $ — | $ — | $ 1.4 |
| Cash payments | (1.3) | — | — | (1.3) |
| Balance, December 31, 2020 | $ 0.1 | $ — | $ — | $ 0.1 |

On February 15, 2016, our Board of Directors approved a restructuring plan designed to repurpose several of our production facilities in support of growing high-value proprietary products and to realign operational and commercial activities to meet the needs of our new market-focused commercial organization. During 2018, we recorded $0.3 million in additional charges related to this restructuring plan. Our remaining restructuring obligations related to our 2016 restructuring plan are complete.

***Other Items***

During 2019, we recorded a charge of $1.0 million as a result of the continued devaluation of Argentina's currency. During 2018, we recorded a charge of $1.1 million related to the classification of Argentina's economy as highly inflationary under U.S. GAAP as of July 1, 2018.

During 2019, we recognized a tax recovery of $4.7 million related to previously-paid international excise taxes, following a favorable court ruling.

During 2020, 2019 and 2018, we recorded development income of $0.9 million in each year, related to a nonrefundable customer payment of $20.0 million received in June 2013 in return for the exclusive use of the SmartDose technology platform within a specific therapeutic area. Please refer to Note 3, *Revenue*, for additional information.

Contingent consideration represents changes in the fair value of the SmartDose contingent consideration. Please refer to Note 12, *Fair Value Measurements*, for additional details.

**Note 17: Income Taxes**

As a global organization, we and our subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. During 2020, the statute of limitations for the 2016 U.S. federal tax year lapsed, leaving tax years 2017 through 2020 open to examination. For U.S. state and local jurisdictions, tax years 2013 through 2020 are open to examination. We are also subject to examination in various foreign jurisdictions for tax years 2013 through 2020.

A reconciliation of the beginning and ending amount of the liability for unrecognized tax benefits is as follows:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Balance at January 1 | $ 5.0 | $ 3.9 |
| Increase due to current year position | 4.9 | 1.6 |
| Increase due to prior year position | 0.6 | — |
| Reduction for expiration of statute of limitations/audits | (0.1) | (0.5) |
| Balance at December 31 | $ 10.4 | $ 5.0 |

In addition, we had balances in accrued liabilities for interest and penalties of $0.3 million and $0.2 million at December 31, 2020 and 2019, respectively. As of December 31, 2020, we had $10.4 million of total gross unrecognized tax benefits, which, if recognized, would favorably impact the effective income tax rate. It is reasonably possible that, due to the expiration of statutes and the closing of tax audits, the amount of gross unrecognized tax benefits may be reduced by approximately $0.3 million during the next twelve months, which would favorably impact our effective tax rate.

The components of income before income taxes are:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| U.S. operations | $ 227.0 | $ 161.2 | $ 132.9 |
| International operations | 174.3 | 130.6 | 107.8 |
| Total income before income taxes | $ 401.3 | $ 291.8 | $ 240.7 |

The related provision for income taxes consists of:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Current: | | | |
| Federal | $ 28.9 | $ 10.8 | $ 2.1 |
| State | 3.4 | 2.4 | 3.3 |
| International | 46.0 | 30.5 | 35.1 |
| Current income tax provision | 78.3 | 43.7 | 40.5 |
| Deferred: | | | |
| Federal and state | 0.2 | 10.3 | 1.4 |
| International | (6.0) | 5.0 | (0.5) |
| Deferred income tax provision | (5.8) | 15.3 | 0.9 |
| Income tax expense | $ 72.5 | $ 59.0 | $ 41.4 |

Deferred income taxes result from temporary differences between the amount of assets and liabilities recognized for financial reporting and tax purposes.

The significant components of our deferred tax assets and liabilities at December 31 are:

| ($ in millions) | 2020 | 2019 |
|---|---|---|
| Deferred tax assets | | |
| Net operating loss carryforwards | $ 21.4 | $ 21.9 |
| Tax credit carryforwards | 2.0 | 2.8 |
| Restructuring and impairment charges | 0.4 | — |
| Pension and deferred compensation | 35.3 | 25.6 |
| Other | 10.6 | 9.2 |
| Valuation allowance | (15.1) | (15.9) |
| Total deferred tax assets | 54.6 | 43.6 |
| Deferred tax liabilities: | | |
| Property, plant, and equipment | 42.1 | 37.9 |
| Tax on undistributed earnings of subsidiaries | 6.5 | 6.3 |
| Other | 0.4 | 0.9 |
| Total deferred tax liabilities | 49.0 | 45.1 |
| Net deferred tax (liability) asset | $ 5.6 | $ (1.5) |

A reconciliation of the U.S. federal corporate tax rate to our effective consolidated tax rate on income before income taxes follows:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| U.S. federal corporate tax rate | 21.0 % | 21.0 % | 21.0 % |
| Tax on international operations other than U.S. tax rate | 1.2 | 2.7 | 4.8 |
| Adjustments to reserves for unrecognized tax benefits | 1.4 | 0.4 | 0.2 |
| U.S. tax on international earnings, net of foreign tax credits | 0.4 | 0.4 | (0.2) |
| Foreign-Derived Intangible Income Deductions (FDII) | (1.1) | (0.6) | (0.4) |
| State income taxes, net of federal tax effect | 1.2 | 1.4 | 2.3 |
| U.S. research and development credits | (0.7) | (1.0) | (0.9) |
| Excess tax benefits on share-based payments | (5.2) | (3.5) | (6.0) |
| Impact of 2017 Tax Act | — | — | (2.9) |
| Tax on undistributed earnings of subsidiaries | 0.1 | (0.2) | (1.3) |
| Other | (0.2) | (0.4) | 0.6 |
| Effective tax rate | 18.1 % | 20.2 % | 17.2 % |

During 2020, we recorded a tax benefit of $0.5 million due to the impact of tax law changes enacted during the year, as well as a tax benefit of $20.8 million associated with stock-based compensation.

During 2019, we recorded a tax benefit of $0.3 million due to the impact of tax law changes enacted during the year, as well as a tax benefit of $10.3 million associated with stock-based compensation.

During 2018, we recorded a net tax benefit of $2.5 million for the estimated impact of the 2017 Tax Act and a tax benefit of $14.3 million associated with stock-based compensation.

The 2017 Tax Act, which was signed into law on December 22, 2017, has resulted in significant changes to the U.S. corporate income tax system. These changes include, but are not limited to, a federal statutory rate reduction from 35.0% to 21.0% effective for tax years beginning after December 31, 2017. Changes in tax rates and tax laws are accounted for in the period of enactment.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. We recognized the provisional tax impacts related to deemed repatriated earnings and the revaluation of deferred tax assets and liabilities and included these amounts in our consolidated financial statements for the year ended December 31, 2017. As of December 31, 2018, we finalized our calculations and tax positions used in our analysis of the impact of the 2017 Tax Act in consideration of proposed regulations and other guidance issued during 2018. As a result, we recorded a $7.5 million tax benefit related to a reduction of the Transition Toll Tax and an incremental tax expense of $4.0 million related to other adjustments. The final measurement reduced the Transition Toll Tax expense to $20.4 million from $27.9 million. The net impact of these adjustments resulted in a benefit of 1.45% to the 2018 effective tax rate.

The 2017 Tax Act created a provision known as global intangible low-tax income (“GILTI”) that imposes a U.S. tax on certain earnings of controlled foreign subsidiaries. We made an accounting policy election to reflect GILTI taxes, if any, as a current income tax expense in the period incurred.

As of December 31, 2020, we have fully utilized all of our U.S. federal net operating loss carryforwards. State operating loss carryforwards of $204.1 million created a deferred tax asset of $14.0 million, while foreign operating loss carryforwards of $56.7 million created a deferred tax asset of $7.4 million. Management estimates that certain state and foreign operating loss carryforwards are unlikely to be utilized and the associated deferred tax assets have been fully reserved. State loss carryforwards expire as follows: $25.7 million in 2021 and $178.4 million thereafter. Foreign loss carryforwards will begin to expire in 2030, while $54.1 million of the total $56.7 million will not expire.

As of December 31, 2020, we have utilized all available foreign tax credit carryforwards against the Transition Toll Tax. During 2019, we utilized all of our remaining U.S. federal research and development credit carryforwards. As of December 31, 2020, the $0.9 million of state research and development credits expire after 2024.

In response to the 2017 Tax Act, we reevaluated our position regarding permanent reinvestment of foreign subsidiary earnings and profits through 2017 (with the exception of China and Mexico) and decided that those profits were no longer permanently reinvested. As of January 1, 2018, we reasserted indefinite reinvestment related to all post-2017 unremitted earnings in all of our foreign subsidiaries. In general, it is our practice and intention to permanently reinvest the earnings of our foreign subsidiaries and repatriate earnings only when the tax impact is de minimis, and that position has not changed subsequent to the one-time transition tax under the 2017 Tax Act, except as noted above. Accordingly, no deferred taxes have been provided for withholding taxes or other taxes that would result upon repatriation of approximately $345.6 million of undistributed earnings from foreign subsidiaries to the U.S., as those earnings continue to be permanently reinvested. Further, it is impracticable for us to estimate any future tax costs for any unrecognized deferred tax liabilities associated with our indefinite reinvestment assertion, because the actual tax liability, if any, would be dependent on complex analysis and calculations considering various tax laws, exchange rates, circumstances existing when there is a repatriation, sale or liquidation, or other factors.

**Note 18: Commitments and Contingencies**

At December 31, 2020, we were obligated under various operating lease agreements. Please refer to Note 6, *Leases*, for additional details.

At December 31, 2020, we were obligated under various defined benefit pension plans in the U.S. and other countries that cover employees who meet eligibility requirements. Please refer to Note 15, *Benefit Plans*, for additional details.

At December 31, 2020, our outstanding unconditional contractual commitments, including for the purchase of raw materials and finished goods, amounted to $118.4 million, of which $41.4 million is due to be paid in 2021.

We have letters of credit totaling $2.5 million supporting the reimbursement of workers' compensation and other claims paid on our behalf by insurance carriers. Our accrual for insurance obligations was $3.0 million at December 31, 2020, of which $0.9 million is in excess of our deductible and, therefore, is reimbursable by the insurance company.

Our SmartDose contingent consideration is payable to the selling shareholders based upon a percentage of product sales over the life of the underlying product patent, with no cap on total payments. Given the length of the earnout period and the uncertainty in forecasted product sales, we do not believe it is meaningful to estimate the upper end of the range over the entire period. However, our estimated probable range which could become payable over the next five years is between zero and $4.3 million.

**Note 19: Segment Information**

Our business operations are organized into two reportable segments, Proprietary Products and Contract-Manufactured Products. Our Proprietary Products reportable segment offers proprietary packaging, containment and drug delivery products, along with analytical lab services and other integrated services and solutions, primarily to biologic, generic and pharmaceutical drug customers. Our Contract-Manufactured Products reportable segment serves as a fully integrated business, focused on the design, manufacture, and automated assembly of complex devices, primarily for pharmaceutical, diagnostic, and medical device customers.

The Chief Operating Decision Maker ("CODM") evaluates the performance of our segments based upon, among other things, segment net sales and operating profit. Segment operating profit excludes general corporate costs, which include executive and director compensation, stock-based compensation, certain pension and other retirement benefit costs, and other corporate facilities and administrative expenses not allocated to the segments. Also excluded are items that the CODM considers not representative of ongoing operations. Such items are referred to as other unallocated items and generally include restructuring and related charges, certain asset impairments and other specifically-identified income or expense items. The segment operating profit metric is what the CODM uses in evaluating our results of operations and the financial measure that provides a valuable insight into our overall performance and financial position.

The following table presents net sales information about our reportable segments, reconciled to consolidated totals:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Net sales: | | | |
| Proprietary Products | $ 1,648.6 | $ 1,398.6 | $ 1,308.6 |
| Contract-Manufactured Products | 498.6 | 441.5 | 409.1 |
| Intersegment sales elimination | (0.3) | (0.2) | (0.3) |
| Consolidated net sales | $ 2,146.9 | $ 1,839.9 | $ 1,717.4 |

The intersegment sales elimination, which is required for the presentation of consolidated net sales, represents the elimination of components sold between our segments.

We do not have any customers accounting for greater than 10% of consolidated net sales.

The following table presents net sales and long-lived assets, by the country in which the legal subsidiary is domiciled and assets are located:

| | Net Sales | | | Long-Lived Assets | |
|---|---|---|---|---|---|
| ($ in millions) | 2020 | 2019 | 2018 | 2020 | 2019 |
| United States | $ 975.6 | $ 814.7 | $ 766.1 | $ 407.8 | $ 364.7 |
| Germany | 282.1 | 236.3 | 235.9 | 112.0 | 105.5 |
| Ireland | 226.0 | 173.8 | 138.1 | 197.6 | 176.6 |
| France | 172.7 | 150.6 | 145.0 | 76.0 | 53.8 |
| Other European countries | 236.8 | 251.1 | 230.5 | 66.8 | 59.7 |
| Other | 253.7 | 213.4 | 201.8 | 151.3 | 149.1 |
| | $ 2,146.9 | $ 1,839.9 | $ 1,717.4 | $ 1,011.5 | $ 909.4 |

The following tables provide summarized financial information for our segments:

| ($ in millions) | 2020 | 2019 | 2018 |
|---|---|---|---|
| Proprietary Products | $ 434.5 | $ 313.6 | $ 266.4 |
| Contract-Manufactured Products | 68.6 | 49.1 | 44.3 |
| **Total business segment operating profit** | $ 503.1 | $ 362.7 | $ 310.7 |
| Corporate and Unallocated | | | |
| Stock-based compensation expense | $ (34.0) | $ (24.4) | $ (15.1) |
| Corporate general costs [1] | (52.1) | (41.9) | (46.2) |
| Unallocated Items: | | | |
| Restructuring and severance related charges | (7.0) | (4.9) | (9.1) |
| Amortization of Acquisition-related Intangible Assets [2] | (0.6) | — | — |
| Cost investment impairment | (2.5) | — | — |
| Gain on restructuring-related sale of assets | — | 1.7 | 1.1 |
| Argentina currency devaluation | — | (1.0) | (1.1) |
| Tax recovery [3] | — | 4.4 | — |
| Total Corporate and Unallocated | (96.2) | (66.1) | (70.4) |
| **Total consolidated operating profit** | $ 406.9 | $ 296.6 | $ 240.3 |
| Other expense/(income), net | 5.6 | 4.8 | (0.4) |
| **Income before income taxes** | $ 401.3 | $ 291.8 | $ 240.7 |

(1) Corporate general costs includes executive and director compensation, certain pension and other retirement benefit costs, and other corporate facilities and administrative expenses not allocated to the segments.

(2) The Company recorded $0.6 million of amortization expense within operating profit associated with an acquisition of an intangible asset during the second quarter of 2020.

(3) During the twelve months ended December 31, 2019, the Company recorded a net tax recovery of $4.4 million related to previously-paid international excise taxes, following a favorable court ruling.

Please refer to Note 16, *Other Expense (Income)*, for further discussion of unallocated items.

The following tables provide summarized financial information for our two reportable segments and corporate and unallocated:

($ in millions)

| **Assets** | 2020 | 2019 |
|---|---|---|
| Proprietary Products | $ 1,798.3 | $ 1,480.6 |
| Contract-Manufactured Products | 411.6 | 386.0 |
| Corporate and Unallocated | 583.9 | 474.8 |
| **Total consolidated** | $ 2,793.8 | $ 2,341.4 |

($ in millions)

| **Depreciation and Amortization** | 2020 | 2019 | 2018 |
|---|---|---|---|
| Proprietary Products | $ 84.6 | $ 82.2 | $ 83.9 |
| Contract-Manufactured Products | 20.4 | 17.9 | 17.2 |
| Corporate and Unallocated | 4.1 | 3.3 | 3.3 |
| **Total consolidated** | $ 109.1 | $ 103.4 | $ 104.4 |

($ in millions)

| **Capital Expenditures** | 2020 | 2019 | 2018 |
|---|---|---|---|
| Proprietary Products | $ 139.5 | $ 88.7 | $ 79.1 |
| Contract-Manufactured Products | 25.0 | 36.1 | 24.3 |
| Corporate and Unallocated | 9.9 | 1.6 | 1.3 |
| **Total consolidated** | $ 174.4 | $ 126.4 | $ 104.7 |

**Report of Independent Registered Public Accounting Firm**

To the Shareholders and Board of Directors of West Pharmaceutical Services, Inc.

***Opinions on the Financial Statements and Internal Control over Financial Reporting***

We have audited the accompanying consolidated balance sheets of West Pharmaceutical Services, Inc. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of income, comprehensive income, 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.

*Changes in Accounting Principles*

As discussed in Note 6 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and as discussed in Note 3, the manner in which it accounts for revenues from contracts with customers in 2018.

***Basis for Opinions***

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing 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 matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

*Provision for Income Taxes*

As described in Notes 1 and 17 to the consolidated financial statements, the Company's consolidated deferred tax assets were $54.6 million, net of a valuation allowance of $15.1 million, as of December 31, 2020, and income tax expense was $72.5 million for the year ended December 31, 2020. As a global organization, the Company files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. As disclosed by management, management estimates income tax payable based upon current domestic and international tax legislation. Deferred income taxes are recognized by applying enacted statutory tax rates to tax loss carryforwards and temporary differences between the tax basis and financial statement carrying values of assets and liabilities. The enacted statutory tax rate applied is based on the rate expected to be applicable at the time of the forecasted utilization of the loss carryforward or reversal of the temporary difference. Valuation allowances on deferred tax assets are established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. The realizability of deferred tax assets is subject to estimates of future taxable income, generally at the respective subsidiary company and the country level.

The principal considerations for our determination that performing procedures relating to the provision for income taxes is a critical audit matter are the significant judgment by management in determining the income tax provision due to the Company's global footprint and complexity in the various tax laws applicable in determining the Company's effective tax rate. This in turn led to a high degree of auditor judgment, effort, and subjectivity in performing procedures and in evaluating audit evidence related to the income tax provision. Also, 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 income taxes, including controls over the determination of the income tax provision. These procedures also included, among others, (i) testing the income tax provision, including testing the Company's rate reconciliation, return to provision adjustments, permanent and temporary differences, and financial data used in the income tax provision calculation, and (ii) testing the accuracy of the income tax rates utilized in the provision. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of management's application of relevant income tax law in certain jurisdictions.

/s/ PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
February 23, 2021

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

Quarterly Operating and Per Share Data (Unaudited)

| ($ in millions, except per share data) | First Quarter (1) | Second Quarter (2) | Third Quarter (3) | Fourth Quarter (4) | Full Year |
|---|---|---|---|---|---|
| **2020** | | | | | |
| Net sales | $ 491.5 | $ 527.2 | $ 548.0 | $ 580.2 | $ 2,146.9 |
| Gross profit | 167.0 | 195.1 | 194.6 | 211.1 | 767.8 |
| Net income | 74.3 | 91.2 | 82.3 | 98.4 | 346.2 |
| Net income per share: | | | | | |
| Basic | $ 1.01 | $ 1.24 | $ 1.11 | $ 1.32 | $ 4.68 |
| Diluted | $ 0.99 | $ 1.21 | $ 1.09 | $ 1.29 | $ 4.57 |
| | | | | | |
| **2019** | | | | | |
| Net sales | $ 443.5 | $ 469.7 | $ 456.1 | $ 470.6 | $ 1,839.9 |
| Gross profit | 146.8 | 157.9 | 147.8 | 153.2 | 605.7 |
| Net income | 55.4 | 66.1 | 56.3 | 63.9 | 241.7 |
| Net income per share: | | | | | |
| Basic | $ 0.75 | $ 0.90 | $ 0.76 | $ 0.86 | $ 3.27 |
| Diluted | $ 0.73 | $ 0.88 | $ 0.75 | $ 0.84 | $ 3.21 |

The sum of the quarterly amounts may not equal full year due to rounding.

Factors affecting the comparability of the information reflected in the quarterly data:

(1) Net income for the first quarter of 2020 included the impact of a pension settlement charge of $1.1 million ($0.01 per diluted share), amortization expense of $1.0 million ($0.01 per diluted share) associated with an acquisition of increased ownership interest in Daikyo, and a tax benefit of $5.1 million ($0.07 per diluted share) associated with stock-based compensation. Net income for the first quarter of 2019 included the impact of restructuring and related charges of $0.4 million ($0.01 per diluted share) and a tax benefit of $1.4 million ($0.02 per diluted share) associated with stock-based compensation.

(2) Second quarter 2020 net income included the impact of a pension settlement charge of $0.7 million ($0.01 per diluted share), amortization expense of $1.1 million ($0.01 per diluted share) associated with the acquisition of intangible assets, a charge of $1.6 million ($0.02 per diluted share) related to severance costs, and a tax benefit of $6.9 million ($0.09 per diluted share) associated with stock-based compensation. Second quarter 2019 net income included the impact of restructuring and related charges of $1.1 million ($0.01 per diluted share) and a tax benefit of $3.8 million ($0.05 per diluted share) associated with stock-based compensation.

(3) Net income for the third quarter of 2020 included the impact of a pension settlement charge of $0.8 million ($0.01 per diluted share), amortization expense of $0.7 million ($0.01 per diluted share) associated with the acquisition of intangible assets, a restructuring and severance related charge of $3.4 million ($0.04 per diluted share), and a tax benefit of $2.0 million ($0.02 per diluted share) associated with stock-based compensation. Net income for the third quarter of 2019 included the impact of restructuring and related charges of $1.4 million ($0.01 per diluted share), a pension settlement charge of $2.1 million ($0.03 per diluted share), a charge of $0.7 million ($0.01 per diluted share) related to the devaluation of Argentina's currency, a tax benefit of $1.0 million ($0.01 per diluted share) related to the impact of federal law changes enacted during the quarter, and a tax benefit of $4.0 million ($0.05 per diluted share) associated with stock-based compensation.

(4) Fourth quarter 2020 net income included the impact of a pension settlement charge of $0.3 million ($0.01 per diluted share), amortization expense of $0.7 million ($0.01 per diluted share) associated with the acquisition of intangible assets, an impairment charge of $2.5 million ($0.03 per diluted share) related to a cost investment, and a tax benefit of $6.8 million ($0.09 per diluted share) associated with stock-based compensation. Fourth quarter 2019 net income included the impact of restructuring and related charges of $0.8 million ($0.02 per diluted share), a gain on the sale of fixed assets as a result of our restructuring plan of $1.3 million ($0.02 per diluted share), a pension settlement charge of $0.6 million ($0.01 per diluted share), a tax recovery related to previously-paid international excise taxes of $2.9 million ($0.04 per diluted share), a tax charge of $0.7 million ($0.01 per diluted share) related to the impact of federal law changes enacted during the quarter, and a tax benefit of $1.1 million ($0.02 per diluted share) associated with stock-based compensation.

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

None.

## ITEM 9A. CONTROLS AND PROCEDURES

Disclosure controls are controls and procedures designed to reasonably ensure that information required to be disclosed in our reports filed under the Exchange Act, such as this annual report, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended, is accumulated and communicated to our management, including our CEO and Chief Financial Officer ("CFO"), or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Our disclosure controls include some, but not all, components of our internal control over financial reporting.

**Evaluation of Disclosure Controls and Procedures**
An evaluation was performed under the supervision and with the participation of our management, including our CEO and CFO, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934), as of the end of the period covered by this Form 10-K. Based on this evaluation, our CEO and CFO have concluded that, as of December 31, 2020, our disclosure controls and procedures are effective.

**Management's Report on Internal Control over Financial Reporting**
Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed under the supervision of our CEO and CFO to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2020 based on the framework established in "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on

this assessment, management has determined that our internal control over financial reporting was effective as of December 31, 2020.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards
to reduce, though not eliminate, this risk.

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

**Changes in Internal Controls**
During the fourth quarter ended December 31, 2020, there have been no changes to our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

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

Information is incorporated by reference from the discussion under the heading *Proposal 1 - Election of Directors*; *Corporate Governance Documents and Policies - Ethics and Our Code of Business Conduct*; *Voting and Other Information - 2022 Shareholder Proposals or Nominations;* and *Board and Director Information and Policies - Committees - Audit Committee* in our 2021 Proxy Statement. The balance of the information required by this item is contained in the discussion entitled *Information About Our Executive Officers* in Part I of this Form 10-K.

**ITEM 11. EXECUTIVE COMPENSATION**

Information about director and executive compensation is incorporated by reference from the discussion under the headings *Director Compensation*, *Compensation Committee Report*, *Compensation Discussion and Analysis*, and *Compensation Tables* in 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 the discussion under the heading *Stock Ownership* in our 2021 Proxy Statement.

**Equity Compensation Plan Information Table**

The following table sets forth information about the grants of stock options, all share units and other rights under all of the Company's equity compensation plans as of the close of business on December 31, 2020. The table does not include information about tax-qualified plans such as the West 401(k) Plan or the West Contract Manufacturing Savings and Retirement Plan.

| Plan Category | Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a) | Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b) | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Columns (a)) (c) |
|---|---|---|---|
| Equity compensation plans approved by security holders | 2,889,524 [1] | $ 81.3 [2] | 6,555,129 [3] |
| Equity compensation plans not approved by security holders | — | — | — |
| Total | 2,889,524 | 81.3 | 6,555,129 |

[1] Includes 1,259,456 outstanding stock options, 222,799 performance share units, 27,062 restricted retention share units, 144,866 deferred stock-equivalents units, and 308 restricted stock-equivalents units granted to directors under the 2016 Plan. Includes 1,104,631 outstanding stock options, 3,628 outstanding stock-settled stock appreciation rights, and 108,074 deferred stock-equivalents units under the 2011 Plan (which was terminated in 2016). Includes 18,700 outstanding stock options under the Non-Qualified Deferred Compensation Plan for Non-Employee Directors under the 2007 Omnibus Incentive Compensation Plan (which was terminated in 2011). The average term of remaining options and stock-settled stock appreciation rights granted is 5.9 years. No future grants or awards may be made under the terminated plans. The total includes restricted performance share units at 100% of grant. The restricted performance share unit payouts were at 82.61%, 49.39%, and 96.6% in 2020, 2019 and 2018, respectively. The total does not include stock-equivalent units granted or credited to directors under the Non-Qualified Deferred Compensation Plan for Non-Employee Directors to be settled only in cash.

[2] All share units and deferred stock-equivalent units are excluded when determining the weighted-average exercise price of outstanding options.

[3] Represents 3,793,218 shares reserved under the Company's Employee Stock Purchase Plan and 2,761,911 shares remaining available for issuance under the 2016 Plan. The estimated number of shares that could be issued for 2020 from the Employee Stock Purchase Plan is 173,019. This number of shares is calculated by multiplying the 107 shares per offering period per participant limit by 1,617, the number of current participants in the plan.

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

Information called for by this Item is incorporated by reference from the discussion under the heading *Corporate Governance Documents and Policies - Related Person Transactions and Procedures* in our 2021 Proxy Statement. Information about director independence is incorporated by reference from the discussion under the heading *Corporate Governance Documents and Policies - Director Independence* in our 2021 Proxy Statement.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

Information is incorporated by reference from the discussion under the heading *Independent Auditors and Fees - Fees Paid to PricewaterhouseCoopers LLP* and *Independent Auditors and Fees - Audit Committee Policy on Pre-Approval of Audit and Permissible Non-Audit Services* in our 2021 Proxy Statement.

**PART IV**

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

(a) 1. Financial Statements

The following documents are included in Part II, Item 8:

Consolidated Statements of Income for the years ended December 31, 2020, 2019 and 2018
Consolidated Statements of Comprehensive Income for the years ended December 31, 2020, 2019 and 2018
Consolidated Balance Sheets at December 31, 2020 and 2019
Consolidated Statement of 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
Report of Independent Registered Public Accounting Firm

(a) 2. Financial Statement Schedules

Schedule II - Valuation and Qualifying Accounts

| ($ in millions) | Balance at beginning of period | Charged to costs and expenses (1) | Deductions (2) | Balance at end of period |
|---|---|---|---|---|
| For the year ended December 31, 2020 | | | | |
| Allowances deducted from assets: | | | | |
| Deferred tax asset valuation allowance | $ 15.9 | $ — | $ (0.8) | $ 15.1 |
| Allowance for doubtful accounts | 0.5 | 0.7 | (0.1) | 1.1 |
| Total allowances deducted from assets | $ 16.4 | $ 0.7 | $ (0.9) | $ 16.2 |
| For the year ended December 31, 2019 | | | | |
| Allowances deducted from assets: | | | | |
| Deferred tax asset valuation allowance | $ 16.0 | $ — | $ (0.1) | $ 15.9 |
| Allowance for doubtful accounts | 2.0 | 0.1 | (1.6) | 0.5 |
| Total allowances deducted from assets | $ 18.0 | $ 0.1 | $ (1.7) | $ 16.4 |
| For the year ended December 31, 2018 | | | | |
| Allowances deducted from assets: | | | | |
| Deferred tax asset valuation allowance | $ 20.9 | $ (3.0) | $ (1.9) | $ 16.0 |
| Allowance for doubtful accounts | 0.5 | 0.7 | 0.8 | 2.0 |
| Total allowances deducted from assets | $ 21.4 | $ (2.3) | $ (1.1) | $ 18.0 |

(1) Included within the allowance for doubtful accounts activity is the effect of the modified retrospective application of a new accounting standard mentioned in Note 2.
(2) Includes accounts receivable written off, the write-off or write-down of valuation allowances, and translation adjustments.

All other schedules are omitted because they are either not applicable, not required or because the information required is contained in the consolidated financial statements or notes thereto.

(a) 3. Exhibits - An index of the exhibits included in this Form 10-K is contained on pages F-1 through F-3 and is incorporated herein by reference.
(b) See subsection (a) 3. above.
(c) Financial Statements of affiliates are omitted because they do not meet the tests of a significant subsidiary at the 20% level.

**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, West Pharmaceutical Services, Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

WEST PHARMACEUTICAL SERVICES, INC.
(Registrant)

By: /s/ Bernard J. Birkett
Bernard J. Birkett
Senior Vice President and Chief Financial Officer

February 23, 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 West Pharmaceutical Services, Inc. and in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| /s/ Eric M. Green<br>Eric M. Green | Director, President and Chief Executive Officer<br>(Principal Executive Officer) | February 23, 2021 |
| /s/ Bernard J. Birkett<br>Bernard J. Birkett | Senior Vice President and Chief Financial Officer<br>(Principal Financial Officer) | February 23, 2021 |
| /s/ Chad R. Winters<br>Chad R. Winters | Vice President, Chief Accounting Officer and Corporate Controller<br>(Principal Accounting Officer) | February 23, 2021 |
| /s/ Mark A. Buthman<br>Mark A. Buthman | Director | February 23, 2021 |
| /s/ William F. Feehery, Ph.D.<br>William F. Feehery, Ph.D. | Director | February 23, 2021 |
| /s/ Robert F. Friel<br>Robert F. Friel | Director | February 23, 2021 |
| /s/ Thomas W. Hofmann<br>Thomas W. Hofmann | Director | February 23, 2021 |
| /s/ Paula A. Johnson, M.D., MPH<br>Paula A. Johnson, M.D., MPH | Director | February 23, 2021 |
| /s/ Deborah L.V. Keller<br>Deborah L.V. Keller | Director | February 23, 2021 |
| /s/ Myla P. Lai-Goldman, M.D.<br>Myla P. Lai-Goldman, M.D. | Director | February 23, 2021 |
| /s/ Douglas A. Michels<br>Douglas A. Michels | Director | February 23, 2021 |
| /s/ Paolo Pucci<br>Paolo Pucci | Director | February 23, 2021 |
| /s/ Patrick J. Zenner<br>Patrick J. Zenner | Director and Chairman of the Board | February 23, 2021 |

**EXHIBIT INDEX**

| Exhibit Number | Description |
|---|---|
| 3.1 | Our Amended and Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Form 10-Q report for the quarter ended June 30, 2020, filed July 24, 2020). |
| 3.2 | Our Bylaws, as amended through May 5, 2015 (incorporated by reference to Exhibit 3.2 to the Company's Form 10-Q report for the quarter ended March 31, 2015, filed May 6, 2015). |
| 4.1 | Form of stock certificate for common stock (incorporated by reference to Exhibit 4 to the Company's 1998 Form 10-K, filed May 6, 1999) |
| 4.2 | Article 5, 6, 8(c) and 9 of our Amended and Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Form 10-Q report for the quarter ended June 30, 2020, filed July 24, 2020). |
| 4.3 | Article I and V of our Bylaws, as amended through May 5, 2015 (incorporated by reference to Exhibit 3.2 to the Company's Form 10-Q report for the quarter ended March 31, 2015, filed May 6, 2015). |
| 4.4 | Description of Registered Securities. |
| 4.5 (1) | Instruments defining the rights of holders of long-term debt securities of West and its subsidiaries constituting less than 10% of West's total assets have been omitted. |
| 10.1 | Credit Agreement, dated as of March 28, 2019, between West, certain of its subsidiaries, the lenders party thereto from time to time, Bank of America, N.A., as Administrative Agent, Swing Line Lender and an Issuing Lender; Merrill Lynch, Pierce, Fenner & Smith Incorporated, Wells Fargo Securities, LLC, MUFG Bank, Ltd., and JPMorgan Chase Bank, N.A., as Joint Lead Arrangers and Joint Bookrunners, and Wells Fargo Bank, National Association, MUFG Bank, Ltd., and JPMorgan Chase Bank, N.A., as Co-Syndication Agents (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K dated April 1, 2019). |
| 10.2 | First Amendment and Incremental Facility Amendment, dated as of December 30, 2019, between West, each of the lenders party thereto from time to time, and Bank of America, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.2 to the Company's 2019 10-K file February 24, 2020). |
| 10.3 | Note Purchase Agreement, dated July 5, 2012, among the Company and the Purchasers named therein (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed July 10, 2012). |
| 10.4 (2) | Employment Agreement, dated as of April 13, 2015, between us and Eric M. Green (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K dated April 15, 2015). |
| 10.5 (2) | Indemnification Agreement, dated as of April 24, 2015, between us and Eric M. Green (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K dated April 30, 2015). |
| 10.6 (2) | Sign-On Retention Award Notice, dated as of April 24, 2015, from us to Eric M. Green (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K dated April 30, 2015). |
| 10.7 (2) | Employment Agreement, dated May 29, 2018, between us and Bernard J. Birkett (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed June 21, 2018). |
| 10.8 (2) | Employment Agreement, dated August 28, 2016, between David Montecalvo and us (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended September 30, 2016, filed October 31, 2016). |
| 10.9 (2) | Supplemental Employees' Retirement Plan, as amended and restated effective January 1, 2008 (incorporated by reference to Exhibit 10.17 to the Company's 2008 Form 10-K report, filed February 27, 2009). |
| 10.10 (2) | Non-Qualified Deferred Compensation Plan for Designated Employees, as amended and restated effective January 1, 2020 (incorporated by reference to Exhibit 10.10 to the Company's Form 10-Q report for the quarter ended September 30, 2020, filed October 23, 2020). |
| 10.11 (2) | Deferred Compensation Plan for Outside Directors, as amended and restated effective June 30, 2013 (incorporated by reference to Exhibit 10.26 to the Company's 2013 Form 10-K report, filed February 27, 2014). |
| 10.12 (2) | 2016 Omnibus Incentive Compensation Plan (incorporated by reference to the Company's Form S-8 filed May 3, 2016). |

| Exhibit Number | Description |
|---|---|
| 10.13 [2] | 2011 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed May 6, 2011). |
| 10.14 [2] | 2007 Omnibus Incentive Compensation Plan effective as of May 1, 2007 (incorporated by reference to Exhibit 99.1 to the Company's Form 8-K filed May 4, 2007). |
| 10.15 [2] | Form of Executive 2006 Non-Qualified Stock Option Award is incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended March 31, 2006, filed May 10, 2006). |
| 10.16 [2] | Form of Director 2006 Non-Qualified Stock Option Award Notice (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended June 30, 2006, filed August 7, 2006). |
| 10.17 [2] | Form of Director 2006 Stock Unit Award Notice (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended June 30, 2006, filed August 7, 2006). |
| 10.18 [2] | Form of Director 2007 Deferred Stock Award, issued pursuant to the 2007 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended June 30, 2007, filed August 3, 2007). |
| 10.19 [2] | Form of 2008 Non-Qualified Stock Option and Performance-Vesting Share Unit Award, issued pursuant to the 2007 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended March 31, 2008, filed May 8, 2008). |
| 10.20 [2] | Form of Director 2008 Deferred Stock Award, issued pursuant to the 2007 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.41 to the Company's 2008 Form 10-K report, filed February 27, 2009). |
| 10.21 [2] | Form of 2009 Supplemental Long-Term Incentive Award (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended September 30, 2009, filed November 14, 2009). |
| 10.22 [2] | Form of 2014 Long-Term Incentive Plan Award (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended March 31, 2014, filed May 8, 2014). |
| 10.23 [2] | Form of 2014 Stock-Settled Restricted Stock Unit Award (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended June 30, 2014, filed August 1, 2014). |
| 10.24 [2] | Form of 2019 Performance Stock Unit (PSU) Award issued under the 2016 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended March 31, 2019, filed May 8, 2019). |
| 10.25 [2] | Form of 2019 Stock Option Award issued under the 2016 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q report for the quarter ended March 31, 2019, filed May 8, 2019). |
| 10.26 | Indemnification agreements between us and each of our directors (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K report filed January 6, 2009). |
| 10.27 [2] | Form of Change-in-Control Agreement between us and certain of our executive officers (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended September 30, 2017, filed October 31, 2017). |
| 10.28 [3] | Agreement, effective as of January 1, 2005, between us and The Goodyear Tire & Rubber Company (incorporated by reference to Exhibit 10d to the Company's Form 10-Q report for the quarter ended June 30, 2005, filed August 9, 2005). |
| 10.29 [3] | First Agreement, effective as of July 1, 2008, to amend Agreement between us and The Goodyear Tire & Rubber Company (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q report for the quarter ended March 31, 2009, filed May 6, 2009). |
| 10.30 [3] | Second Agreement, dated August 16, 2016, to amend Agreement between us and The Goodyear Tire & Rubber Company and us (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended September 30, 2016, filed October 31, 2016). |
| 10.31 [3] | Distributorship Agreement, dated and effective January 18, 2017, between Daikyo Seiko, Ltd. and us (incorporated by reference to Exhibit 10.39 to the Company's 2016 Form 10-K report filed February 28, 2017). |

| Exhibit Number | Description |
|---|---|
| 10.32 [3] | Amended and Restated Technology Exchange and CrossLicense Agreement, dated and effective January 18, 2017, between Daikyo Seiko, Ltd. and us (incorporated by reference to Exhibit 10.40 to the Company's 2016 Form 10-K report, filed February 28, 2017). |
| 10.33 [3] | Amended Agreement, dated and effective July 2, 2018, between Daikyo Seiko, Ltd. and us (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q report for the quarter ended June 30, 2018, filed July 31, 2018). |
| 10.34 [4] | Amendment Agreement, dated as of October 15, 2019, between us and Daikyo Seiko, Ltd., (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed October 16, 2019). |
| 10.35 [4] | Global Master Supply Agreement by and between ExxonMobil Chemical Company and us, entered into on January 10, 2020, and effective January 1, 2019 through December 31, 2023 (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K report filed January 16, 2020). |
| 21 | Subsidiaries of the Company. |
| 23 | Consent of Independent Registered Public Accounting Firm. |
| 31.1 | Certification by the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Certification by the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1* | Certification by the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2* | Certification by the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | The instance document does not appear in the interactive data file because its 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.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document |
| 104* | Inline XBRL for the cover page of this Annual Report on Form 10-K, included in the Exhibit 101 Inline XBRL Document Set. |

[1] We agree to furnish to the SEC, upon request, a copy of each instrument with respect to issuances of long-term debt of the Company and its subsidiaries.

[2] Management compensatory plan.

[3] Certain portions of this exhibit have been omitted and filed separately with the SEC pursuant to a confidential treatment order of the SEC.

[4] Portions of this exhibit (indicated therein by asterisks) have been omitted for confidential treatment.

* Furnished, not filed.



**Exhibit 4.4**

# WEST PHARMACEUTICAL SERVICES, INC.
# DESCRIPTION OF SECURITIES

As of December 31, 2020, the common stock of West Pharmaceutical Services, Inc. (“West” or the “Company”) is registered under Section 12(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

*The summary of the general terms and provisions of the Company’s common stock set forth below does not purport to be complete and is subject to, and qualified by, reference to the Company’s Articles of Incorporation (as amended, the “Articles”) and Bylaws (as amended, the “Bylaws,” and together with the Articles, the “Charter Documents”), each of which is incorporated by reference as an exhibit to the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission of which this Exhibit is a part. For additional information, please read the Company’s Charter Documents and the applicable provisions of the Pennsylvania Business Corporation Law of 1988 (as amended from time to time, the “PBCL”).*

**Description of Capital Stock**

*Authorized Capital Stock*. The Company is authorized under the Articles to issue 203,000,000 shares, divided into 200,000,000 shares of common stock, par value $.25 per share, and 3,000,000 shares of preferred stock, par value $.25 per share. As of December 31, 2020, the Company had 74,021,306 shares of common stock outstanding and zero shares of preferred stock outstanding. The outstanding shares of the Company’s common stock are fully paid and nonassessable.

*Voting Rights*. Except as otherwise provided by law or any certificate creating any series of preferred stock, the holders of common stock have the exclusive voting power, and every holder of common stock is entitled to one vote for every share of common stock standing in the name of the shareholder on the Company’s books. Except as otherwise provided in the PBCL or the Charter Documents, whenever any corporate action is to be taken by vote of the shareholders of the Company (other than the election of directors), it shall be authorized by the affirmative vote of the majority of shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter. Subject to the Charter Documents, the persons receiving a majority of the votes cast shall be elected as directors; provided, that in contested elections, directors shall be elected by a plurality of the votes of the shares represented in person or represented by proxy at such meeting and entitled to vote on the election of directors. The Board of Directors of the Company (the “Board”) shall have the full authority permitted by law to determine the voting rights, if any, and designations, preferences, limitations, and special rights of any class or any series of any class of preferred stock that may be desired to the extent not determined by the Charter Documents.

Holders of common stock do not have cumulative voting rights in the election of directors, except upon:

- the public announcement by West or a shareholder that such shareholder has become a 40% Shareholder (as described below), and

- such 40% Shareholder engages, directly or indirectly, in a proxy solicitation or participates in an election contest, seeks to advise or influence any person with respect to voting shares of the Company, or executes a written consent in lieu of a shareholder meeting of the Company.

A "40% Shareholder" means any person who, together with affiliates and associates, beneficially owns 40% or more of the voting stock of the Company, other than the Company or its wholly-owned subsidiaries or employee benefit plans.

*Dividend Rights*. Holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the Board, in its discretion, out of funds legally available therefor, subject to any preferential dividend rights of outstanding preferred stock.

*Liquidation Rights*. In the event of a liquidation, dissolution or winding up of the Company, the holders of the Company's common stock are entitled to share ratably in all assets remaining after the payment of all of the Company's liabilities and after all amounts to which holders of any outstanding preferred stock are entitled have been paid or set aside for payment.

*Other Rights and Preferences*. The Company's common stock does not carry preemptive rights, is not redeemable, does not have any conversion rights, is not subject to further calls and is not subject to any sinking fund provisions. The rights and preferences of holders of the Company's common stock are subject to the rights of any series of preferred stock that the Company may issue.

*Listing*. The Company's common stock is listed on The New York Stock Exchange under the trading symbol "WST".

**Certain Anti-Takeover Provisions**

*Vote Required for Certain Significant Transactions.* The Articles require that, in addition to any vote required by law or the Articles, the affirmative vote of the holders of at least 80% of the voting power of then outstanding shares of voting stock, voting as a single class, is required for any of the following transactions (each, a "Significant Transaction"):

- any merger or consolidation of the Company or any of its subsidiaries with any Related Person (as defined below) or any other corporation which is or would be an affiliate of a Related Person;

- any sale, lease or other disposition to or with any Related Person or any of its affiliates of any assets of the Company or any of its subsidiaries having a fair market value of $1.0 million or more;

- the issuance or transfer by the Company or any of its subsidiaries of any of their securities to any Related Person or any of its affiliates in exchange for cash, securities or other property having a fair market value of $1.0 million or more;

- the purchase by the Company or any of its subsidiaries of any shares of voting stock of the Company in exchange for cash, securities or other property having a fair market value of $1.0 million or more;

- the adoption of a plan or proposal for the liquidation or dissolution of the Company proposed by or on behalf of a Related Person or any of its affiliates; or

- any reclassification of securities or recapitalization of the Company, or any merger or consolidation of the Company with any of its subsidiaries or any other transaction which has the effect, directly or indirectly, or increasing the proportionate share of the outstanding shares of any class of equity or convertible securities of the Company or any of its subsidiaries which is directly or indirectly owned by any Related Person or any of its affiliates.

The higher vote requirement described above does not apply to a Significant Transaction if it is approved by a majority of Continuing Directors (as defined below) and certain fair price provisions and other requirements set forth in Article 6 of the Articles are satisfied.

"Related Person" means any person (other than the Company or any its subsidiaries) who (i) beneficially owns more than 10% of the voting power of outstanding voting stock or (ii) is an affiliate of the Company and at any time during the preceding two years beneficially owned 10% or more of such voting power, or (iii) is an assignee or has otherwise succeeded to any shares of voting stock which were at any time during the preceding two years beneficially owned by any Related Person, if such assignment or succession occurred in the course of a transaction not involving a public offering.

"Continuing Director" means any member of the Board who (i) was a member as of May 5, 1983, or (ii) is not affiliated with a Related Person and was a member of the Board prior to the time the Related Person became a

Related Person, or (iii) is a successor of a Continuing Director who is unaffiliated with the Related Person and is recommended to succeed a Continuing Director by a majority of the Continuing Directors.

*Evaluation of Certain Proposals by the Board.* The Articles provide that the Board, when evaluating a proposal from another party to acquire the Company or engage in a similar transaction, shall give due consideration to the following when exercising its judgment in determining what is in the best interests of the Company and its shareholders:

- the character, integrity, business philosophy and financial status of the other party or parties to the transaction;
- the consideration to be received by the Company or its shareholders in connection with such transaction, as compared to: (i) the current market price or value of the Company's properties or securities; (ii) the estimated future value of the Company, its properties or securities; and (iii) such other measures of the value of the Company, its properties or securities as the directors may deem appropriate.
- the projected social, legal and economic effects of the proposed action or transaction upon the Company, its employees, suppliers and customers and the communities in which the Company does business;
- the general desirability of the Company's continuing as an independent entity; and
- such other factors as the Board may deem relevant.

*Potential Issuances of the Company's Preferred Stock*. Although the Company does not currently have any shares of preferred stock outstanding, it is authorized under the Articles to issue 3,000,000 shares of preferred stock, and the rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock that the Company may designate and issue in the future. The Articles also authorize the Board to establish, from the authorized but unissued shares, one or more series of the shares of preferred stock and to determine, with respect to any such series of the Company's preferred shares, the terms and rights of such series, including, for example, the designation, the number of shares, the dividend rate of the shares, the right, if any, of the Company to redeem shares, the voting power, if any, the obligation, if any, of the Company to retire shares, the terms and conditions, if any, upon which shares shall be convertible into or exchangeable for shares of stock of any other class or classes, and any other rights, preferences or limitations of the shares of such series.

The Board has authorized the issuance of 50,000 shares of preferred stock as Series A junior participating preferred stock in connection with its adoption of a shareholder rights plan that has expired. No shares of the Series A preferred stock are outstanding, and the Company does not intend to issue any of these shares.

The authorized shares of the Company, including shares of preferred stock and common stock, will be available for issuance without further action by the Company's shareholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which the Company's securities may be listed or traded.

*Provisions for Shareholder Nominations and Shareholder Proposals at Annual Meetings*. The Company's Bylaws establish an advance notice procedure for shareholders to nominate candidates for election as directors or to bring other business before annual meetings of the Company's shareholders (the "Shareholder Notice Procedure"). The Shareholder Notice Procedure requires that written notice of nominations or proposals for substantive business must be delivered to the Company not less than 90 days prior to the first anniversary of the date of the prior year's annual meeting of shareholders; provided, that if less than 21 days' notice or prior public disclosure of the meeting date is given, the notice must be delivered not later than the earlier of (1) the 7$^{th}$ day after notice of the meeting date was mailed or disclosed, or (2) the 4$^{th}$ day prior to the meeting. The nomination must contain information about the nominees as specified in the Bylaws. The notice must include information specified in the Bylaws, including, among other things, information concerning the nominee or proposal, as the case may be, and information about the shareholder's ownership of and agreements related to shares of the Company's common stock.

A shareholder who wishes to recommend a candidate to be considered by the Nominating and Corporate Governance Committee of the Board for nomination as a Director must deliver the recommendation in writing to the Secretary of the Company following the Shareholder Notice Procedure described above and include the information set forth in the Bylaws. The Nominating and Corporate Governance Committee will consider all recommended candidates when making its recommendation to the full Board to nominate a slate of Directors for election.

*Provisions Relating to the Election of the Company's Board of Directors*. Under the Articles, shareholders are entitled to only one vote for each share held in all elections for directors. Directors are elected by a majority of votes cast, except in the case of contested elections, as described above. Holders of common stock do not have cumulative voting rights in the election of directors, except upon certain circumstances described above.

*Director Vacancies*. Under the Articles, vacancies in the Board of Directors, including vacancies resulting from an increase in the number of Directors, shall be filled only by a majority vote of the remaining members of the Board though less than a quorum, and each person so selected shall be a Director to serve until the next annual meeting of shareholders, and until a successor has been duly elected and qualified.

*Amendment to Articles.* Any amendment to the articles requires the affirmative vote of a majority of the votes cast by all shareholders entitled to vote thereon and, if any class or series of shares is entitled to vote thereon as a class, the affirmative vote of a majority of the votes cast in each such class vote, except for amendments on matters specified in Section 1914(c) of the PBCL that do not require shareholder approval; provided that alteration, amendment supplementing or repeal of the following provisions of the Articles requires the affirmative vote of the holders of at least 80% of the outstanding shares of capital stock entitled to vote generally in the election of directors, considered as one class:

- Article 6, which relates to the vote required for certain significant transactions, as described in "*Vote Required for Certain Significant Transactions*" above
- Article 7, which relates to the evaluation of certain proposals by the Board, as described in "*Evaluation of Certain Proposals by the Board*" above
- Article 8, which relates the Board, including vacancies and cumulative voting in certain circumstances
- Article 10, which relates to the vote required to amend the Articles

*Amendment to Bylaws.* Except as restricted by applicable law, authority to adopt, amend and repeal the Bylaws is expressly vested in the Board, subject to the power of the shareholders to change such action.

*Special Meeting of Company Shareholders*. The Charter Documents do not contain a provision permitting shareholders to call a special meeting.

*Shareholder Action by Written Consent*. The Charter Documents do not contain a provision permitting action by written consent of the shareholders.

*Pennsylvania Anti-Takeover Statutes.* Under Section 1715 of the PBCL, directors stand in a fiduciary relation to their corporation. In discharging their duties, directors may, in considering the best interests of their corporation, consider various constituencies, including, shareholders, employees, suppliers, customers and creditors of the corporation, and upon communities in which offices or other establishments of the corporation are located. Absent a breach of fiduciary duty, a lack of good faith or self-dealing, any act of the Board of Directors, a committee thereof or an individual director is presumed to be in the best interests of the corporation. The PBCL expressly provides that the fiduciary duty of directors does not require them to (i) redeem or otherwise render inapplicable outstanding rights issued under any shareholder rights plan; (ii) render inapplicable certain of the anti-takeover statutes set forth in Chapter 25 of the PBCL described below; or (iii) take any action solely because of the effect it may have on a proposed acquisition or the consideration to be received by shareholders in such a transaction.

Chapter 25 of the PBCL contains several anti-takeover statutes applicable to publicly-traded corporations. Corporations may opt-out of such anti-takeover statutes under certain circumstances. The Company has not opted-out of any of the following statutes.

Section 2538 of Subchapter 25D of the PBCL requires certain transactions with an "interested shareholder" to be approved by a majority of disinterested shareholders. "Interested shareholder" is defined broadly to include any shareholder who is a party to the transaction or who is treated differently than other shareholders and affiliates of the corporation.

Subchapter 25E of the PBCL requires a person or group of persons acting in concert which acquires 20% or more of the voting shares of the corporation to offer to purchase the shares of any other shareholder at "fair value." "Fair value" means the value not less than the highest price paid by the controlling person or group during the 90-day period prior to the control transaction, plus a control premium. Among other exceptions, Subchapter 25E does not apply to shares acquired directly from the corporation in a transaction exempt from the registration requirements of the Securities Act of 1933, as amended.

Subchapter 25F of the PBCL applies to a transaction with an interested shareholder (defined generally to be any beneficial owner of 20% or more of the corporation's voting stock). Subchapter F prohibits such a corporation from engaging in a "business combination" (as defined in the PBCL) with an interested shareholder unless (i) the board of directors of such corporation gives approval to the proposed transaction or gives approval to the interested shareholder's acquisition of 20% of the shares entitled to vote in an election of directors of such corporation, in either case prior to the date on which the shareholder first becomes an interested shareholder (the "Share Acquisition Date"); (ii) the interested shareholder owns at least 80% of the stock of such corporation entitled to vote in an election of directors of such corporation, and no earlier than three months after such interested shareholder reaches such 80% level, the majority of the remaining shareholders approve the proposed transaction, shareholders receive a minimum "fair price" for their shares (as set forth in the PBCL) in the transaction and the other conditions of Subchapter F are met; (iii) holders of all outstanding shares of common stock of the corporation approve the transaction; (iv) no earlier than five years after the Share Acquisition Date, a majority of the holders of the remaining shares entitled to vote in an election of directors approve the transaction; or (v) no earlier than five years after the Share Acquisition Date, a majority of all holders of the shares of the corporation approve the transaction, all shareholders receive a minimum "fair price" for their shares (as set forth in the PBCL) and the other conditions of Subchapter F are met.

Subchapter 25G of the PBCL provides that "control shares" lose voting rights unless such rights are restored by the affirmative vote of a majority of (i) the disinterested shares (generally, shares held by persons other than the acquirer, executive officers of the corporation and certain employee stock plans) and (ii) the outstanding voting shares of the corporation. "Control shares" are defined as shares which, upon acquisition, will result in a person or group acquiring for the first time voting control of (a) at least 20%, (b) at least 33-1/3% or (c) 50% or more of the outstanding shares, together with shares acquired within 180 days of attaining the applicable threshold and shares purchased with the intention of attaining such threshold. A corporation may redeem control shares if the acquiring person does not request restoration of voting rights as permitted by Subchapter 25G. Among other exceptions, Subchapter 25G does not apply to a merger, consolidation or a share exchange if the corporation is a party to the transaction agreement.

Subchapter 25I of the PBCL mandates severance compensation for eligible employees who are terminated within 24 months after the approval of a control share acquisition. Eligible employees generally are all employees employed in Pennsylvania for at least two years prior to the control share approval. Severance equals the weekly compensation of the employee multiplied by the employee's years of service (up to 26 years), less payments made due to the termination.

Subchapter 25J of the PBCL requires the continuation of certain labor contracts relating to business operations owned at the time of a control share approval.

The Company has opted out of Subchapter 25H of the PBCL, which relates to disgorgement by certain controlling shareholders following attempts to acquire control.

**Exhibit 21**

## SUBSIDIARIES OF THE COMPANY

| | State/ Country of Incorporation | Stock Ownership |
|---|---|---|
| West Pharmaceutical Services, Inc. | Pennsylvania | Parent Co. |
| Tech Group Europe Limited (dba West) | Ireland | 100.0 |
| Tech Group Grand Rapids, Inc. (dba West) | Delaware | 100.0 |
| TGPR Holdings Limited | Ireland | 100.0 |
| W.P.S.F. Limited | England | 100.0 |
| WD SG Pte. Ltd. | Singapore | 100.0 |
| West Analytical Services, LLC | Delaware | 100.0 |
| West Contract Manufacturing, LLC | Delaware | 100.0 |
| West Pharma. Services IL, Ltd. | Israel | 100.0 |
| West Pharmaceutical Packaging (China) Company Ltd. | China | 100.0 |
| West Pharmaceutical Packaging India Private Limited | India | 100.0 |
| West Pharmaceutical Products Ireland, Ltd. | Ireland | 100.0 |
| West Pharmaceutical Services Argentina S.A. | Argentina | 100.0 |
| West Pharmaceutical Services Asia, Ltd. | Taiwan | 100.0 |
| West Pharmaceutical Services Australia Pty. Ltd. | Australia | 100.0 |
| West Pharmaceutical Services AZ, Inc. | Arizona | 100.0 |
| West Pharmaceutical Services Beograd d.o.o. | Serbia | 100.0 |
| West Pharmaceutical Services Brasil Ltda. | Brazil | 100.0 |
| West Pharmaceutical Services Colombia S.A.S. | Colombia | 100.0 |
| West Pharmaceutical Services Cornwall Limited | England | 100.0 |
| West Pharmaceutical Services Danmark A/S | Denmark | 100.0 |
| West Pharmaceutical Services Delaware Acquisition, Inc. | Delaware | 100.0 |
| West Pharmaceutical Services Deutschland GmbH Co KG | Germany | 100.0 |
| West Pharmaceutical Services France S.A.S. | France | 99.9 |
| West Pharmaceutical Services Group Limited | England | 100.0 |
| West Pharmaceutical Services Hispania S.A. | Spain | 100.0 |
| West Pharmaceutical Services Holding II GmbH | Germany | 100.0 |
| West Pharmaceutical Services Holding Danmark ApS | Denmark | 100.0 |
| West Pharmaceutical Services Holding France SAS | France | 100.0 |
| West Pharmaceutical Services Holding GmbH | Germany | 100.0 |
| West Pharmaceutical Services Holding Ireland North, Ltd. | Ireland | 100.0 |
| West Pharmaceutical Services Holding Ireland South, Ltd. | Ireland | 100.0 |
| West Pharmaceutical Services Holding Japan, GK | Japan | 100.0 |
| West Pharmaceutical Services Holdings Ltd. | Israel | 100.0 |
| West Pharmaceutical Services Italia S.r.L. | Italy | 100.0 |
| West Pharmaceutical Services Korea Ltd. | South Korea | 100.0 |
| West Pharmaceutical Services Lakewood, Inc. | Delaware | 100.0 |
| West Pharmaceutical Services Normandie SAS | France | 100.0 |
| West Pharmaceutical Services of Delaware, Inc. | Delaware | 100.0 |
| West Pharmaceutical Services of Florida, Inc. | Florida | 100.0 |
| West Pharmaceutical Services Shanghai Medical Rubber Products Co., Ltd. | China | 100.0 |
| West Pharmaceutical Services Singapore (Holding) Pte. Limited | Singapore | 100.0 |
| West Pharmaceutical Services Singapore Pte. Ltd. | Singapore | 100.0 |
| West Pharmaceutical Services Switzerland GmbH | Switzerland | 100.0 |
| West Pharmaceutical Services Venezuela C.A. | Venezuela | 100.0 |
| West Pharmaceutical Services Verwaltungs GmbH | Germany | 100.0 |

**Exhibit 23**

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-133863 and 333-145186) and Form S-8 (No. 333-106977, 333-143129, 333-156492, 333-171453, 333-174153 and 333-211088) of West Pharmaceutical Services, Inc. of our report dated February 23, 2021 relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
February 23, 2021

**EXHIBIT 31.1**

**CERTIFICATION**

I, Eric M. Green, certify that:

1. I have reviewed this Annual Report on Form 10-K of West Pharmaceutical Services, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Eric M. Green
Eric M. Green
President and Chief Executive Officer

Date: February 23, 2021

**EXHIBIT 31.2**

**CERTIFICATION**

I, Bernard J. Birkett, certify that:

1. I have reviewed this Annual Report on Form 10-K of West Pharmaceutical Services, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Bernard J. Birkett
Bernard J. Birkett
Senior Vice President and Chief Financial Officer

Date: February 23, 2021

**EXHIBIT 32.1**

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350**
**AS ADOPTED PURSUANT TO SECTION 906 OF**
**THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of West Pharmaceutical Services, Inc. (the "Company") for the period ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Eric M. Green, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Eric M. Green
Eric M. Green
President and Chief Executive Officer

Date: February 23, 2021

**EXHIBIT 32.2**

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350**
**AS ADOPTED PURSUANT TO SECTION 906 OF**
**THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of West Pharmaceutical Services, Inc. (the "Company") for the period ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Bernard J. Birkett, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Bernard J. Birkett
Bernard J. Birkett
Senior Vice President and Chief Financial Officer

Date: February 23, 2021