

**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 28, 2019

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 001-11406

**KADANT INC.**

(Exact name of Registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**52-1762325**

(I.R.S. Employer Identification No.)

**One Technology Park Drive  
Westford, Massachusetts 01886**

(Address of principal executive offices, including zip code)

**(978) 776-2000**

(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.01 par value	KAI	New York Stock Exchange

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

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

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

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

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

Indicate by 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of the voting and non-voting common equity held by nonaffiliates of the Registrant as of June 29, 2019 (based on the closing price per share as reported on the New York Stock Exchange on the last business day of the Registrant's most recently completed second fiscal quarter), was approximately \$1,001,332,000. For purposes of the immediately preceding sentence, the term "affiliate" consists of each director and executive officer of the Registrant.

As of February 14, 2020, the Registrant had 11,422,466 shares of common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Registrant's definitive Proxy Statement pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934, as amended, to be used in connection with the Registrant's 2020 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

**Kadant Inc.**  
**Annual Report on Form 10-K**  
**for the Fiscal Year Ended December 28, 2019**  
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**PART I****Forward-Looking Statements**

This Annual Report on Form 10-K and the documents we incorporate by reference in this report include forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), and Section 27A of the Securities Act of 1933, as amended. These forward-looking statements are not statements of historical fact, and may include statements regarding possible or assumed future results of operations. Forward-looking statements are subject to risks and uncertainties and are based on the beliefs and assumptions of our management, using information currently available to our management. When we use words such as "believes," "expects," "anticipates," "intends," "plans," "estimates," "seeks," "should," "likely," "will," "would," "may," "continue," "could," or similar expressions, we are making forward-looking statements.

Forward-looking statements are not guarantees of performance. They involve risks, uncertainties, and assumptions. Our future results of operations may differ materially from those expressed in the forward-looking statements. Many of the important factors that will determine these results and values are beyond our ability to control or predict. You should not put undue reliance on any forward-looking statements. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. For a discussion of important factors that may cause our actual results to differ materially from those suggested by the forward-looking statements, you should read carefully the section captioned "Risk Factors" in Part I, Item 1A, of this report.

**Item 1. Business**

Throughout this Annual Report on Form 10-K, when we use the terms "we," "us," "our," "Registrant," and the "Company" we mean Kadant Inc., a Delaware corporation, and its consolidated subsidiaries, taken as a whole, unless the context otherwise indicates. Unless otherwise noted, references to 2019, 2018, and 2017 in this Annual Report on Form 10-K are to our fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017, respectively.

**Description of Our Business**

We are a global supplier of high-value, critical components and engineered systems used in process industries worldwide. In addition, we manufacture granules made from papermaking by-products. We have a diverse and large customer base, including most of the world's major paper producers and lumber and oriented strand board (OSB) manufacturers, as well as various mining and industrial processing companies that require bulk material handling solutions. Our products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive industries.

Our operations are comprised of three reportable operating segments, Papermaking Systems, Wood Processing Systems, and Material Handling Systems, and a separate product line, Fiber-based Products.

Through our Papermaking Systems segment, we develop, manufacture, and market a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Our principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

Through our Wood Processing Systems segment, we develop, manufacture, and market debarkers, stranders, chippers, logging machinery, and related equipment used in the harvesting and production of lumber and OSB.

Through our Material Handling Systems segment, we develop, manufacture, and market material handling equipment and systems, including vibratory and conveying equipment, to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper.

Through our Fiber-based Products business, we manufacture and sell biodegradable, absorbent granules derived from papermaking by-products. These materials are primarily used as carriers in agricultural, home lawn and garden, professional lawn, turf and ornamental applications, and for oil and grease absorption.

**Acquisitions**

We expect that a significant driver of our growth over the next several years will be the acquisition of businesses and technologies that complement or augment our existing products and services or may involve entry into a new process industry. We continue to actively pursue additional acquisition opportunities. Our significant acquisition in 2019 is described below.

On January 2, 2019, we acquired, directly and indirectly, all the outstanding equity interests of Syntron Material Handling Group, LLC and certain of its affiliates (SMH) for \$176.9 million, net of cash acquired. SMH comprises our Material Handling Systems segment, as described above. This acquisition extended our current product portfolio, and we expect it will strengthen SMH's relationships in the pulp and paper markets. See [Note 2](#), Acquisitions, in the accompanying consolidated financial statements for further details.

### Papermaking Systems Segment

Our Papermaking Systems segment has a long and well-established history of developing, manufacturing, and marketing a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Some of our businesses or their predecessor companies have been in operation for more than 100 years. Our customer base includes major global paper manufacturers, and we believe we have one of the largest installed bases of equipment in the markets we serve within the pulp and paper industry. We manufacture our Papermaking Systems products in nine countries in Europe, North America, South America, and Asia.

Our Papermaking Systems segment consists of the following product lines: Stock-Preparation; Fluid-Handling; and Doctoring, Cleaning, & Filtration.

#### *Stock-Preparation*

We develop, manufacture, and market custom-engineered systems and equipment, as well as standard individual components, for baling, pulping, de-inking, screening, cleaning, and refining primarily recycled fiber for preparation for entry into the paper machine, and recausticizing and evaporation equipment and systems used in the production of virgin pulp. Our baling equipment is also used to compress a variety of other secondary materials to prepare them for transport or storage. Our principal stock-preparation products include:

- Recycling and approach flow systems: Our equipment includes pulping, screening, cleaning, and de-inking systems that blend pulp mixtures and remove contaminants, such as ink, glue, metals, and other impurities, to prepare them for entry into the paper machine during the production of recycled paper.
- Virgin pulping process equipment: Our equipment includes pulp washing, evaporator, recausticizing, and condensate treatment systems used to remove lignin, concentrate and recycle process chemicals, and remove condensate gases.
- Balers and related equipment: Our equipment includes horizontal channel balers, vertical balers, conveyors, compactors, and bale wrapping machines used in the processing of recyclable and waste materials.

#### *Fluid-Handling*

We develop, manufacture and market fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data. Our products are used primarily in the dryer section of the papermaking process and during the production of corrugated packaging, metals, plastics, pharmaceuticals, energy, rubber, textiles, chemicals, and food. Expansion joints are used in industrial piping systems. Our principal fluid-handling systems and equipment include:

- Rotary joints: Our mechanical devices, used with rotating shafts, allow the transfer of pressurized fluid from a stationary source into and out of rotating machinery for heating, cooling, or the transfer of fluid power.
- Syphons: Our devices, installed inside rotating cylinders, are used to remove fluids from the rotating cylinders through rotary joints or unions located on either end of the cylinder.
- Turbulator® bars: Our steel or stainless steel axial bars, installed on the inside of cylinders, are used to induce turbulence in the condensate layer to improve the uniformity and rate of heat transfer through the cylinders.
- Expansion joints: Our rubber, metal, fabric and other materials are used to compensate for movement due to thermal expansion, vibration and other causes.
- Engineered steam and condensate systems: Our steam systems control the flow of steam from the boiler to the paper drying cylinders, collect condensed steam, and return it to the boiler to improve energy efficiency during the paper drying process. Our systems and equipment are also used to efficiently and effectively distribute steam in a wide variety of industrial processing applications.

### *Doctoring, Cleaning, & Filtration*

We develop, manufacture, and market a wide range of doctoring, cleaning, and filtration systems and related consumables that continuously clean rolls to keep paper machines and other industrial processes running efficiently. Doctoring and cleaning systems are also used in other process industries such as carbon fiber, textiles and food processing. Our principal doctoring, cleaning, and filtration products include:

- Doctor systems and holders: Our doctor systems clean papermaking rolls to maintain the efficient operation of paper machines and other equipment by placing a blade against the roll at a constant and uniform pressure. A doctor system consists of the structure supporting the blade and the blade holder.
- Profiling systems: We offer profiling systems that control moisture, web curl, and gloss during paper converting.
- Doctor blades: We manufacture doctor and scraper blades made of a variety of materials including metal, bi-metal, or synthetic materials that perform a variety of functions including cleaning, creping, web removal, flaking, and applying coatings. A typical doctor blade has a life ranging from eight hours to two months, depending on the application.
- Shower and fabric-conditioning systems: Our shower and fabric-conditioning systems assist in the removal of contaminants that collect on paper machine fabrics used to convey the paper web through the forming, pressing, and drying sections of the paper machine. A typical paper machine has between three and 12 fabrics. These fabrics can easily become contaminated with fiber, fillers, pitch, and dirt that can have a detrimental effect on paper machine performance and paper quality. Our shower and fabric-conditioning systems assist in the removal of these contaminants.
- Formation systems: We supply structures that drain, purify, and recycle process water from the pulp mixture during paper sheet and web formation.
- Water-filtration systems: We offer a variety of filtration systems and strainers that remove contaminants from process water before reuse and recover reusable fiber for recycling back into the pulp mixture.

### Wood Processing Systems Segment

We develop, manufacture, and market debarkers, stranders, chippers, logging machinery, and related equipment used in the harvesting and production of lumber and OSB. We manufacture our wood processing products principally in Canada, Finland and the United States. Our principal wood processing products include:

- Ring and rotary debarkers: Our fixed and sliding ring debarkers utilize a rotating multi-tool to strip the bark off a non-rotating log. Our ring debarkers are used in lumber mills to remove the bark from the tree before further processing into lumber. Our rotary debarkers and related parts and consumables employ a combination of mechanical abrasion and log-to-log contact to efficiently remove bark from logs of all shapes and species.
- Stranders: Our disc and ring stranders and related parts and consumables cut batch-fed logs into strands for OSB production and are used to manage strands in real time using our patented conveying and feeding equipment.
- Chippers: Our disc, drum, and veneer chippers and related parts and consumables are high-quality, robust chipper systems for waste-wood and whole-log applications found in pulp woodrooms, chip plants, and sawmill and planer mill sites.
- Logging machinery: Our feller bunchers, log loaders, and swing yarders are used to harvest and gather timber for lumber production.

### Material Handling Systems Segment

We develop, manufacture, and market material handling equipment and systems to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper. We manufacture our material handling products principally in the United States. Our principal material handling products include:

- Vibratory equipment: feeders, screens, and flow aides utilized in the feeding of rugged and non-rugged materials as well as in mixing, blending, and packaging of fragile materials with speed and precision.

- Conveying equipment: transport idlers, power terminal units, and electric controls, used to transport bulk materials in harsh above- and below-ground mining environments; and screws, conveyors and bucket elevators used for material handling operations in agricultural, food, and paper markets.

### Fiber-based Products

We manufacture and sell biodegradable, absorbent granules derived from papermaking by-products. These materials are primarily used as carriers in agricultural, home lawn and garden, professional lawn, turf and ornamental applications, and for oil and grease absorption. We manufacture our granules in the United States.

### Research and Development

We develop a broad range of products for all facets of the markets we serve. We operate research and development facilities in the United States, Europe, and Canada, and focus our product innovations on process industry challenges and the need for improved fiber processing, heat transfer, roll and fabric cleaning, fluid handling, timber harvesting, wood processing, and secondary material handling. In addition to internal product development activities, our research centers allow customers to simulate their own operating conditions and applications to identify and quantify opportunities for improvement.

Our research and development expenses were \$10.9 million in 2019, \$10.6 million in 2018, and \$9.6 million in 2017.

### Raw Materials

The primary raw materials used in our Papermaking Systems segment are steel, stainless steel, ductile iron, brass, bronze, aluminum, and elastomers and in our Wood Processing Systems segment are steel and stainless steel. In our Material Handling Systems segment the primary raw materials used are steel, aluminum, and composites. These raw materials are generally purchased and available through a number of suppliers.

The raw material used in the manufacture of our fiber-based granules is a by-product from the production of paper that we obtain from two paper mills. If these mills were unable or unwilling to supply us with sufficient fiber, we would be forced to find one or more alternative suppliers for this raw material.

To date, our raw materials have generally been available and we have not needed to maintain raw material inventories in excess of our current needs.

### Patents, Licenses, and Trademarks

We protect our intellectual property rights by applying for and obtaining patents when appropriate. We also rely on technical know-how, trade secrets, and trademarks to maintain our competitive position. We also enter into license agreements with others to grant and/or receive rights to patents and know-how. No particular patent, or related group of patents, is so important that its expiration or loss would significantly affect our operations.

#### *Papermaking Systems Segment*

We have numerous U.S. and foreign patents, including foreign counterparts to our U.S. patents, expiring on various dates ranging from 2020 to 2039. From time to time, we enter into licenses with other companies for products that serve the pulp, papermaking, converting, and paper recycling industries.

#### *Wood Processing Systems Segment*

We have numerous U.S. and foreign patents, including foreign counterparts to our U.S. patents, expiring on various dates ranging from 2020 to 2035, related to wood processing and debarking equipment.

#### *Material Handling Systems Segment*

We have numerous U.S. and foreign patents, including foreign counterparts to our U.S. patents, expiring on various dates ranging from 2020 to 2026, related to various aspects of conveyor belt systems and conveying apparatus. We also license one of our two significant product brand names, Link-Belt®, from a third party pursuant to a trademark license agreement. More than half of our Material Handling Systems segment revenue in 2019 was generated by sales of conveying equipment sold under the Link-Belt® name. Under the terms of the license agreement, we have a worldwide, exclusive, royalty-free, perpetual license to use the Link-Belt® trademark in connection with such products.

### *Fiber-based Products*

We currently hold several U.S. patents, expiring on various dates ranging from 2021 to 2034, related to various aspects of the processing of fiber-based granules and the use of these materials in agricultural, home lawn and garden, professional lawn, turf and ornamental applications, and for oil and grease absorption.

### Seasonal Influences

#### *Papermaking Systems Segment*

There are no material seasonal influences on this segment's sales of products and services.

#### *Wood Processing Systems Segment*

Our Wood Processing Systems segment is subject to seasonal variations, with demand for many of our products tending to be greater during the building and timber harvesting season, which generally occurs in the second and third quarters in North America.

#### *Material Handling Systems Segment*

Our Material Handling Systems segment may experience minor seasonal fluctuations in sales, with demand for our products tending to be greater in the second and third quarters due to the impact of weather and favorable outdoor working conditions at certain of its customers.

### *Fiber-based Products*

Our Fiber-based Products business experiences fluctuations in sales, usually in the third quarter, when sales decline due to the seasonality of the agricultural and home lawn and garden markets.

### Working Capital Requirements

There are no special inventory requirements or credit terms extended to customers that would have a material adverse effect on our working capital.

### Dependency on a Single Customer

No single customer accounted for 10% or more of our consolidated revenues in any of the past three years. In addition, within our Papermaking Systems segment and Material Handling Systems segment, no customer accounted for more than 10% of each of the respective segment's revenue. As a percentage of revenues, the two largest customers in our Wood Processing Systems segment accounted for 20% in 2019, 16% in 2018, and 27% in 2017. Approximately 56% in 2019, 63% in 2018, and 65% in 2017, of our consolidated revenues were to customers outside the United States, principally in Europe, Asia and Canada.

### Backlog

Our backlog of firm orders for the Papermaking Systems segment was \$116.3 million at year-end 2019 and \$126.7 million at year-end 2018. Our backlog of firm orders for the Wood Processing Systems segment was \$32.7 million at year-end 2019 and \$45.4 million at year-end 2018. Our backlog of firm orders for the Material Handling Systems segment was \$20.0 million at year-end 2019. The total consolidated backlog of firm orders was \$170.3 million at year-end 2019 and \$173.0 million at year-end 2018. We anticipate that substantially all the backlog at year-end 2019 will be shipped or completed during 2020. Some of our capital orders can be canceled by the customer upon payment of a cancellation fee.

### Sales and Marketing

We market and sell our engineered products, services, and systems to process industries using a combination of a direct sales force and independent sales agents and distributors depending on the market and product being sold. Technical service personnel, product specialists, and independent sales agents and distributors are utilized in certain markets and with certain product lines. Our application expertise is complimented by a consultative selling approach to ensure we meet the needs of our customers.

Competition

We are a leading supplier of systems and equipment in each of our product lines within our Papermaking Systems segment and there are several global and numerous local competitors in each market. In our Wood Processing Systems segment, we compete with one primary global competitor in the OSB market for stranding equipment, a limited number of competitors in forest products for our debarkers, and several global and local competitors for our other products. In our Material Handling Systems segment, we compete with numerous global, regional and local competitors for our conveying equipment and strong regional competitors for our vibratory equipment. Because of the diversity of our products, we face many different types of competitors and competition. We compete primarily on the basis of technical expertise, product innovation, and product performance. We believe the reputation that we have established for high-performance, high-reliability products supported by our in-depth process knowledge and application expertise provides us with a competitive advantage. In addition, a significant portion of our business is generated from our worldwide customer base. To maintain this base, we have emphasized our global presence, local support, and a problem-solving relationship with our customers. Our success primarily depends on the following factors:

- Technical expertise and process knowledge;
- Product innovation;
- Product quality, reliability, and performance;
- Operating efficiency of our products;
- Customer service and support;
- Relative price of our products; and
- Total cost of ownership of our products.

Environmental Protection Regulations

We are subject to a variety of U.S. and international environmental protection measures. We believe that our operations comply in all material respects with applicable laws and regulations. Our compliance with these requirements did not change during the past year, and is not expected to have a material adverse effect on our capital expenditures, earnings, or competitive position.

Employees

At year-end 2019, we had approximately 2,800 employees worldwide.

**Available Information**

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission (SEC) under the Exchange Act. The SEC maintains a website that contains reports, proxy and information statements, and other information that are filed electronically by issuers with the SEC. The public can obtain any documents that we file with the SEC at [www.sec.gov](http://www.sec.gov). In addition, we make available free of charge through our website at [www.kadant.com](http://www.kadant.com) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and, if applicable, amendments to these reports filed with or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file these materials with, or furnish them to, the SEC. We are not including the information contained on our website as part of this report nor are we incorporating the information on our website into this report by reference.

**Information about our Executive Officers**

The following table summarizes certain information concerning our executive officers as of February 14, 2020:

<b>Name</b>	<b>Age</b>	<b>Present Title (Fiscal Year First Became Executive Officer)</b>
Jonathan W. Painter	61	Executive Chairman of the Board (1997)
Jeffrey L. Powell	61	President and Chief Executive Officer (2009)
Eric T. Langevin	57	Executive Vice President and Chief Operating Officer (2006)
Michael J. McKenney	58	Executive Vice President and Chief Financial Officer (2002)
Deborah S. Selwood	51	Senior Vice President and Chief Accounting Officer (2015)
Peter J. Flynn	69	Vice President (2019)
Michael C. Colwell	54	Vice President (2019)
Stacy D. Krause	43	Vice President, General Counsel, and Secretary (2018)

Mr. Painter has been the executive chairman of our board of directors since July 2019 and a member of our board of directors since January 2010. He previously served as our chief executive officer from January 2010 to June 2019 and also served as our president from September 2009 to March 2019. He served as chief operating officer from September 2009 to January 2010. Between 1997 and September 2009, Mr. Painter served as an executive vice president and from March 2007 through September 2009 had supervisory responsibility for our Stock-Preparation and Fiber-based Products businesses. He served as president of our Composite Building Products business from 2001 until its sale in 2005. He also served as our treasurer and the treasurer of Thermo Electron Corporation (Thermo Electron) from 1994 until 1997. Prior to 1994, Mr. Painter held various managerial positions with us and Thermo Electron.

Mr. Powell has been our chief executive officer and a director since July 2019 and our president since April 2019. He served as an executive vice president and a co-chief operating officer from March 2018 to March 2019. From March 2013 to March 2018, he was an executive vice president and had supervisory responsibility for our Stock-Preparation, Wood Processing Systems, and Fiber-based Products businesses. From September 2009 to March 2013, he was a senior vice president. From January 2008 to September 2009, Mr. Powell was vice president, new ventures, with principal responsibility for acquisition-related activities. Prior to joining us, Mr. Powell was the chairman and chief executive officer of Castion Corporation from April 2003 through December 2007.

Mr. Langevin served as executive vice president and chief operating officer since April 2019 and has supervisory responsibility for our Fluid-Handling and Doctoring, Cleaning, & Filtration businesses and our Material Handling Systems segment. From March 2018 to April 2019, he served as executive vice president and co-chief operating officer. From January 2010 to March 2018, he served as executive vice president and chief operating officer. Prior to January 2010, Mr. Langevin had been our senior vice president since March 2007 and had supervisory responsibility for our Fluid-Handling and Doctoring, Cleaning, & Filtration businesses. He served as vice president, with responsibility for our Doctoring, Cleaning, & Filtration business, from 2006 to 2007. From 2001 to 2006, Mr. Langevin was president of Kadant Web Systems Inc. (now our Kadant Solutions division) and before that served as its senior vice president and vice president of operations. Prior to 2001, Mr. Langevin managed several product groups and departments within Kadant Web Systems after joining us in 1986 as a product development engineer.

Mr. McKenney has been an executive vice president and our chief financial officer since March 2018. From June 2015 to March 2018, he was a senior vice president and our chief financial officer. He served as our vice president, finance and chief accounting officer from 2002 to 2015 and as corporate controller from 1997 to 2007. Mr. McKenney was controller of Kadant AES, our division acquired from Albany International Inc., from 1993 to 1997. Prior to 1993, Mr. McKenney held various financial positions at Albany International and Coopers & Lybrand LLP.

Ms. Selwood has been a senior vice president and our chief accounting officer since May 2019. From June 2015 to May 2019, she was a vice president and our chief accounting officer. She served as our corporate controller from 2007 to 2015 and as assistant controller from 2004 to 2007. Prior to 2004, Ms. Selwood held various financial positions at Arthur Andersen LLP and Genuity Inc.

Mr. Flynn has been a vice president since July 2019 and has supervisory responsibility for our Stock-Preparation product line. Prior to July 2019, Mr. Flynn was president of our Kadant Black Clawson LLC subsidiary, which manufactures stock-preparation equipment primarily for the pulp and paper industry, from 2003 to 2019.

Mr. Colwell has been a vice president since July 2019 and has supervisory responsibility for our Wood Processing Systems segment and our Fiber-based Products business. Prior to July 2019, Mr. Colwell served as the president of Kadant Carmanah Design, a division of our subsidiary Kadant Canada Corp., from 2013 to 2019. Mr. Colwell previously served as the president and chief executive officer of Carmanah Design and Manufacturing Inc. from April 2010 until its acquisition by us in November 2013.

Ms. Krause has been a vice president and our general counsel and secretary since July 2018. She served as our deputy general counsel from December 2017 to July 2018. Prior to joining us, Ms. Krause was head of commerce cloud commercial legal of salesforce.com, inc., a global SAAS software company, from 2016 to 2017. She previously served as an assistant general counsel of Demandware, Inc., a global SAAS software company, from 2014 to 2016, and assistant general counsel of Entegris, Inc., a multinational manufacturing company, from 2011 to 2014. Prior to 2011, Ms. Krause was a lawyer in the corporate transactional department of Wilmer Cutler Pickering Hale and Dorr LLP.

**Item 1A. Risk Factors**

Our business, results of operations and financial condition, and an investment in our securities, are subject to a number of risks. The risks and uncertainties described below are those that we have identified as material, but are not the only risks and uncertainties we face. Our business is also subject to general risks and uncertainties that affect many other companies, including overall economic and industry conditions. Additional risks and uncertainties not currently known to us or that we currently believe are not material also may impair our business, consolidated financial condition and results of operations.

*Adverse changes in global and local economic conditions may negatively affect our industry, business and results of operations.*

We sell products worldwide to global process industries and a significant portion of our revenue is from customers based in North America, Europe and China. Uncertainties in global and regional economic outlooks have negatively affected, and may in the future negatively affect, demand for our customers' products and, as a consequence, our products and services, especially our capital equipment systems and products, and our operating results. Also, uncertainty regarding economic conditions has caused, and may in the future cause, liquidity and credit issues for many businesses, including our customers in the pulp and paper industry as well as other process industries, and may result in their inability to fund projects, capacity expansion plans, and to some extent, routine operations and capital expenditures. These conditions have resulted, and may in the future result, in a number of structural changes in process industries, including decreased spending, mill closures, consolidations, and bankruptcies, all of which negatively affect our business, revenue, and profitability. Financial and economic turmoil affecting the worldwide economy or the banking system and financial markets, in particular due to political or economic developments, could cause the expectations for our business to differ materially in the future.

*Revenues from the sale of large capital equipment and systems projects are often difficult to predict accurately, especially in periods of economic uncertainty, and large capital equipment projects require significant investment requiring our customers to secure financing, which may be difficult.*

We manufacture capital equipment and systems used in process industries, including the paper, wood processing and material handling industries. Approximately 37% of our revenue in 2019 was from the sale of capital equipment to be used in process industries. The demand for capital equipment is variable and depends on a number of factors, including consumer demand for end products, existing manufacturing capacity, the level of capital spending by our customers and economic conditions. As a consequence, our bookings and revenues for capital projects tend to be variable and difficult to predict. It is especially difficult to accurately forecast our operating results during periods of economic uncertainty. Our customers curtail their capital and operating spending during periods of economic uncertainty and are cautious about resuming spending as market conditions improve. Levels of consumer spending on non-durable goods, demand for food and beverage packaging, and demand for new housing and remodeling are all factors that affect paper and wood processing companies' demand for our products. Expansion of bulk material handling capacity and infrastructure spending are factors that affect demand for material handling equipment. Reductions in demand levels in any of these areas can negatively impact our business. As companies in our customers' industries consolidate operations in response to market weakness, they frequently reduce capacity, increase downtime, defer maintenance and upgrades, and postpone or even cancel capacity additions or expansion projects. Capacity growth and investment can be uneven and the larger paper producers have delayed, and may in the future delay, additional new capacity start-ups in reaction to softer market conditions. In general, as significant capacity additions come online and the economic growth rate slows, paper producers have deferred and could in the future defer further investments or the delivery of previously-ordered equipment until the market absorbs the new production.

Large capital equipment projects require a significant investment and may require our customers to secure financing from external sources. Our financial performance will be negatively impacted if there are delays in customers securing financing or our customers become unable to secure such financing due to any number of factors, including a tightening of monetary policy or regime-based sanctions such as those imposed on Russia and China. Financing delays of our customers can cause us to delay booking pending orders as well as the shipment of some orders. The inability of our customers to obtain credit may affect our ability to recognize revenue and income, particularly on large capital equipment orders from new customers for which we may require letters of credit. We may also be unable to issue letters of credit to our customers, which are required in some cases to guarantee performance, during periods of economic uncertainty. This has negatively affected our bookings and revenues in the past, particularly in China, and may negatively affect our operating results in the future.

*Our global operations subject us to various risks that may adversely affect our results of operations.*

We are a leading global supplier of equipment and critical components used in process industries worldwide. We sell our products globally, including sales to customers in China, South America, Russia and India, and operate multiple manufacturing operations worldwide, including operations in Canada, China, Europe, Mexico, and Brazil. International revenues and operations are subject to a number of risks which vary by geographic region, including the following:

- agreements may be difficult to enforce and receivables difficult to collect through a foreign country's legal system;
- foreign customers may have longer payment cycles;
- foreign countries may impose additional withholding taxes or otherwise tax our foreign income, impose tariffs, adopt other restrictions on foreign trade, impose currency restrictions or enact other protectionist or anti-trade measures;
- economic sanctions, trade embargoes, or other adverse trade regulations;
- environmental and other regulations can adversely impact our ability to operate our facilities;
- disruption from climate change, natural disaster, including earthquakes and/or tornadoes, fires, war, terrorist activity, and other force majeure events beyond our control;
- changes in zoning laws that may require relocation of our manufacturing operations;
- disruption from fast-spreading health epidemics which can result in widespread interruption of business operations;
- worsening economic conditions may result in worker unrest, labor actions, and potential work stoppages;
- political unrest may disrupt commercial activities of ours or our customers;
- it may be difficult to repatriate funds, due to unfavorable domestic and foreign tax consequences or other restrictions or limitations imposed by foreign governments; and
- the protection of intellectual property in foreign countries may be more difficult to enforce.

Operating globally subjects us to various risks that may adversely affect our results of operations in the future.

*We have significant international sales and operations and face risks related to health epidemics which could adversely affect our business and results of operations.*

Our business and operations could be materially and adversely affected by the effects of a widespread outbreak of a contagious disease and other adverse public health developments. These effects could include disruptions or restrictions on our employees' and other service providers' ability to travel, as well as temporary closures of our facilities or the facilities of our customers, suppliers, or other vendors in our supply chain, potentially including single source suppliers. In addition, an outbreak of a contagious disease could impact global trade that could reduce demand for our products that support packaging production, which represents 29% of our consolidated revenues in 2019. The full extent to which a health epidemic could affect our business, including its impact on the global economy and our employees, operations, suppliers, customers, operating and financial results, and/or our stock price depends on a number of factors, including duration and severity of the outbreak and nature of government response, which are highly uncertain and cannot be predicted.

In December 2019, the 2019 novel coronavirus (coronavirus) was first reported in China and in 2020, an outbreak of the virus was reported. In response to the outbreak, the Chinese government has placed restrictions on travel and mandated business closures. We have significant operations in China that manufacture and sell products to other of our businesses and customers all over the world, and since early February, our Chinese facilities have been subjected to government-mandated closures and other significant restrictions due to the outbreak. Given the uncertainties related to the outbreak, including its duration and the nature and timing of the Chinese government's response to it, we cannot reasonably estimate the scope of its impact on a delay of the production of our products, which could lead to liquidated damages owed to our customers, and adversely affect our business and our stock price. In particular, if the current coronavirus outbreak continues and results in a prolonged period of travel, commercial and other similar restrictions, we could experience global supply disruptions and may incur costs to mitigate such disruptions, which could be significant. In addition, new information may emerge concerning the severity of the coronavirus, the pace and method through which it is transmitted, contained and/or treated, and the Chinese government's approach to handling the outbreak, any of which could impact our employees, operations, suppliers, customers and/or operating and financial results, including our ability to determine our quarterly results. Although we are diligently working to ensure that our Chinese facilities can operate with minimal disruption, mitigate the impact of the outbreak on our employees' health and safety, and address potential supply chain impact on ourselves and our customers, the full extent to which the coronavirus could affect the global economy and our results will depend on future developments and factors that cannot be predicted.

*Operating globally subjects us to changes in government regulations and policies in multiple jurisdictions around the world, including those related to tariffs and trade barriers, taxation, exchange controls and political risks.*

Changes in government policies, political unrest, economic sanctions, trade embargoes, or other adverse trade regulations can negatively impact our business. Non-U.S. markets contribute a substantial portion of our revenues, and we intend to continue expanding our presence in these regions. For example, we operate businesses in Mexico and Canada, and we benefit from the North American Free Trade Agreement (NAFTA), which is being replaced by the United States-Mexico-

Canada Agreement (USMCA). If the United States were to withdraw from or materially modify NAFTA or the successor USMCA or impose significant tariffs or taxes on goods imported into the United States, the cost of our products could significantly increase or no longer be priced competitively, which in turn could have a material adverse effect on our business and results of operations. The United States and Mexico have ratified the USMCA, but Canada must still ratify the USMCA in its legal system before the three countries can take the final steps to implement it.

In addition, the Office of the United States Trade Representative (USTR) has imposed a duty of 25% on a wide variety of Chinese products, including pulp and paper machinery equipment, pursuant to Section 301 of the Trade Act of 1974. USTR imposed the additional duty on an initial tranche of \$34 billion in Chinese products, including certain pulp and paper machinery equipment, effective July 6, 2018 (List 1). USTR then extended the duty to a second tranche of \$16 billion in Chinese products effective August 23, 2018 (List 2). USTR then imposed an additional duty of 10% on a third tranche of Chinese products, covering approximately \$200 billion in trade effective September 24, 2018 (List 3). USTR subsequently increased the List 3 duty to 25% effective May 10, 2019. Finally, USTR announced an additional 10% duty, which it subsequently increased to 15%, on approximately \$300 billion in Chinese trade (List 4). USTR divided the List 4 products into two parts; the 15% duty on the first part became effective on September 1, 2019 and fell to 7.5% effective February 14, 2020. USTR has indefinitely postponed the duty on products covered by the second part of List 4. In addition, in March 2018, the U.S. Department of Commerce imposed tariffs of 25% on numerous categories of steel imports, and 10% on numerous categories of aluminum imports, from most countries under Section 232 of the Trade Expansion Act of 1962. While we are working to mitigate the impact of the existing and other proposed tariffs through pricing and sourcing strategies, we cannot be certain how our customers and competitors will react to the actions we take. The tariffs have and could in the future negatively affect our ability to compete against competitors who do not manufacture in China and/or are not subject to the tariffs.

The United States has tightened trade sanctions targeting countries like China and Russia. For example, in August 2017 and April 2018, the United States imposed new trade and economic sanctions targeting certain persons in, and certain types of business with, Russia, in addition to those that have been imposed since 2014. In 2019, our sales to Russia were \$16.8 million, or 2% of our revenue. In 2019, the United States continued to expand export control restrictions applicable to certain Chinese firms and commenced its assessment of new controls for “emerging foundational technologies,” escalating U.S.-China tension over technology competition. In response, Russia and China have begun considering and, in some cases, implementing trade sanctions that could affect U.S.-owned businesses. The imposition of trade sanctions may make it generally more difficult to do business in Russia and China and cause delays or prevent shipment of products or services performed by our personnel, or to receive payment for products or services. Such restrictions could have a material adverse impact on our business and operating results going forward.

Operating globally subjects us to changes in government regulations and policies in multiple jurisdictions around the world, including those related to tariffs and trade barriers, taxation, exchange controls and political risks, and may negatively affect our operating results in the future.

*Policies of the Chinese government may negatively impact our business.*

We operate significant manufacturing facilities in and derive significant revenue from China. Changes in the policies of the Chinese government, devaluation of the Chinese currency, restrictions on the expatriation of cash, political unrest, unstable economic conditions, or other developments in China or in U.S.-China relations that are adverse to trade, including enactment of protectionist legislation or trade or currency restrictions, could negatively impact our business and operating results. Policies of the Chinese government to target slower economic growth may negatively affect our business in China if customers are unable to expand capacity or obtain financing for expansion or improvement projects. The president of the United States has indicated that he favors restricting investment by U.S. companies in China; if such restrictions were to become law, or if investment was otherwise restricted, our business would be significantly and adversely affected.

Policies of the Chinese government to advance internal political priorities may potentially negatively affect our business in any number of ways that we may not foresee. For example, China has imposed a ban on mixed waste paper imports and reported that all recovered paper imports have been and are limited to a 0.5% contaminant level after March 1, 2018, which is well below the level that suppliers consider feasible. In addition, the Chinese government has announced that it may ban all recovered paper imports by the end of 2020. According to Fastmarkets RISI, the Chinese government's actions have led to a severe shortage of recovered paper in China, which has forced mills to incur additional downtime. Chinese containerboard producers have been looking to build capacity for fiber in Southeast Asia, with the intent to ship pulp back to China for further processing. These policies have and could in the future continue to have a significant influence on the price, nature and availability of the type of paper imported into China, could have a negative effect on the operating capacity of our customers in China, and have and may in the future continue to affect the demand for our products and our operating results, both in China and in the surrounding region.

*Our sales of capital equipment in China tend to be more variable and are subject to a number of uncertainties.*

Our bookings and revenues from China have tended to be more variable than in other geographic regions. The Chinese pulp and paper industry has experienced periods of significant capacity expansion to meet demand followed by periods of reduced activity while overcapacity is absorbed. These cycles result in periods of significant bookings activity for our capital products and increased revenues followed by a significant decrease in bookings or potential delays in shipments and order placements by our customers as they attempt to balance supply and demand.

Orders from customers in China, particularly for large stock-preparation systems that have been tailored to a customer's specific requirements, have credit risks higher than we generally incur elsewhere, and some orders are subject to the receipt of financing approvals from the Chinese government or can be impacted by the availability of credit and more restrictive monetary policies. We generally do not record bookings for signed contracts from customers in China for large stock-preparation systems until we receive the down payments for such contracts. The timing of the receipt of these orders and the down payments are uncertain and there is no assurance that we will be able to recognize revenue on these contracts. We may experience a loss if a contract is canceled prior to the receipt of a down payment if we have commenced engineering or other work associated with the contract. We typically have inventory awaiting shipment to customers and could incur a loss if contracts are canceled and we cannot re-sell the equipment. In addition, we may experience a loss if the contract is canceled, or the customer does not fulfill its obligations under the contract, prior to the receipt of a letter of credit or final payments covering the remaining balance of the contract, which could represent a significant portion of the total order. As a result of these factors, our revenues recognized in China have varied, and will in the future vary, greatly from period to period and be difficult to predict.

In addition, please also see "Risk Factors - Policies of the Chinese government may negatively impact our business" for further discussion of potential impact of policies of the Chinese government on our business.

*We manufacture equipment used in the production of forest products, including lumber and OSB, and our financial performance may be adversely affected by decreased levels of residential construction activity.*

We manufacture debarkers, stranders and related equipment used in the production of lumber and OSB, an engineered wood panel product used primarily in home construction. Our customers produce these products principally for new residential construction, home repair and remodeling activities. As such, the operating results for our Wood Processing Systems segment correlate to a significant degree to the level of this residential construction activity, primarily in North America and, to a lesser extent, in Europe. Residential construction activity is influenced by a number of factors, including the supply of and demand for new and existing homes, new housing starts, unemployment rates, interest rate levels, availability of mortgage financing, mortgage foreclosure rates, availability of construction labor and suitable land, seasonal and unusual weather conditions, general economic conditions and consumer confidence. A significant increase in long-term interest rates, changes in tax policy on the deductibility of mortgages, tightened lending standards, high unemployment rates and other factors that reduce the level of residential construction activity could have a material adverse effect on our financial performance.

*The OSB market is highly concentrated and the market for building products is highly competitive. The loss of a significant customer or our customers' reductions in capital spending or OSB production could have a material adverse effect on our financial performance.*

The OSB market is highly concentrated and there are a limited number of OSB manufacturers. As a percentage of our Wood Processing Systems segment revenues, the two largest OSB customers accounted for 18% in 2019, 14% in 2018, and 29% in 2017. The loss of one or more of these OSB customers to a competitor could adversely affect our revenues and profitability. In addition, the market for building products is highly competitive. Products that compete with OSB include other wood panel products and substitutes for wood building products, such as nonfiber-based alternatives. For example, plastic, wood/plastic or composite materials may be used by builders as alternatives to OSB products. Changes in component prices, such as energy, chemicals, wood-based fibers, and nonfiber alternatives can change the competitive position of OSB relative to other available alternatives and could increase substitution. Our customers' OSB production can be adversely affected by lower-cost producers of other wood panel products and substitutes for wood building products. Lower demand for OSB products or a decline in the profitability of one or more of our customers could result in a reduction in spending on capital equipment or the shutdown or closure of an OSB mill, which could have a material adverse effect on our financial performance.

*Our Wood Processing Systems business can be materially impacted by changes to the global timber supply.*

Changes in the environment that affect natural resources such as timber may have significant effects on the sales of wood processing equipment by our Wood Processing Systems business. Approximately 20% of our revenue in 2019 was from our Wood Processing Systems business. For example, wildfires and damage from pests such as the mountain pine beetle have affected tracts of land in Western Canada that could have otherwise been logged by the forestry industry. Reduction in availability of timber can result in decreased logging activity, mill closures, and lower operating rates at mills, as well as reduced capital expenditures. A reduction in capital expenditures by mills would likely lead to a decrease in demand for new

wood processing equipment, which would in turn affect demand for parts, as our wood processing customers are likely to reduce utilization of equipment, reduce inventories, redistribute parts from closed mills and delay rebuilds and other maintenance during industry downturns. In addition to declining orders for wood processing products, adverse economic conditions for our wood processing customers may make it more difficult for us to collect accounts receivable in a timely manner, or at all, which may adversely affect our working capital.

*Our Material Handling Systems business can be materially impacted by cyclical economic conditions affecting the global mining industry.*

Changes in economic conditions affecting the global mining industry can occur abruptly and unpredictably, which may have significant effects on the sales of original equipment by our subsidiary, SMH, which comprises our Material Handling Systems segment. Approximately 6% of our revenue in 2019 was from SMH's mining customers. Cyclicalities for original equipment sales is driven primarily by price volatility of the commodities that are mined using SMH's equipment, including coal, salt, aggregates, potash, copper, iron ore and trona, or their substitutes, as well as product life cycles, competitive pressures and other economic factors affecting the mining industry, such as company consolidation, increased regulation and competition affecting demand for commodities, as well as the broader economy, including changes in government monetary or fiscal policies and from market expectations with respect to such policies. Falling commodity prices have in the past and may in the future lead to reduced capital expenditures by SMH's customers, reductions in the production levels of existing mines, a contraction in the number of existing mines and the closure of less efficient mines. Reduced capital expenditures and decreased mining activity by SMH's customers are likely to lead to a decrease in demand for new mining equipment, and may result in a decrease in demand for parts as SMH's customers are likely to reduce utilization of equipment, reduce inventories, redistribute parts from closed mines and delay rebuilds and other maintenance during industry downturns. In addition to declining orders for SMH's products, adverse economic conditions for SMH's customers may make it more difficult for SMH to collect accounts receivable in a timely manner, or at all, which may adversely affect our working capital. As a result of this cyclicalities in the global mining industry, SMH may experience significant fluctuations in its business, results of operations and financial condition, and we expect SMH's business to continue to be subject to these fluctuations in the future.

*The development and increasing use of digital media has had, and will continue to have, an adverse impact on our Papermaking Systems segment.*

Developments in digital media have adversely affected demand for newsprint and for printing and writing grades of paper, particularly in North America and Europe, a trend which is expected to continue. Approximately 10% of our revenue in 2019 was from customers producing newsprint and printing and writing grades of paper. Significant declines in the production of printing and writing paper grades have also led to a drop in the construction of recycled tissue mills, as those mills use printing and writing grades of waste paper as their fiber source. The increased use of digital media has had, and will continue to have, an adverse effect on demand for our products in those markets.

*Our results of operations may be adversely affected by currency fluctuations.*

As a multinational corporation, we are exposed to fluctuations in currency exchange rates that impact our business in many ways. We are exposed to both translation as well as transaction risk associated with transactions denominated in currencies that differ from our subsidiaries' functional currencies. Although most of our subsidiaries' costs are denominated in the same currency as their revenues, changes in the relative values of currencies occur from time to time and can adversely affect our operating results. Some of the foreign currency translation risk is mitigated when foreign subsidiaries have revenue and expenses in the same foreign currency. Further, certain foreign subsidiaries may hold U.S. dollar assets or liabilities which, as the U.S. dollar strengthens versus the applicable functional currencies, will result in currency transaction gains on assets or losses on liabilities. While some foreign currency transaction risks can be hedged using derivatives or other financial instruments, or may be insurable, such attempts to mitigate these risks may be costly and may not always be successful.

When we translate the local currency results of our foreign subsidiaries into U.S. dollars during a period in which the U.S. dollar is strengthening, our financial results will reflect decreases due to foreign currency translation. In addition, our consolidated financial results are adversely affected when foreign governments devalue their currencies. Our major foreign currency translation exposures involve the currencies in Europe, China, Brazil, Canada and Mexico. For example, China's central bank devalued the renminbi to boost the Chinese economy in 2016, which had a negative translation impact on our consolidated revenues and may in the future have a negative translation impact if this recurs. The overall favorable or unfavorable effect of foreign currency translation on our financial results will vary by quarter. We do not enter into derivatives or other financial instruments to hedge this type of foreign currency translation risk.

*A sizable portion of our Material Handling Systems business is dependent on continued demand for coal, which is subject to economic and environmental risks.*

Approximately 14% and 8% of SMH's 2019 revenues came from its thermal and metallurgical coal-mining customers, respectively. Many of these customers supply coal for the generation of electricity and/or steel production. Demand for electricity and steel is affected by the global level of economic activity and economic growth. The pursuit of the most cost-effective form of electricity generation continues to take place throughout the world and coal-fired electricity generation faces intense price competition from other fuel sources, particularly natural gas. In addition, coal combustion typically generates significant greenhouse gas emissions and governmental and private sector goals and mandates to reduce greenhouse gas emissions may increasingly affect the mix of electricity generation sources. Further developments in connection with legislation, regulations, international agreements or other limits on greenhouse gas emissions and other environmental impacts or costs from coal combustion, both in the United States and in other countries, could diminish demand for coal as a fuel for electricity generation. If lower greenhouse gas emitting forms of electricity generation, such as nuclear, solar, natural gas or wind power, become more prevalent or cost effective, or diminished economic activity reduces demand for electricity and steel, demand for coal will decline. Reduced demand for coal could result in reduced demand for SMH's mining equipment and could adversely affect our overall business, financial condition and results of operations.

*Price increases and shortages in raw materials and components and dependency upon certain suppliers for such raw materials and components could adversely impact our operating results.*

We use a variety of raw materials, including a significant amount of stainless steel, carbon steel, commodities and critical components to manufacture our products. Increases in the prices of such raw materials, commodities and critical components could adversely affect our operating results if we were unable to fully offset the effect of these increased costs through price increases, productivity improvements, or cost reduction programs.

Some of our businesses depend on limited suppliers to provide critical components used in the manufacture of our products. If we could not obtain sufficient supplies of these components or these sources of supply ceased to be available to us, we could experience shortages in critical components or be unable to meet our commitments to customers. Alternative sources of supply could be more expensive or, in some cases, not available. We believe our sources of raw materials, commodities and critical components will generally be sufficient for our needs in the foreseeable future. However, our operating results could be negatively impacted if supply is insufficient for our operations.

*Implementing our acquisition strategy involves risks, and our failure to successfully implement this strategy could have a material adverse effect on our business.*

We expect that a significant driver of our growth over the next several years will be the acquisition of technologies and businesses that complement or augment our existing products and services or may involve entry into a new process industry, such as our January 2019 acquisition of SMH. We continue to actively pursue additional acquisition opportunities, some of which may be material to our business and financial performance, and involve significant cash expenditures and the incurrence of significant debt. Although we have been successful with this strategy in the past, we may not be able to grow our business in the future through acquisitions for a number of reasons, including:

- difficulties identifying and executing acquisitions;
- competition with other prospective buyers resulting in our inability to complete an acquisition or in our paying a substantial premium over the fair value of the net assets of the acquired business;
- access to and availability of capital;
- inability to obtain regulatory approvals, including antitrust approvals;
- difficulty in integrating operations, technologies, products and the key employees of the acquired business;
- inability to maintain existing customers of the acquired business or to sell the products and services of the acquired business to our existing customers;
- inability to retain key management of the acquired business;
- diversion of management's attention from other business concerns;
- inability to improve the revenues and profitability or realize the cost savings and synergies expected of the acquisition;
- assumption of significant liabilities, some of which may be unknown at the time of acquisition;
- potential future impairment of the value of goodwill and intangible assets acquired; and
- identification of internal control deficiencies of the acquired business.

We are required to record transaction and acquisition-related costs in the period incurred. Once completed, acquisitions may involve significant integration costs. These acquisition-related costs could be significant in a reporting period and have an adverse effect on our results of operations.

Any acquisition we complete may be made at a substantial premium over the fair value of the net identifiable assets of the acquired business. We are required to assess the realizability of goodwill and indefinite-lived intangible assets annually, and whenever events or changes in circumstances indicate that goodwill and intangible assets, including definite-lived intangible assets, may be impaired. These events or circumstances would generally include operating losses or a significant decline in earnings associated with the acquired business or assets, and our ability to realize the value of goodwill and intangible assets will depend on the future cash flows of these businesses. We may incur impairment charges to write down the value of our goodwill and acquired intangible assets in the future if the assets are not deemed recoverable, which could have a material adverse effect on our operating results.

*Failure of our information systems or breaches of data security and cybertheft could impact our business.*

We operate a geographically dispersed business and rely on the electronic storage and transmission of proprietary and confidential information, including technical and financial information, among our operations, customers and suppliers. We also rely on information technology, or IT, including IT services from third parties, in certain of our solutions, products, and services for customers as well as our enterprise infrastructure. Despite our security measures and internal controls, our information technology and infrastructure may be vulnerable to unauthorized access or attacks by nation states, hackers or cyber criminals or breaches due to employee error, malfeasance or other disruptions, such as business email compromises, phishing and other cyber-related fraud. Our systems could be compromised by malware (including ransomware), cyberattacks, and other events, ranging from widespread, non-targeted, global cyber threats to targeted advanced persistent threats. These threats could be indicators of an increased risk to our products, solutions, services, manufacturing, and IT infrastructure. Recent global cyberattacks have been perpetuated by the compromise of software updates to widely-used software products, including some products that we use, which increases the risk that vulnerabilities or malicious content could be inserted into our products or IT infrastructure. We maintain a cybersecurity insurance policy that provides limited coverage for some, but not all potential risks and liabilities associated with cyberattacks and other events, which may not be fully insurable. While we continuously seek to improve the security attributes of our products, solutions, services and IT infrastructure, we cannot eliminate risk or ensure that we will not be harmed by cyberattacks or disruptions.

In some global cyberattacks, malware has been spread from one party to another via network connections that the parties had previously authorized. Our business uses IT resources on a dispersed, global basis for a wide variety of functions including development, engineering, manufacturing, sales, accounting, and human resources. Our vendors, partners, employees and customers have access to, and share, information across multiple locations via various digital technologies. In addition, we rely on partners and vendors for a wide range of outsourced activities, including cloud providers, as part of our internal IT infrastructure and our commercial offerings. Secure connectivity is important to these ongoing operations. To a significant extent, the security of systems to which we connect depends on how such systems are designed, installed, protected, configured, updated and monitored, much of which is typically outside of our control. Also, our partners and vendors frequently have access to our confidential information as well as confidential information about our customers, employees, and others. We design our security architecture to reduce the risk that a compromise of our partners' infrastructure, for example a cloud platform, could lead to a compromise of our internal systems or customer networks, but this risk cannot be eliminated and vulnerabilities at third parties could result in unknown risk exposure to our business.

As part of our ongoing effort to upgrade our current information systems, we are implementing enterprise resource planning software to manage certain of our business operations. As we implement and add functionality, problems could arise that we have not foreseen. System failures, network disruptions, and breaches of data security could limit our ability to conduct business as usual, including our ability to communicate and transact business with our customers and suppliers; result in the loss or misuse of this information, including credit card numbers or other personal information, the loss of business or customers, or damage to our brand or reputation; or interrupt or delay reporting of our financial results. Such system failures or unauthorized access could be caused by external theft or attack, misconduct by our employees, suppliers, or competitors, or natural disasters.

In addition, the cost and operational consequences of implementing further data protection measures, such as to comply with local privacy laws such as the European Union's General Data Protection Regulation, or various similar U.S. federal and state laws, could be significant.

The current cyber threat environment indicates increased risk for all companies. Like other global companies, we have experienced cyber threats and incidents, although none have been material or had a material adverse effect on our business or financial condition. Our information security efforts include major programs designed to address security governance, product security, identification and protection of critical assets, insider risk, third-party risk, and cyber defense operations. We believe these measures reduce, but cannot eliminate, the risk of an information security incident. Any significant security incidents

could have an adverse impact on sales, harm our reputation and cause us to incur legal liability and increased costs to address such events and related security concerns.

*We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies.*

We are subject to various local, state, federal, foreign and transnational laws and regulations, particularly those relating to environmental protection, the importation and exportation of products, tariffs and trade barriers, taxation, exchange controls, current good manufacturing practices, data protection, health and safety and our business practices in the U.S. and abroad, such as anti-corruption and anti-competition laws, and, in the future, any changes to such laws and regulations could adversely affect us. Any noncompliance by us with applicable laws and regulations or the failure to maintain, renew or obtain necessary permits and licenses could result in criminal, civil and administrative penalties and could have an adverse effect on our results of operations.

*It may be difficult for us to implement our strategies for improving internal growth.*

Some of the markets in which we compete are mature and have relatively low growth rates. We pursue a number of strategies to improve our internal growth, including:

- strengthening our presence in selected geographic markets, including emerging markets and existing markets where we see opportunities;
- focusing on parts and consumables sales;
- using low-cost manufacturing bases, such as China and Mexico;
- allocating research and development funding to products with higher growth prospects;
- developing new applications for our technologies;
- combining sales and marketing operations in appropriate markets to compete more effectively;
- finding new markets for our products and expanding into different verticals or process industries;
- continuing to develop cross-selling opportunities for our products and services to take advantage of our depth of product offerings; and
- corporate efficiency programs, such as Lean manufacturing and the “80/20” rule (the Pareto Principle).

We may not be able to successfully implement these strategies, or achieve cost savings or desired efficiencies, and these strategies may not result in the expected growth of our business.

*We are subject to intense competition in all our markets.*

We believe that the principal competitive factors affecting the markets for our products include technical expertise and process knowledge, product innovation, product quality, and price. Our competitors include a number of large multinational corporations that may have substantially greater financial, marketing, and other resources than we do. As a result, they may be able to adapt more quickly to new or emerging technologies, such as smart technology, and changes in customer requirements, or to devote greater resources to the promotion and sale of their services and products. Competitors' technologies may prove to be superior to ours. Our current products, those under development, and our ability to develop new technologies may not be sufficient to enable us to compete effectively. Competition, especially in China, has increased as new companies enter the market and existing competitors expand their product lines and manufacturing operations.

*Adverse changes to the soundness of our suppliers and customers could affect our business and results of operations.*

All our businesses are exposed to risk associated with the creditworthiness of our key suppliers and customers, including pulp and paper manufacturers, forest products and other industrial customers, many of which may be adversely affected by volatile conditions in the financial markets, worldwide economic downturns, variability in infrastructure spending levels, and difficult economic conditions. These conditions could result in financial instability, bankruptcy, or other adverse effects at any of our suppliers or customers. The consequences of such adverse effects could include the interruption of production at the facilities of our suppliers, the reduction, delay or cancellation of customer orders, delays in or the inability of customers to obtain financing to purchase our products or pay amounts due, and bankruptcy of customers or other creditors. Any adverse changes to the soundness of our suppliers or customers may adversely affect our cash flows, profitability, or financial condition.

*Changes in our tax provision or exposure to additional income tax liabilities could affect our profitability.*

We derive a significant portion of our revenue and earnings from our international operations, and are subject to income and other taxes in the United States and numerous foreign jurisdictions. Changes in U.S. and foreign income tax laws and regulations, or their interpretation, could result in higher or lower income tax rates assessed or changes in the taxability of

certain revenues or the deductibility of certain expenses, thereby affecting our income tax expense and profitability. A number of factors may cause our effective tax rate to fluctuate, including: changes in tax rates in various jurisdictions; unanticipated changes in the amount of profit in jurisdictions in which the statutory tax rates may be higher or lower than the U.S. tax rate; the resolution of issues arising from tax audits with various tax authorities; changes in the valuation of our deferred tax assets and liabilities; adjustments to income taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including impairments of goodwill in connection with acquisitions; changes in available tax credits or our ability to utilize foreign tax credits; and changes in tax laws or the interpretation of such tax laws. Any of these factors could cause us to experience an effective tax rate significantly different from that of prior periods or current expectations, which could have an adverse effect on our results of operations or cash flows.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (2017 Tax Act) was enacted in the U.S. and significantly revised the Internal Revenue Code. The 2017 Tax Act reduced the U.S. federal corporate tax rate from 35% to 21% starting in 2018 and transitioned from a worldwide tax system to a territorial tax system imposing a one-time tax on all foreign unremitted earnings at reduced rates. The 2017 Tax Act introduced many new provisions that became effective in 2018, including but not limited to, Global Intangible Low-Taxed Income (GILTI), Base Erosion Anti-Abuse Tax (BEAT), Foreign Derived Intangible Income (FDII) deduction, limitation of the tax deduction for net interest expense to 30% of adjusted taxable income, immediate tax deductions for certain new fixed asset additions instead of depreciating assets over time and more restrictions on tax deductions for executive compensation. The impact of the 2017 Tax Act remains subject to developing interpretations of the relevant provisions in the regulations promulgated by the U.S. Treasury Department, as well as the conformity and application of these regulations in various states. We continue to assess the impact of the new provisions on the tax provision already included in our financial statements and guidance and we may need to make adjustments as the application of the law becomes clearer, which could adversely affect our business and financial condition.

*If we are unable to successfully manage our manufacturing operations, our ability to deliver products to our customers could be disrupted and our business, financial condition and results of operations could be adversely affected.*

Equipment and operating systems necessary for our manufacturing businesses may break down, perform poorly, or fail. Any such disruption could cause losses in efficiencies, delays in shipments of our products and the loss of sales and customers, and insurance proceeds may not adequately compensate us for our losses.

In order to enhance the efficiency and cost effectiveness of our manufacturing operations, and to better serve customers located in various countries, as we have in the past, we may in the future move several product lines from one of our plants to another and consolidate manufacturing operations in certain of our plants. Even if we successfully move our manufacturing processes, there is no assurance that the cost savings and efficiencies we anticipate will be achieved.

Changes in zoning laws in China may require us to relocate certain of our manufacturing facilities. For example, we received a request by local Chinese authorities to relocate one of our facilities, and have been negotiating with the Chinese government regarding the relocation of such facility. A relocation may increase our costs and could have a material impact on our manufacturing operations.

In addition, our manufacture of certain products is concentrated in specific geographic locations. As a result of such concentration, we may be disproportionately exposed to the impact of any disruptions (including natural disasters), regulations or delays that impact those geographic locations, which may negatively impact our ability to manufacture products produced in those locations and have an adverse effect on our business results.

*We may be required to reorganize our operations in response to changing conditions in the worldwide economy and the industries we serve, and such actions may require significant expenditures and may not be successful.*

We have undertaken various restructuring measures in the past in response to changing market conditions in the countries in which we operate and we may engage in additional cost reduction programs in the future. The costs of these programs may be significant and we may not recoup the costs of these programs. In connection with any future plant closures, delays or failures in the transition of production from existing facilities to our other facilities in other geographic regions could also adversely affect our results of operations. In addition, it is difficult to accurately forecast our financial performance in periods of economic uncertainty in a region or globally, and the efforts we have made or may make to align our cost structure may not be sufficient or able to keep pace with rapidly changing business conditions. Our profitability may decline if our restructuring efforts do not sufficiently reduce our future costs and position us to maintain or increase our sales.

*Economic conditions and regulatory changes caused by the United Kingdom's exit from the European Union could adversely affect our business.*

The United Kingdom (U.K.) exit from the European Union (E.U.), referred to as Brexit, which was effective as of January 31, 2020, and the related ongoing transition has caused, and may from time to time cause:

- volatility in the global stock markets;
- currency exchange rate fluctuations;
- effects on cross border trade and labor; and
- political and regulatory uncertainty in the U.K. and across Europe generally.

The global economic uncertainty that has occurred and may continue to occur at various periods throughout the lengthy withdrawal process may cause our customers to closely monitor their costs and reduce their spending budgets. Our revenues to customers in the U.K. represented approximately 3% of total revenues in 2019. All of these events, should they occur, could adversely affect our business, financial condition, operating results, and cash flows.

*Our debt may adversely affect our cash flow and may restrict our investment opportunities.*

We have borrowed amounts under our five-year, unsecured multi-currency revolving credit facility (Credit Agreement) and under other agreements to fund our operations and our acquisition strategy. As a result of the acquisitions of our forest products business in 2017 and the SMH acquisition completed in January 2019, we increased our U.S. and foreign-denominated borrowings under the Credit Agreement. While we increased our borrowing capacity under the Credit Agreement in December 2018 in connection with the SMH acquisition, our remaining borrowing capacity is limited. Our borrowing capacity under the Credit Agreement may further decrease as a result of the impact that foreign exchange rate fluctuations could have on our foreign-denominated borrowings.

In 2018, under the Credit Agreement, we increased our borrowing capacity from \$300.0 million to \$400.0 million and increased our uncommitted unsecured incremental borrowing facility from \$100.0 million to \$150.0 million. In 2018, we also issued \$10.0 million in senior notes under our Multi-Currency Note Purchase and Private Shelf Agreement with PGIM, Inc., an affiliate of Prudential (Note Purchase Agreement). In addition, in 2018 we borrowed \$21.0 million, pursuant to a promissory note secured by real estate and related personal property of certain of our domestic subsidiaries (Real Estate Loan). We may also in the future obtain additional long-term debt and working capital lines of credit to meet future financing needs, which would have the effect of increasing our total leverage. Our indebtedness could have negative consequences, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- limiting our ability to pay dividends on or to repurchase our capital stock;
- limiting our ability to complete a merger or an acquisition or acquire new products and technologies through acquisitions or licensing agreements; and
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we compete.

Our existing indebtedness bears interest at fixed and floating rates, and as a result, our interest payment obligations on our indebtedness will fluctuate if interest rates increase or decrease. From time to time, we hedge a portion of our variable rate interest payment obligations through interest rate swap agreements. The counterparty to the swap agreements could demand an early termination of the swap agreements if we were to be in default under the Credit Agreement, or any agreement that amends or replaces the Credit Agreement in which the counterparty is a member, and we were unable to cure the default. If our swap agreements were to be terminated prior to the applicable scheduled maturity date and if we were required to pay cash for the value of the swap, we could incur a loss, which could adversely affect our financial results.

In addition, the 2017 Tax Act places certain limitations on the deductibility of interest expense as a percentage of adjusted taxable income. If interest rates or the level of our debt increase, to the extent that the associated interest expense exceeds the limitation established by the 2017 Tax Act, the amount of interest expense that we would not be able to deduct for income tax purposes, if significant, could adversely affect our financial results and cash flows.

Our ability to satisfy our obligations and to reduce our total debt depends on our future operating performance and on economic, financial, competitive, and other factors beyond our control. Our business may not generate sufficient cash flows to meet these obligations or to successfully execute our business strategy. If we were unable to service our debt and fund our business, we could be forced to reduce or delay capital expenditures or research and development expenditures, seek additional financing or equity capital, restructure or refinance our debt, curtail or eliminate our cash dividend to stockholders, or sell assets.

*Restrictions in our Credit Agreement and Note Purchase Agreement may limit our activities.*

Our Credit Agreement and the Note Purchase Agreement contain, and future debt instruments to which we may become subject may contain, restrictive covenants that limit our ability to engage in activities that could otherwise benefit us, including restrictions on our ability (including the ability of our subsidiaries) to:

- incur additional indebtedness;
- pay dividends on, redeem, or repurchase our capital stock;
- make investments;
- create liens;
- sell assets;
- enter into transactions with affiliates; and
- consolidate, merge, or transfer all or substantially all of our assets and the assets of our subsidiaries.

We are also required to meet specified financial covenants under the terms of our Credit Agreement and the Note Purchase Agreement. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as currency exchange rates, interest rates, changes in technology, and changes in the level of competition. Our failure to comply with any of these restrictions or covenants may result in an event of default under our Credit Agreement, the Note Purchase Agreement, our swap agreements and other loan and note obligations, which could permit acceleration of the debt under those instruments and require us to repay the debt before its scheduled due date. If an event of default were to occur, we might not have sufficient funds available to make the payments required under our indebtedness. In addition, our inability to borrow funds under our Credit Agreement would have significant consequences for our business, including reducing funds available for acquisitions and other investments in our business; and impacting our ability to pay dividends and meet other financial obligations.

Furthermore, our Credit Agreement requires that any amounts borrowed under the facility be repaid by the maturity date in 2023. If we are unable to roll over the amounts borrowed into a new credit facility and we do not have sufficient cash to repay our borrowings, we may default under the Credit Agreement. We may need to repatriate cash from our overseas operations, which may not be possible, to fund the repayment and we may be required to pay taxes on the repatriated amounts. Such repatriation would have an adverse effect on our effective tax rate and cash flows.

*Our Credit Agreement has variable interest tied to London Interbank Offered Rate (LIBOR) and we could become subject to higher interest rates if the replacement rate we agree on with our banks is higher.*

Borrowings under our Credit Agreement use the LIBOR as a benchmark for establishing the interest rate for our LIBOR Loans, as defined in the Credit Agreement. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms and other pressures will cause LIBOR to disappear entirely or to perform differently than in the past. We may need to amend the Credit Agreement and any other applicable financial or contractual obligations that use LIBOR, and we cannot predict what alternative index would be negotiated with our counterparties. We may incur additional expenses to amend such agreements to reference the alternative index, which may differ significantly from LIBOR. Accordingly, the use of an alternative index could result in increased costs, including increased interest expense on our Credit Agreement and increased borrowing costs in the future, and could adversely affect our available cash flow for general corporate requirements. At this time, no consensus exists as to what index or indices may become acceptable alternatives to LIBOR and we are unable to predict the effect of any such alternatives on our business, results of operations or financial condition.

*Our future success is substantially dependent on the continued service of our senior management and other key employees and effective succession planning.*

Our future success is substantially dependent on the continued service of our senior management and other key employees. The loss of the services or retirement of our senior management or other key employees could make it more difficult to successfully operate our business and achieve our business goals. We also may be unable to attract qualified personnel or retain existing management, product development, sales, operational and other support personnel that are critical to our success, which could result in harm to key customer relationships, loss of key information, expertise, or know-how, and unanticipated recruitment and training costs. In addition, effective succession planning is also a key factor for our future success. On February 13, 2019 our board of directors adopted a succession plan, pursuant to which Jeffrey L. Powell was appointed to succeed Jonathan W. Painter as president effective April 1, 2019 and as chief executive officer effective July 1, 2019 (Succession Plan). Mr. Painter became the executive chairman of the board of directors effective July 1, 2019. Our failure to continue to enable the effective transfer of knowledge and facilitate smooth transitions with regard to key management employees, including in connection with the Succession Plan, could adversely affect our long-term strategic planning and execution and negatively affect our business, financial condition, operating results, and prospects. If we fail to enable the effective transfer of knowledge and facilitate smooth transitions for key personnel, the operating results and future growth for our business could be adversely affected, and the morale and productivity of the workforce could be disrupted.

*Our inability to protect our intellectual property or defend ourselves against the intellectual property claims of others could have a material adverse effect on our business. In addition, litigation to enforce our intellectual property and contractual rights or defend ourselves could result in significant litigation or licensing expense.*

We seek patent and trade secret protection for significant new technologies, products, and processes because of the length of time and expense associated with bringing new products through the development process and into the marketplace. We own numerous U.S. and foreign patents and we intend to file additional applications, as appropriate, for patents covering our products. Patents may not be issued for any pending or future patent applications owned by or licensed to us, and the claims allowed under any issued patents may not be sufficiently broad to protect our technology. Any issued patents owned by or licensed to us may be challenged, invalidated, or circumvented, and the rights under these patents may not provide us with competitive advantages. In addition, competitors may design around our technology, copy our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it easier for competitors to capture increased market share. In addition, as our patents expire, we rely on trade secrets and proprietary know-how to protect our products. We cannot be sure the steps we have taken, or will take in the future, will be adequate to deter misappropriation of our proprietary information and intellectual property. Of particular concern are developing countries, such as China and India, where the laws, courts, and administrative agencies may not protect our intellectual property rights as fully as in the United States or Europe.

We seek to protect trade secrets and proprietary know-how, in part, through confidentiality and non-competition agreements with our collaborators, employees, and consultants. These agreements may be breached, we may not have adequate remedies for any breach, and our trade secrets may otherwise become known or be independently developed by our competitors, or our competitors may otherwise gain access to our intellectual property.

Others may assert intellectual property infringement claims against us or our customers. We may provide a limited intellectual property indemnity in connection with our terms and conditions of sale to our customers and in other types of contracts with third parties. Indemnification payments and legal expenses to defend claims could be costly.

We could incur substantial costs to defend ourselves in suits brought against us, including for alleged infringement of third-party rights, or in suits in which we may assert our intellectual property or contractual rights against others. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

Our SMH subsidiary holds numerous U.S. and foreign patents, including foreign counterparts to its U.S. patents, and licenses the trademarked brand name of one of its significant products, Link-Belt®, from a third party. If the third-party were to terminate that license agreement, we would lose the right to use the Link-Belt® trademark in the marketplace and cease to benefit from any of its associated goodwill.

*Our share price fluctuates and experiences price and volume volatility.*

Stock markets in general and our common stock in particular experience significant price and volume volatility from time to time. The market price and trading volume of our common stock may continue to be subject to significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations, business prospects, or future funding. Given the nature of the markets in which we participate and the volatility of orders, we may not be able to reliably predict future revenues and profitability, and unexpected changes may cause us to adjust our operations. A large proportion of our costs are fixed, due in part to our significant selling, research and development, and manufacturing costs. Thus, small declines in revenues could disproportionately affect our operating results. Other factors that could affect our share price and quarterly operating results include:

- changes in the assumptions used for revenue recognized over time;
- fluctuations in revenues due to customer-initiated delays in product shipments;
- failure of a customer to comply with an order's contractual obligations or inability of a customer to provide financial assurances of performance;
- adverse changes in demand for and market acceptance of our products;
- failure of our products to pass contractually agreed upon acceptance tests, which could delay or prohibit recognition of revenues under applicable accounting guidelines;
- competitive pressures resulting in lower sales prices for our products;
- adverse changes in the process industries we serve;
- delays or problems in our introduction of new products;
- delays or problems in the manufacture of our products;
- our competitors' announcements of new products, services, or technological innovations;
- contractual liabilities incurred by us related to guarantees of our product performance;
- increased costs of raw materials or supplies, including the cost of energy;

- changes in the timing of product orders;
- changes in the estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, or expenses;
- the impact of acquisition accounting, including the treatment of acquisition and restructuring costs as period costs;
- fluctuations in our outstanding indebtedness and associated interest expense;
- fluctuations in our effective tax rate;
- the operating and share price performance of companies that investors consider to be comparable to us; and
- changes in global financial markets and global economies and general market conditions.

*Adverse changes to the soundness of financial institutions could affect us.*

We have relationships with many financial institutions, including lenders under our credit facilities and insurance underwriters, and from time to time we execute transactions with counterparties in the financial industry, such as our interest rate swap agreements and other hedging transactions. In addition, our subsidiaries in China often hold banker's acceptance drafts that are received from customers in the normal course of business. These drafts may be discounted or used to pay vendors prior to the scheduled maturity date or submitted to an acceptance bank for payment at the scheduled maturity date. These financial institutions or counterparties could be adversely affected by volatile conditions in the financial markets, economic downturns, and difficult economic conditions. These conditions could result in financial instability, bankruptcy, or other adverse effects at these financial institutions or counterparties. We may not be able to access credit facilities in the future, complete transactions as intended, or otherwise obtain the benefit of the arrangements we have entered into with such financial parties, which could adversely affect our business and results of operations.

*We are subject to risks and costs associated with environmental laws and regulations.*

The manufacturing of our products requires the use of hazardous materials that are subject to a broad array of environmental health and safety laws and regulations. Our failure to manage the use, transportation, emissions, discharge, storage, recycling, or disposal of hazardous materials could lead to increased costs or regulatory penalties, fines and legal liability. Our ability to expand, modify or operate our manufacturing facilities in the future may be impeded by environmental regulations, such as air quality and wastewater requirements. The Chinese government has pledged to tackle the country's hazardous smog, and authorities try to clear the skies ahead of high-profile events, which prompt authorities to impose strict pollution control measures. Regulators have in the past and may in the future temporarily restrict our manufacturing in a particular geographic location as a result of pollution levels in China. Environmental laws and regulations could also require us to acquire pollution abatement or remediation equipment, modify product designs, or incur other expenses. New regulations promulgated in reaction to climate change could result in increased manufacturing costs associated with air pollution control requirements, and increased or new monitoring, recordkeeping, and reporting of greenhouse gas emissions. We also see the potential for higher energy costs driven by climate change regulations. These risks could harm our business and results of operations.

*Effects of climate change may adversely impact our business.*

Climate change may pose environmental risks that could harm our results of operations and affect the way we conduct business. Many of our operations are located in regions that may become increasingly vulnerable due to climate change, which may cause extreme weather conditions such as more intense hurricanes, thunderstorms, tornadoes and snow or ice storms, winds, and rainfall, as well as rising sea levels and increased volatility in seasonal temperatures. Extreme weather conditions or weather-driven natural disasters could impact our ability to maintain our operations in those areas. For example, we have manufacturing locations in the southeastern United States, which region has experienced record hurricanes in recent years reportedly due to the effects of climate change. Climate change could also affect demand for our products by our customers that are affected by weather and weather-driven events, including seasonal changes in outdoor working conditions and rainfall levels. Climate change has also been cited as contributing to the increased likelihood around the world of hot and dry conditions in which wildfires thrive. As a result of increased wildfires, our customers in the forestry industry may face damage to assets and losses from business interruption, as wildfires can destroy timber, force the reduced operation or closure of mills, and disrupt supply chains of which we may be a part. These risks could harm our business and results of operations.

*Environmental, health and mine safety laws and regulations impacting the mining industry may adversely affect demand for products manufactured by our Material Handling Systems business.*

Our SMH subsidiary, which comprises our Material Handling Systems segment, supplies equipment to mining companies operating in major mining regions throughout the world. SMH's customers' operations are subject to or affected by a wide array of regulations in the jurisdictions where they operate, including those directly impacting mining activities and those indirectly affecting their businesses, such as applicable environmental and mine safety laws. New environmental and health legislation or administrative regulations relating to mining or affecting demand for mined materials or more stringent interpretations of existing laws and regulations, may require SMH's customers to significantly change or curtail their operations. The mining industry has also encountered increased scrutiny as it relates to safety regulations, primarily due to high-profile mining accidents. New legislation or regulations relating to mine safety standards may induce customers to discontinue or limit their mining operations and may discourage companies from developing new mines or maintaining existing mines, which in turn could diminish demand for our products and services.

The high cost of compliance with such regulations and standards may discourage SMH's customers from expanding existing mines or developing new mines and may also cause customers to limit or even discontinue their mining operations. As a result of these factors, demand for SMH's mining equipment could be adversely affected by environmental and health regulations directly or indirectly impacting the mining industry. Any reduction in demand for SMH's products as a result of environmental, health or mine safety regulations could have an adverse effect on SMH's and our overall business, financial condition or results of operations.

*Our insurance coverage may be inadequate or expensive.*

We are subject to claims in the ordinary course of business. It is not always possible to prevent or detect activities giving rise to claims, and the precautions we take may not be effective in all cases. We maintain insurance policies that provide limited coverage for some, but not all, potential risks and liabilities associated with our business. We may not obtain insurance if we believe the cost of available insurance is excessive relative to the risks presented. As a result of market conditions, premiums and deductibles for certain insurance policies can increase substantially, and in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage. As a result, we may not be able to renew our existing insurance policies or procure other desirable insurance on commercially reasonable terms, if at all. In addition, certain risks generally are not fully insurable. Even where insurance coverage applies, insurers may contest their obligations to make payments. Our financial condition, results of operations and cash flows could be materially and adversely affected by losses and liabilities from uninsured or under-insured events, as well as by delays in the payment of insurance proceeds, or the failure by insurers to make payments.

*Anti-takeover provisions in our charter documents and under Delaware law could prevent or delay transactions that our shareholders may favor.*

Provisions of our charter and bylaws may discourage, delay, or prevent a merger or acquisition that our shareholders may consider favorable, including transactions in which shareholders might otherwise receive a premium for their shares. For example, these provisions:

- authorize the issuance of "blank check" preferred stock without any need for action by shareholders;
- provide for a classified board of directors with staggered three-year terms;
- require supermajority shareholder voting to effect various amendments to our charter and bylaws;
- eliminate the ability of our shareholders to call special meetings of shareholders;
- prohibit shareholder action by written consent; and
- establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by shareholders at shareholder meetings.

Our board of directors could adopt a shareholder rights plan in the future that could have anti-takeover effects and might discourage, delay, or prevent a merger or acquisition that our board of directors does not believe is in our best interest and those of our shareholders, including transactions in which shareholders might otherwise receive a premium for their shares.

*We have not independently verified the results of third-party research or confirmed assumptions or judgments on which they may be based, and the forecasted and other forward-looking information based on this research is subject to inherent uncertainties.*

We refer in this report and other documents that we file with the SEC to historical, forecasted and other forward-looking information published by sources such as Fastmarkets RISI, Forest Economic Advisors, the U.S. Census Bureau, and various market news agencies that we believe to be reliable. However, we have not independently verified this information, and with respect to the forecasted and forward-looking information, have not independently confirmed the assumptions and

judgments upon which such information is based. Forecasted and other forward-looking information is necessarily based on assumptions regarding future occurrences, events, conditions and circumstances and subjective judgments relating to various matters, and is subject to inherent uncertainties. Actual results may differ materially from the results expressed or implied by, or based upon, such forecasted and forward-looking information.

**Item 1B. Unresolved Staff Comments**

Not applicable.

**Item 2. Properties**

We believe that our facilities are in good condition and are suitable and adequate for our present operations. We do not anticipate significant difficulty in obtaining lease renewals or alternative space as needed.

The location and general character of our principal properties as of year-end 2019 are as follows:

*Papermaking Systems Segment*

We own approximately 1,923,000 square feet and lease approximately 452,000 square feet, under leases expiring on various dates ranging from 2020 to 2028, of manufacturing, engineering, and office space. In addition, in China, we lease the land associated with our buildings under long-term leases, which expire on dates ranging from 2050 to 2062. Our principal engineering and manufacturing facilities are located in Vitry-le-Francois, France; Jining, China; Valinhos, Brazil; Three Rivers, Michigan, United States; Lebanon, Ohio, United States; Anderson, South Carolina, United States; Georgsmarienhutte, Germany; Auburn, Massachusetts, United States; Weesp, The Netherlands; Alfreton, England; Wuxi, China; Guadalajara, Mexico; Bury, England and Huskvarna, Sweden.

*Wood Processing Systems Segment*

We own approximately 225,000 square feet and lease approximately 118,000 square feet, under leases expiring on various dates ranging from 2020 to 2026, of manufacturing, engineering, and office space. In addition, in Sidney, British Columbia, Canada, we lease the land associated with our building under a long-term lease, which expires in 2032. Our principal engineering and manufacturing facilities are located in Sidney, British Columbia, Canada; Lohja, Finland; Surrey, British Columbia, Canada; and Pell City, Alabama, United States.

*Material Handling Systems Segment*

We lease approximately 382,000 square feet, under leases expiring on various dates ranging from 2020 to 2034. Our principal manufacturing and office space is located in Saltillo, Mississippi, United States.

*Fiber-based Products*

We own approximately 31,000 square feet of manufacturing and office space located in Green Bay, Wisconsin, United States. We also lease approximately 58,000 square feet of manufacturing space located in Green Bay, Wisconsin, United States under a lease expiring in 2022.

*Corporate*

We lease approximately 18,000 square feet in Westford, Massachusetts, United States, for our corporate headquarters under a lease expiring in 2026.

**Item 3. Legal Proceedings**

Not applicable.

**Item 4. Mine Safety Disclosures**

Not applicable.

**PART II**

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

*Market Price of Common Stock*

Our common stock trades on the New York Stock Exchange under the symbol "KAI". The closing market price on the New York Stock Exchange for our common stock on February 14, 2020 was \$100.24 per share.

*Holder of Common Stock*

As of February 14, 2020, we had approximately 2,349 holders of record of our common stock. This does not include holdings in street or nominee name.

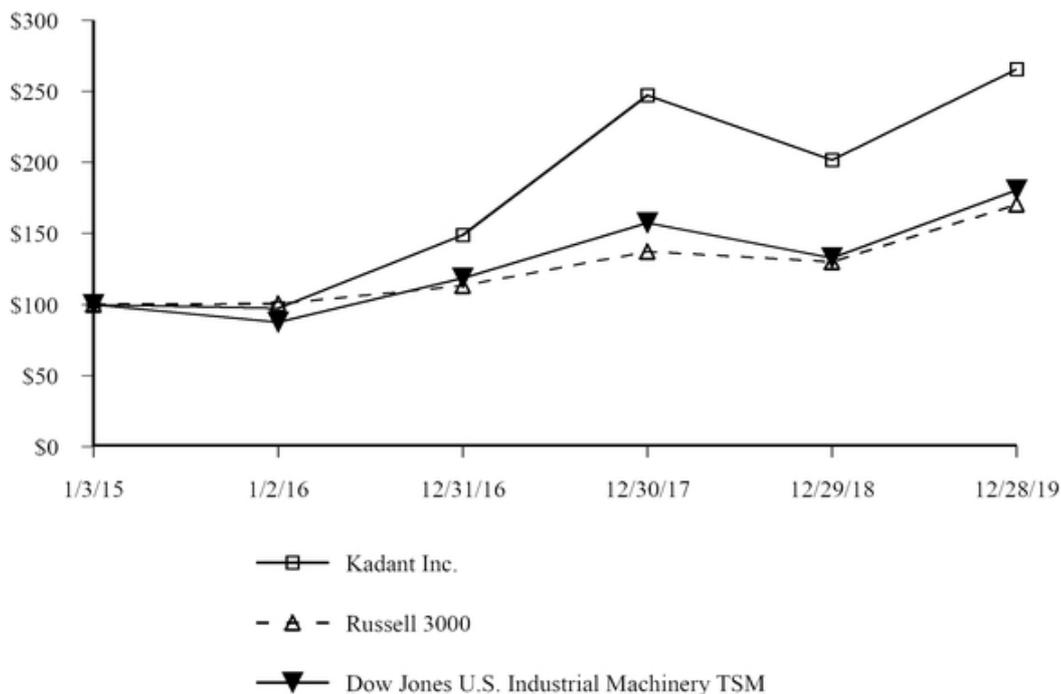
*Issuer Purchases of Equity Securities*

We did not repurchase any shares of our common stock during the fourth quarter of 2019.

*Performance Graph*

This performance graph compares the cumulative, five-year total shareholder return assuming an investment of \$100 (and the reinvestment of dividends) in our common stock, the Russell 3000 Stock Index, and the Dow Jones U.S. Industrial Machinery TSM Index. Our common stock trades on the New York Stock Exchange under the ticker symbol "KAI." Because our fiscal year ends on a Saturday, the graph values are calculated using the last trading day prior to the end of our fiscal year.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN**  
**Among Kadant Inc., the Russell 3000 Index, and the Dow Jones U.S. Industrial Machinery TSM Index**



	1/3/2015	1/2/2016	12/31/2016	12/30/2017	12/29/2018	12/28/2019
Kadant Inc.	100.00	97.23	148.90	247.08	201.46	265.46
Russell 3000	100.00	100.48	113.27	137.21	130.02	170.35
Dow Jones U.S. Industrial Machinery TSM	100.00	87.42	118.57	157.34	132.70	180.49

## Item 6. Selected Financial Data

The following selected financial data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” our consolidated financial statements and related notes, and other financial data included elsewhere in this Annual Report on Form 10-K. The consolidated statements of income data for the fiscal years 2019, 2018, and 2017 and the consolidated balance sheet data at fiscal year-end 2019 and 2018 are derived from our audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. The consolidated statements of income data for fiscal years 2016 and 2015 and the consolidated balance sheet data at fiscal year-end 2017, 2016, and 2015 are derived from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K.

(In thousands, except per share amounts)	December 28, 2019	December 29, 2018	December 30, 2017	December 31, 2016	January 2, 2016
<b>Statement of Income Data</b>					
Revenues (a)	\$ 704,644	\$ 633,786	\$ 515,033	\$ 414,126	\$ 390,107
Operating Income (b)	87,823	88,598	61,625	46,642	50,119
Amounts Attributable to Kadant:					
Income from Continuing Operations (c)	52,068	60,413	31,092	32,074	34,315
Income from Discontinued Operation	—	—	—	3	74
Net Income (c)	<u>\$ 52,068</u>	<u>\$ 60,413</u>	<u>\$ 31,092</u>	<u>\$ 32,077</u>	<u>\$ 34,389</u>
Earnings per Share for Continuing Operations:					
Basic	\$ 4.63	\$ 5.45	\$ 2.83	\$ 2.95	\$ 3.16
Diluted	\$ 4.54	\$ 5.30	\$ 2.75	\$ 2.88	\$ 3.09
Earnings per Share:					
Basic	\$ 4.63	\$ 5.45	\$ 2.83	\$ 2.95	\$ 3.16
Diluted	\$ 4.54	\$ 5.30	\$ 2.75	\$ 2.88	\$ 3.10
Cash Dividends Declared per Common Share	\$ 0.92	\$ 0.88	\$ 0.84	\$ 0.76	\$ 0.68
<b>Balance Sheet Data</b>					
Working Capital	\$ 151,407	\$ 123,772	\$ 133,793	\$ 118,437	\$ 108,492
Total Assets	939,387	725,749	761,094	470,691	415,498
Long-Term Obligations (d)	298,174	174,153	241,384	65,768	26,000
Stockholders' Equity	427,079	374,571	332,504	284,279	267,945

- (a) Includes incremental revenues of \$83.4 million in 2019, \$64.6 million in 2018, \$69.4 million in 2017, and \$40.8 million in 2016 primarily from our acquisitions of SMH in 2019, the forest products business of NII FPG Company (NII FPG) and Unaflex, LLC (Unaflex) in 2017, and PAALGROUP (PAAL) in 2016.
- (b) Fiscal years 2017 and 2016 have been restated to conform to the current period presentation as a result of the adoption of Accounting Standards Update (ASU) No. 2017-07, *Compensation - Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post-retirement Benefit Cost*. Fiscal year 2015 was not restated as the amount was not material.
- (c) Includes pre-tax impairment and restructuring costs of \$2.5 million in 2019 related to our Wood Processing Systems segment's timber-harvesting product line and pre-tax restructuring costs of \$1.7 million in 2018 related to our Papermaking Systems segment's stock-preparation product line. Includes a pre-tax settlement loss of \$5.9 million in 2019 and a pre-tax curtailment loss of \$1.4 million in 2018. Includes a discrete tax benefit of \$3.3 million in 2019 related to the exercise of employee stock options and \$3.2 million in 2018 primarily related to the reversal of tax reserves associated with uncertain tax positions and the 2017 Tax Act, including amounts associated with the repatriation of foreign earnings. Includes a discrete tax expense of \$10.3 million in 2017 primarily related to the 2017 Tax Act.
- (d) Includes additional borrowings related to the acquisitions of SMH in 2019, NII FPG and Unaflex in 2017, and PAAL in 2016.

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

The following discussion of our financial condition and results of operations should be read together with the financial statements and the related notes set forth in Item 8. "Financial Statements and Supplementary Data." The following discussion also contains forward-looking statements that involve a number of risks and uncertainties. See Part I, "Forward-Looking Statements" for a discussion of the forward-looking statements contained below and Part I, Item 1A. "Risk Factors" for a discussion of certain risks that could cause our actual results to differ materially from the results anticipated in such forward-looking statements.

### Overview

#### *Company Overview*

We are a global supplier of high-value, critical components and engineered systems used in process industries worldwide. In addition, we manufacture granules made from papermaking by-products. We have a diverse and large customer base, including most of the world's major paper producers and lumber and OSB manufacturers, as well as various mining and industrial processing companies that require bulk material handling solutions. Our products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive industries.

Our operations are comprised of three reportable operating segments: Papermaking Systems, Wood Processing Systems, and Material Handling Systems, and a separate product line, Fiber-based Products, as described below.

Through our Papermaking Systems segment, we develop, manufacture, and market a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Our principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

Through our Wood Processing Systems segment, we develop, manufacture, and market debarkers, stranders, chippers, logging machinery and related equipment used in the harvesting and production of lumber and OSB.

Through our Material Handling Systems segment, we develop, manufacture, and market material handling equipment and systems to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper. Our material handling and processing equipment, which includes idler rolls, conveyors, vibratory screens, and flow aids, allows for the transportation of bulk materials from source to point of processing.

Through our Fiber-based Products business, we manufacture and sell biodegradable, absorbent granules derived from papermaking by-products. These materials are primarily used as carriers in agricultural, home lawn and garden, professional lawn, turf and ornamental applications, and for oil and grease absorption.

#### *Acquisitions*

We expect that a significant driver of our growth over the next several years will be the acquisition of businesses and technologies that complement or augment our existing products and services or may involve entry into a new process industry. We continue to actively pursue additional acquisition opportunities. Our significant acquisition in 2019 is described below.

On January 2, 2019, we acquired, directly and indirectly, all the outstanding equity interests of SMH, for \$176.9 million, net of cash acquired. This acquisition extended our current product portfolio, and we expect it will strengthen SMH's relationships in the pulp and paper markets. See [Note 2](#), Acquisitions, in the accompanying consolidated financial statements for further details.

#### *International Sales*

Our sales to customers outside the United States, mainly in Europe, Asia and Canada, were approximately 56% of total revenue in 2019 and 63% of total revenue in 2018. The decrease in the percentage of international sales in 2019 was primarily due to the acquisition of SMH, which predominantly sells to customers in the United States. We generally seek to charge our customers in the same currency in which our operating costs are incurred. However, our financial performance and competitive position can be affected by currency exchange rate fluctuations primarily affecting the relationship between the U.S. dollar and foreign currencies. We seek to reduce our exposure to currency fluctuations through the use of forward currency exchange contracts. We may enter into forward contracts to hedge certain firm purchase and sale commitments denominated in currencies other than our subsidiaries' functional currencies. We currently do not use derivative instruments to hedge our exposure to exchange rate fluctuations created by the translation into the U.S. dollar of our foreign subsidiaries' results that are in functional currencies other than the U.S. dollar.

### Application of Critical Accounting Policies and Estimates

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of our consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Our actual results may differ from these estimates under different assumptions or conditions.

Critical accounting policies are defined as those that entail significant judgments and uncertainties and could potentially result in materially different results under different assumptions and conditions. We believe that our most critical accounting policies upon which our financial position depends, and which involve the most complex or subjective decisions or assessments, are those described below. For a discussion on the application of these and other accounting policies, see [Note 1](#), Nature of Operations and Summary of Significant Accounting Policies, in the accompanying consolidated financial statements.

**Revenue Recognition.** We recognize revenue in accordance with Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers*, as performance obligations are satisfied. Most of our revenue is recognized at a point in time for each performance obligation under the contract when the customer obtains control of the goods or service. Most of our parts and consumables products and capital products with minimal customization are accounted for at a point in time. The remaining portion of our revenue is recognized on an over time basis based on an input method that compares the costs incurred to date to the total expected costs required to satisfy the performance obligation. Contracts are accounted for on an over time basis when they include products which have no alternative use and an enforceable right to payment over time. Most of the contracts recognized on an over time basis are for large capital projects within our Stock-Preparation product line, and to a lesser extent, our Material Handling Systems segment and Fluid-Handling and Doctoring, Cleaning, & Filtration product lines. These projects are highly customized for the customer, and as a result, would include a significant cost to rework in the event of cancellation.

The transaction price includes estimated variable consideration where applicable. Such variable consideration relates to certain performance guarantees and rights to return the product. We estimate variable consideration as the most likely amount to which we expect to be entitled based on the terms of the contracts with customers and historical experience, where relevant. For contracts with multiple performance obligations, the transaction price is allocated to each performance obligation based on the relative stand-alone selling price.

Our contracts covering the sale of our products include warranty provisions that provide assurance to our customers that the products will comply with agreed-upon specifications. We negotiate the terms regarding warranty coverage and length of warranty depending on the products and applications.

**Income Taxes.** The 2017 Tax Act was signed into law on December 22, 2017 and its provisions are generally effective for tax years beginning January 1, 2018. The most significant impacts of the 2017 Tax Act to us include a decrease in the federal corporate income tax rate from 35% to 21% and a one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. On December 22, 2017, the SEC staff issued SAB 118 to provide guidance on accounting for the 2017 Tax Act's impact. In accordance with SAB 118, we recorded a provisional net income tax expense of \$7.5 million, including the impact of state taxes, in the fourth quarter of 2017, which consisted of a provisional amount of the one-time mandatory transition tax of \$10.3 million, offset in part by a provisional net tax benefit of \$2.8 million for the remeasurement of our deferred income tax assets and liabilities at the 21% federal corporate income tax rate. During 2018, we completed our accounting for the 2017 Tax Act under the SAB 118 guidance and recorded a net reduction of \$0.1 million to the 2017 provisional amount related to the one-time mandatory transition tax.

While the 2017 Tax Act provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, GILTI and BEAT. We have elected to account for the GILTI tax in the period in which it is incurred and, therefore, have not provided the deferred income tax impact of GILTI in our consolidated financial statements. In addition, we are not subject to the minimum tax pursuant to the BEAT provisions, but may be subject to such provision in the future.

We operate in numerous countries under many legal forms and, as a result, are subject to the jurisdiction of numerous domestic and non-U.S. tax authorities, as well as to tax agreements and treaties among these governments. Determination of taxable income in any jurisdiction requires the interpretation of the related tax laws and regulations and the use of estimates and assumptions regarding significant future events, such as the amount, timing and character of deductions, permissible revenue recognition methods under the tax law and the sources and character of income and available tax credits. Changes in tax laws, regulations, agreements and treaties, currency-exchange restrictions or our level of operations or profitability in each taxing jurisdiction could have an impact upon the amount of current and deferred tax balances and our results of operations.

We estimate the degree to which our deferred tax assets on deductible temporary differences and tax loss or credit carryforwards will result in an income tax benefit based on the expected profitability by tax jurisdiction, and we provide a valuation allowance for these deferred tax assets if it is more likely than not that they will not be realized in the future. If it were to become more likely than not that these deferred tax assets would be realized, we would reverse the related valuation allowance. Our tax valuation allowance was \$8.5 million at year-end 2019. Should our actual future taxable income by tax jurisdiction vary from our estimates, additional valuation allowances or reversals thereof may be necessary. When assessing the

need for a valuation allowance in a tax jurisdiction, we evaluate the weight of all available evidence to determine whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. As part of this evaluation, we consider our cumulative three-year history of earnings before income taxes, taxable income in prior carryback years, future reversals of existing taxable temporary differences, prudent and feasible tax planning strategies, and expected future results of operations. At year-end 2019, we continued to maintain a valuation allowance in the United States against certain of our state operating loss carryforwards due to the uncertainty of future profitability in these state jurisdictions in the United States. At year-end 2019, we maintained valuation allowances in certain foreign jurisdictions because of the uncertainty of future profitability. In the ordinary course of business there is inherent uncertainty in quantifying our income tax positions. It is our policy to provide for uncertain tax positions and the related interest and penalties based upon our assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. At year-end 2019, we believe that we have appropriately accounted for any liability for unrecognized tax benefits. To the extent we prevail in matters for which a liability for an unrecognized tax benefit is established or are required to pay amounts in excess of the liability, our effective tax rate in a given financial statement period may be affected.

We intend to repatriate the distributable reserves of select foreign subsidiaries back to the United States, and during 2019, we recorded \$0.8 million of net tax expense associated with these foreign earnings that we plan to repatriate in 2020. Except for these select foreign subsidiaries, we intend to reinvest indefinitely the earnings of our international subsidiaries in order to support the current and future capital needs of their operations, including the repayment of our foreign debt.

*Valuation of Goodwill and Intangible Assets.* We evaluate the recoverability of goodwill and indefinite-lived intangible assets as of the end of each fiscal year, or more frequently if events or changes in circumstances, such as a significant decline in sales, earnings, or cash flows, or material adverse changes in the business climate, indicate that the carrying value of an asset might be impaired.

At year-end 2019, we performed a qualitative impairment analysis (Step Zero) on our goodwill and indefinite-lived intangible assets and determined that the assets were not impaired, except for the indefinite-lived tradename associated with our timber-harvesting product line discussed below.

Intangible assets subject to amortization are evaluated for impairment if events or changes in circumstances indicate that the carrying value of an asset might be impaired. No indicators of impairment were identified in 2019, except for the definite-lived product technology associated with our timber-harvesting product line discussed below.

We use assumptions and estimates in determining the fair value of assets acquired and liabilities assumed in a business combination. The determination of the fair value of intangible assets, which represent a significant portion of the purchase price in many of our acquisitions, requires the use of significant judgment regarding the fair value; and whether such intangibles are amortizable or non-amortizable and, if amortizable, the period and the method by which the intangible asset will be amortized. We estimate the fair value of acquisition-related intangible assets principally based on projections of cash flows that will arise from identifiable intangible assets of acquired businesses. The projected cash flows are discounted to determine the present value of the assets at the date of acquisition. Our judgments and assumptions regarding the determination of the fair value of an intangible asset or goodwill associated with an acquired business could change as future events impact such fair values. A prolonged economic downturn, weakness in demand for our products, especially capital equipment products, or contraction in capital spending by customers, including paper companies, lumber mills, sawmills or OSB manufacturers, and mining and industrial processing companies, in our key markets could negatively affect the revenue and profitability assumptions used in our assessment of goodwill and intangible assets, which could result in impairment charges. Any future impairment loss could have a material adverse effect on our long-term assets and operating expenses in the period in which an impairment is determined to exist.

During 2019, we experienced a decrease in revenue and operating results in our timber-harvesting product line included in our Wood Processing Systems segment, which we acquired in 2017 as part of our acquisition of the forest products business of NII FPG Company (NII FPG) (see [Note 2](#), Acquisitions, in the accompanying consolidated financial statements for further details). The decrease was primarily driven by the deterioration of several market conditions in the Pacific Northwest, including a widespread timber shortage and high stumpage fees. These factors, along with a shift in demand for timber to the Southeastern part of the United States, resulted in sawmill closures in western Canada where our steep terrain equipment is generally used. Given the decline in demand for this business' products, which we expect to continue into 2020, we performed a quantitative analysis of the recoverability of the related intangible assets. As a result of this analysis in which the income approach discounted cash flow methodology was used, we determined that the fair values of certain of the timber-harvesting product line's intangible assets were less than their carrying values, and therefore, we recorded impairment charges in the fourth quarter of 2019 totaling \$2.3 million. These impairment charges, which are included in impairment and restructuring costs in the accompanying consolidated statement of income, consist of \$1.6 million related to the definite-lived product technology of the timber-harvesting product line and \$0.7 million related to its indefinite-lived tradename. We reclassified the remaining carrying value of \$1.3 million related to the indefinite-lived tradename associated with the timber-harvesting product line to definite-lived tradenames, as the indefinite use of the tradename is no longer certain.

*Inventories.* We value our inventory at the lower of the actual cost (on a first-in, first-out; or weighted average basis) or net realizable value and include materials, labor, and manufacturing overhead. We regularly review inventory quantities on hand and compare these amounts to historical and forecasted usage of and demand for each particular product or product line.

We record a charge to cost of revenues for excess and obsolete inventory to reduce the carrying value of the inventories to net realizable value. Inventory write-downs have historically been within our expectations and the provisions established. A significant decrease in demand for our products could result in an increase in the amount of excess inventory quantities on hand, resulting in a charge for the write-down of that inventory in that period. In addition, our estimates of future product usage or demand may prove to be inaccurate, resulting in an understated or overstated provision for excess and obsolete inventory. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product usage and demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and our reported operating results.

*Pension and Other Post-Retirement Benefits.* Through year-end 2018, we sponsored a noncontributory defined benefit retirement plan for eligible employees at one of our U.S. divisions and our corporate office (Retirement Plan). In addition, we also maintained a restoration plan for certain executive officers (Restoration Plan), which fully supplemented benefits lost under the Retirement Plan as a consequence of applicable Internal Revenue Service limits and restored benefits for the limitation of years of service under the Retirement Plan. In October 2018, our board of directors and its compensation committee approved amendments to freeze and terminate the Retirement Plan and the Restoration Plan effective as of year-end 2018. As a result, we incurred a curtailment loss in the fourth quarter of 2018 of \$1.4 million in connection with such terminations. In the fourth quarter of 2019, we settled our Retirement Plan obligation, which required adjustment based on the number of plan participants who elected to receive either a lump sum payment or an annuity, and the increased costs to purchase the annuity contracts due to changes in certain market conditions, including a decrease in long-term interest rates in 2019. As a result, we recognized a settlement loss of \$5.9 million, which was calculated as the sum of the unrecognized actuarial loss and \$3.8 million of additional cash to be paid, less our accrued pension liability. The unfunded benefit obligation related to the Restoration Plan was \$2.4 million at year-end 2019, which we settled in early fiscal 2020 by paying a lump sum to the plan participants.

Several of our U.S. and non-U.S. subsidiaries also sponsor defined benefit pension and other post-retirement benefit plans with an aggregate unfunded benefit obligation of \$6.9 million and a fair value of plan assets of \$1.0 million at year-end 2019. The cost and obligations of these arrangements are calculated using many assumptions to estimate the benefits that the employee earns while working, the amount of which cannot be completely determined until the benefit payments cease. Assumptions are determined based on Company data and appropriate market indicators in consultation with third-party actuaries, and are evaluated each year as of the plans' measurement dates. Should any of these assumptions change, they would have an effect on net periodic benefit costs and the unfunded benefit obligation.

#### *Industry and Business Outlook*

Our products are sold worldwide to process industries, and are primarily used to produce packaging, OSB, lumber, and tissue, and handle bulk materials. Major markets for our products are as follows:

##### Packaging

Approximately 29% of our revenue in 2019 was from the sale of products that support packaging production. Consumption of packaging, which is primarily comprised of containerboard and boxboard, is driven by many factors, including regional economic conditions, consumer spending on non-durable goods, usage levels of e-commerce, demand for food and beverage packaging, and greater urbanization in developing regions. For balers and related equipment, demand is generally driven by rising standards of living and population growth, shortage and costs of landfilling, increasing recycling rates, and environmental regulation.

##### Wood Processing

Approximately 20% of our revenue in 2019 was from sales to manufacturers in the wood processing industries, including engineered wood panel producers, lumber mills, and sawmills, which use debarkers, stranders and related equipment to prepare logs to be converted into OSB or lumber, and use timber-harvesting equipment to cut, gather, and remove timber from forest plantations. Demand for OSB and lumber is primarily tied to new home construction and home remodeling. In addition, OSB is used in industrial applications such as crates and bed liners for shipping containers, as well as furniture. The majority of OSB and lumber demand is in North America, as houses built in North America are more often constructed of wood compared to those in other parts of the world.

##### Tissue and Specialty Paper

Approximately 14% of our revenue in 2019 was from the sale of products that support the manufacturing of tissue and specialty paper grades. Consumption of tissue is fairly stable and in the developed world tends to grow with the population. Growth rates in the developing world are expected to increase as per capita consumption of paper products increases with rising standards of living.

### Material Handling

Approximately 12% of our revenue in 2019 was from sales of material handling equipment and systems to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper. Demand for our products is largely driven by expansion of capacity generated by industrial growth, particularly by mineral and industrial processors, and by increased infrastructure spending and modernization, which drives demand for aggregates, including sand, gravel, and crushed stone.

### Printing, Writing and Newsprint

Approximately 10% of our revenue in 2019 was related to products used to produce printing and writing paper grades as well as newsprint, the demand for which continues to be negatively affected by the development and increased use of digital media.

### Other

Our remaining revenue was from sales to other process industries, which tend to grow with the overall economy. These industries include metals, food and beverage, chemical, petrochemical, and energy, among others.

### *Bookings*

Our bookings increased 3% to \$688 million in 2019 compared with \$670 million in 2018, including \$88 million from an acquisition and a \$19 million unfavorable effect from currency translation. Excluding the acquisition and unfavorable effect from currency translation, our bookings in 2019 decreased 8% compared with 2018, primarily due to weaker demand for industrial products in 2019, as customers were hesitant to invest in major capital projects due to uncertainty in global trade relations among the United States and its major trading partners, and general softness in the global economy. This decrease was slightly offset by growth in parts and consumables bookings.

Bookings for our capital equipment tend to be variable and are dependent on regional economic conditions and the level of capital spending by our customers, among other factors. By comparison, demand for our parts and consumables products tends to be more predictable. We believe our large installed base provides us with a relatively stable parts and consumables business that yields higher margins than our capital equipment business. Bookings for our parts and consumables products increased to \$441 million in 2019, or 64% of total bookings, compared with \$379 million, or 56% of total bookings, in 2018, including \$66 million in bookings from an acquisition. Excluding the impact of the acquisition and an \$11 million unfavorable effect from currency translation, our parts and consumables bookings increased 2%.

Bookings by geographic region are as follows:

### North America

The largest and most impactful regional market for our products in 2019 was North America, and we expect this to continue to be the case in 2020. Our bookings in North America increased to \$382 million in 2019, including \$81 million of bookings from an acquisition and a \$2 million unfavorable effect from currency translation, compared with \$325 million in 2018. Excluding the acquisition and unfavorable effect from foreign currency translation, bookings decreased 7%.

We experienced reduced capital project activity in our Wood Processing Systems segment compared to the high levels that occurred in 2018, as many producers increased their capacity and modernized their facilities in 2018. In addition, demand for our wood processing capital products decreased in 2019 compared with 2018 due to a convergence of adverse environmental and related economic factors that has negatively affected the wood market and logging and sawmill activity in the Pacific Northwest. We expect these factors to continue to exist, and accordingly, to adversely affect demand for our wood processing capital products in 2020.

The packaging market in North America experienced weak demand during 2019, and as a result, major containerboard producers were reported to have taken market-related downtime. According to Fastmarkets RISI, U.S. containerboard producers' operating rates averaged 89% during the first three quarters of 2019 and increased to 91% during the fourth quarter of 2019, compared with an average of 97% in 2018. Fastmarkets RISI forecasted corrugated packaging demand to strengthen in the near-term based on a projected modest increase in industrial production of processed foods and other nondurable goods during the first half of 2020.

In our Material Handling Systems segment, which primarily serves the mining, aggregates and industrial processing markets, we experienced a good level of project activity during 2019. Most of the end user markets we serve in this segment are signaling softer growth and a slight slowdown into the first half of 2020, with an upturn expected in the second half of the year. The mining market is expected to remain weak throughout 2020, while the aggregates market is expected to grow at a modest pace.

### Europe

Our bookings in Europe decreased to \$174 million in 2019 compared with \$185 million in 2018, including a \$10 million unfavorable effect from currency translation. Excluding the negative impact from foreign currency translation, bookings decreased slightly. The weakness in Europe's manufacturing sector and the slowdown in global trade continues to impact the region. As a result, we experienced softer demand for our products and less project activity in the latter part of 2019, and we expect the start of 2020 to be similar to the second half of 2019.

### Asia

Our bookings in Asia decreased to \$83 million in 2019 compared with \$107 million in 2018, including a \$5 million increase from an acquisition and a \$4 million unfavorable effect from currency translation. Excluding the acquisition and unfavorable effect from foreign currency translation, bookings in Asia decreased 24%. There was weak demand for containerboard project activity in China in 2019 due to a number of factors. Such factors include uncertainties in trade relations with the United States, weaker domestic demand for packaging, and recovered paper import restrictions, all of which have negatively affected new containerboard capacity additions. We expect continued weak demand for capital equipment in China in 2020, although we expect the recent capacity build-out in other parts of Asia to positively impact demand for our parts and consumables as more of the related installations become operational throughout 2020.

Most recently, China has been impacted by the outbreak of the coronavirus, which has resulted in government-mandated travel restrictions and business closures that have impacted operations at our facilities in China. If the outbreak is prolonged or the government restrictions are extended, there could be an impact on our employees, operations, customers or suppliers, which could affect the timing of customer shipments and our financial results in the first quarter of 2020. For more information on our international sales and operations and risks related to health epidemics, including the coronavirus, please see the risk factors included in Part I, Item 1A, "Risk Factors."

### Rest of World

Our bookings in the rest of the world decreased to \$48 million in 2019 compared with \$53 million in 2018 primarily due to fewer investments in large capital projects. South America continues to experience a constrained investment environment as a result of geopolitical conditions, which impacted our results in this region. We continue to see the largest economies in this region, specifically Brazil, struggling to gain positive momentum, with expectations of only modest growth in 2020.

### *Global Trade*

In 2018, the United States began imposing tariffs on certain imports from China. These tariffs have increased the cost of some of the equipment that we import. Although we are working to mitigate the impact of tariffs through pricing and sourcing strategies, we cannot be sure how our customers and competitors will react to certain actions we take. For more information on risks associated with our global operations, including tariffs, please see the risk factors included in Part I, Item 1A, "Risk Factors."

## **Results of Operations**

### **2019 Compared to 2018**

#### *Revenues*

The following table presents changes in revenues by segment and product line between 2019 and 2018, and the changes in revenues by segment and product line between 2019 and 2018 excluding the effect of currency translation and acquisitions. Currency translation is calculated by converting 2019 revenues in local currency into U.S. dollars at 2018 exchange rates and then comparing this result to actual revenues in 2019. The presentation of the changes in revenues excluding the effect of currency translation and acquisitions is a non-GAAP measure. We believe this non-GAAP measure helps investors gain an understanding of our underlying operations consistent with how management measures and forecasts its performance, especially when comparing such results to prior periods. This non-GAAP measure should not be considered superior to or a substitute for the corresponding GAAP measures.

(In thousands, except percentages)	December 28, 2019	December 29, 2018	Total Increase (Decrease)	% Change	Currency Translation	Acquisition	(Non-GAAP) Adjusted	
							Total Increase (Decrease)	% Change
Stock-Preparation	\$ 215,091	\$ 221,933	\$ (6,842)	(3)%	\$ (7,183)	\$ —	\$ 341	— %
Fluid-Handling	132,501	131,830	671	1 %	(3,817)	—	4,488	3 %
Doctoring, Cleaning, & Filtration	117,838	116,136	1,702	1 %	(3,244)	—	4,946	4 %
Papermaking Systems	465,430	469,899	(4,469)	(1)%	(14,244)	—	9,775	2 %
Wood Processing Systems	143,187	151,366	(8,179)	(5)%	(4,363)	—	(3,816)	(3)%
Material Handling Systems	83,364	—	83,364	— %	—	83,364	—	— %
Fiber-based Products	12,663	12,521	142	1 %	—	—	142	1 %
Consolidated Revenues	\$ 704,644	\$ 633,786	\$ 70,858	11 %	\$ (18,607)	\$ 83,364	\$ 6,101	1 %

Consolidated revenues increased 11% in 2019 largely due to an acquisition, offset in part by an unfavorable effect of currency translation. Excluding the acquisition and unfavorable effect of currency translation, revenues increased 1% in 2019 compared to 2018.

#### Papermaking Systems Segment

Revenues from our Papermaking Systems segment decreased 1% in 2019, including an unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased 2% in 2019 as described in the product line discussions below.

Revenues from our Stock-Preparation product line decreased 3% in 2019, including an unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues were essentially flat in 2019. Decreased demand for our products at our Chinese operations resulted from reduced containerboard project activity due in part to China's recovered paper import restrictions. This decline was partially offset by increased demand for our capital equipment at our European and North American operations. Strong demand for our chemical pulping equipment drove the increase in North America. The overall decrease in capital equipment revenues was offset by increased demand for our parts and consumables products. An increase in demand for our parts and consumables products at our European and North American operations was partially offset by decreased demand at our Chinese operations.

Revenues from our Fluid-Handling product line increased 1% in 2019, including an unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased 3% in 2019, primarily due to increased demand for our capital equipment at our North American operations and an increase in demand for our parts and consumables products across most geographic regions. These increases were partially offset by decreased demand for our capital equipment at our European operations.

Revenues from our Doctoring, Cleaning, & Filtration product line increased 1% in 2019, including an unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased 4% in 2019, primarily due to increased demand at our North American operations.

#### Wood Processing Systems Segment

Revenues from our Wood Processing Systems segment decreased 5% in 2019, including an unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues decreased 3% in 2019, primarily due to decreased demand for our capital equipment at our North American operations due to a reduction in our customers' capital spending during the year, as many producers had made significant improvements in 2018 to increase capacity and modernize their facilities. In addition, a convergence of adverse environmental conditions and related economic factors negatively affected the wood market and logging and sawmill activity in the Pacific Northwest, and particularly impacted our timber-harvesting product line. The decline in demand for our capital equipment was offset in part by a slight increase in demand for our parts and consumables products at our North American operations. The overall decrease in North America was partially offset by increased demand at our European operations due to a number of large capital orders.

#### Material Handling Systems Segment

Revenues from our Material Handling Systems segment in 2019 were from our SMH acquisition.

Fiber-based Products

Revenues from our Fiber-based Products business increased slightly in 2019.

Gross Profit Margin

Gross profit margins for 2019 and 2018 were as follows:

	December 28, 2019	December 29, 2018
Papermaking Systems	44.2%	44.9%
Wood Processing Systems	40.7%	40.3%
Material Handling Systems	28.3%	—%
Fiber-based Products	49.5%	50.8%
Consolidated Gross Profit Margin	41.7%	43.9%

Consolidated gross profit margin decreased in 2019 largely due to the inclusion of the lower gross margin profile of our Material Handling Systems segment, including \$3.5 million of amortization of acquired profit in inventory, which lowered the consolidated gross profit margin by 0.5 percentage point.

Papermaking Systems Segment

The gross profit margin in our Papermaking Systems segment decreased in 2019 primarily due to lower margins on our capital equipment.

Wood Processing Systems Segment

The gross profit margin in our Wood Processing Systems segment increased in 2019 primarily due to an increase in the proportion of higher-margin parts and consumables revenues.

Material Handling Systems Segment

The gross profit margin in our Material Handling Systems segment in 2019 was negatively impacted by \$3.5 million of amortization of acquired profit in inventory, which lowered the segment's gross profit margin by 4.3 percentage points.

Fiber-based Products

The gross profit margin in our Fiber-based Products business decreased in 2019 primarily due to an increase in the proportion of revenues from lower-margin products.

Selling, General and Administrative Expenses

Selling, general and administrative (SG&A) expenses for 2019 and 2018 were as follows:

(In thousands)	December 28, 2019	December 29, 2018	Increase (Decrease)	% Change
Papermaking Systems	\$ 116,493	\$ 117,680	\$ (1,187)	(1)%
Wood Processing Systems	25,025	27,534	(2,509)	(9)%
Material Handling Systems	20,460	—	20,460	—%
Corporate and Fiber-based Products	30,547	32,200	(1,653)	(5)%
Consolidated SG&A	<u>\$ 192,525</u>	<u>\$ 177,414</u>	<u>\$ 15,111</u>	9%
Consolidated SG&A as a Percentage of Revenues	<u>27.3%</u>	<u>28.0%</u>		

Consolidated SG&A expenses increased 9% in 2019 due to an acquisition, offset in part by a favorable effect of foreign currency translation of \$4.7 million. Excluding the acquisition and favorable effect of foreign currency translation, SG&A expenses were essentially unchanged in 2019 compared to 2018.

Papermaking Systems Segment

SG&A expenses decreased in 2019 due to a \$3.7 million favorable effect from foreign currency translation, offset in part by increased selling-related expense at our Fluid-Handling product line.

### Wood Processing Systems Segment

SG&A expenses decreased in 2019 primarily due to decreased selling expense at our European operations and a \$1.0 million favorable effect from foreign currency translation.

### Material Handling Systems Segment

SG&A expenses in our Material Handling Systems segment in 2019 were from our SMH acquisition, and included \$1.3 million of amortization expense from acquired backlog.

### Corporate and Fiber-based Products

SG&A expenses decreased in 2019 primarily due to \$1.3 million in acquisition costs that were incurred in 2018 related to our SMH acquisition.

### *Impairment and Restructuring Costs*

During 2019, we experienced significant decreases in our Wood Processing Systems segment's timber-harvesting product line's revenues and operating results, which we expect to continue into 2020. As a result of these declines, in the fourth quarter of 2019, we performed a quantitative analysis and determined that the fair values of certain of the intangible assets in the timber-harvesting product line were less than their carrying values, and therefore, recorded impairment charges totaling \$2.3 million. These impairment charges consist of \$1.6 million related to the definite-lived product technology of the timber-harvesting product line and \$0.7 million related to its indefinite-lived tradename. See [Note 1](#), Nature of Operations and Summary of Significant Accounting Policies, under the heading "Impairment of Long-Lived Assets," in the accompanying consolidated financial statements for further details.

We also undertook a restructuring plan in the fourth quarter of 2019 related to the Wood Processing Systems segment's timber-harvesting product line and incurred \$0.2 million of severance costs associated with the reduction of six employees in Canada. We do not expect to incur additional charges related to this restructuring plan.

Restructuring costs in 2018 of \$1.7 million related to the integration of our U.S. and Swedish papermaking stock-preparation product lines into a newly-constructed manufacturing facility in the United States to achieve economies of scale and greater efficiencies. The restructuring charges included \$1.3 million for the relocation of machinery and equipment and administrative offices and \$0.4 million primarily associated with employee retention costs and abandonment of excess facility and other closure costs.

### *Interest Expense*

Interest expense increased \$5.7 million to \$12.8 million in 2019 from \$7.0 million in 2018 primarily due to interest expense on the additional borrowings related to our SMH acquisition.

### *Other Expense, Net*

Other expense, net consists of expense related to the non-service component of our pensions and other post-retirement benefit plans. In 2019, other expense, net included a loss of \$5.9 million for the settlement of our Retirement Plan obligation. In 2018, other expense, net included a curtailment loss of \$1.4 million related to the freeze and termination of our Retirement and Restoration plans. See [Note 3](#), Employee Benefit Plans, under the heading "Pension and Other Post-Retirement Benefits Plans" in the accompanying consolidated financial statements for further details.

### *Provision for Income Taxes*

Our provision for income taxes was \$16.4 million in 2019 and \$18.5 million in 2018, and represented 24% and 23% of pre-tax income, respectively. The effective tax rate of 24% in 2019 was higher than our statutory rate of 21% primarily due to the distribution of our worldwide earnings, nondeductible expenses, and tax expense associated with the GILTI provisions of the 2017 Tax Act (see [Note 5](#), Income Taxes, in the accompanying consolidated financial statements). This incremental tax expense was offset in part by a decrease in tax related to the net excess income tax benefits from stock-based compensation arrangements and a net tax benefit associated with foreign exchange losses. The effective tax rate of 23% in 2018 was higher than our statutory rate of 21% primarily due to the distribution of our worldwide earnings and tax expense associated with the GILTI provisions of the 2017 Tax Act. This incremental tax expense was offset in part by a decrease in tax related to the reversal of tax reserves associated with uncertain tax positions and the net excess income tax benefits from stock-based compensation arrangements. We currently expect our effective tax rate to be between 27.5% and 28.5% in 2020.

### *Net Income*

Net income decreased \$8.5 million to \$52.6 million in 2019 from \$61.0 million in 2018 primarily due to an increase in interest expense of \$5.7 million, an increase in other expense, net of \$3.9 million, and a decrease of \$0.8 million in operating income, offset in part by a decrease in provision for income taxes of \$2.1 million (see discussions above for further details).

### *Recent Accounting Pronouncements*

See [Note 1](#), Nature of Operations and Summary of Significant Accounting Policies, under the heading "Recent Accounting Pronouncements," in the accompanying consolidated financial statements for more information on recently implemented and issued accounting standards.

### **2018 Compared to 2017**

A detailed discussion of the year-over-year results of operations for 2018 compared to 2017 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7, of our Annual Report on Form 10-K for the fiscal year ended December 29, 2018, filed with the SEC.

### **Liquidity and Capital Resources**

Consolidated working capital was \$151.4 million at year-end 2019 and \$123.8 million at year-end 2018. Included in working capital were cash and cash equivalents of \$66.8 million at year-end 2019 and \$45.8 million at year-end 2018. At year-end 2019, \$58.9 million of cash and cash equivalents was held by our foreign subsidiaries.

### *Cash Flows*

#### *2019*

Our operating activities provided cash of \$97.4 million in 2019 primarily due to cash generated by our operating subsidiaries from product sales. Operating cash flows were also impacted by changes in working capital, which provided cash of \$2.0 million in 2019. We had a net cash inflow of \$9.1 million for accounts receivable and unbilled revenues, and \$7.4 million for accounts payable. These sources of cash were partially offset by an increase of \$5.6 million in other current assets primarily related to refundable income taxes, which we anticipate utilizing in 2020. We also made a final contribution to settle our Retirement Plan obligation of \$3.8 million, which reduced other current liabilities in 2019, and used cash of \$3.1 million to purchase inventory in 2019.

Our investing activities used cash of \$187.4 million in 2019, including \$176.9 million for the SMH acquisition, net of cash acquired, and \$10.0 million for purchases of property, plant, and equipment.

Our financing activities provided cash of \$112.5 million in 2019. We borrowed \$247.2 million under our revolving credit facility, which included \$179.3 million for our SMH acquisition and \$56.1 million of euro-denominated borrowings to partially fund our cash repatriated from our European operations, and received \$5.2 million as proceeds from the issuance of common stock in connection with stock option exercises and our employee stock purchase plan. These sources of cash were partially offset by cash used of \$126.3 million for payments on our outstanding debt obligations, which included \$71.1 million of cash repatriated from our European operations, \$10.2 million for cash dividends paid to stockholders, and \$2.7 million for tax withholding payments related to the vesting of employee stock-based compensation.

#### *2018*

Our operating activities provided cash of \$63.0 million in 2018 primarily due to cash generated by our operating subsidiaries from product sales. Aside from cash generated from items which impacted net income, working capital used cash of \$27.6 million in 2018. A large number of capital projects either in progress or completed and shipped in the second half of 2018 led to a net cash outflow of \$13.6 million related to increases in accounts receivable and inventory, as well as an \$11.4 million increase in unbilled revenues that was collected in 2019. We had a decrease of \$11.9 million in other current liabilities primarily from a decrease in accrued income taxes as a result of tax payments, and to a lesser extent, a decrease in customer deposits.

Our investing activities used cash of \$16.4 million in 2018 primarily related to purchases of property, plant, and equipment, including \$6.4 million to complete the construction of a manufacturing facility in the United States.

Our financing activities used cash of \$74.2 million in 2018. We used cash of \$110.1 million for payments on our outstanding debt obligations, \$9.6 million for cash dividends paid to stockholders, and \$3.9 million for tax withholding payments related to stock-based compensation. These uses of cash were partially offset by proceeds received from borrowings of \$21.0 million under the Real Estate Loan, \$19.1 million under our revolving credit facility, and \$10.0 million from the issuance of our senior notes issued pursuant to our Note Purchase Agreement.

## 2017

A detailed discussion of cash flows for 2017 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7, of our Annual Report on Form 10-K for the fiscal year ended December 29, 2018, filed with the SEC.

*Additional Liquidity and Capital Resources*

On May 15, 2019, our board of directors authorized the repurchase of up to \$20 million of our equity securities during the period from May 15, 2019 to May 15, 2020. We have not purchased any shares of our common stock under this authorization or under the previous authorization, which expired on May 16, 2019.

We paid quarterly cash dividends totaling \$10.2 million in 2019. On February 6, 2020, we paid a quarterly cash dividend totaling \$2.6 million that was declared on November 21, 2019. Future declarations of dividends are subject to our board of directors' approval and may be adjusted as business needs or market conditions change. The declaration of cash dividends is subject to our compliance with the covenant in our revolving credit facility related to our consolidated leverage ratio.

We made the final payment to plan participants to settle our Restoration Plan liability of \$2.4 million subsequent to year-end 2019. See [Note 3](#), Employee Benefit Plans, under the heading "Pension and Other Post-Retirement Benefits Plans" in the accompanying consolidated financial statements for further details.

As of year-end 2019, we had cash and cash equivalents of \$66.8 million, of which \$58.9 million was held by our foreign subsidiaries. During 2019, we repatriated \$93.5 million of previously taxed foreign earnings to the United States and recognized an associated tax benefit of \$1.2 million. As of year-end 2019, we had approximately \$240.3 million of total unremitted foreign earnings. It is our intent to indefinitely reinvest \$233.9 million of these earnings to support the current and future capital needs of our foreign operations, including debt repayments. In 2019, we recorded withholding taxes and the tax effect of foreign exchange losses on the earnings in certain foreign subsidiaries that we plan to repatriate in the foreseeable future. The foreign withholding taxes that would be required if we were to remit the indefinitely reinvested foreign earnings to the United States would be approximately \$5.8 million.

We plan to make expenditures of approximately \$12 to \$14 million during 2020 for property, plant, and equipment.

In the future, our liquidity position will be primarily affected by the level of cash flows from operations, cash paid to service our debt obligations, acquisitions, capital projects, dividends, and stock repurchases. We believe that our existing resources, together with the borrowing capacity available under our revolving credit facility and our Note Purchase Agreement and the cash we expect to generate from operations, will be sufficient to meet the capital requirements of our current operations for the foreseeable future.

*Debt Obligations*

Under our revolving credit facility, we have a borrowing capacity of \$400 million, of which \$135.1 million was available to borrow as of December 28, 2019, along with an additional uncommitted unsecured incremental borrowing facility of \$150 million. In addition, under our Note Purchase Agreement, under which \$10 million of senior promissory notes are currently outstanding, we may issue up to an additional \$115 million of senior promissory notes. Under these agreements, our leverage ratio had to be less than 4.0 through our fiscal year-end 2019, and must be less than 3.75 thereafter. As of December 28, 2019, our consolidated leverage ratio was 2.03 as calculated under the terms defined in our revolving credit facility and we were in compliance with our debt covenants. See [Note 6](#), Long-Term Obligations, in the accompanying consolidated financial statements for additional information regarding our debt obligations.

*Contractual Obligations and Other Commercial Commitments*

The following table summarizes our known contractual obligations and commercial commitments to make future payments or other consideration pursuant to certain contracts at year-end 2019, as well as an estimate of the timing in which these obligations are expected to be satisfied. Detailed information concerning these obligations and commitments can be found in Notes 3, 5, 6, 7, and 9 in the accompanying consolidated financial statements.

(In millions)	Payments Due by Period or Expiration of Commitment				
	Less than 1 Year	1-3 Years	3-5 Years	After 5 Years	Total
Contractual Obligations and Other Commitments: (a)					
Letters of credit and bank guarantees (b)	\$ 16.3	\$ 3.3	\$ —	\$ —	\$ 19.6
Retirement obligations on balance sheet	2.8	0.6	0.9	2.6	6.9
Long-term debt obligations	1.3	2.2	270.8	20.8	295.1
Finance lease obligations	1.1	1.1	0.1	—	2.3
Sales-leaseback financing arrangement (c)	0.5	1.7	—	—	2.2
Operating lease obligations	4.2	6.4	4.5	13.5	28.6
Purchase obligations	0.3	0.2	—	—	0.5
U.S. transition tax, net of available foreign tax credits	—	0.1	1.5	1.1	2.7
Interest (d)	9.2	18.5	9.8	2.8	40.3
Total (e)	\$ 35.7	\$ 34.1	\$ 287.6	\$ 40.8	\$ 398.2

- (a) We have purchase obligations related to the acquisition of raw material made in the ordinary course of business that may be terminated with minimal notice and are excluded from this table.
- (b) Principally relates to performance obligations and customer deposit guarantees required by certain of our sales contracts in which we provide these financial instruments to a customer as beneficiary, limited in amount to a negotiated percentage of the total contract value, in order to guarantee our warranty and performance obligations under the contract. These standby letters of credit and bank guarantees typically expire without being drawn by the beneficiary.
- (c) Excludes a liability of \$1.5 million related to a net fixed price purchase option exercisable in 2022.
- (d) Assumes interest rates remain unchanged from rates at year-end 2019.
- (e) Excludes a liability for unrecognized tax benefits and an accrual for the related interest and penalties totaling \$10.0 million. Due to the uncertain nature of these income tax matters, we are unable to make a reasonably reliable estimate as to if and when cash settlements with the appropriate taxing authorities will occur.

Provisions in financial guarantees or commitments, debt or lease agreements, or other arrangements could trigger a requirement for an early payment, additional collateral support, amended terms, or acceleration of maturity.

*Off-Balance Sheet Arrangements*

We do not have special-purpose entities nor do we use off-balance-sheet financing arrangements, except for letters of credit and bank guarantees used in the ordinary course of business as disclosed in the table above.

**Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risk from changes in interest rates and foreign currency exchange rates, which could affect our future results of operations and financial condition. We manage our exposure to these risks through our regular operating and financing activities. We entered into the 2018 Swap Agreement and 2015 Swap Agreement to hedge a portion of our exposure to variable rate long-term debt. Additionally, we use short-term forward contracts to manage certain exposures to foreign currencies. We enter into forward currency-exchange contracts to hedge firm purchase and sale commitments denominated in currencies other than our subsidiaries' functional currencies. We do not engage in extensive foreign currency hedging activities; however, the purpose of our foreign currency hedging activities is to protect our functional currency cash flows related to these commitments from fluctuations in foreign exchange rates. Our forward currency-exchange contracts hedge transactions primarily denominated in U.S. dollars, Canadian dollars, and euros. Gains and losses arising from forward contracts are recognized as offsets to gains and losses resulting from the transactions being hedged. We do not hold or engage in transactions involving derivative instruments for purposes other than risk management.

**Interest Rates**

Our cash and cash equivalents are sensitive to changes in interest rates. Interest rate changes would result in a change in interest income due to the difference between the current interest rates on cash and cash equivalents and the variable rates to which these financial instruments may adjust in the future. A 10% decrease in year-end interest rates would have resulted in an immaterial impact on net income in both 2019 and 2018.

Our borrowings under the Credit Agreement of \$265.4 million at year-end 2019 bear variable rates of interest, which adjust frequently based on prevailing market rates. Assuming year-end borrowing levels, a 10% increase in interest rates on our variable-rate debt would have increased our annual pre-tax interest expense by approximately \$0.4 million. A portion of our outstanding variable-rate debt at year-end 2019 and 2018 was hedged with the 2018 Swap Agreement and the 2015 Swap Agreement. The fair values of these swap agreements are sensitive to changes in the three-month LIBOR forward curve. A 10% decrease in the three-month LIBOR forward curve would have increased the unrealized loss by \$0.1 million at year-end 2019 and \$0.2 million at year-end 2018.

**Currency Exchange Rates**

We generally view our investment in foreign subsidiaries in a functional currency other than our reporting currency as long-term. Our investment in foreign subsidiaries is sensitive to fluctuations in foreign currency exchange rates. The functional currencies of our foreign subsidiaries are principally denominated in euros, British pounds sterling, Mexican pesos, Canadian dollars, Chinese renminbi, Brazilian reals, and Swedish krona. The effect of changes in foreign exchange rates on our net investment in foreign subsidiaries is reflected in the "accumulated other comprehensive items" component of stockholders' equity. A 10% decrease in functional currencies relative to the U.S. dollar, would have resulted in a reduction in stockholders' equity of \$27.5 million at year-end 2019 and \$31.5 million at year-end 2018.

At year-end 2019, we had \$62.4 million of euro-denominated borrowings and \$33.0 million of Canadian dollar-denominated borrowings outstanding. The translation of our foreign-denominated debt impacts our borrowing capacity available under our Credit Agreement, which is calculated in U.S. dollars. A 10% negative movement in the euro and Canadian dollar foreign exchange rates against the U.S. dollar would have decreased our borrowing capacity by approximately \$9.5 million at year-end 2019.

The fair value of forward currency-exchange contracts is sensitive to fluctuations in foreign currency exchange rates. The fair value of forward currency-exchange contracts is the estimated amount that we would pay or receive upon termination of the contracts, taking into account the change in foreign currency exchange rates. A 10% adverse change in year-end 2019 and year-end 2018 foreign currency exchange rates related to our contracts would have resulted in an increase in unrealized losses on forward currency-exchange contracts of \$0.8 million in 2019 and \$0.7 million in 2018. Since we use forward currency-exchange contracts as hedges of firm purchase and sale commitments, the unrealized gain or loss on forward currency-exchange contracts resulting from changes in foreign currency exchange rates would be offset primarily by corresponding changes in the fair value of the hedged items.

**Item 8. Financial Statements and Supplementary Data**

This data is submitted as a separate section to this report and incorporated herein by reference. See Item 15, "Exhibits and Financial Statement Schedules."

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

Not applicable.

**Item 9A. Controls and Procedures***Evaluation of Disclosure Controls and Procedures*

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures at year-end 2019. The term "disclosure controls and procedures," as defined in Securities Exchange Act Rules 13a-15(e) and 15d-15(e), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based upon the evaluation of our disclosure controls and procedures at year-end 2019, our Chief Executive Officer and Chief Financial Officer concluded that at year-end 2019, our disclosure controls and procedures were effective at the reasonable assurance level.

*Management's Annual Report on Internal Control over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Securities Exchange Act Rules 13a-15(f) and 15d-15(f). Our management assessed the effectiveness of our internal control over financial reporting at year-end 2019. In making this assessment, our management used the criteria set forth in "Internal Control—Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment, management believes that at year-end 2019 our internal control over financial reporting was effective based on the criteria issued by COSO.

On January 2, 2019, we acquired SMH. Our audited consolidated financial statements include the results of SMH since the acquisition date, including total assets of \$196.9 million and total revenues of \$83.4 million as of and for the fiscal year ended December 28, 2019, but management's assessment does not include an assessment of the internal control over financial reporting of the SMH business.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

Our independent registered public accountants, KPMG LLP, have issued an audit report on our internal control over financial reporting, which is included herein on page F-2 and incorporated into this Item 9A by reference.

*Changes in Internal Control over Financial Reporting*

There have not been any changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) during the fiscal quarter ended December 28, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. Other Information**

Not applicable.

**PART III****Item 10. Directors, Executive Officers, and Corporate Governance***Information about our Directors*

This information will be included under the heading "Election of Directors" in our 2020 proxy statement for our 2020 Annual Meeting of Shareholders and is incorporated in this report by reference, except for the information concerning executive officers, which is included under the heading "Information about our Executive Officers" in Item 1 of Part I of this report.

*Section 16(a) Beneficial Ownership Reporting Compliance*

The information required under Item 405 of Regulation S-K will be included under the heading "Stock Ownership—Delinquent Section 16(a) Reports" in our 2020 proxy statement and is incorporated in this report by reference.

### Corporate Governance

The information required under Items 406 and 407 of Regulation S-K will be included under the heading "Corporate Governance" in our 2020 proxy statement and is incorporated in this report by reference.

#### **Item 11. Executive Compensation**

This information will be included under the headings "Executive Compensation," "Corporate Governance - Compensation Committee Interlocks and Insider Participation," and "Compensation Discussion and Analysis" in our 2020 proxy statement and is incorporated in this report by reference.

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

This information will be included under the headings "Stock Ownership" and "Equity Compensation Plan Information" in our 2020 proxy statement and is incorporated in this report by reference.

#### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

This information will be included under the heading "Corporate Governance" in our 2020 proxy statement and is incorporated in this report by reference.

#### **Item 14. Principal Accountant Fees and Services**

This information will be included under the heading "Independent Registered Public Accounting Firm" in our 2020 proxy statement and is incorporated in this report by reference.

### **PART IV**

#### **Item 15. Exhibits and Financial Statement Schedules**

(a) The following documents are filed as part of this report:

(1) Consolidated Financial Statements (see Index on Page F-1 of this report):

- Report of Independent Registered Public Accounting Firm
- Consolidated Balance Sheet
- Consolidated Statement of Income
- Consolidated Statement of Comprehensive Income
- Consolidated Statement of Cash Flows
- Consolidated Statement of Stockholders' Equity
- Notes to Consolidated Financial Statements

(2) All schedules are omitted because they are not applicable or not required, or because the required information is shown either in the consolidated financial statements or in the notes thereto.

(3) Exhibits filed herewith or incorporated in this report by reference are set forth in the Exhibit Index beginning on page 40. This list of exhibits identifies each management contract or compensatory plan or arrangement required to be filed as an exhibit to this report.

(b) Exhibits

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
2.1	<a href="#">Stock and Asset Purchase Agreement by and among the Registrant, Kadant Northern U.S. LLC, Kadant Canada Corp., Kadant Northern UK Co. Ltd., Kadant Johnson Europe B.V., NII FPG Company, Nicholson Intellectual Property, Inc., Cascade Natural Resources, Inc. and Northern Industrial, Inc. dated as of May 24, 2017 (filed as Exhibit 2.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 001-11406] and incorporated in this document by reference).</a> (1)
2.2	<a href="#">Equity Purchase Agreement by and among the Registrant, LLC PCS Alternative Syntron, LLC, Syntron Material Handling Group, LLC, PCS Alternative Corp Seller 1, LLC, PCS Alternative Corp Seller 2, LLC, and SMH Equity, LLC and Levine Leichtman Capital Partners Private Capital Solutions, L.P., dated as of December 9, 2018 (filed as Exhibit 2.2 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 29, 2018 [File No. 001-11406] and incorporated in this document by reference).</a> (1)
3.1	<a href="#">Restated Certificate of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 [File No. 001-11406] and incorporated in this document by reference).</a>
3.2	<a href="#">Amended and Restated Bylaws of the Registrant effective November 20, 2014 (filed as Exhibit 3.1 to the Registrant's Form 8-K [File No. 001-11406] filed with the Commission on November 25, 2014 and incorporated in this document by reference).</a>
4.1	<a href="#">Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934.</a> **
10.1*	<a href="#">Form of Indemnification Agreement between the Registrant and its directors and officers (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 [File No. 001-11406] and incorporated in this document by reference).</a>
10.2*	<a href="#">Form of Amended and Restated Executive Retention Agreement (change in control agreement) between the Registrant and its named executive officers, as amended and restated on December 9, 2008 (filed as Exhibit 10.3 to the Registrant's Annual Report on Form 10-K for the year ended January 3, 2009 [File No. 001-11406] and incorporated in this document by reference).</a>
10.3*	<a href="#">Form of Executive Retention Agreement (change in control agreement) between the Registrant and its executive officers for new agreements entered into from and after November 16, 2016 (filed as Exhibit 10.3 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016 [File No. 001-11406] and incorporated in this document by reference).</a>
10.4*	<a href="#">Amended and Restated Equity Incentive Plan of the Registrant (filed as Exhibit 10.5 to the Registrant's Annual Report on Form 10-K for the year ended January 3, 2009 [File No. 001-11406] and incorporated in this document by reference).</a>
10.5*	<a href="#">Amended and Restated 2006 Equity Incentive Plan of the Registrant effective as of May 17, 2017 (filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 011-11406] and incorporated in this document by reference).</a>
10.6*	<a href="#">Cash Incentive Plan of the Registrant (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 001-11406] and incorporated in this document by reference).</a>
10.7*	<a href="#">Summary of non-employee director compensation of the Registrant (filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 [File No. 001-11406] and incorporated in this document by reference).</a>
10.8*	<a href="#">Transition and Executive Chairman Agreement between the Registrant and Jonathan W. Painter dated February 13, 2019 (filed as Exhibit 10.14 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 29, 2018 [File No. 001-11406] and incorporated in this document by reference).</a>

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
10.9*	<a href="#">Form of Performance-Based Restricted Stock Unit Award Agreement between the Registrant and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 29, 2014 [File No. 001-11406] and incorporated in this document by reference).</a>
10.10*	<a href="#">Form of Time-Based Restricted Stock Unit Award Agreement between the Registrant and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 29, 2014 [File No. 001-11406] and incorporated in this document by reference).</a>
10.11*	<a href="#">Form of Stock Option Agreement between the Registrant and its executive officers used for stock option awards (filed as Exhibit 10.21 to the Registrant's Annual Report on Form 10-K for the year ended January 2, 2010 [File No. 001-11406] and incorporated in this document by reference).</a>
10.12*	<a href="#">Notice of Amendment to Stock Option Agreements between the Registrant and its executive officers used for stock option awards (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 28, 2013 [File No. 001-11406] and incorporated in this document by reference).</a>
10.13*	<a href="#">Form of Performance-Based Restricted Stock Unit Award Agreement between the Registrant and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 [File No. 011-11406] and incorporated in this document by reference).</a>
10.14*	<a href="#">Form of Time-Based Restricted Stock Unit Award Agreement between the Registrant and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 [File No. 011-11406] and incorporated in this document by reference).</a>
10.15*	<a href="#">Form of Directors Restricted Stock Unit Award Agreement between the Registrant and its non-employee directors used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 [File No. 011-11406] and incorporated in this document by reference).</a>
10.16	<a href="#">Amended and Restated Credit Agreement dated as of March 1, 2017, among the Registrant, the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, Citizens Bank, N.A., as Administrative Agent and Multicurrency Administrative Agent (filed as Exhibit 99.1 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).</a>
10.17	<a href="#">First Amendment and Limited Consent, dated as of May 24, 2017, to the Amended and Restated Credit Agreement dated as of March 1, 2017 by and among the Registrant, the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, Citizens Bank, N.A., as Administrative Agent and Multicurrency Administrative Agent (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 011-11406] and incorporated in this document by reference).</a>
10.18	<a href="#">Limited Consent, dated as of December 9, 2018, to the Amended and Restated Credit Agreement dated as of March 1, 2017 by and among the Registrant, the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, Citizens Bank, N.A., as Administrative Agent and Multicurrency Administrative Agent (filed as Exhibit 10.24 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 29, 2018 [File No. 001-11406] and incorporated in this document by reference).</a>

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
10.19	<a href="#">Second Amendment, dated as of December 14, 2018, to the Amended and Restated Credit Agreement dated as of March 1, 2017 by and among the Registrant, the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, Citizens Bank, N.A., as Administrative Agent and Multicurrency Administrative Agent (filed as Exhibit 10.25 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 29, 2018 [File No. 001-11406] and incorporated in this document by reference).</a>
10.20	<a href="#">Amended and Restated Guarantee Agreement dated as of March 1, 2017, among the Registrant, as Borrower, and each of the Subsidiary Guarantors, in favor of Citizens Bank, N.A., as Administrative Agent and as Multicurrency Administrative Agent for the bank and other financial institutions or entities from time to time parties to the Amended and Restated Credit Facility (filed as Exhibit 99.2 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).</a>
10.21	<a href="#">Guarantee Agreement dated as of March 1, 2017, by Kadant Cayman Ltd. in favor of Citizens Bank, N.A., as Administrative Agent and as Multicurrency Administrative Agent for the banks and other financial institutions or entities from time to time parties to the Amended and Restated Credit Facility (filed as Exhibit 99.3 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).</a>
10.22	<a href="#">Multi-Currency Note Purchase and Private Shelf Agreement, dated as of December 14, 2018 among the Registrant, PGIM, Inc. and the Purchasers as defined therein (filed as Exhibit 10.28 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 29, 2018 [File No. 001-11406] and incorporated in this document by reference).</a> (1)
10.23	<a href="#">Promissory Note in the principal amount of \$21,000,000 dated July 6, 2018, executed by the Registrant, Kadant Johnson LLC, Kadant Black Clawson LLC and Verus Lebanon, LLC in favor of Citizens Bank, N.A. (filed as Exhibit 99.1 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on July 12, 2018 and incorporated in this document by reference).</a>
10.24	<a href="#">Mortgage, Security Agreement and Assignment of Leases and Rents dated July 6, 2018 executed by the Registrant in favor of Citizens Bank, N.A. relating to the real property and related personal property located in Auburn, Massachusetts. (filed as Exhibit 99.2 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on July 12, 2018 and incorporated in this document by reference).</a>
10.25	<a href="#">Mortgage dated July 6, 2018 by Kadant Johnson LLC in favor of Citizens Bank, N.A. relating to the real property and related personal property located in Three Rivers, Michigan (filed as Exhibit 99.3 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on July 12, 2018 and incorporated in this document by reference).</a>
10.26	<a href="#">Open-End Mortgage, Security Agreement, and Assignment of Leases and Rents dated July 6, 2018 by Verus Lebanon, LLC in favor of Citizens Bank, N.A. to the real property and related personal property located in Lebanon, Ohio (filed as Exhibit 99.4 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on July 12, 2018 and incorporated in this document by reference).</a>
10.27	<a href="#">International Swap Dealers Association, Inc. Master Agreement dated May 13, 2005 between the Registrant and Citizens Bank of Massachusetts and Swap Confirmation dated May 18, 2005 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 2, 2005 [File No. 001-11406] filed with the Commission on August 11, 2005 and incorporated in this document by reference).</a>
10.28	<a href="#">Swap Confirmation dated January 16, 2015 between the Registrant and Citizens Bank, National Association (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 4, 2015 [File No. 001-11406] filed with the Commission on May 13, 2015 and incorporated in this document by reference).</a>

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
10.29	<a href="#">Swap Confirmation dated May 16, 2018 between the Registrant and Citizens Bank, National Association (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 [File No. 001-11406] filed with the Commission on August 8, 2018 and incorporated in this document by reference).</a>
21	<a href="#">Subsidiaries of the Registrant.</a> **
23	<a href="#">Consent of KPMG LLP, Independent Registered Public Accounting Firm.</a> **
24	<a href="#">Power of Attorney (included on the signatures page to the Annual Report on Form 10-K).</a>
31.1	<a href="#">Certification of the Principal Executive Officer of the Registrant Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.</a> **
31.2	<a href="#">Certification of the Principal Financial Officer of the Registrant Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.</a> **
32	<a href="#">Certification of the Chief Executive Officer and the Chief Financial Officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a> **
101.INS**	Inline XBRL Instance Document - 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.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

\* Management contract or compensatory plan or arrangement.

\*\* Submitted electronically herewith.

(1) The schedules to this document have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. The Company will furnish copies of any of the schedules to the U.S. Securities and Exchange Commission upon request.

**Item 16. Form 10-K Summary**

Not applicable.



**Kadant Inc.**  
**Annual Report on Form 10-K**  
**Index to Consolidated Financial Statements and Schedule**

The following Consolidated Financial Statements of the Registrant and its subsidiaries are required to be included in Item 8:

	<u>Page</u>
<a href="#">Report of Independent Registered Public Accounting Firm</a>	<a href="#">F-2</a>
<a href="#">Consolidated Balance Sheet as of December 28, 2019 and December 29, 2018</a>	<a href="#">F-5</a>
<a href="#">Consolidated Statement of Income for the fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017</a>	<a href="#">F-6</a>
<a href="#">Consolidated Statement of Comprehensive Income for the fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017</a>	<a href="#">F-7</a>
<a href="#">Consolidated Statement of Cash Flows for the fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017</a>	<a href="#">F-8</a>
<a href="#">Consolidated Statement of Stockholders' Equity for the fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017</a>	<a href="#">F-9</a>
<a href="#">Notes to Consolidated Financial Statements</a>	<a href="#">F-10</a>

## **Report of Independent Registered Public Accounting Firm**

To the Stockholders and Board of Directors  
Kadant Inc.:

### *Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting*

We have audited the accompanying consolidated balance sheets of Kadant Inc. and subsidiaries (the Company) as of December 28, 2019 and December 29, 2018, the related consolidated statements of income, comprehensive income, cash flows, and stockholders' equity for each of the fiscal years in the three-year period ended December 28, 2019, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 28, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

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 28, 2019 and December 29, 2018, and the results of its operations and its cash flows for each of the fiscal years in the three-year period ended December 28, 2019, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 28, 2019 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The Company acquired Syntron Material Handling Group, LLC and certain of its affiliates (SMH) on January 2, 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 28, 2019, SMH's internal control over financial reporting associated with total assets of \$196.9 million and total revenues of \$83.4 million included in the consolidated financial statements of the Company as of and for the fiscal year ended December 28, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of SMH.

### *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 the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion 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.

## Report of Independent Registered Public Accounting Firm (continued)

### *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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

### *Critical Audit Matters*

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

#### *Assessment of uncertain tax positions*

As discussed in Notes 1 and 5 to the consolidated financial statements, the Company has recognized uncertain tax positions including associated interest and penalties amounting to \$10.0 million. The Company's tax positions are subject to audit by local taxing authorities across multiple global jurisdictions. Tax law can be complex and tax audits can take an extended period of time to resolve, accordingly, the ultimate outcome with respect to taxes the Company may owe may differ from the amounts recognized.

We identified the assessment of uncertain tax positions as a critical audit matter because a higher degree of auditor judgment was required in evaluating the Company's interpretation of, and compliance with, tax law globally across its multiple subsidiaries. In addition, a higher degree of auditor judgment was required in evaluating the Company's estimate of the ultimate resolution of its tax positions.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's uncertain tax positions process. This included controls related to the interpretation of tax law, identification of uncertain tax positions and its application in the liability estimation process. We involved domestic and international tax professionals with specialized skills and knowledge who assisted in:

- obtaining an understanding and assessing filed and to be filed tax positions,
- assessing uncertain tax positions for compliance with applicable laws and regulations,
- evaluating the Company's uncertain tax positions by developing an estimate of the uncertain tax positions using independent assumptions and comparing it to the Company's estimate, and
- assessing the expiration of statutes of limitations.

**Report of Independent Registered Public Accounting Firm (continued)**

*Assessment of the acquisition date fair value of Syntron Material Handling Group, LLC's customer relationship intangible asset*

As discussed in Notes 1 and 2 to the consolidated financial statements, on January 2, 2019, the Company acquired SMH for \$176.9 million, net of cash acquired. As a result of the transaction, the Company recorded a \$58.3 million intangible asset related to SMH's customer relationships acquired on January 2, 2019. The Company estimates the fair value of acquisition-related intangible assets principally based on discounted projections of cash flows that will arise from identifiable intangible assets.

We identified the assessment of the acquisition date fair value of SMH's customer relationship intangible asset as a critical audit matter. There was a high degree of judgment involved in evaluating certain of the Company's internally developed assumptions used in determining the fair value of such asset. Specifically, the projected revenue growth rate was challenging to assess as it is highly dependent upon future economic factors and market conditions. The discount rate was challenging to assess as it is dependent on limited observable market information. The determination of the fair value of the customer relationship intangible asset was sensitive to possible changes in the projected revenue growth rate and the discount rate.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's acquisition date valuation process, including controls related to the development of the projected revenue growth rate and the discount rate. We assessed the Company's projected revenue growth rate by comparing planned revenue growth against publicly available industry growth rate data and the Company's historical revenue growth rate from existing customers. We assessed the Company's ability to accurately estimate revenue growth by comparing historical projections to actual amounts achieved for previously acquired businesses. We performed sensitivity analysis using alternative revenue growth rate assumptions to assess the impact of changes in those assumptions on the Company's determination of fair value of the intangible assets. We evaluated the Company's discount rate by assessing (1) the comparable company data used in determining the discount rate, and (2) the discount rate utilized in valuing the customer relationship assets in previously acquired businesses. We involved valuation professionals with specialized skills and knowledge, who assisted in:

- evaluating the selected discount rate by comparing it against a discount rate that was independently developed using publicly available market data for comparable companies,
- developing a fair value estimate of the customer relationship intangible asset using the Company's cash flow projections and an independently developed discount rate and comparing it to the Company's estimate, and
- performing sensitivity analysis using alternative discount rate assumptions.

/s/ KPMG LLP

We have served as the Company's auditor since 2012.

Boston, Massachusetts  
February 25, 2020

**Consolidated Balance Sheet**

(In thousands, except share and per share amounts)

December 28, 2019

December 29, 2018

**Assets**
**Current Assets:**

Cash and cash equivalents	\$ 66,786	\$ 45,830
Restricted cash	1,487	287
Accounts receivable, less allowances of \$2,698 and \$2,897	95,740	92,624
Inventories	102,715	86,373
Unbilled revenues	13,162	15,741
Other current assets	17,686	11,906
<b>Total Current Assets</b>	<b>297,576</b>	<b>252,761</b>
Property, Plant, and Equipment, at Cost, Net	86,032	80,157
Other Assets (Note 9)	45,851	21,310
Intangible Assets, Net (Notes 1 and 2)	173,896	113,347
Goodwill (Notes 1 and 2)	336,032	258,174
<b>Total Assets</b>	<b>\$ 939,387</b>	<b>\$ 725,749</b>

**Liabilities and Stockholders' Equity**
**Current Liabilities:**

Current maturities of long-term obligations (Note 6)	\$ 2,851	\$ 1,668
Accounts payable	45,852	35,720
Accrued payroll and employee benefits	31,968	30,902
Customer deposits	24,012	26,987
Advanced billings	11,280	5,534
Other current liabilities	30,206	28,178
<b>Total Current Liabilities</b>	<b>146,169</b>	<b>128,989</b>
Long-Term Obligations (Note 6)	298,174	174,153
Long-Term Deferred Income Taxes (Note 5)	19,736	22,962
Other Long-Term Liabilities (Note 3 and 9)	48,229	25,074
Commitments and Contingencies (Note 7)		

**Stockholders' Equity (Notes 3 and 4):**

Preferred stock, \$.01 par value, 5,000,000 shares authorized; none issued	—	—
Common stock, \$.01 par value, 150,000,000 shares authorized; 14,624,159 shares issued	146	146
Capital in excess of par value	106,698	104,731
Retained earnings	435,249	393,578
Treasury stock at cost, 3,214,888 and 3,514,163 shares	(78,778)	(86,111)
Accumulated other comprehensive items (Note 14)	(37,620)	(39,376)
<b>Total Kadant Stockholders' Equity</b>	<b>425,695</b>	<b>372,968</b>
Noncontrolling interest	1,384	1,603
<b>Total Stockholders' Equity</b>	<b>427,079</b>	<b>374,571</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 939,387</b>	<b>\$ 725,749</b>

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

**Consolidated Statement of Income**

(In thousands, except per share amounts)	December 28, 2019	December 29, 2018	December 30, 2017
Revenues (Note 1 and 12)	\$ 704,644	\$ 633,786	\$ 515,033
Costs and Operating Expenses:			
Cost of revenues	410,884	355,505	283,886
Selling, general, and administrative expenses	192,525	177,414	159,756
Research and development expenses	10,884	10,552	9,563
Impairment and restructuring costs (Notes 1 and 8)	2,528	1,717	203
	<u>616,821</u>	<u>545,188</u>	<u>453,408</u>
Operating Income	87,823	88,598	61,625
Interest income	213	379	447
Interest expense	(12,755)	(7,032)	(3,547)
Other expense, net (Note 3)	(6,359)	(2,417)	(872)
Income Before Provision for Income Taxes	68,922	79,528	57,653
Provision for income taxes (Note 5)	16,358	18,482	26,070
Net Income	52,564	61,046	31,583
Net Income Attributable to Noncontrolling Interest	(496)	(633)	(491)
<b>Net Income Attributable to Kadant</b>	<u>\$ 52,068</u>	<u>\$ 60,413</u>	<u>\$ 31,092</u>
<b>Earnings per Share Attributable to Kadant (Note 13)</b>			
Basic	\$ 4.63	\$ 5.45	\$ 2.83
Diluted	\$ 4.54	\$ 5.30	\$ 2.75
<b>Weighted Average Shares (Note 13)</b>			
Basic	11,235	11,086	10,991
Diluted	11,457	11,400	11,312
<b>Cash Dividends Declared per Common Share</b>	\$ 0.92	\$ 0.88	\$ 0.84

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

**Consolidated Statement of Comprehensive Income**

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
<b>Comprehensive Income</b>			
Net Income	\$ 52,564	\$ 61,046	\$ 31,583
Other Comprehensive Items:			
Foreign currency translation adjustment	(1,392)	(17,381)	23,847
Pension and other post-retirement liability adjustments, net (net of tax of (\$137), \$412, and (\$150))	(282)	1,248	(738)
Effect of pension and other post-retirement plan amendments (net of tax of \$351)	—	(1,087)	—
Effect of pension and other post-retirement plan curtailments (net of tax of \$1,183)	—	3,679	—
Effect of pension and other post-retirement settlement and curtailment losses (net of tax of (\$653) and \$347)	3,826	1,078	—
Deferred (loss) gain on cash flow hedges (net of tax of (\$143), (\$93), and \$39)	(447)	(276)	67
Other Comprehensive Items	1,705	(12,739)	23,176
Comprehensive Income	54,269	48,307	54,759
Comprehensive Income Attributable to Noncontrolling Interest	(445)	(555)	(745)
Comprehensive Income Attributable to Kadant	\$ 53,824	\$ 47,752	\$ 54,014

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

## Consolidated Statement of Cash Flows

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
<b>Operating Activities</b>			
Net income attributable to Kadant	\$ 52,068	\$ 60,413	\$ 31,092
Net income attributable to noncontrolling interest	496	633	491
Net income	52,564	61,046	31,583
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	32,390	23,568	19,375
Stock-based compensation expense	6,815	7,027	5,803
Provision for losses on accounts receivable	114	355	436
(Gain) loss on sale of property, plant, and equipment	(79)	110	42
U.S. benefit plans settlement and curtailment losses	5,887	1,425	—
Impairment costs	2,336	—	—
Deferred income tax (benefit) provision	(2,491)	(4,240)	578
Other items, net	(2,097)	1,310	1,420
Contributions to U.S. pension plan	—	—	(1,080)
Changes in current assets and liabilities, net of effects of acquisitions:			
Accounts receivable	6,553	(7,016)	(10,907)
Unbilled revenues	2,559	(11,350)	1,310
Inventories	(3,076)	(6,577)	1,163
Other current assets	(5,618)	3,820	(130)
Accounts payable	7,358	5,419	(522)
Other current liabilities	(5,802)	(11,912)	16,093
Net cash provided by operating activities	97,413	62,985	65,164
<b>Investing Activities</b>			
Acquisitions, net of cash acquired (Note 2)	(177,798)	—	(204,731)
Purchases of property, plant, and equipment	(9,957)	(16,559)	(17,281)
Proceeds from sale of property, plant, and equipment	398	195	130
Net cash used in investing activities	(187,357)	(16,364)	(221,882)
<b>Financing Activities</b>			
Proceeds from issuance of long-term obligations	247,196	50,055	232,019
Repayment of long-term obligations	(126,315)	(110,094)	(68,187)
Dividends paid	(10,196)	(9,644)	(9,011)
Proceeds from issuance of Company common stock	5,176	813	—
Tax withholding payments related to stock-based compensation	(2,691)	(3,886)	(2,206)
Dividend paid to noncontrolling interest	(664)	(465)	(882)
Payment of debt issuance costs (Note 6)	(56)	(934)	(1,257)
Net cash provided by (used in) financing activities	112,450	(74,155)	150,476
Exchange Rate Effect on Cash, Cash Equivalents, and Restricted Cash	(350)	(3,195)	9,519
Increase (Decrease) in Cash, Cash Equivalents, and Restricted Cash	22,156	(30,729)	3,277
Cash, Cash Equivalents, and Restricted Cash at Beginning of Year	46,117	76,846	73,569
Cash, Cash Equivalents, and Restricted Cash at End of Year	\$ 68,273	\$ 46,117	\$ 76,846

See [Note 1](#) - Supplemental Cash Flow Information for further details.

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

## Consolidated Statement of Stockholders' Equity

(In thousands, except share and per share amounts)	Common Stock		Capital in Excess of Par Value	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Items	Noncontrolling Interest	Total Stockholders' Equity
	Shares	Amount			Shares	Amount			
<b>Balance at December 31, 2016</b>	14,624,159	\$ 146	\$ 101,405	\$ 321,050	3,686,532	\$ (90,335)	\$ (49,637)	\$ 1,650	\$ 284,279
Net income	—	—	—	31,092	—	—	—	491	31,583
Dividends declared - Common Stock, \$0.84 per share	—	—	—	(9,249)	—	—	—	—	(9,249)
Dividend paid to noncontrolling interest	—	—	—	—	—	—	—	(882)	(882)
Activity under stock plans	—	—	1,816	—	(72,694)	1,781	—	—	3,597
Other comprehensive items	—	—	—	—	—	—	22,922	254	23,176
<b>Balance at December 30, 2017</b>	14,624,159	\$ 146	\$ 103,221	\$ 342,893	3,613,838	\$ (88,554)	\$ (26,715)	\$ 1,513	\$ 332,504
Net income	—	—	—	60,413	—	—	—	633	61,046
Adoption of ASU No. 2014-09 (Note 1)	—	—	—	119	—	—	—	—	119
Adoption of ASU No. 2016-16	—	—	—	(75)	—	—	—	—	(75)
Dividends declared - Common Stock, \$0.88 per share	—	—	—	(9,772)	—	—	—	—	(9,772)
Dividend paid to noncontrolling interest	—	—	—	—	—	—	—	(465)	(465)
Activity under stock plans	—	—	1,510	—	(99,675)	2,443	—	—	3,953
Other comprehensive items	—	—	—	—	—	—	(12,661)	(78)	(12,739)
<b>Balance at December 29, 2018</b>	14,624,159	\$ 146	\$ 104,731	\$ 393,578	3,514,163	\$ (86,111)	\$ (39,376)	\$ 1,603	\$ 374,571
Net income	—	—	—	52,068	—	—	—	496	52,564
Adoption of ASU No. 2016-02 (Note 1)	—	—	—	(17)	—	—	—	—	(17)
Dividends declared - Common Stock, \$0.92 per share	—	—	—	(10,380)	—	—	—	—	(10,380)
Dividend paid to noncontrolling interest	—	—	—	—	—	—	—	(664)	(664)
Activity under stock plans	—	—	1,967	—	(299,275)	7,333	—	—	9,300
Other comprehensive items	—	—	—	—	—	—	1,756	(51)	1,705
<b>Balance at December 28, 2019</b>	14,624,159	\$ 146	\$ 106,698	\$ 435,249	3,214,888	\$ (78,778)	\$ (37,620)	\$ 1,384	\$ 427,079

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

**Notes to Consolidated Financial Statements****1. Nature of Operations and Summary of Significant Accounting Policies****Nature of Operations**

Kadant Inc. was incorporated in Delaware in November 1991 and trades on the New York Stock Exchange under the ticker symbol "KAI."

Kadant Inc. (together with its subsidiaries, the Company) is a global supplier of high-value, critical components and engineered systems used in process industries worldwide. The Company has a diverse and large customer base, including most of the world's major paper producers and lumber and oriented strand board (OSB) manufacturers, as well as various mining and industrial processing companies that require bulk material handling solutions. Its products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive industries.

The Company's operations include three reportable operating segments, Papermaking Systems, Wood Processing Systems, and Material Handling Systems, and a separate product line, Fiber-based Products.

See [Note 12](#), Business Segment and Geographical Information, for further details regarding all the Company's segments.

**Noncontrolling Interest**

One of the Company's foreign subsidiaries that manufactures fluid-handling products is part of a joint venture agreement with an Italian company in which each holds a 50 percent ownership interest. The agreement provides the Company's subsidiary with the option to purchase the remaining 50 percent interest in the joint venture.

**Principles of Consolidation**

The accompanying consolidated financial statements of the Company include the accounts of its wholly and majority-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

**Fiscal Year**

The Company has adopted a fiscal year ending on the Saturday nearest to December 31. References to 2019, 2018, and 2017 are for the fiscal years ended December 28, 2019, December 29, 2018, and December 30, 2017, respectively.

**Financial Statement Presentation**

Effective at the beginning of 2018, the Company adopted Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (Topic 606), using the modified retrospective method. Results for 2019 and 2018 are presented under Topic 606, while 2017 amounts are not adjusted and are reported under the Company's prior method of reporting revenue recognition in accordance with Accounting Standards Codification (ASC), *Revenue Recognition (Topic 605)* (Topic 605). The impact on any financial statement line item arising from the application of Topic 606 compared to Topic 605 on the Company's results for the 2018 period was not material.

Effective at the beginning of 2019, the Company adopted ASU No. 2016-02, *Leases (Topic 842)* (Topic 842), using the cumulative-effect adjustment method. Financial statement amounts and disclosures in 2019 are presented under Topic 842, while 2018 and 2017 are not adjusted and are reported under the Company's prior method of accounting for leases in accordance with ASC 840, *Leases (Topic 840)* (Topic 840), which did not require the recognition of operating leases on the balance sheet and is not comparative.

**Use of Estimates and Critical Accounting Policies**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Although the Company makes every effort to ensure the accuracy of the estimates and assumptions used in the preparation of its condensed consolidated financial statements or in the application of accounting policies, if business conditions were different, or if the Company were to use different estimates and assumptions, it is possible that materially different amounts could be reported in the Company's condensed consolidated financial statements.

Critical accounting policies are defined as those that entail significant judgments and estimates, and could potentially result in materially different results under different assumptions and conditions. The Company believes that the most critical accounting policies upon which its financial position depends, and which involve the most complex or subjective decisions or

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

assessments, concern revenue recognition, income taxes, the valuation of goodwill and intangible assets, inventories, and pension obligations. A discussion of the application of these and other accounting policies is included in Notes 1 and 3.

## Revenue Recognition

Effective at the beginning of 2018, the Company adopted Topic 606, using a modified retrospective method. Results for 2019 and 2018 are presented under Topic 606, while 2017 amounts are not adjusted and are reported in accordance with Topic 605. The impact on any financial statement line item arising from the application of Topic 606 compared to Topic 605 on the Company's results for the 2018 period was not material.

Most of the Company's revenue is recognized at a point in time for each performance obligation under the contract when the customer obtains control of the goods or service. Most of the Company's parts and consumables products and its capital products with minimal customization are accounted for at a point in time. The Company has made a policy election to not treat the obligation to ship as a separate performance obligation under the contract and, as a result, the associated shipping costs are reflected in cost of revenues when revenue is recognized.

The remaining portion of the Company's revenue is recognized on an over time basis based on an input method that compares the costs incurred to date to the total expected costs required to satisfy the performance obligation. Contracts are accounted for on an over time basis when they include products which have no alternative use and an enforceable right to payment over time. Most of the contracts recognized on an over time basis are for large capital projects within the Company's Stock-Preparation product line and Material Handling Systems segment and, to a lesser extent, its Fluid-Handling and Doctoring, Cleaning, & Filtration product lines. These projects are highly customized for the customer and, as a result, would include a significant cost to rework in the event of cancellation.

The following table presents revenue by revenue recognition method:

(In thousands)	December 28, 2019	December 29, 2018
Point in Time	\$ 611,528	\$ 577,506
Over Time	93,116	56,280
	<u>\$ 704,644</u>	<u>\$ 633,786</u>

The transaction price includes estimated variable consideration where applicable. Such variable consideration relates to certain performance guarantees and rights to return the product. The Company estimates variable consideration as the most likely amount to which it expects to be entitled based on the terms of the contracts with customers and historical experience, where relevant. For contracts with multiple performance obligations, the transaction price is allocated to each performance obligation based on the relative stand-alone selling price.

The Company disaggregates its revenue from contracts with customers by product line, product type and geography as this best depicts how its revenue is affected by economic factors.

The following table presents the disaggregation of revenues by product type and geography:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Revenues by Product Type:			
Parts and Consumables	\$ 440,699	\$ 374,433	\$ 316,506
Capital	263,945	259,353	198,527
	<u>\$ 704,644</u>	<u>\$ 633,786</u>	<u>\$ 515,033</u>
Revenues by Geography:			
North America	\$ 386,952	\$ 305,618	\$ 238,483
Europe	180,888	174,681	157,994
Asia	84,705	109,688	78,443
Rest of World	52,099	43,799	40,113
	<u>\$ 704,644</u>	<u>\$ 633,786</u>	<u>\$ 515,033</u>

See [Note 12](#), Business Segment and Geographical Information, for information on the disaggregation of revenues by segment and product line.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

The following tables presents contract balances from contracts with customers:

(In thousands)	December 28, 2019	December 29, 2018
Accounts receivable	\$ 95,740	\$ 92,624
Contract assets	\$ 13,162	\$ 15,741
Contract liabilities	\$ 37,216	\$ 34,774

Contract assets represent unbilled revenues associated with revenue recognized on contracts accounted for on an over time basis, which will be billed in future periods based on the contract terms. Contract liabilities consist of customer deposits, advanced billings, and deferred revenue. Deferred revenue is included in other current liabilities in the accompanying consolidated balance sheet. Contract liabilities will be recognized as revenue in future periods once the revenue recognition criteria are met. The majority of the contract liabilities relate to advance payments on contracts accounted for at a point in time. These advance payments will be recognized as revenue when the Company's performance obligations have been satisfied, which typically occurs within nine to twelve months after the product has shipped and control of the asset has transferred to the customer. The Company recognized revenue of \$29,220,000 in 2019 and \$36,556,000 in 2018 that was included in the contract liabilities balance at the beginning of 2019 and 2018. The majority of the Company's contracts for capital equipment have an original expected duration of one year or less. For contracts with an original expected duration of over one year, the aggregate amount of the transaction price allocated to the remaining partially unsatisfied performance obligations as of year-end 2019 was \$13,176,000. The Company will recognize revenue for these performance obligations as they are satisfied, approximately 90% of which is expected to occur within the next twelve months.

Customers in China will often settle their accounts receivable with a banker's acceptance draft, in which case cash settlement will be delayed until the draft matures or is settled prior to maturity. For customers outside of China, final payment for the majority of the Company's products is received in the quarter following the product shipment. Certain of the Company's contracts include a longer period before final payment is due, which is typically within one year of final shipment or transfer of control to the customer.

The Company includes in revenue amounts invoiced for shipping and handling with the corresponding costs reflected in cost of revenues. Provisions for discounts, warranties, returns and other adjustments are provided for in the period in which the related sale was recorded. Sales taxes, value-added taxes and certain excise taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from revenue.

In 2017, the Company recognized revenue under ASC 605, "Revenue Recognition," (ASC 605), when the following criteria had been met: persuasive evidence of an arrangement existed, delivery had occurred or service had been rendered, the sales price was fixed or determinable, and collectability was reasonably assured. When the terms of the sale included customer acceptance provisions, and compliance with those provisions could not be demonstrated until customer acceptance, revenue was recognized upon such acceptance. Most of the Company's revenue in 2017 was recognized in accordance with these policies. However, when a sale arrangement involved multiple elements, such as equipment and installation, the Company determined whether the deliverables in the arrangement represented separate units of accounting. Revenue was allocated to each unit of accounting or element based on relative selling prices and was recognized as each element was delivered or completed. Additionally, revenues and profits on certain long-term contracts in 2017 were recognized using the percentage-of-completion method or the completed-contract method of accounting pursuant to ASC 605. Revenues recorded under the percentage-of-completion method were \$27,676,000 in 2017. For long-term contracts that did not meet the criteria under ASC 605 to be accounted for under the percentage-of-completion method in 2017, the Company recognized revenue using the completed-contract method.

#### Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company exercises judgment in determining its allowance for doubtful accounts, which is based on its historical collection experience, current trends, credit policies, specific customer collection issues, and accounts receivable aging categories. In determining this allowance, the Company looks at historical write-offs of its receivables. The Company also looks at current trends in the credit quality of its customer base as well as changes in its credit policies. The Company performs ongoing credit evaluations of its customers and adjusts credit limits based upon payment history and each customer's current creditworthiness. The Company continuously monitors collections and payments from its customers. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. In some instances, the Company utilizes letters of credit to mitigate its credit exposure.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

The changes in the allowance for doubtful accounts are as follows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Balance at Beginning of Year	\$ 2,897	\$ 2,879	\$ 2,395
Provision charged to expense	114	355	436
Accounts written off	(263)	(165)	(159)
Currency translation	(50)	(172)	207
Balance at End of Year	<u>\$ 2,698</u>	<u>\$ 2,897</u>	<u>\$ 2,879</u>

The Company's Chinese subsidiaries may receive banker's acceptance drafts from customers as payment for their trade accounts receivable. The drafts are noninterest-bearing obligations of the issuing bank and mature within six months of the origination date. The Company's Chinese subsidiaries may sell the drafts at a discount to a third-party financial institution or transfer the drafts to vendors in settlement of current accounts payable prior to the scheduled maturity date. These drafts, which totaled \$5,230,000 at year-end 2019 and \$7,976,000 at year-end 2018, are included in accounts receivable in the accompanying consolidated balance sheet until the subsidiary sells the drafts to a bank and receives a discounted amount, transfers the banker's acceptance drafts in settlement of current accounts payable prior to maturity, or obtains cash payment on the scheduled maturity date.

## Warranty Obligations

The Company's contracts covering the sale of its products include warranty provisions that provide assurance to its customers that the products will comply with agreed-upon specifications during a defined period of time. The Company provides for the estimated cost of product warranties at the time of sale based on the historical occurrence rates and repair costs, as well as knowledge of any specific warranty problems that indicate projected warranty costs may vary from historical patterns. The Company negotiates the terms regarding warranty coverage and length of warranty depending on the products and applications. While the Company engages in extensive product quality programs and processes, the Company's warranty obligation is affected by product failure rates, repair costs, service delivery costs incurred in correcting a product failure, and supplier warranties on parts delivered to the Company. Should these factors or actual results differ from the Company's estimates, revisions to the estimated warranty liability would be required.

The changes in the carrying amount of accrued warranty costs included in other current liabilities in the accompanying consolidated balance sheet are as follows:

(In thousands)	December 28, 2019	December 29, 2018
Balance at Beginning of Year	\$ 5,726	\$ 5,498
Provision charged to expense	4,727	3,708
Usage	(4,255)	(3,140)
Acquisition	303	—
Currency translation	(34)	(340)
Balance at End of Year	<u>\$ 6,467</u>	<u>\$ 5,726</u>

## Income Taxes

In accordance with ASC 740, *Income Taxes*, (ASC 740), the Company recognizes deferred income taxes based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities, calculated using enacted tax rates in effect for the year in which these differences are expected to reverse. A tax valuation allowance is established, as needed, to reduce deferred tax assets to the amount expected to be realized. In the period in which it becomes more likely than not that some or all of the deferred tax assets will be realized, the valuation allowance will be adjusted.

It is the Company's policy to provide for uncertain tax positions and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in the provision for income taxes. At December 28, 2019, the Company believes that it has appropriately accounted for any liability for unrecognized tax benefits. To the extent the Company prevails in matters for which a liability for an unrecognized tax benefit is established, the statute of

Notes to Consolidated Financial Statements

1. Nature of Operations and Summary of Significant Accounting Policies (continued)

limitations expires for a tax jurisdiction year, or the Company is required to pay amounts in excess of the liability, its effective tax rate in a given financial statement period may be affected.

Earnings per Share

Basic earnings per share (EPS) is computed by dividing net income attributable to Kadant by the weighted average number of shares outstanding during the year. Diluted EPS is computed using the treasury stock method assuming the effect of all potentially dilutive securities, including stock options, restricted stock units (RSUs) and employee stock purchase plan shares.

Cash and Cash Equivalents

At year-end 2019 and year-end 2018, the Company's cash equivalents included investments in money market funds and marketable securities, which had maturities of three months or less at the date of purchase. The carrying amounts of cash equivalents approximate their fair values due to the short-term nature of these instruments.

Restricted Cash

The Company's restricted cash serves as collateral for bank guarantees primarily associated with providing assurance to customers that the Company will fulfill certain customer obligations entered into in the normal course of business. The majority of the bank guarantees will expire over the next twelve months.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the Company's consolidated balance sheet that are shown in aggregate in the consolidated statement of cash flows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Cash and cash equivalents	\$ 66,786	\$ 45,830	\$ 75,425
Restricted cash	1,487	287	1,421
Total Cash, Cash Equivalents, and Restricted Cash	\$ 68,273	\$ 46,117	\$ 76,846

Supplemental Cash Flow Information

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Cash Paid for Interest	\$ 12,344	\$ 7,550	\$ 2,624
Cash Paid for Income Taxes, Net of Refunds	\$ 24,533	\$ 25,654	\$ 20,559
Non-Cash Investing Activities:			
Fair value of assets of acquired	\$ 207,223	\$ —	\$ 242,399
Cash paid for acquired businesses	(179,693)	—	(206,785)
Liabilities Assumed of Acquired Businesses	\$ 27,530	\$ —	\$ 35,614
Non-cash additions to property, plant, and equipment	\$ 626	\$ 917	\$ 4,620
Non-Cash Financing Activities:			
Issuance of Company common stock upon vesting of RSUs	\$ 4,100	\$ 4,231	\$ 3,192
Dividends declared but unpaid	\$ 2,628	\$ 2,444	\$ 2,316

Notes to Consolidated Financial Statements

1. Nature of Operations and Summary of Significant Accounting Policies (continued)

Inventories

Inventories are stated at the lower of cost (on a first-in, first-out; or weighted average basis) or net realizable value and include materials, labor, and manufacturing overhead. The Company regularly reviews its quantities of inventories on hand and compares these amounts to the historical and forecasted usage of and demand for each particular product or product line. The Company records a charge to cost of revenues for excess and obsolete inventory to reduce the carrying value of inventories to net realizable value.

The components of inventories are as follows:

(In thousands)	December 28, 2019	December 29, 2018
Raw Materials	\$ 49,332	\$ 44,522
Work in Process	15,344	15,876
Finished Goods (includes \$559 and \$494 at customer locations)	38,039	25,975
	<u>\$ 102,715</u>	<u>\$ 86,373</u>

Property, Plant, and Equipment

Property, plant, and equipment are stated at cost. The costs of additions and improvements are capitalized, while maintenance and repairs are charged to expense as incurred. The Company provides for depreciation and amortization primarily using the straight-line method over the estimated useful lives of the property as follows: buildings, 10 to 40 years; machinery and equipment, 2 to 10 years; and leasehold improvements, the shorter of the term of the lease or the life of the asset. For construction in progress, no provision for depreciation is made until the assets are available and ready for use.

Property, plant, and equipment consist of the following:

(In thousands)	December 28, 2019	December 29, 2018
Land	\$ 7,347	\$ 7,614
Buildings	58,509	58,866
Machinery, Equipment, and Leasehold Improvements	112,655	100,453
Construction in Progress	2,830	3,764
	<u>181,341</u>	<u>170,697</u>
Less: Accumulated Depreciation and Amortization	95,309	90,540
	<u>\$ 86,032</u>	<u>\$ 80,157</u>

Depreciation and amortization expense was \$12,236,000 in 2019, \$9,386,000 in 2018, and \$7,418,000 in 2017. See [Note 9](#), Leases, for further details relating to assets under financing leases included in property, plant and equipment in the accompanying consolidated balance sheet.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

## Intangible Assets, Net

Acquired intangible assets by major asset class are as follows:

(In thousands)	Gross	Accumulated Amortization	Currency Translation	Net
December 28, 2019				
<i>Definite-Lived</i>				
Customer relationships	\$ 171,583	\$ (51,798)	\$ (4,141)	\$ 115,644
Product technology	56,011	(27,819)	(1,709)	26,483
Tradenames	6,527	(2,421)	(427)	3,679
Other	17,964	(13,295)	(593)	4,076
	<u>252,085</u>	<u>(95,333)</u>	<u>(6,870)</u>	<u>149,882</u>
<i>Indefinite-Lived</i>				
Tradenames	24,100	—	(86)	24,014
Acquired Intangible Assets	<u>\$ 276,185</u>	<u>\$ (95,333)</u>	<u>\$ (6,956)</u>	<u>\$ 173,896</u>
December 29, 2018				
<i>Definite-Lived</i>				
Customer relationships	\$ 113,283	\$ (38,160)	\$ (4,520)	\$ 70,603
Product technology	46,501	(23,563)	(1,677)	21,261
Tradenames	5,227	(1,980)	(390)	2,857
Other	13,744	(11,476)	(127)	2,141
	<u>178,755</u>	<u>(75,179)</u>	<u>(6,714)</u>	<u>96,862</u>
<i>Indefinite-Lived</i>				
Tradenames	16,600	—	(115)	16,485
Acquired Intangible Assets	<u>\$ 195,355</u>	<u>\$ (75,179)</u>	<u>\$ (6,829)</u>	<u>\$ 113,347</u>

In the fourth quarter of 2019, the Company recorded impairment charges related to its definite- and indefinite-lived intangible assets totaling \$2,336,000 and reclassified \$1,300,000 of an indefinite-lived tradename to definite-lived. See *Impairment of Long-Lived Assets* within this note for further details.

Intangible assets are initially recorded at fair value at the date of acquisition. Definite-lived intangible assets are stated net of accumulated amortization and currency translation in the accompanying consolidated balance sheet. The Company amortizes definite-lived intangible assets over lives that have been determined based on the anticipated cash flow benefits of the intangible asset. Definite-lived intangible assets have a weighted average amortization period of 12 years. Amortization of definite-lived intangible assets was \$20,154,000 in 2019, \$14,182,000 in 2018, and \$11,957,000 in 2017. The estimated future amortization expense of definite-lived intangible assets is \$18,714,000 in 2020; \$17,875,000 in 2021; \$16,797,000 in 2022; \$15,164,000 in 2023; \$14,272,000 in 2024; and \$67,060,000 in the aggregate thereafter.

## Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the identifiable net assets of the acquired business at the date of acquisition. The Company's acquisitions have historically been made at prices above the fair value of the acquired net assets, resulting in goodwill, due to the expectation of synergies from combining the businesses.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

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

(In thousands)	Papermaking Systems	Wood Processing Systems	Material Handling Systems	Total
<b>Balance as of December 30, 2017</b>				
Gross balance	\$ 247,014	\$ 106,496	\$ —	\$ 353,510
Accumulated impairment losses	(85,509)	—	—	(85,509)
Net balance	161,505	106,496	—	268,001
<b>2018 Adjustments</b>				
Acquisitions (Note 2)	(17)	(75)	—	(92)
Currency translation	(5,085)	(4,650)	—	(9,735)
Total 2018 Adjustments	(5,102)	(4,725)	—	(9,827)
<b>Balance at December 29, 2018</b>				
Gross balance	241,912	101,771	—	343,683
Accumulated impairment losses	(85,509)	—	—	(85,509)
Net balance	156,403	101,771	—	258,174
<b>2019 Adjustments</b>				
Acquisition (Note 2)	—	—	78,592	78,592
Currency translation	(1,592)	858	—	(734)
Total 2019 Adjustments	(1,592)	858	78,592	77,858
<b>Balance at December 28, 2019</b>				
Gross balance	240,320	102,629	78,592	421,541
Accumulated impairment losses	(85,509)	—	—	(85,509)
Net balance	\$ 154,811	\$ 102,629	\$ 78,592	\$ 336,032

**Impairment of Long-Lived Assets**

The Company evaluates the recoverability of goodwill and indefinite-lived intangible assets as of the end of each fiscal year, or more frequently if events or changes in circumstances, such as a significant decline in sales, earnings, or cash flows, or material adverse changes in the business climate, indicate that the carrying value of an asset might be impaired.

*Goodwill*

At year-end 2019, the Company performed a qualitative impairment analysis (Step 0) of its goodwill and determined that the asset was not impaired. The impairment analysis included an assessment of certain qualitative factors including, but not limited to, the results of prior fair value calculations, the movement of the Company's share price and market capitalization, the reporting unit and overall financial performance, and macroeconomic and industry conditions. The Company considered the qualitative factors and weighed the evidence obtained, and determined that it was not more likely than not that the fair value of any of the assets was less than its carrying amount. Although the Company believes the factors considered in the impairment analysis are reasonable, significant changes in any one of the assumptions used could have produced a different result.

At year-end 2018, the Company performed a quantitative goodwill impairment assessment (Step 1) for all of its reporting units, which indicated that the fair value of each reporting unit exceeded its carrying value, and determined that the asset was not impaired.

Goodwill by reporting unit is as follows:

(In thousands)	December 28, 2019	December 29, 2018
Stock-Preparation	\$ 57,132	\$ 58,142
Fluid-Handling	63,382	64,052
Doctoring, Cleaning, & Filtration	34,297	34,209
Wood Processing Systems	102,629	101,771
Material Handling Systems	78,592	—
	<u>\$ 336,032</u>	<u>\$ 258,174</u>

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)***Intangible Assets*

At year-end 2019, the Company performed a qualitative impairment analysis on its indefinite-lived intangible assets and determined that the assets were not impaired, except for the indefinite-lived tradename associated with the Company's timber-harvesting product line discussed below. At year-end 2018, the Company performed a quantitative impairment analysis on its indefinite-lived intangible assets and determined that the assets were not impaired.

The Company assesses its long-lived assets, other than goodwill and indefinite-lived intangible assets, for impairment whenever facts and circumstances indicate that the carrying amounts may not be fully recoverable. To analyze recoverability, the Company projects undiscounted net future cash flows over the remaining lives of such assets or asset groups. If these projected cash flows were to be less than the carrying amounts, an impairment loss would be recognized, resulting in a write-down of the assets with a corresponding charge to earnings. The impairment loss would be measured based upon the difference between the carrying amounts of the assets and their fair values calculated using projected cash flows. No indicators of impairment were identified in 2019 or 2018, except for the definite-lived product technology associated with the Company's timber-harvesting product line discussed below.

During 2019, the Company experienced a significant decrease in revenues and operating results in its timber-harvesting product line included in its Wood Processing Systems segment, which it acquired in 2017 as part of the Company's acquisition of the forest products business of NII FPG Company (NII FPG) (see [Note 2](#), Acquisitions). The decrease was primarily driven by the deterioration of several market conditions in the Pacific Northwest, including a widespread timber shortage in this region and high stumpage fees. These factors, along with a shift in demand for timber to the Southeastern part of the United States, resulted in sawmill closures in western Canada where the Company's steep terrain equipment is generally used. Given the decline in demand for this business' products, which the Company expects to continue into 2020, the Company performed a quantitative analysis of the recoverability of the related intangible assets. As a result of this analysis in which the income approach discounted cash flow methodology was used, the Company determined that the fair values of certain of the timber-harvesting product line's intangible assets were less than their carrying values, and therefore, recorded impairment charges in the fourth quarter of 2019 totaling \$2,336,000. These impairment charges, which are included in impairment and restructuring costs in the accompanying consolidated statement of income, consist of \$1,636,000 related to the definite-lived product technology of the timber-harvesting product line and \$700,000 related to its indefinite-lived tradename. The Company reclassified the remaining carrying value of \$1,300,000 related to the indefinite-lived tradename associated with the timber-harvesting product line to definite-lived tradenames, as the indefinite use of the tradename is no longer certain.

**Business Combinations**

The Company's acquisitions have been accounted for using the purchase method of accounting under ASC 805, *Business Combinations* (ASC 805), and the results of the acquired businesses have been included in its consolidated financial statements from their respective dates of acquisition. The Company accounts for all transactions and events in which it obtains control over a business under ASC 805 to recognize the fair value of all assets and liabilities acquired and in establishing the acquisition date for all assets acquired and liabilities assumed. The Company's acquisitions have historically been made at prices above the fair value of identifiable net assets, resulting in goodwill, due to synergies expected to be realized by combining the businesses.

While the Company uses its best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed at the business acquisition date, the estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the purchase price allocation period, which is generally one year from the acquisition date, the Company records adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. For changes in the valuation of intangible assets between the preliminary and final purchase price allocation, the related amortization is adjusted in the period it occurs. Subsequent to the purchase price allocation period, any adjustment to assets acquired or liabilities assumed is included in operating results in the period in which the adjustment is determined. Acquisition transaction costs are recorded as incurred in selling, general, and administrative expenses (SG&A) in the accompanying consolidated statement of income and were \$843,000 in 2019, \$1,321,000 in 2018, and \$5,375,000 in 2017.

**Foreign Currency Translation and Transactions**

All assets and liabilities of the Company's foreign subsidiaries are translated at fiscal year-end exchange rates, and revenues and expenses are translated at average exchange rates for each quarter in accordance with ASC 830, *Foreign Currency Matters*. Resulting translation adjustments are reflected in the "accumulated other comprehensive items" (AOCI) component of stockholders' equity (see [Note 14](#), Accumulated Other Comprehensive Items). Foreign currency transaction gains and losses are included in the accompanying consolidated statement of income and are not material in the three years presented.

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)****Stock-Based Compensation**

The Company recognizes compensation expense for all stock-based awards granted to employees and directors based on the grant date estimate of fair value for those awards. The fair value of RSUs is based on the grant date price of the Company's common stock, reduced by the present value of estimated dividends foregone during the requisite service period. The fair value of stock options is based on the Black-Scholes option-pricing model. For stock options and time-based RSUs, compensation expense is recognized ratably over the requisite service period for the entire award, and net of actual forfeitures recorded when they occur. For performance-based RSUs, compensation expense is recognized ratably over the requisite service period for each separately-vesting portion of the award based on the grant date fair value, net of actual forfeitures recorded when they occur, and remeasured each reporting period until the total number of RSUs to be issued is known. Compensation expense related to any modified stock-based awards is based on the fair value for those awards as of the modification date with any remaining incremental compensation expense recognized ratably over the remaining requisite service period.

**Derivatives**

The Company uses derivative instruments primarily to reduce its exposure to changes in currency exchange rates and interest rates. When the Company enters into a derivative contract, the Company makes a determination as to whether the transaction is deemed to be a hedge for accounting purposes. If a contract is deemed a hedge, the Company formally documents the relationship between the derivative instrument and the risk being hedged. In this documentation, the Company specifically identifies the asset, liability, forecasted transaction, cash flow, or net investment that has been designated as the hedged item, and evaluates whether the derivative instrument is expected to reduce the risks associated with the hedged item. To the extent these criteria are not met, the Company does not use hedge accounting for the derivative. The change in the fair value of a derivative not deemed to be a hedge is recorded currently in earnings. The Company does not hold or engage in transactions involving derivative instruments for purposes other than risk management.

ASC 815, *Derivatives and Hedging*, requires that all derivatives be recognized on the balance sheet at fair value. For derivatives designated as cash flow hedges, the related gains or losses on these contracts are deferred as a component of AOCI. These deferred gains and losses are recognized in the statement of income in the period in which the underlying anticipated transaction occurs. For derivatives designated as fair value hedges, the unrealized gains and losses resulting from the impact of currency exchange rate movements are recognized in earnings in the period in which the exchange rates change and offset the currency gains and losses on the underlying exposures being hedged. The Company performs an evaluation of the effectiveness of the hedge both at inception and on an ongoing basis. The ineffective portion of a hedge, if any, and changes in the fair value of a derivative not deemed to be a hedge, are recorded in the accompanying consolidated statement of income.

**Recent Accounting Pronouncements***Recently Adopted Accounting Pronouncements*

*Leases (Topic 842)*. In February 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-02, which requires a lessee to recognize a right-of-use (ROU) asset and a corresponding lease liability for operating leases, initially measured at the present value of the future lease payments, on its balance sheet. This ASU also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. The Company adopted this ASU as of the beginning of 2019 using the cumulative-effect adjustment method. As a result, prior period amounts were not restated and continue to be accounted for under Topic 840, *Leases*, which did not require the recognition of operating leases on the balance sheet and is not comparative. As permitted under ASC 842, the Company elected the package of practical expedients for expired or existing contracts, which does not require the reassessment of prior conclusions about lease identification, lease classification and initial direct costs. The Company also elected practical expedients relating to its ongoing accounting, including a short-term lease recognition exemption allowing lessees not to recognize ROU assets and liabilities with terms of 12 months or less and an election not to separate lease and non-lease components for all leases except vehicle leases.

The adoption of this standard as of the beginning of 2019 resulted in increases of 2.3% to total assets and 4.8% to total liabilities and an immaterial decrease to retained earnings. In addition, the adoption of this ASU did not have a material impact on the Company's condensed consolidated statements of income or cash flows. See [Note 9](#), *Leases*, for the required lease accounting disclosures.

*Derivatives and Hedging (Topic 815), Targeted Improvements in Accounting for Hedging Activity*. In August 2017, the FASB issued ASU No. 2017-12, which revises hedge accounting to better portray the economic results of an entity's risk management activities, simplifies hedge accounting guidance, and improves disclosures of hedge accounting arrangements. The

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

Company adopted this ASU on a prospective basis at the beginning of 2019. The adoption of this ASU did not have an impact on the Company's condensed consolidated financial statements.

*Compensation-Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20), Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans.* In August 2018, the FASB issued ASU 2018-14, which removes, adds and clarifies several disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. This new guidance is effective on a retrospective basis for the Company in fiscal 2020. Early adoption is permitted. The Company elected to early adopt this ASU in the fourth quarter of 2019, which did not have a material effect on its consolidated financial statements. See [Note 3](#), Employee Benefit Plans, for revised disclosures.

*Recent Accounting Pronouncements Not Yet Adopted*

*Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments.* In June 2016, the FASB issued ASU No. 2016-13, which changes the way entities recognize impairment of financial assets measured at amortized costs, such as accounts receivable, by requiring immediate recognition of estimated credit losses expected to occur over their remaining lives. This new guidance is effective for the Company in fiscal 2020. The Company does not expect the adoption of this ASU will have a material impact on its consolidated financial statements.

*Income Taxes (Topic 740), Simplifying the Accounting for Income Taxes.* In December 2019, the FASB issued ASU No. 2019-12, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and by clarifying and amending existing guidance, including the recognition of franchise tax, the treatment of a step up in the tax basis of goodwill, and the timing for recognition of enacted changes in tax laws or rates in the interim period annual effective tax rate computation. This new guidance is effective for the Company in fiscal 2021, with early adoption permitted. The Company is currently evaluating the effects that the adoption of this ASU will have on its consolidated financial statements.

**2. Acquisitions****2019**

In September 2019, the Company acquired certain assets of a business in Brazil for its Papermaking Systems segment for approximately \$407,000 in cash.

In January 2019, the Company acquired, directly and indirectly, all the outstanding equity interests of Syntron Material Handling Group, LLC and certain of its affiliates (SMH) pursuant to an equity purchase agreement, dated December 9, 2018, for \$176,855,000, net of cash acquired. The Company funded the acquisition through borrowings under its revolving credit facility.

SMH, which comprises the Company's Material Handling Systems segment, has manufacturing operations in Mississippi, United States, and China. SMH is a leading provider of material handling equipment and systems to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper. The Company expects several synergies in connection with this acquisition, including expansion of product sales into new markets by leveraging SMH's existing presence, strengthening of SMH's relationships in the pulp and paper industry, and sourcing efficiencies. Goodwill from the SMH acquisition was \$78,592,000, of which \$59,195,000 is expected to be deductible for tax purposes over 15 years. In addition, intangible assets acquired were \$83,020,000, of which \$69,969,000 is expected to be deductible for tax purposes over 15 years. For 2019, the Company recorded revenues of \$83,364,000 and operating income of \$3,132,000 for SMH from the date of acquisition, including amortization expense of \$4,872,000 associated with acquired profit in inventory and backlog and \$843,000 of acquisition transaction costs.

Notes to Consolidated Financial Statements

2. Acquisitions (continued)

The following table summarizes the estimated fair values of assets acquired and liabilities assumed and the purchase price for SMH. During the fourth quarter of 2019, the Company made an adjustment to reduce goodwill by \$1,704,000, principally due to a reduction of long-term deferred income tax liabilities as a result of the tax attributes acquired.

(In thousands)	SMH	
	January 2, 2019	
<b>Net Assets Acquired:</b>		
Cash, Cash Equivalents, and Restricted Cash	\$	2,431
Accounts Receivable		10,275
Inventories		13,061
Property, Plant, and Equipment		7,383
Other Assets		12,054
Definite-Lived Intangible Assets		
Customer relationships		58,300
Product technology		11,000
Other		4,220
Indefinite-Lived Intangible Assets		
Tradenames		9,500
Goodwill		78,592
Total assets acquired		206,816
Accounts Payable		3,380
Other Current Liabilities		7,954
Long-Term Lease Liabilities		15,244
Long-Term Deferred Income Taxes		952
Total liabilities assumed		27,530
Net assets acquired	\$	179,286
<b>Purchase Price:</b>		
Cash Paid to Seller Borrowed Under Revolving Credit Facility	\$	179,286

The weighted-average amortization period for the definite-lived intangible assets above is 14 years, including weighted-average amortization periods of 15 years for customer relationships, 14 years for product technology, and 8 years for other intangible assets.

Unaudited Supplemental Pro Forma Information

Had the acquisition of SMH been completed as of the beginning of 2018, the Company's pro forma results of operations for 2019 and 2018 would have been as follows:

(In thousands, except per share amounts)	December 28, 2019	December 29, 2018
Revenues	\$ 704,644	\$ 719,142
Net Income Attributable to Kadant	\$ 56,409	\$ 56,511
Earnings per Share Attributable to Kadant		
Basic	\$ 5.02	\$ 5.10
Diluted	\$ 4.92	\$ 4.96

The historical consolidated financial information of the Company and SMH has been adjusted in the pro forma information to give effect to pro forma events that are directly attributable to the acquisition and related financing arrangements, are expected to have a continuing impact on the Company, and are factually supportable.

## Notes to Consolidated Financial Statements

**2. Acquisitions (continued)**

Pro forma results include the following non-recurring pro forma adjustments that were directly attributable to the acquisition:

- Pre-tax charge to SG&A expenses of \$843,000 in 2018 and reversal of \$843,000 in 2019 for acquisition transaction costs.
- Pre-tax charge to cost of revenues of \$3,549,000 in 2018 and reversal of \$3,549,000 in 2019 for the sale of inventory revalued at the date of acquisition.
- Pre-tax charge to SG&A expenses of \$1,323,000 in 2018 and reversal of \$1,323,000 in 2019 for intangible asset amortization related to acquired backlog.
- Tax effects related to pro forma adjustments.

These pro forma results of operations have been prepared for comparative purposes only, and they do not purport to be indicative of the results of operations that would have resulted had the acquisition of SMH occurred as of the beginning of 2018, or that may result in the future.

**2017**

On August 14, 2017, the Company acquired certain assets of Unaflex, LLC (Unaflex) for \$31,274,000 in cash. The Company funded the acquisition through borrowings under its revolving credit facility. Unaflex, located principally in South Carolina, is a leading manufacturer of expansion joints and related products for process industries. This acquisition complemented the Company's existing Fluid-Handling product line within its Papermaking Systems segment. The Company anticipated and continues to achieve several synergies in connection with this acquisition, including the expansion of sales by Unaflex through leveraging the Company's sales efforts, as well as sourcing and manufacturing efficiencies. Goodwill from the Unaflex acquisition was \$15,640,000, all of which is expected to be deductible for tax purposes over 15 years. In addition, intangible assets acquired were \$11,200,000, all of which is expected to be deductible for tax purposes over 15 years. For 2017, the Company recorded revenues of \$7,335,000 and operating income of \$187,000 for Unaflex from its date of acquisition, including amortization expense of \$176,000 associated with acquired profit in inventory, and \$596,000 of acquisition transaction costs.

On July 5, 2017, the Company acquired NII FPG pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for \$170,792,000, net of cash acquired. In connection with the acquisition, the Company borrowed an aggregate \$170,018,000 under its revolving credit facility, including \$62,690,000 of Canadian dollar-denominated and \$61,769,000 of euro-denominated borrowings. NII FPG, which has two primary manufacturing facilities located in Canada and Finland, is a global leader in the design and manufacture of equipment used by sawmills, veneer mills, and other manufacturers in the forest products industry. NII FPG also designs and manufactures logging equipment used in harvesting timber from forest plantations. This acquisition extended the Company's presence deeper into the forest products industry and complemented its existing Wood Processing Systems segment. Goodwill from the NII FPG acquisition was \$85,432,000, of which \$33,993,000 is expected to be deductible for tax purposes over 15 years. In addition, intangible assets acquired were \$72,812,000, of which \$10,044,000 is expected to be deductible for tax purposes over 15 years. For 2017, the Company recorded revenues of \$48,363,000 and operating income of \$1,238,000 for NII FPG from its date of acquisition, including amortization expense of \$6,399,000 associated with acquired profit in inventory and backlog, and \$4,764,000 of acquisition transaction costs.

In addition, the Company paid \$2,500,000 in cash in 2017 for another acquisition within the Fluid-Handling product line in the Company's Papermaking Systems segment.

## Notes to Consolidated Financial Statements

## 2. Acquisitions (continued)

The following table summarizes the estimated fair values of assets acquired and liabilities assumed and the purchase price for the Company's 2017 acquisitions.

(In thousands)	NII FPG		Unaflex		Other		Total
	July 5, 2017		August 14, 2017		October 30, 2017		
<b>Net Assets Acquired:</b>							
Cash and Cash Equivalents	\$	2,219	\$	—	\$	—	\$ 2,219
Accounts Receivable		6,542		2,079		—	8,621
Inventories		25,304		2,033		—	27,337
Property, Plant, and Equipment		12,912		1,279		284	14,475
Other Assets		2,375		72		—	2,447
<b>Definite-Lived Intangible Assets</b>							
Customer relationships		44,682		8,000		1,500	54,182
Product technology		17,100		2,300		—	19,400
Other		2,530		900		—	3,430
<b>Indefinite-Lived Intangible Assets</b>							
Tradenames		8,500		—		—	8,500
Goodwill		85,432		15,640		716	101,788
Total assets acquired		207,596		32,303		2,500	242,399
<b>Liabilities Assumed:</b>							
Accounts Payable		4,970		358		—	5,328
Customer Deposits		7,396		100		—	7,496
Long-Term Deferred Income Taxes		16,622		—		—	16,622
Other Liabilities		5,597		571		—	6,168
Total liabilities assumed		34,585		1,029		—	35,614
Net assets acquired	\$	173,011	\$	31,274	\$	2,500	\$ 206,785
<b>Purchase Price:</b>							
Cash Paid	\$	2,993	\$	—	\$	—	\$ 2,993
Cash Paid to Seller Borrowed Under the Revolving Credit Facility		170,018		31,274		2,500	203,792
Total purchase price	\$	173,011	\$	31,274	\$	2,500	\$ 206,785

For NII FPG, the weighted-average amortization period for definite-lived intangible assets acquired is 12 years, including weighted-average amortization periods of 15 years for product technology, 11 years for customer relationships, and 4 years for other intangible assets. For Unaflex, the weighted average amortization period for definite-lived intangible assets acquired, including customer relationships, product technology and other intangible assets, is 10 years. For the other acquisition, the amortization period for customer relationships is 11 years.

## Unaudited Supplemental Pro Forma Information

Had the acquisitions of NII FPG and Unaflex been completed as of the beginning of 2016, the Company's pro forma results of operations for 2017 would have been as follows:

(In thousands, except per share amounts)	December 30, 2017
Revenues	\$ 565,710
Net Income Attributable to Kadant	\$ 44,159
<b>Earnings per Share Attributable to Kadant</b>	
Basic	\$ 4.02
Diluted	\$ 3.90

## Notes to Consolidated Financial Statements

## 2. Acquisitions (continued)

Pro forma results include the following non-recurring pro forma adjustments that were directly attributable to the acquisitions:

- Reversal of pre-tax charge to SG&A expenses of \$5,360,000 in 2017 for acquisition transaction costs.
- Reversal of pre-tax charge to cost of revenues of \$5,137,000 in 2017 for the sale of inventory revalued at the date of acquisition.
- Reversal of pre-tax charge to SG&A expenses of \$1,438,000 in 2017 for intangible asset amortization related to acquired backlog.
- Reversal of pre-tax income of \$852,000 in 2017 related to NII FPG's gain on the sale of a building.
- Tax effects related to pro forma adjustments.

These pro forma results of operations have been prepared for comparative purposes only, and they do not purport to be indicative of the results of operations that would have resulted had the acquisitions of NII FPG and Unaflex occurred as of the beginning of 2016, or that may result in the future. The Company's pro forma results above exclude its other 2017 acquisition as those results would not have been materially different than the results presented above had they occurred at the beginning of 2016.

## 3. Employee Benefit Plans

## Stock-Based Compensation Plans

The Company maintains stock-based compensation plans primarily for its key employees and directors, although the plans permit awards to others expected to make significant contributions to the future of the Company. The plans authorize the compensation committee of the Company's board of directors (the board committee) to award a variety of stock and stock-based incentives, such as restricted stock, RSUs, nonqualified and incentive stock options, stock bonus shares, or performance-based shares. The award recipients and the terms of awards granted under these plans are determined by the board committee. Upon a change of control, as defined in the plans, all options or other awards become fully vested and all restrictions lapse. The Company had 409,295 shares available for grant under stock-based compensation plans at year-end 2019. The Company generally issues its common stock out of treasury stock, to the extent available, for share issuances related to its stock-based compensation plans.

The Company recognizes compensation cost for all stock-based awards granted to employees and directors based on the grant date estimate of fair value for those awards. The fair value of RSUs is based on the grant date price of the Company's common stock, reduced by the present value of estimated dividends foregone during the requisite service period. The fair value of stock options is based on the Black-Scholes option-pricing model.

The components of pre-tax stock-based compensation expense included in SG&A expenses in the accompanying consolidated statement of income are as follows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
RSU Awards	\$ 6,616	\$ 6,838	\$ 5,621
Employee Stock Purchase Plan Awards	199	189	182
Total	<u>\$ 6,815</u>	<u>\$ 7,027</u>	<u>\$ 5,803</u>

The Company grants RSUs to non-employee directors and certain employees. Holders of RSUs have no voting rights and are not entitled to receive cash dividends.

*Non-Employee Director Restricted Stock Units*

The Company granted RSU awards consisting of 1,858 RSUs in 2019, 2,700 RSUs in 2018 and 3,000 RSUs in 2017 to each of its incumbent non-employee directors. Each RSU represents the right to receive one share of the Company's common stock upon vesting. Of the RSUs granted in 2019 and 2018, half of the RSUs vested on June 1 of each year and the remaining RSUs vested ratably on the last day of the third and fourth fiscal quarters of each year. The 2017 RSUs vested ratably on the last day of each fiscal quarter within the year.

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

*Performance-Based Restricted Stock Units*

The Company grants performance-based RSUs to certain officers of the Company. Each performance-based RSU represents the right to receive one share of the Company's common stock upon vesting. The RSUs are subject to adjustment based on the achievement of a performance measure selected for the fiscal year, which historically has been a specified target for adjusted earnings before interest, taxes, depreciation, and amortization (adjusted EBITDA) generated from operations. Following the adjustment, the RSUs are subject to additional time-based vesting, and vest in three equal annual installments, provided that the officer is employed by the Company on the applicable vesting dates.

The Company recognizes compensation expense associated with performance-based RSUs ratably over the requisite service period for each separately-vesting portion of the award based on the grant date fair value, net of actual forfeitures recorded when they occur, and remeasured each reporting period until the total number of RSUs to be issued is known. Unrecognized compensation expense related to the unvested performance-based RSUs totaled \$1,688,000 at year-end 2019, and will be recognized over a weighted average period of 1.3 years.

The performance-based RSU agreements provide for forfeiture in certain events, such as voluntary or involuntary termination of employment, and for acceleration of vesting in certain events, such as death, disability or a change in control of the Company. If death, disability, or a change in control occurs prior to the end of the performance period, the officer will receive the target RSU amount; otherwise, the officer will receive the number of deliverable RSUs based on the achievement of the performance goal, as stated in the RSU agreements.

*Time-Based Restricted Stock Units*

The Company grants time-based RSUs to its officers and other employees of the Company. Each time-based RSU represents the right to receive one share of the Company's common stock upon vesting. The Company recognizes compensation expense associated with these time-based RSUs ratably over the requisite service period for the entire award based on the grant date fair value, and net of actual forfeitures recorded when they occur. The time-based RSU agreement provides for forfeiture in certain events, such as voluntary or involuntary termination of employment, and for acceleration of vesting in certain events, such as death, disability, or a change in control of the Company. Unrecognized compensation expense related to the time-based RSUs totaled \$3,170,000 at year-end 2019, and will be recognized over a weighted average period of 1.7 years.

A summary of the activity of the Company's unvested RSUs in 2019 is as follows:

	Units (In thousands)	Weighted Average Grant- Date Fair Value
Unvested RSUs at December 29, 2018	156	\$ 68.57
Granted	75	\$ 86.50
Vested	(94)	\$ 57.81
Forfeited	(2)	\$ 65.02
Unvested RSUs at December 28, 2019	<u>135</u>	<u>\$ 86.11</u>

The weighted-average grant date fair value of RSUs granted was \$86.50 in 2019, \$98.12 in 2018, and \$59.30 in 2017. The total fair value of shares vested was \$5,452,000 in 2019, \$11,932,000 in 2018, and \$6,719,000 in 2017.

*Stock Options*

The Company has not granted stock options since 2013. Prior to 2014, the Company granted nonqualified stock options to its executive officers that vested over three years and were not exercisable until vested. All options awarded in prior periods were granted at an exercise price equal to the fair market value of the Company's common stock on the date of grant. Stock options vested in three equal annual installments beginning on the first anniversary of the grant date, provided that the recipient remained employed by the Company on the applicable vesting dates and expire on the tenth anniversary of the grant date. All outstanding stock options are fully vested. The Company recognized compensation expense associated with these stock options ratably over the requisite service period for the entire award based on the grant date fair value, net of forfeitures. There was no unrecognized compensation expense related to these stock options at year-end 2019.

Notes to Consolidated Financial Statements

3. Employee Benefit Plans (continued)

The Company used the Black-Scholes option-pricing model to determine the fair value of stock options, which was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. Option-pricing models require the input of highly subjective assumptions, including expected stock price volatility. Expected stock price volatility was calculated based on a review of the Company's actual historic stock prices commensurate with the expected life of the award. The expected option life was derived based on a review of the Company's historic option holding periods, including consideration of the holding period inherent in currently vested but unexercised options. The expected annual dividend rate was calculated by dividing the Company's annual dividend by the closing stock price on the grant date. The risk-free interest rate is based on the yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected term of the option. The compensation expense recognized for these equity-based awards was net of estimated forfeitures. Forfeitures were estimated based on an analysis of actual option forfeitures.

A summary of the Company's stock option activity in 2019 is as follows:

<b>(In thousands, except per share amounts)</b>	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life</b>	<b>Aggregate Intrinsic Value (a)</b>
Options Outstanding at December 29, 2018	299	\$ 20.86		
Exercised	(225)	\$ 19.75		
Options Outstanding at December 28, 2019	74	\$ 24.28	2.3 years	\$ 6,002
Vested and Exercisable at December 28, 2019	74	\$ 24.28	2.3 years	\$ 6,002

(a) The closing price per share on the last trading day prior to year-end 2019 was \$105.76.

There were no stock option exercises in 2017. A summary of the Company's stock option exercises in 2019 and 2018 are as follows:

<b>(In thousands)</b>	<b>December 28, 2019</b>	<b>December 29, 2018</b>
Total Intrinsic Value of Options Exercised	\$ 16,796	\$ 515
Cash Received from Options Exercised	\$ 4,454	\$ 127

Modified Awards

On September 20, 2017, the Company entered into an executive transition agreement with its vice president, general counsel and secretary in connection with her retirement on July 1, 2018. This agreement included provisions for post-employment compensation and modifications to outstanding equity awards. The Company recognized \$374,000 of post-employment compensation ratably through the retirement date. Pursuant to this agreement, all unvested RSUs vested at the retirement date. As of September 20, 2017, 4,254 RSUs were remeasured at a fair value of \$93.82 per unit. The remaining compensation expense associated with the modified RSUs totaled \$332,000 as of September 20, 2017, which was recognized ratably through the retirement date.

Employee Stock Purchase Plan

The Company's eligible U.S. employees may elect to participate in its employee stock purchase plan. Under the plan, shares of the Company's common stock may be purchased at a 15% discount from the fair market value at the beginning or end of the purchase period, whichever is lower. Shares purchased under the plan are subject to a one-year resale restriction and are purchased through payroll deductions of up to 10% of each participating employee's gross wages. The Company issued 13,195 shares for 2019 (issued in 2020), 10,439 shares for 2018 (issued in 2019), and 13,156 shares for 2017 (issued in 2018) of its common stock under this plan.

## Notes to Consolidated Financial Statements

**3. Employee Benefit Plans (continued)****401(k) Savings and Other Defined Contribution Plans**

The Company's U.S. subsidiaries participate in the Kadant Inc. 401(k) Retirement Savings Plan sponsored by the Company. Contributions to the plan are made by both the employee and the Company and are immediately vested. Company contributions are based upon the level of employee contributions.

Certain of the Company's subsidiaries offer other retirement plans, the majority of which are defined contribution plans. Company contributions to these plans are based on formulas determined by the Company.

For these plans, the Company contributed and charged to expense \$4,412,000 in 2019, \$3,705,000 in 2018, and \$3,327,000 in 2017. The increases in the Company's contributions to these benefit plans in 2019 and 2018 are primarily due to the acquisitions of SMH and Unaflex, respectively.

**Pension and Other Post-Retirement Benefits Plans**

Prior to its termination at year-end 2018, the Company sponsored a noncontributory defined benefit pension plan for eligible employees at one of its U.S. divisions and its corporate office (Retirement Plan). Funds for the Retirement Plan were contributed to a trustee to provide for current service and for any unfunded projected benefit obligation over a reasonable period. Certain of the Company's non-U.S. subsidiaries also sponsor defined benefit pension plans covering certain employees at those subsidiaries. One of the non-U.S. pension plans also contributes funds to a trustee. The remaining non-U.S. pension plans are unfunded as permitted under their plans and applicable laws. Benefits under the Company's pension plans are based on years of service and employee compensation.

The Company also provides other post-retirement benefits under plans in the United States and at one of its non-U.S. subsidiaries. Prior to its termination at year-end 2018, the Company provided for a restoration plan (Restoration Plan) for certain executive officers which fully supplemented benefits lost under the Retirement Plan.

In accordance with ASC 715, *Compensation-Retirement Benefits (ASC 715)*, the Company recognizes the funded status of its defined benefit pension and other post-retirement benefit plans as an asset or liability and changes in the funded status through AOCI, net of tax. The amounts in AOCI are recognized as net periodic pension cost pursuant to the Company's historical accounting policy for amortizing such amounts. Further, actuarial gains and losses that arise in subsequent periods and are not recognized as net periodic benefit cost will be recognized as a component of AOCI, net of tax.

In 2018, the Company's board of directors and its compensation committee approved amendments to freeze and terminate the Retirement Plan and Restoration Plan as of December 29, 2018 and, as a result, incurred a curtailment loss of \$1,425,000, which was reclassified from AOCI and included in other expense, net in the accompanying consolidated statement of income in the fourth quarter of 2018. Additionally, an effect of curtailment of \$4,862,000 was recognized as a reduction in AOCI and accrued pension liability in the accompanying consolidated balance sheet at year-end 2018.

In the fourth quarter of 2019, the Company settled its Retirement Plan obligation, which required adjustment based on the number of plan participants who elected to receive either a lump sum payment or an annuity, and the increased costs to purchase the annuity contracts due to changes in certain market conditions, including a decrease in long-term interest rates in 2019. As a result, the Company recognized a settlement loss of \$5,887,000, which is included in other expense, net in the accompanying consolidated statement of income, and was calculated as the sum of the unrecognized actuarial loss and \$3,839,000 of additional cash to be paid, less the accrued pension liability. Subsequent to year-end 2019, the Company settled its Restoration Plan obligation of \$2,427,000 by paying a lump sum to its plan participants.

The Company does not plan to make any other material cash contributions to its other pension and post-retirement plans in 2020.

The following table summarizes the change in benefit obligation; the change in plan assets; the unfunded status; and the amounts recognized in the accompanying consolidated balance sheet for the Company's U.S. and non-U.S. pension benefit plans and other post-retirement benefit plans. In accordance with ASU No. 2015-04, *Compensation - Retirement Benefits (Topic 715)*, the Company elects to measure its plan assets and benefit obligations as of December 31.

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

(In thousands)	U.S. Pension (a)		Non-U.S. Pension		Other Post-Retirement	
	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018
Change in Projected Benefit Obligation:						
Projected benefit obligation at beginning of year	\$ 29,715	\$ 34,757	\$ 3,671	\$ 4,270	\$ 3,672	\$ 4,704
Service cost	—	699	205	173	4	213
Interest cost	1,134	1,193	121	126	149	172
Actuarial loss (gain)	4,039	(2,674)	393	(368)	144	(508)
Benefits paid	(966)	(1,589)	(184)	(394)	(232)	(157)
Plan amendment	—	1,116	—	—	—	322
Effect of curtailment	—	(3,787)	—	—	—	(1,075)
Settlement payment	(33,922)	—	—	—	—	—
Currency translation	—	—	(38)	(136)	5	1
Projected benefit obligation at end of year	\$ —	\$ 29,715	\$ 4,168	\$ 3,671	\$ 3,742	\$ 3,672
Change in Plan Assets:						
Fair value of plan assets at beginning of year	\$ 28,729	\$ 31,754	\$ 726	\$ 557	\$ 44	\$ 35
Actual return on plan assets	2,320	(1,436)	58	38	4	2
Employer contributions	3,839	—	340	528	246	164
Benefits paid	(966)	(1,589)	(184)	(394)	(232)	(157)
Settlement payment	(33,922)	—	—	—	—	—
Currency translation	—	—	33	(3)	2	—
Fair value of plan assets at end of year	\$ —	\$ 28,729	\$ 973	\$ 726	\$ 64	\$ 44
Unfunded Status	\$ —	\$ (986)	\$ (3,195)	\$ (2,945)	\$ (3,678)	\$ (3,628)
Accumulated Benefit Obligation at End of Year	\$ —	\$ 29,715	\$ 3,046	\$ 2,604	\$ —	\$ —
Amounts Included in the Balance Sheet:						
Current liability	\$ —	\$ (986)	\$ (189)	\$ (58)	\$ (2,569)	\$ (144)
Non-current liability	\$ —	\$ —	\$ (3,006)	\$ (2,887)	\$ (1,109)	\$ (3,484)
Amounts Included in Accumulated Other Comprehensive Items Before Tax:						
Unrecognized net actuarial loss	\$ —	\$ (3,205)	\$ (1,034)	\$ (674)	\$ (144)	\$ (69)
Unrecognized prior service cost	—	—	(38)	(45)	—	—
	\$ —	\$ (3,205)	\$ (1,072)	\$ (719)	\$ (144)	\$ (69)

- (a) The actuarial loss of \$4,039,000 in 2019 resulted from the settlement of the Retirement Plan obligation in which participants' lump sum elections were lower than assumed, and the cost of the liabilities for the participants' annuity contracts increased primarily due to a decline in long-term interest rates in 2019. The actuarial gain of \$2,674,000 in 2018 related to an increase in the Retirement Plan's weighted average discount rate and the impact of an updated mortality table, net of a decrease due to a change in the demographic mix.

(In thousands)	U.S. Pension		Non-U.S. Pension		Other Post-Retirement	
	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018
Changes in Amounts Included in Accumulated Other Comprehensive Items Before Tax:						
Net actuarial (loss) gain	\$ (2,714)	\$ (48)	\$ (402)	\$ 368	\$ (88)	\$ 508
Amortization of net actuarial loss	32	541	25	63	13	136
Amortization of prior service cost	—	—	6	6	—	86
Plan amendment	—	(1,116)	—	—	—	(322)
Effect of curtailment	—	3,787	—	—	—	1,075
Settlement loss	5,887	—	—	—	—	—
Curtailment loss	—	1,116	—	—	—	309
Currency translation	—	—	18	(19)	—	2
	\$ 3,205	\$ 4,280	\$ (353)	\$ 418	\$ (75)	\$ 1,794

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

The weighted-average assumptions used to determine the benefit obligation are as follows:

	U.S. Pension		Non-U.S. Pension		Other Post-Retirement	
	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018
Discount rate	—%	4.10%	2.59%	3.56%	3.82%	4.32%
Rate of compensation increase	—	—%	3.40%	3.24%	5.57%	5.57%

The discount rates for pension and other post-retirement plans are based on market yields on high-quality corporate bonds currently available and expected to be available during the period to maturity of the benefits. For pension and post-retirement plans that have been closed to new participants thereby shortening the duration, the discount rate is determined based on discounting the projected benefit streams against the Citigroup Pension discount curve.

The projected benefit obligations and fair values of plan assets for the Company's pension plans with projected benefit obligations in excess of plan assets are as follows:

(In thousands)	U.S. Pension		Non-U.S. Pension	
	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018
Projected benefit obligation	\$ —	\$ 29,715	\$ 4,168	\$ 3,671
Fair value of plan assets	\$ —	\$ 28,729	\$ 973	\$ 726

The accumulated benefit obligations and fair values of plan assets for the Company's pension plans with accumulated benefit obligations in excess of plan assets are as follows:

(In thousands)	U.S. Pension		Non-U.S. Pension	
	December 28, 2019	December 29, 2018	December 28, 2019	December 29, 2018
Accumulated benefit obligation	\$ —	\$ 29,715	\$ 2,408	\$ 2,307
Fair value of plan assets	\$ —	\$ 28,729	\$ —	\$ —

The components of net periodic benefit cost are as follows:

(In thousands)	U.S. Pension			Non-U.S. Pension			Other Post-Retirement		
	December 28, 2019	December 29, 2018	December 30, 2017	December 28, 2019	December 29, 2018	December 30, 2017	December 28, 2019	December 29, 2018	December 30, 2017
Service cost	\$ —	\$ 699	\$ 685	\$ 205	\$ 173	\$ 148	\$ 4	\$ 213	\$ 175
Interest cost	1,134	1,193	1,231	121	126	114	149	172	170
Expected return on plan assets	(995)	(1,286)	(1,326)	(66)	(42)	(25)	(4)	(3)	(2)
Amortization of net actuarial loss	32	541	442	25	63	38	13	136	83
Amortization of prior service cost	—	—	53	6	6	6	—	86	88
Settlement loss	5,887	—	—	—	—	—	57	—	—
Curtailement loss	—	1,116	—	—	—	—	—	309	—
Net Periodic Benefit Cost	\$ 6,058	\$ 2,263	\$ 1,085	\$ 291	\$ 326	\$ 281	\$ 219	\$ 913	\$ 514

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

The weighted-average assumptions used to determine net periodic benefit cost are as follows:

	U.S. Pension			Non-U.S. Pension			Other Post-Retirement		
	December 28, 2019	December 29, 2018	December 30, 2017	December 28, 2019	December 29, 2018	December 30, 2017	December 28, 2019	December 29, 2018	December 30, 2017
Discount Rate	4.10%	3.51%	4.03%	2.58%	3.49%	3.45%	4.33%	3.58%	4.10%
Expected Long-Term Return on Plan Assets	4.10%	4.50%	5.00%	9.22%	7.43%	7.53%	9.22%	7.43%	7.53%
Rate of Compensation Increase	—%	3.00%	3.00%	2.81%	3.97%	3.65%	5.57%	3.05%	3.08%

In developing the overall expected long-term return on plan assets assumption, a building block approach was used in which rates of return in excess of inflation were considered separately for equity securities, debt securities, and other assets. The excess returns were weighted by the representative target allocation and added along with an appropriate rate of inflation to develop the overall expected long-term return on plan assets assumption. The Company believes this determination is consistent with ASC 715, *Compensation – Retirement Benefits*.

## Plan Assets

The fair values of the Company's noncontributory defined benefit retirement plan assets at year-end 2019 and year-end 2018 by asset category are as follows:

(In thousands)	December 28, 2019 Fair Value Measurement			
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Non-U.S. Pension Plan Assets:				
Mutual funds	\$ 973	\$ —	\$ —	\$ 973
Total assets at fair value				\$ 973
(In thousands)	December 29, 2018 Fair Value Measurement			
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Retirement Plan Assets:				
Mutual funds:				
Fixed income funds	\$ 12,852	\$ —	\$ —	\$ 12,852
Equity funds	11,581	—	—	11,581
Investments measured at NAV				4,296
Total assets at fair value				\$ 28,729
Non-U.S. Pension Plan Assets:				
Mutual funds	\$ 726	\$ —	\$ —	\$ 726
Total assets at fair value				\$ 726

Notes to Consolidated Financial Statements

3. Employee Benefit Plans (continued)

Description of Fair Value Measurements

Level 1 – Quoted, active market prices for identical assets.

Level 2 – Observable inputs other than Level 1 prices, based on model-derived valuations in which all significant inputs are observable in active markets.

Level 3 – Unobservable inputs based on the Company's own assumptions.

The following is a description of the valuation methodologies used for assets measured at fair value. There were no changes in valuation techniques during 2019 or 2018.

*Mutual funds* - Investments in money market, common stock index and fixed income funds. Share prices of the funds, referred to as a fund's Net Asset Value (NAV), are calculated daily based on the closing market prices and accruals of securities in the fund's total portfolio (total value of the fund) divided by the number of fund shares currently issued and outstanding. There are no redemption restrictions.

*Investments measured at NAV* - Investments in common collective trusts that invest in a diversified blend of investment and non-investment grade fixed income securities and are valued at NAV provided by the fund administrator. The NAV is used as the practical expedient to estimate fair value. The NAVs of the funds are calculated monthly based on the closing market prices and accruals of securities in the fund's total portfolio (total value of the fund) divided by the number of fund shares currently issued and outstanding. Redemptions of the investments occur by contract at the respective fund's redemption date NAV.

Estimated Future Benefit Payments

Expected benefit payments are based on the same assumptions used to measure the Company's benefit obligation at year-end 2019. Estimated future benefit payments during the next five years and in aggregate for the five years thereafter are as follows:

(In thousands)	Non-U.S. Pension	Other Post-retirement
2020	\$ 189	\$ 2,569
2021	180	132
2022	143	124
2023	290	121
2024	393	108
2025-2029	2,156	444

4. Stockholders' Equity

Preferred Stock

The Company's Certificate of Incorporation authorizes up to 5,000,000 shares of preferred stock, \$.01 par value per share, for issuance by the Company's board of directors without further shareholder approval.

Common Stock

At year-end 2019, the Company had reserved 646,004 unissued shares of its common stock for possible issuance under its stock-based compensation plans.

## Notes to Consolidated Financial Statements

## 5. Income Taxes

The Tax Cuts and Jobs Act of 2017 (2017 Tax Act) was signed into law on December 22, 2017 and its provisions are generally effective for tax years beginning January 1, 2018. The most significant impacts of the 2017 Tax Act to the Company include a decrease in the federal corporate income tax rate from 35% to 21%, and a one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) related to the income tax accounting implications of the 2017 Tax Act, which provides guidance on accounting for the 2017 Tax Act's impact. In accordance with SAB 118, the Company recorded a provisional net income tax expense of \$7,487,000, including the impact of state taxes, in the fourth quarter of 2017, which consisted of a provisional amount for the one-time mandatory transition tax of \$10,303,000, partially offset by a provisional net tax benefit of \$2,816,000 for the re-measurement of the Company's deferred income tax assets and liabilities at the 21% federal corporate income tax rate. During 2018, the Company completed its accounting for the 2017 Tax Act under the SAB 118 guidance and recorded a net reduction of \$138,000 to the 2017 provisional amount related to the one-time mandatory transition tax.

While the 2017 Tax Act provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, Global Intangible Low-Taxed Income (GILTI) and Base Erosion Anti-Abuse Tax (BEAT). The Company has elected to account for the GILTI tax in the period in which it is incurred and, therefore, has not provided the deferred income tax impact of GILTI in its consolidated financial statements. In addition, the Company is not subject to the minimum tax pursuant to the BEAT provisions, but may be subject to such provision in the future.

The components of income before provision for income taxes are as follows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Domestic	\$ 93	\$ (397)	\$ 2,797
Foreign	68,829	79,925	54,856
	<u>\$ 68,922</u>	<u>\$ 79,528</u>	<u>\$ 57,653</u>

The components of the provision for income taxes are as follows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Current (Benefit) Provision:			
Federal	\$ (264)	\$ 724	\$ 7,835
Foreign	18,778	21,829	17,372
State	335	169	285
	<u>18,849</u>	<u>22,722</u>	<u>25,492</u>
Deferred (Benefit) Provision:			
Federal	(453)	(2,551)	4,682
Foreign	(1,253)	(1,761)	(3,563)
State	(785)	72	(541)
	<u>(2,491)</u>	<u>(4,240)</u>	<u>578</u>
	<u>\$ 16,358</u>	<u>\$ 18,482</u>	<u>\$ 26,070</u>

The Company receives a tax deduction upon the exercise of nonqualified stock options and the vesting of RSUs. The Company recognizes excess income tax benefits and tax deficiencies related to stock-based compensation arrangements as discrete items within the provision for income taxes in the reporting period in which they occur. The Company recognized an income tax benefit of \$3,807,000 in 2019, \$1,097,000 in 2018 and \$608,000 in 2017 in the Company's accompanying consolidated statement of income.

## Notes to Consolidated Financial Statements

## 5. Income Taxes (continued)

The provision for income taxes in the accompanying statement of income differs from the provision calculated by applying the statutory federal income tax rate to income before provision for income taxes due to the following:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
Provision for Income Taxes at Statutory Rate (21% in 2019 and 2018 and 35% in 2017)	\$ 14,474	\$ 16,701	\$ 20,179
Increases (Decreases) Resulting From:			
State income taxes, net of federal tax	(355)	164	151
U.S. tax cost of foreign earnings	146	1,215	761
Foreign tax rate differential	2,584	3,158	(3,747)
(Reversal of) provision for tax benefit reserves, net	(286)	(1,785)	1,517
Change in valuation allowance	81	141	(341)
Nondeductible expenses	2,454	781	1,177
Research and development tax credits	(381)	(445)	(297)
Excess tax benefit related to stock-based compensation	(3,352)	(967)	(581)
Impact of the U.S. Tax Cuts and Jobs Act	—	(106)	7,093
Other	993	(375)	158
	<u>\$ 16,358</u>	<u>\$ 18,482</u>	<u>\$ 26,070</u>

Net deferred tax liability in the accompanying consolidated balance sheet consists of the following:

(In thousands)	December 28, 2019	December 29, 2018
Deferred Tax Asset:		
Foreign, state, and alternative minimum tax credit carryforwards	\$ 776	\$ 184
Reserves and accruals	3,007	3,555
Net operating loss carryforwards	12,478	12,785
Inventory basis difference	4,107	3,692
Capitalized research expenses	2,813	—
Research and development	65	—
Employee compensation	3,630	4,382
Allowance for doubtful accounts	351	482
Lease liabilities	7,543	—
Other	478	294
Deferred tax asset, gross	35,248	25,374
Less: valuation allowance	(8,531)	(9,946)
Deferred tax asset, net	<u>26,717</u>	<u>15,428</u>
Deferred Tax Liability:		
Goodwill and intangible assets	(30,003)	(28,060)
Fixed asset basis difference	(4,557)	(3,565)
Provision for unremitted foreign earnings	(809)	(1,124)
Research and development	—	(54)
ROU assets	(6,433)	—
Other	(943)	(619)
Deferred tax liability	<u>(42,745)</u>	<u>(33,422)</u>
Net deferred tax liability	<u>\$ (16,028)</u>	<u>\$ (17,994)</u>

The deferred tax assets and liabilities are presented in the accompanying consolidated balance sheet within other assets and long-term deferred income taxes on a net basis by tax jurisdiction. The Company has established valuation allowances related to certain domestic and foreign deferred tax assets on deductible temporary differences, tax losses, and tax credit carryforwards. The valuation allowance at year-end 2019 was \$8,531,000, consisting of \$285,000 in the United States and \$8,246,000 in foreign jurisdictions. The decrease in the valuation allowance in 2019 of \$1,415,000 related primarily to tax rate changes and fluctuations in foreign currency exchange rates. Compliance with ASC 740 requires the Company to periodically evaluate the necessity of establishing or adjusting a valuation allowance for deferred tax assets depending on whether it is more likely than not that a related tax benefit will be realized in future periods. When assessing the need for a valuation allowance in a tax jurisdiction, the Company evaluates the weight of all available evidence to determine whether it is more likely than not

## Notes to Consolidated Financial Statements

## 5. Income Taxes (continued)

that some portion or all of the deferred tax assets will not be realized. As part of this evaluation, the Company considers its cumulative three-year history of earnings before income taxes, taxable income in prior carryback years, future reversals of existing taxable temporary differences, prudent and feasible tax planning strategies, and expected future results of operations. As of year-end 2019, the Company continued to maintain a valuation allowance in the United States against a portion of its state net operating loss carryforwards due to the uncertainty of future profitability in state jurisdictions. As of year-end 2019, the Company maintained valuation allowances in certain foreign jurisdictions because of the uncertainty of future profitability within those foreign jurisdictions.

At year-end 2019, the Company had U.S. federal and state net operating loss carryforwards of \$2,809,000 and \$35,879,000, respectively, and foreign net operating loss carryforwards of \$44,048,000. Of the U.S. federal net operating loss carryforwards, \$72,000 expires in 2036 and the remainder do not expire. The state net operating loss carryforwards begin to expire in 2020 and a portion does not expire. Of the foreign net operating loss carryforwards, \$461,000 will expire in the years 2022 through 2024, and the remainder do not expire. The Company also had a carryforward of disallowed business interest expense of \$2,151,000 from its acquisition of SMH in 2019 and foreign tax credits of \$687,000, of which \$120,000 came from the acquisition of SMH. The disallowed business interest expense carryforward does not expire, and the foreign tax credit carryforward begins to expire in 2024. The utilization of these tax attributes is limited to the Company's future taxable income, and certain of these tax attributes are subject to an annual limitation as a result of the acquisition of SMH, which constitutes a change of ownership as defined under Internal Revenue Code Section 382.

At year-end 2019, the Company had approximately \$240,302,000 of unremitted foreign earnings. During 2019, the Company repatriated \$93,456,000 of previously taxed foreign earnings to the United States and recognized an associated tax benefit of \$1,186,000. The Company intends to repatriate the distributable reserves of select foreign subsidiaries back to the United States and has recognized \$783,000 of net tax expense on the estimated repatriation amount during 2019. Except for these select foreign subsidiaries, the Company intends to indefinitely reinvest \$233,852,000 of these earnings of its international subsidiaries in order to support the current and future capital needs of their operations in the foreign jurisdictions, including the repayment of the Company's foreign debt. The related foreign withholding taxes, which would be required if the Company were to remit these foreign earnings to the United States, would be approximately \$5,790,000.

The Company operates within multiple tax jurisdictions and could be subject to audit in those jurisdictions. Such audits can involve complex income tax issues, which may require an extended period of time to resolve and may cover multiple years. In management's opinion, adequate provisions for income taxes have been made for all years subject to audit.

As of year-end 2019, the Company had \$8,331,000 of unrecognized tax benefits which, if recognized, would reduce the effective tax rate. A reconciliation of the beginning and ending amount of unrecognized tax benefits at year-end 2019 and year-end 2018 is as follows:

(In thousands)	December 28, 2019	December 29, 2018
Unrecognized Tax Benefits, Beginning of Year	\$ 12,364	\$ 7,843
Gross Increases—Tax Positions in Prior Periods	615	1,019
Gross Decreases—Tax Positions in Prior Periods	(4,373)	(390)
Gross Increases—Current-period Tax Positions	804	7,344
Settlements	—	(131)
Lapses of Statutes of Limitations	(1,094)	(3,190)
Currency Translation	15	(131)
Unrecognized Tax Benefits, End of Year	<u>\$ 8,331</u>	<u>\$ 12,364</u>

A portion of the unrecognized tax benefits generated in 2019 is offset by deferred tax assets in the accompanying consolidated balance sheet. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in the provision for income taxes. The Company has accrued \$1,717,000 at year-end 2019 and \$2,087,000 at year-end 2018 for the potential payment of interest and penalties. The interest and penalties included in the accompanying consolidated statement of income was an expense of \$420,000 in 2019 and \$544,000 in 2018.

The Company is currently under audit in certain tax jurisdictions. It is reasonably possible that over the next fiscal year the amount of liability for unrecognized tax benefits may be reduced by up to \$767,000 primarily from the expiration of tax statutes of limitations.

The Company remains subject to U.S. Federal income tax examinations for the tax years 2016 through 2019, and to non-U.S. income tax examinations for the tax years 2008 through 2019. In addition, the Company remains subject to state and local income tax examinations in the United States for the tax years 2004 through 2019.

## Notes to Consolidated Financial Statements

## 6. Long-Term Obligations

Long-term obligations are as follows:

(In thousands)	December 28, 2019	December 29, 2018
Revolving Credit Facility, due 2023	\$ 265,419	\$ 141,106
Commercial Real Estate Loan, due 2020 to 2028	19,425	20,475
Senior Promissory Notes, due 2023 to 2028	10,000	10,000
Finance Leases, due 2020 to 2025	2,308	—
Other Borrowings, due 2020 to 2023	4,000	4,388
Unamortized Debt Issuance Costs	(127)	(148)
Total	301,025	175,821
Less: Current Maturities of Long-Term Obligations	(2,851)	(1,668)
Long-Term Obligations	<u>\$ 298,174</u>	<u>\$ 174,153</u>

See [Note 10](#), Derivatives, for the fair value information related to the Company's long-term obligations.

*Revolving Credit Facility*

In 2018, the Company entered into a second amendment (Second Amendment) to its existing amended and restated five-year, unsecured multi-currency revolving credit facility, dated as of March 1, 2017 (as amended, the Credit Agreement). Pursuant to the Second Amendment, the Company has a borrowing capacity of \$400,000,000, with an uncommitted unsecured incremental borrowing facility of \$150,000,000 under its Credit Agreement, with a maturity date of December 14, 2023. Interest on borrowings outstanding accrues and is payable in arrears calculated at one of the following rates selected by the Company: (i) the Base Rate, plus an applicable margin of 0% to 1.25%, or (ii) the London Inter-Bank Offered Rate (LIBOR) (with a zero percent floor), as defined, plus an applicable margin of 1% to 2.25%. The Base Rate is calculated as the highest of (a) the federal funds rate plus 0.50%, (b) the prime rate as published by Citizens Bank, N.A. (Citizens) and (c) thirty-day USD LIBOR, as defined, plus 0.50%. The applicable margin is determined based upon the ratio of the Company's total debt, net of unrestricted cash up to \$30,000,000 and certain debt obligations, to earnings before interest, taxes, depreciation, and amortization (EBITDA) as defined in the Credit Agreement.

The obligations of the Company under the Credit Agreement may be accelerated upon the occurrence of an event of default, which includes customary events of default under such financing arrangements. In addition, the Credit Agreement contains negative covenants applicable to the Company and its subsidiaries, including financial covenants requiring the Company to maintain a maximum consolidated leverage ratio of 3.75 to 1.00, or for the quarter during which a material acquisition occurs and for the three fiscal quarters thereafter, 4.00 to 1.00, and limitations on making certain restricted payments (including dividends and stock repurchases).

Loans under the Credit Agreement are guaranteed by certain domestic subsidiaries of the Company. In addition, one of the Company's foreign subsidiaries entered into a separate guarantee agreement limited to certain obligations of two foreign subsidiary borrowers.

At year-end 2019, the outstanding balance under the Credit Agreement was \$265,419,000, and included \$62,423,000 of euro-denominated borrowings and \$32,996,000 of Canadian dollar-denominated borrowings. At year-end 2019, the Company had \$135,095,000 of borrowing capacity available under its Credit Agreement, which was calculated by translating its foreign-denominated borrowings using borrowing date foreign exchange rates.

See [Note 10](#), Derivatives, under the heading *Interest Rate Swap Agreements*, for information relating to the swap agreements used to hedge the Company's exposure to movements in the three-month LIBOR rate on its U.S. dollar-denominated debt borrowed under the Credit Agreement.

Unamortized debt issuance costs related to the Credit Agreement, of \$1,407,000 at year-end 2019 and \$1,735,000 at year-end 2018, are included in other assets in the accompanying consolidated balance sheet, and are being amortized to interest expense using the straight-line method.

The weighted average interest rate for the outstanding balance under the Credit Agreement was 2.97% as of year-end 2019.

## Notes to Consolidated Financial Statements

## 6. Long-Term Obligations (continued)

## Commercial Real Estate Loan

In 2018, the Company and certain domestic subsidiaries borrowed \$21,000,000 under a promissory note (Real Estate Loan) which is repayable in quarterly principal installments of \$262,500 over a ten-year period with the remaining principal balance of \$10,500,000 due upon maturity. Interest accrues and is payable quarterly in arrears at a fixed rate of 4.45% per annum. Any voluntary prepayments are subject to a 2% prepayment fee if paid in the twelve months following July 6, 2019 and are subject to a 1% prepayment fee if paid in the twelve months following July 6, 2020. Thereafter, no prepayment fee will be applied to voluntary prepayment by the Company.

The Real Estate Loan is secured by real estate and related personal property of the Company and certain of its domestic subsidiaries, pursuant to the mortgage and security agreements dated July 6, 2018 (Mortgage and Security Agreements). The obligations of the Company under the Real Estate Loan may be accelerated upon the occurrence of an event of default under the Real Estate Loan and the Mortgage and Security Agreements, which includes customary events of default for financings of this type. In addition, a default under the Credit Agreement or any successor credit facility would be an event of default under the Real Estate Loan. The effective interest rate for the Real Estate Loan, including amortization of debt issuance costs, was 4.60% as of December 28, 2019.

## Senior Promissory Notes

In 2018, the Company entered into an uncommitted, unsecured Multi-Currency Note Purchase and Private Shelf Agreement (Note Purchase Agreement). Simultaneous with the execution of the Note Purchase Agreement, the Company issued senior promissory notes (Initial Notes) in an aggregate principal amount of \$10,000,000, with a per annum interest rate of 4.90% payable semiannually, and a maturity date of December 14, 2028. The Company is required to prepay a portion of the principal of the Initial Notes beginning on December 14, 2023 and each year thereafter, and may optionally prepay the principal on the Initial Notes, together with any prepayment premium, at any time (in a minimum amount of \$1,000,000, or the foreign currency equivalent thereof, if applicable) in accordance with the Note Purchase Agreement. The obligations of the Initial Notes may be accelerated upon an event of default as defined in the Note Purchase Agreement, which includes customary events of default under such financing arrangements.

In accordance with the Note Purchase Agreement, the Company may also issue additional senior promissory notes (together with the Initial Notes, the Senior Promissory Notes) up to an additional \$115,000,000 until the earlier of December 14, 2021 or the thirtieth day after written notice to terminate the issuance and sale of additional notes pursuant to the Note Purchase Agreement. The Senior Promissory Notes are *pari passu* with the Company's indebtedness under the Credit Agreement, and any other senior debt of the Company, subject to certain specified exceptions, and participate in a sharing agreement with respect to the obligations of the Company and its subsidiaries under the Credit Agreement. The Senior Promissory Notes are guaranteed by certain of the Company's domestic subsidiaries.

## Annual Repayment Requirements

The following schedule presents the annual repayment requirements for the Company's long-term obligations, excluding its finance leases and its sales-leaseback financing arrangement, as of year-end 2019.

(In thousands)	
2020	\$ 1,253
2021	1,117
2022	1,050
2023	268,136
2024	2,717
2025 and Thereafter	20,843
	\$ 295,116

## Debt Compliance

At year-end 2019, the Company was in compliance with the covenants related to its debt obligations.

## Finance Leases

The Company's finance leases primarily relate to contracts for its vehicles. See [Note 9](#), Leases, for further information relating to the Company's finance leases.

## Notes to Consolidated Financial Statements

**6. Long-Term Obligations (continued)***Other Borrowings*

Other borrowings include a sale-leaseback financing arrangement for a manufacturing facility in Germany. Under this arrangement, the quarterly lease payment includes principal, interest, and a payment to the landlord toward a loan receivable. The interest rate on the outstanding obligation is 1.79%. The secured loan receivable, which is included in other assets in the accompanying consolidated balance sheet, was \$901,000 at year-end 2019. The lease arrangement provides for a fixed price purchase option, net of the projected loan receivable, of \$1,483,000 at the end of the lease term in 2022. If the Company does not exercise the purchase option for the facility, the Company will receive cash from the landlord to settle the loan receivable. As of year-end 2019, \$3,728,000 was outstanding under this obligation.

The following schedule presents future minimum lease payments for the Company's sales-leaseback financing arrangement as of year-end 2019.

<b>(In thousands)</b>	
2020	\$ 528
2021	528
2022	1,297
Total Minimum Lease Payments	\$ 2,353
Less: Imputed Interest	(108)
Present Value of Minimum Lease Payments	<u>\$ 2,245</u>

**7. Commitments and Contingencies***Letters of Credit and Bank Guarantees*

Outstanding letters of credit and bank guarantees issued on behalf of the Company, principally relating to performance obligations and customer deposit guarantees, totaled \$19,647,000 at year-end 2019. Certain of the Company's contracts, particularly for stock-preparation and systems orders, require the Company to provide a standby letter of credit or bank guarantee to a customer as beneficiary, limited in amount to a negotiated percentage of the total contract value, in order to guarantee warranty and performance obligations of the Company under the contract. Typically, these standby letters of credit and bank guarantees expire without being drawn by the beneficiary.

*Right of Recourse*

In the ordinary course of business, the Company's subsidiaries in China may receive banker's acceptance drafts from customers as payment for their trade accounts receivable. The drafts are noninterest-bearing obligations of the issuing bank and mature within six months of the origination date. The Company's subsidiaries in China may use these banker's acceptance drafts prior to the scheduled maturity date to settle outstanding accounts payable with vendors. Banker's acceptance drafts transferred to vendors are subject to customary right of recourse provisions prior to their scheduled maturity dates. The Company had \$7,003,000 at year-end 2019 and \$12,406,000 at year-end 2018 of banker's acceptance drafts subject to recourse, which were transferred to vendors and had not reached their scheduled maturity dates. Historically, the banker's acceptance drafts have settled upon maturity without any claim of recourse against the Company.

*Contingencies*

In the ordinary course of business, the Company is, at times, required to issue limited performance guarantees, some of which do not require the issuance of letters of credit to customers in support of these guarantees, relating to its equipment and systems. The Company generally limits its liability under these guarantees to amounts typically capped at 10% or less of the value of the contract. The Company believes that it has adequate reserves for any potential liability in connection with such guarantees.

*Litigation*

From time to time, the Company is subject to various claims and legal proceedings covering a range of matters that arise in the ordinary course of business. Such litigation may include, but is not limited to, claims and counterclaims by and against the Company for breach of contract or warranty, canceled contracts, product liability, or bankruptcy-related claims. For legal proceedings in which a loss is probable and estimable, the Company accrues a loss based on the low end of the range of estimated loss when there is no better estimate within the range. If the Company were found to be liable for any of the claims or counterclaims against it, the Company would incur a charge against earnings for amounts in excess of legal accruals.

## Notes to Consolidated Financial Statements

## 8. Restructuring Costs

During 2019, the Company experienced a significant decrease in revenues and operating results in its timber-harvesting product line included in its Wood Processing Systems segment, which was acquired in 2017 as part of the Company's acquisition of the forest products business of NII FPG (see [Note 2, Acquisitions](#)). Given the decline in this business, which the Company expects to continue into 2020, the Company undertook a restructuring plan in the fourth quarter of 2019 and incurred \$192,000 of severance costs, which are included in impairment and restructuring costs in the accompanying consolidated statement of income, associated with the reduction of six employees in Canada. The Company does not expect to incur additional charges related to this restructuring plan.

In 2017, the Company constructed a 160,000 square foot manufacturing facility in the United States that integrated its U.S. and Swedish papermaking stock-preparation product lines into a single manufacturing facility to achieve economies of scale and greater efficiencies. As a result of the consolidation and integration of these facilities, the Company developed a restructuring plan totaling \$1,920,000, primarily related to costs for the relocation of machinery and equipment and administrative offices, severance, and abandonment of leased facilities in the Papermaking Systems segment. As a result of this plan, the Company recorded restructuring charges of \$203,000 in 2017 associated with severance costs for the reduction of four employees in the United States and six employees in Sweden. In 2018, the Company recorded additional restructuring costs of \$1,717,000 related to this plan, including \$1,318,000 primarily for the relocation of machinery and equipment and administrative offices, \$454,000 associated with employee retention costs and abandonment of excess facility and other closure costs, and a reversal of \$55,000 of severance costs no longer required. These costs are included in impairment and restructuring costs in the accompanying consolidated statement of income. The Company does not expect to incur additional charges related to this restructuring plan.

A summary of the changes in accrued restructuring costs included in other accrued expenses in the accompanying consolidated balance sheet, which are expected to be paid in 2020, are as follows:

(In thousands)	Severance	Relocation	Other (a)	Total
<b>2019 Restructuring Plan</b>				
Provision	\$ 192	\$ —	\$ —	\$ 192
Usage	(109)	—	—	(109)
Currency translation	1	—	—	1
Balance at December 28, 2019	<u>\$ 84</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 84</u>
<b>2017 Restructuring Plan</b>				
Provision	\$ 203	\$ —	\$ —	\$ 203
Balance at December 30, 2017	203	—	—	203
(Reversal) Provision	(55)	1,318	454	1,717
Usage	(77)	(1,315)	(448)	(1,840)
Currency translation	(8)	(3)	(6)	(17)
Balance at December 29, 2018	63	—	—	63
Usage	—	—	—	—
Balance at December 28, 2019	<u>\$ 63</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 63</u>

(a) Includes employee retention costs that are accrued ratably over the period through which employees must work to qualify for a payment and facility closure and clean-up costs.

## Notes to Consolidated Financial Statements

## 9. Leases

Under ASC 842, *Leases*, the Company determines if an arrangement is a lease obligation at inception of the contract. The Company enters into operating and finance lease commitments primarily for its manufacturing and office space, vehicles, and equipment leases that expire on various dates over the next 15 years, some of which include one or more options to extend the lease for up to 5 years. In addition, the Company leases land associated with certain of its buildings in Canada and China, under long-term leases expiring on various dates ranging from 2032 to 2062, one of which includes an assumed option to extend the lease for up to 10 years.

The Company's operating lease ROU assets and corresponding lease liabilities with contract terms greater than 12 months are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. In determining the present value of future lease payments, the Company utilizes either the rate implicit in the lease if that rate is readily determinable or the Company's incremental secured borrowing rate commensurate with the term of the underlying lease. In addition, the calculation may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. The Company recognizes its operating lease expense for lease payments on a straight-line basis over the lease term. Variable lease costs are not included in fixed lease payments and, as a result, are excluded from the measurement of the ROU assets and lease liabilities. The Company expenses all variable lease costs as incurred, which were not material for 2019.

The Company's lease agreements often contain lease and non-lease components. For real estate and equipment leases, the Company accounts for the lease and non-lease components as a single lease component. For vehicle leases, the Company does not combine lease and non-lease components.

The components of lease expense are as follows:

(In thousands)	December 28, 2019
Operating Lease Cost	\$ 5,534
Short-Term Lease Cost	715
Finance Lease Cost:	
ROU asset amortization	1,213
Interest on lease liabilities	94
Total Finance Lease Cost	1,307
Total Lease Costs	\$ 7,556

The accompanying consolidated statement of income included expenses from operating leases of \$5,575,000 in 2018 and \$4,955,000 in 2017 recognized under Topic 840, the Company's previous lease accounting standard.

Supplemental cash flow information related to leases is as follows:

(In thousands)	December 28, 2019
Cash Paid for Amounts Included in the Measurement of Lease Liabilities:	
Operating cash flows from operating leases	\$ 5,636
Operating cash flows from finance leases	\$ 93
Financing cash flows from finance leases	\$ 1,144
ROU Assets Obtained in Exchange for Lease Obligations (a):	
Operating leases	\$ 28,484
Finance leases	\$ 3,847

- (a) Includes additions related to the transition adjustment for the adoption of ASC 842. The post-adoption additions of operating leases were \$13,167,000, of which \$10,994,000 related to ROU assets obtained as part of the acquisition of SMH. The post-adoption additions of finance leases were \$2,496,000, of which \$528,000 related to ROU assets obtained as part of the acquisition of SMH.

## Notes to Consolidated Financial Statements

## 9. Leases (continued)

Supplemental balance sheet information related to leases is as follows:

(In thousands, except lease term and discount rate)	Balance Sheet Line Item	December 28, 2019
<b>Operating Leases:</b>		
ROU assets	Other assets	\$ 27,139
Short-term liabilities	Other current liabilities	\$ 4,184
Long-term liabilities	Other long-term liabilities	24,411
Total operating lease liabilities		<u>\$ 28,595</u>
<b>Finance Leases:</b>		
ROU assets, at cost	Property, plant, and equipment, at cost	\$ 3,775
ROU assets accumulated amortization	Less: accumulated depreciation and amortization	(1,475)
ROU assets, net	Property, plant, and equipment, net	<u>\$ 2,300</u>
Short-term obligations	Current maturities of long-term obligations	\$ 1,116
Long-term obligations	Long-term obligations	1,192
Total finance lease liabilities		<u>\$ 2,308</u>
<b>Weighted Average Remaining Lease Term:</b>		
Operating leases		10.2
Finance leases		2.3
<b>Weighted Average Discount Rate:</b>		
Operating leases		3.96%
Finance leases		4.10%

As of December 28, 2019, future lease payments for lease liabilities are as follows:

(In thousands)	Operating Leases	Finance Leases
2020	\$ 5,221	\$ 1,186
2021	4,406	815
2022	3,687	319
2023	3,108	85
2024	2,703	7
Thereafter	15,998	5
Total Future Lease Payments	<u>35,123</u>	<u>2,417</u>
Less: Imputed Interest	(6,528)	(109)
Present Value of Lease Payments	<u>\$ 28,595</u>	<u>\$ 2,308</u>

As of December 28, 2019, the Company had no significant operating and finance leases that had not yet commenced.

Supplemental information is presented for comparative purposes of the Company's future minimum lease payments for noncancelable operating leases under Topic 840, its previous lease accounting standard, as follows:

(In thousands)	December 29, 2018
2019	\$ 4,507
2020	3,275
2021	2,230
2022	1,579
2023	987
Thereafter	1,713
Total Future Minimum Lease Payments	<u>\$ 14,291</u>



## Notes to Consolidated Financial Statements

**10. Derivatives***Interest Rate Swap Agreements*

In 2018, the Company entered into an interest rate swap agreement (2018 Swap Agreement) with Citizens which has a \$15,000,000 notional value and expires on June 30, 2023. In 2015, the Company also entered into an interest rate swap agreement (2015 Swap Agreement) with Citizens which has a \$10,000,000 notional value and expires on March 27, 2020. The swap agreements hedge the Company's exposure to movements in the three-month LIBOR rate on U.S. dollar-denominated debt. On a quarterly basis, the Company receives a three-month LIBOR rate and pays a fixed rate of interest of 3.15% plus an applicable margin as defined in the Credit Agreement on the 2018 Swap Agreement and receives a three-month LIBOR rate and pays a fixed rate of interest of 1.50% plus an applicable margin as defined in the Credit Agreement on the 2015 Swap Agreement. The 2018 Swap Agreement is subject to a zero percent floor on the three-month LIBOR rate. The interest rate swap agreements are designated as cash flow hedges and the Company has structured its interest rate swap agreements to be 100% effective. Unrealized gains and losses related to the fair values of the swap agreements are recorded to AOCI, net of tax. In the event of early termination, the Company would receive from or pay to the counterparty the fair values of the interest rate swap agreements, and the unrealized gain or loss outstanding would be recognized in earnings.

The counterparty to the interest rate swap agreements could demand an early termination of those agreements if the Company were to be in default under the Credit Agreement, or any agreement that amends or replaces the Credit Agreement in which the counterparty is a member, and if the Company were to be unable to cure the default (see [Note 6](#), Long-Term Obligations).

*Forward Currency-Exchange Contracts*

The Company uses forward currency-exchange contracts that typically have maturities of twelve months or less to hedge exposures resulting from fluctuations in currency exchange rates. Such exposures result from assets and liabilities that are denominated in currencies other than the functional currencies.

Forward currency-exchange contracts that hedge forecasted accounts receivable or accounts payable are designated as cash flow hedges and unrecognized gains and losses are recorded to AOCI, net of tax. Deferred gains and losses are recognized in the statement of income in the period in which the underlying transaction occurs. The fair values of forward currency-exchange contracts that are designated as fair value hedges and forward currency-exchange contracts that are not designated as hedges are recognized currently in earnings.

The Company recognized within SG&A expenses in the accompanying consolidated statement of income losses of \$46,000 in 2019, \$27,000 in 2018 and \$1,367,000 in 2017, associated with forward currency-exchange contracts that were not designated as hedges.

The following table summarizes the fair value of the Company's derivative instruments in the accompanying consolidated balance sheet:

## Notes to Consolidated Financial Statements

## 10. Derivatives (continued)

(In thousands)	Balance Sheet Location	December 28, 2019		December 29, 2018	
		Asset (Liability) (a)	Notional Amount (b)	Asset (Liability) (a)	Notional Amount
Derivatives Designated as Hedging Instruments:					
Derivatives in an Asset Position:					
2015 Swap Agreement	Other Current Assets	\$ 11	\$ 10,000	\$ —	\$ —
2015 Swap Agreement	Other Long-Term Assets	\$ —	\$ —	\$ 148	\$ 10,000
Forward currency-exchange contracts	Other Long Term Assets	\$ —	\$ —	\$ 11	\$ 842
Derivatives in a Liability Position:					
Forward currency-exchange contracts	Other Current Liabilities	\$ (75)	\$ 4,825	\$ (50)	\$ 2,946
2018 Swap Agreement	Other Long-Term Liabilities	\$ (770)	\$ 15,000	\$ (352)	\$ 15,000
Derivatives Not Designated as Hedging Instruments:					
Derivatives in an Asset Position:					
Forward currency-exchange contracts	Other Current Assets	\$ 3	\$ 387	\$ 9	\$ 1,192
Derivatives in a Liability Position:					
Forward currency-exchange contracts	Other Current Liabilities	\$ (43)	\$ 2,545	\$ (31)	\$ 1,384

(a) See [Note 11](#) for the fair value measurements relating to these financial instruments.

(b) The total 2019 notional amounts are indicative of the level of the Company's recurring derivative activity.

The following table summarizes the activity in AOCI associated with the Company's derivative instruments designated as cash flow hedges as of and for the year ended December 28, 2019:

(In thousands)	Interest Rate Swap Agreements	Forward Currency-Exchange Contracts	Total
Unrealized Loss, Net of Tax, at December 29, 2018	\$ (170)	\$ (27)	\$ (197)
Loss reclassified to earnings (a)	6	117	123
Loss recognized in AOCI	(425)	(145)	(570)
Unrealized Loss, Net of Tax, at December 28, 2019	\$ (589)	\$ (55)	\$ (644)

(a) See [Note 14](#) for the income statement classification.

At year-end 2019, the Company expects to reclassify losses of \$209,000 from AOCI to earnings over the next twelve months based on the estimated cash flows of the interest rate swap agreements and the maturity dates of the forward currency-exchange contracts.

## 11. Fair Value Measurements and Fair Value of Financial Instruments

Fair value measurement is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy is established, which prioritizes the inputs used in measuring fair value into three broad levels as follows:

## Notes to Consolidated Financial Statements

## 11. Fair Value Measurements and Fair Value of Financial Instruments (continued)

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs, other than quoted prices in active markets, that are observable either directly or indirectly.
- Level 3—Unobservable inputs based on the Company's own assumptions.

The following table presents the fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis:

(In thousands)	Fair Value as of December 28, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds and time deposits	\$ 9,920	\$ —	\$ —	\$ 9,920
Banker's acceptance drafts (a)	\$ —	\$ 5,230	\$ —	\$ 5,230
2015 Swap Agreement	\$ —	\$ 11	\$ —	\$ 11
Forward currency-exchange contracts	\$ —	\$ 3	\$ —	\$ 3
Liabilities:				
2018 Swap Agreement	\$ —	\$ 770	\$ —	\$ 770
Forward currency-exchange contracts	\$ —	\$ 118	\$ —	\$ 118

(In thousands)	Fair Value as of December 29, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds and time deposits	\$ 6,902	\$ —	\$ —	\$ 6,902
Banker's acceptance drafts (a)	\$ —	\$ 7,976	\$ —	\$ 7,976
2015 Swap Agreement	\$ —	\$ 148	\$ —	\$ 148
Forward currency-exchange contracts	\$ —	\$ 20	\$ —	\$ 20
Liabilities:				
2018 Swap Agreement	\$ —	\$ 352	\$ —	\$ 352
Forward currency-exchange contracts	\$ —	\$ 81	\$ —	\$ 81

(a) Included in accounts receivable in the accompanying consolidated balance sheet.

The Company uses the market approach technique to value its financial assets and liabilities, and there were no changes in valuation techniques during 2019. The Company's banker's acceptance drafts are carried at face value which approximates their fair value due to the short-term nature of the negotiable instrument. The fair values of the Company's forward currency-exchange contracts are based on quoted forward foreign exchange rates at the reporting date. The fair values of the Company's interest rate swap agreements are based on LIBOR yield curves at the reporting date. The forward currency-exchange contracts and interest rate swap agreements are hedges of either recorded assets or liabilities or anticipated transactions and represent the estimated amount the Company would receive or pay upon liquidation of the contracts. Changes in values of the underlying hedged assets and liabilities or anticipated transactions are not reflected in the table above.

The carrying value and fair value of the Company's debt obligations, excluding lease obligations and other borrowings, are as follows:

(In thousands)	December 28, 2019		December 29, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Debt Obligations:				
Revolving credit facility	\$ 265,419	\$ 265,419	\$ 141,106	\$ 141,106
Commercial real estate loan	19,425	20,541	20,475	20,575
Senior promissory notes	10,000	10,803	10,000	10,120
	<u>\$ 294,844</u>	<u>\$ 296,763</u>	<u>\$ 171,581</u>	<u>\$ 171,801</u>

The carrying value of the Company's revolving credit facility approximates the fair value as the obligation bears variable rates of interest, which adjust frequently, based on prevailing market rates. The fair values of the commercial real estate loan and senior promissory notes are primarily calculated based on quoted market rates plus an applicable margin available to the Company at the respective period ends, which represent Level 2 measurements.

## Notes to Consolidated Financial Statements

## 12. Business Segment and Geographical Information

The Company has combined its operating entities into three reportable operating segments, Papermaking Systems, Wood Processing Systems, and Material Handling Systems, and a separate product line, Fiber-based Products, as described below. In classifying operational entities into a particular segment, the Company has aggregated businesses with similar economic characteristics, products and services, production processes, customers, and methods of distribution.

- *Papermaking Systems Segment* – The Company develops, manufactures, and markets a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. The Company's Papermaking Systems segment consists of the following product lines: Stock-Preparation; Fluid-Handling; and Doctoring, Cleaning, & Filtration. The Company's principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.
- *Wood Processing Systems Segment* – The Company develops, manufactures, and markets debarkers, stranders, chippers, logging machinery, and related equipment used in the harvesting and production of lumber and OSB. *Material Handling Systems Segment* – The Company develops, manufactures, and markets material handling equipment and systems, including vibratory and conveying equipment, to various process industries, including mining, aggregates, food processing, packaging, and pulp and paper.
- *Fiber-based Products business* – The Company manufactures and sells biodegradable, absorbent granules derived from papermaking by-products. These materials are primarily used as carriers in agricultural, home lawn and garden, professional lawn, turf and ornamental applications, and for oil and grease absorption.

The following table presents financial information for the Company's reportable operating segments:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
<b>Business Segment Information</b>			
Revenues by Product Line:			
Stock-Preparation	\$ 215,091	\$ 221,933	\$ 193,838
Fluid-Handling	132,501	131,830	104,136
Doctoring, Cleaning, & Filtration	117,838	116,136	109,631
Papermaking Systems	465,430	469,899	407,605
Wood Processing Systems	143,187	151,366	95,053
Material Handling Systems (a)	83,364	—	—
Fiber-based Products	12,663	12,521	12,375
	<u>\$ 704,644</u>	<u>\$ 633,786</u>	<u>\$ 515,033</u>
Income Before Provision for Income Taxes:			
Papermaking Systems (b)	\$ 81,232	\$ 83,454	\$ 73,069
Wood Processing Systems (c)	28,166	31,237	10,005
Material Handling Systems (a, d)	3,132	—	—
Corporate and Fiber-based Products (e)	(24,707)	(26,093)	(21,449)
Total operating income	87,823	88,598	61,625
Interest expense, net (f)	(12,542)	(6,653)	(3,100)
Other expense, net (f, g)	(6,359)	(2,417)	(872)
	<u>\$ 68,922</u>	<u>\$ 79,528</u>	<u>\$ 57,653</u>

## Notes to Consolidated Financial Statements

## 12. Business Segment and Geographical Information (continued)

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017
<b>Total Assets:</b>			
Papermaking Systems	\$ 464,069	\$ 462,297	\$ 494,919
Wood Processing Systems	249,689	247,553	257,467
Material Handling Systems (a)	196,884	—	—
Corporate and Fiber-based Products (h)	28,745	15,899	8,708
	<u>\$ 939,387</u>	<u>\$ 725,749</u>	<u>\$ 761,094</u>
<b>Depreciation and Amortization:</b>			
Papermaking Systems	\$ 13,010	\$ 12,561	\$ 11,239
Wood Processing Systems	9,571	10,317	7,515
Material Handling Systems (a)	9,018	—	—
Corporate and Fiber-based Products	791	690	621
	<u>\$ 32,390</u>	<u>\$ 23,568</u>	<u>\$ 19,375</u>
<b>Capital Expenditures:</b>			
Papermaking Systems	\$ 6,127	\$ 12,717	\$ 14,359
Wood Processing Systems	2,133	3,272	2,333
Material Handling Systems (a)	1,195	—	—
Corporate and Fiber-based Products	502	570	589
	<u>\$ 9,957</u>	<u>\$ 16,559</u>	<u>\$ 17,281</u>
<b>Geographical Information</b>			
<b>Revenues (i):</b>			
United States	\$ 309,957	\$ 234,487	\$ 182,788
China	66,480	89,645	63,910
Canada	64,010	61,096	47,611
Germany	29,076	26,577	32,026
Finland	11,113	10,934	8,607
Other	224,008	211,047	180,091
	<u>\$ 704,644</u>	<u>\$ 633,786</u>	<u>\$ 515,033</u>
<b>Long-lived Assets (j):</b>			
United States	\$ 42,094	\$ 35,446	\$ 32,852
China	10,319	11,069	11,685
Canada	7,948	8,193	9,449
Finland	6,960	6,998	5,841
Germany	5,925	6,223	6,452
Other	12,786	12,228	13,444
	<u>\$ 86,032</u>	<u>\$ 80,157</u>	<u>\$ 79,723</u>

(a) Comprised of the SMH business, which was acquired on January 2, 2019 (see [Note 2](#)).

(b) Includes \$787,000 in 2017 of acquisition-related expenses, comprised of acquisition transaction costs and amortization of acquired profit in inventory and backlog. Includes restructuring costs of \$1,717,000 in 2018 and \$203,000 in 2017 (see [Note 8](#)).

(c) Includes \$2,336,000 and \$192,000 in 2019 of impairment and restructuring costs, respectively, related to the timber-harvesting product line (see [Notes 1](#) and [8](#)). Includes \$252,000 in 2018 and \$11,163,000 in 2017 of acquisition-related expenses.

(d) Includes \$5,715,000 in 2019 of acquisition-related expenses, comprised of amortization expense associated with acquired profit in inventory and backlog and acquisition transaction costs.

(e) Corporate primarily includes general and administrative expenses, including \$1,321,000 in 2018 of acquisition transaction costs.

(f) The Company does not allocate interest and other expense, net to its segments.

(g) Includes a settlement loss of \$5,887,000 in 2019 and a curtailment loss of \$1,425,000 in 2018 (see [Note 3](#)).

(h) Primarily includes Corporate and Fiber-based Products' cash and cash equivalents, tax assets, ROU assets, and property, plant, and equipment, net.

(i) Revenues are attributed to countries based on customer location.

(j) Represents property, plant, and equipment, net.

Notes to Consolidated Financial Statements

13. Earnings per Share

Basic and diluted EPS were calculated as follows:

(In thousands, except per share amounts)	December 28, 2019	December 29, 2018	December 30, 2017
Net Income Attributable to Kadant	\$ 52,068	\$ 60,413	\$ 31,092
Basic Weighted Average Shares	11,235	11,086	10,991
Effect of Stock Options, Restricted Stock Units and Employee Stock Purchase Plan Shares	222	314	321
Diluted Weighted Average Shares	11,457	11,400	11,312
Basic Earnings per Share	\$ 4.63	\$ 5.45	\$ 2.83
Diluted Earnings per Share	\$ 4.54	\$ 5.30	\$ 2.75

The effect of outstanding and unvested RSUs of the Company's common stock totaling 24,000 shares in 2019, 18,700 shares in 2018, and 15,600 shares in 2017 was not included in the computation of diluted EPS for the respective periods as the effect would have been antidilutive or, for unvested performance-based RSUs, the performance conditions had not been met as of the end of the reporting periods.

14. Accumulated Other Comprehensive Items

Comprehensive income combines net income and other comprehensive items, which represent certain amounts that are reported as components of stockholders' equity in the accompanying consolidated balance sheet.

Changes in each component of AOCI, net of tax, are as follows:

(In thousands)	Foreign Currency Translation Adjustment	Pension and Other Post-Retirement Benefit Liability Adjustments	Deferred Loss on Cash Flow Hedges	Total
Balance at December 29, 2018	\$ (34,804)	\$ (4,375)	\$ (197)	\$ (39,376)
Other comprehensive loss before reclassifications	(1,341)	(3,060)	(570)	(4,971)
Reclassifications from AOCI	—	6,604	123	6,727
Net current period other comprehensive items	(1,341)	3,544	(447)	1,756
Balance at December 28, 2019	\$ (36,145)	\$ (831)	\$ (644)	\$ (37,620)

## Notes to Consolidated Financial Statements

## 14. Accumulated Other Comprehensive Items (continued)

Amounts reclassified out of AOCI are as follows:

(In thousands)	December 28, 2019	December 29, 2018	December 30, 2017	Statement of Income Line Item
<b>Retirement Benefit Plans (a)</b>				
Recognized net actuarial loss	\$ (70)	\$ (740)	\$ (563)	Other expense, net
Amortization of prior service cost	(6)	(92)	(147)	Other expense, net
Settlement and curtailment losses	(5,887)	(1,425)	—	Other expense, net
Total expense before income taxes	(5,963)	(2,257)	(710)	
Income tax (provision) benefit	(641)	549	246	Provision for income taxes
	(6,604)	(1,708)	(464)	
<b>Cash Flow Hedges (b)</b>				
Interest rate swap agreements	(8)	(11)	(30)	Interest expense
Forward currency-exchange contracts	(169)	22	(97)	Cost of revenues
Total (expense) income before income taxes	(177)	11	(127)	
Income tax benefit (provision)	54	(3)	43	Provision for income taxes
	(123)	8	(84)	
Total Reclassifications	\$ (6,727)	\$ (1,700)	\$ (548)	

(a) Included in the computation of net periodic benefit cost. See [Note 3](#) for additional information.

(b) See [Note 10](#) for additional information.

## 15. Unaudited Quarterly Information

2019 (In thousands, except per share amounts)	First	Second	Third	Fourth
Revenues	\$ 171,316	\$ 177,165	\$ 173,504	\$ 182,659
Gross Profit	\$ 70,515	\$ 74,371	\$ 74,247	\$ 74,627
Net Income Attributable to Kadant	\$ 10,900	\$ 16,304	\$ 16,115	\$ 8,749
Earnings per Share Attributable to Kadant				
Basic	\$ 0.98	\$ 1.46	\$ 1.43	\$ 0.77
Diluted	\$ 0.96	\$ 1.42	\$ 1.41	\$ 0.76
Cash Dividends Declared per Common Share	\$ 0.23	\$ 0.23	\$ 0.23	\$ 0.23
<b>2018 (In thousands, except per share amounts)</b>				
Revenues	\$ 149,193	\$ 154,913	\$ 165,745	\$ 163,935
Gross Profit	\$ 66,079	\$ 68,164	\$ 73,093	\$ 70,945
Net Income Attributable to Kadant	\$ 10,858	\$ 12,349	\$ 18,784	\$ 18,422
Earnings per Share Attributable to Kadant				
Basic	\$ 0.98	\$ 1.11	\$ 1.69	\$ 1.66
Diluted	\$ 0.96	\$ 1.08	\$ 1.64	\$ 1.61
Cash Dividends Declared per Common Share	\$ 0.22	\$ 0.22	\$ 0.22	\$ 0.22

## Description of Registrant's Securities

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our restated certificate of incorporation, our amended and restated by-laws and applicable provisions of Delaware corporate law. You should read our restated certificate of incorporation and amended and restated by-laws, which are filed as exhibits to this Annual Report on Form 10-K, for the provisions that are important to you.

Our authorized capital stock consists of 150,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share.

### Common Stock

*Annual Meeting.* Annual meetings of our stockholders are held on the date designated in accordance with our amended and restated by-laws. Written notice must be mailed to each stockholder entitled to vote not less than ten nor more than 60 days before the date of the meeting. The holders of record of a majority of our issued and outstanding shares of capital stock entitled to vote at such meeting present in person, by means of remote communications in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy constitutes a quorum for the transaction of business at meetings of the stockholders. Special meetings of the stockholders may be called for any purpose, and may be called only by the board of directors, the chairman of the board, or the president, and business to be transacted at any special meeting is limited to matters related to the purpose or purposes stated in the notice of the meeting. Except as may be otherwise provided by applicable law, our restated certificate of incorporation, or our amended and restated by-laws, all matters other than the election of directors to be voted on by the stockholders shall be decided by a majority of the votes cast by stockholders present or represented and voting on such matter at a duly held meeting of stockholders at which a quorum is present.

Other than in a Contested Election Meeting (as defined below), when a quorum is present at any meeting of the stockholders, a nominee for election as a director at such meeting shall be elected to the Board of Directors if the votes cast "for" such nominee's election exceed the votes cast "against" such nominee's election, with abstentions and broker non-votes not counted as a vote "for" or "against" such nominee's election. In a Contested Election Meeting, when a quorum is present at the meeting of the Stockholders, directors shall be elected by a plurality of the votes cast by the stockholders entitled to vote on the election at such Contested Election Meeting. If directors are to be elected by a plurality of the votes cast, stockholders shall not be permitted to vote against a nominee. A meeting of stockholders shall be a "Contested Election Meeting" if the number of nominees for election as directors exceeds the number of directors to be elected at such meeting, as of the tenth day preceding the date of the Corporation's first notice to stockholders of such meeting, or such other date as determined in accordance with our amended and restated by-laws.

*Voting Rights.* Each holder of common stock is entitled to one vote for each share of stock entitled to vote held of record on all matters to be voted upon by stockholders.

*Dividends.* Subject to the rights, powers and preferences of any outstanding preferred stock, and except as provided by law or in our restated certificate of incorporation, dividends may be declared and paid or set aside for payment on the common stock out of legally available assets or funds when and as determined by the board of directors.

*Liquidation, Dissolution and Winding Up.* Subject to the rights, powers and preferences of any outstanding preferred stock, in the event of our liquidation, dissolution or winding up, our net assets will be distributed pro rata to the holders of our common stock.

*Other Rights.* Holders of the common stock have no right to:

- convert the stock into any other security;
- have the stock redeemed;
- purchase additional stock; or
- maintain their proportionate ownership interest.

The common stock does not have cumulative voting rights. Holders of shares of the common stock are not required to make additional capital contributions.

### **Preferred Stock**

We are authorized to issue “blank check” preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt.

### **Provisions of Our Certificate of Incorporation and By-laws and Delaware Law That May Have Anti-Takeover Effects**

Delaware law, our restated certificate of incorporation, and our amended and restated bylaws contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors.

*Staggered Board; Removal of Directors.* Our restated certificate of incorporation and amended and restated bylaws divide our board of directors into three classes with staggered three-year terms. In addition, a director may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our board of directors, however occurring, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office. The classification of our board of directors and the limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

*No Stockholder Action by Written Consent; Special Meetings.* Our restated certificate of incorporation provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of such stockholders, only if properly brought before the meeting, and may not be effected by any consent in writing by such holders. Our restated certificate of incorporation and amended and restated bylaws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by the chairman of our board of directors, our Chief Executive Officer, or our board of directors.

*Advance Notice Requirements for Stockholder Proposals.* Our amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of persons for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder’s intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities.

*Delaware Business Combination Statute.* Section 203 of the General Corporation Law of the State of Delaware, which we refer to as the DGCL, is applicable to us. Section 203 of the DGCL restricts some types of transactions and business combinations between a corporation and a 15% stockholder. A 15% stockholder is generally considered by Section 203 to be a person owning 15% or more of the corporation’s outstanding voting stock. Section 203 refers to a 15% stockholder as an “interested stockholder.” Section 203 restricts these transactions for a

period of three years from the date the stockholder acquires 15% or more of our outstanding voting stock. With some exceptions, unless the transaction is approved by the board of directors and the holders of at least two-thirds of the outstanding voting stock of the corporation, Section 203 prohibits significant business transactions such as:

- a merger with, disposition of significant assets to or receipt of disproportionate financial benefits by the interested stockholder, and
- any other transaction that would increase the interested stockholder's proportionate ownership of any class or series of our capital stock.

The shares held by the interested stockholder are not counted as outstanding when calculating the two-thirds of the outstanding voting stock needed for approval.

The prohibition against these transactions does not apply if:

- prior to the time that any stockholder became an interested stockholder, the board of directors approved either the business combination or the transaction in which such stockholder acquired 15% or more of our outstanding voting stock, or
- the interested stockholder owns at least 85% of our outstanding voting stock as a result of a transaction in which such stockholder acquired 15% or more of our outstanding voting stock. Shares held by persons who are both directors and officers or by some types of employee stock plans are not counted as outstanding when making this calculation.

*Amendment of Certificate of Incorporation and Bylaws.* The General Corporation Law of the State of Delaware provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our restated certificate of incorporation requires the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in any annual election of directors to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our restated certificate of incorporation described above under "-Staggered Board; Removal of Directors" and "-No Stockholder Action by Written Consent; Special Meetings." The 75% stockholder vote is in addition to any separate class vote that might be required pursuant to the terms of any series of preferred stock that might be then outstanding.

*Blank Check Preferred Stock.* Our restated certificate of incorporation authorizes up to 5,000,000 shares of preferred stock for issuance by our board of directors without further shareholder approval. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of our company by means of a merger, tender offer, proxy contest, or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our company, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquiror or insurgent shareholder or shareholder group. In this regard, our restated certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of such holders and may have the effect of delaying, deterring, or preventing a change in control of the company. Our board of directors currently does not intend to seek shareholder approval prior to any issuance of shares of preferred stock, unless otherwise required by law.

**Kadant Inc.**  
**Subsidiaries of the Registrant**

At February 14, 2020, the Registrant owned the following subsidiaries:

Name	State or Jurisdiction of Incorporation	Percent of Ownership
Arcline Products LLC	New York	100
Kadant Black Clawson LLC	Delaware	100
Kadant Japan KK	Japan	100
Sundance Partners LLC	Delaware	100
Verus Lebanon, LLC	Delaware	100
Kadant Fibergen Inc.	Delaware	100
Kadant GranTek Inc.	Delaware	100
Kadant Composites LLC	Delaware	100
Kadant International Holdings LLC	Delaware	100
Kadant Asia Holdings Inc.	Mauritius	100
Kadant Fiberline (China) Co., Ltd.	China	100
Kadant International Luxembourg S.C.S. (62.3% owned by Kadant International Holdings LLC; and 37.7% owned by Kadant Inc.)	Luxembourg	100
Kadant Cayman Ltd.	Cayman Islands	100
Kadant Luxembourg S.à r.l.	Luxembourg	100
Kadant Johnson Europe B.V.	Netherlands	100
Kadant Canada Corp.	Canada	100
Kadant Cyprus (Canada) Limited	Cyprus	100
Kadant UK Holdings Limited	United Kingdom	100
Fibertek U.K. Limited	United Kingdom	100
Kadant U.K. Limited	United Kingdom	100
D.S.T. Pattern and Engineering Company Limited	United Kingdom	100
Vickerys Limited	United Kingdom	100
Winterburn Limited	United Kingdom	100
Radiance SAS	France	100
Kadant Mexico LLC	Delaware	100
Kadant Mexico, S.A. de C.V.	Mexico	100
Nicholson Manufacturing Ltd.	Canada	100
Kadant Johnson Deutschland GmbH	Germany	100
Kadant PAAL Holding GmbH	Germany	100
Kadant PAAL Limited	United Kingdom	100
J&H Rentals Limited	United Kingdom	100
Kadant PAAL SAS	France	100
Kadant PAAL GmbH	Germany	100
Kadant PAAL S.A.	Spain	100
Kadant Johnson Systems International Limited	United Kingdom	100
Kadant Johnson Systems International - S.r.l.	Italy	100
Kadant Johnson (Wuxi) Technology Ltd.	China	100
Kadant Nordic AB	Sweden	100

Name	State or Jurisdiction of Incorporation	Percent of Ownership
Kadant Noss AB	Sweden	100
Johnson Corporation (JoCo) Limited	United Kingdom	100
Johnson-Fluitten Srl (50% owned by Kadant Johnson Europe B.V.).	Italy	50
Kadant Lamort SAS	France	100
Kadant BC- Lamort UK Limited	United Kingdom	100
Kadant Lamort S.L.	Spain	100
Kadant Lamort S.r.l.	Italy	100
VN Services NV (99.95% owned by Kadant Johnson Europe B.V. and 0.05% owned by Nicholson Manufacturing Company LLC)	Belgium	100
Kadant Northern UK Co. Ltd.	United Kingdom	100
Valon Kone Oy	Finland	100
VKS Pte. Ltd.	Singapore	100
Valon Kone OOO	Russia	100
Valon Kone AB	Sweden	100
Kadant Johnson LLC	Delaware	100
Kadant Australia Pty Ltd	Australia	100
Kadant Johnson Australia Pty Limited	Australia	100
Kadant Johnson Corporation Asia Pacific Pty Ltd.	Australia	100
Kadant Johnson Argentina S.A. (99.99% owned by Kadant Johnson LLC and .1% owned by Kadant Johnson Latin America Holding Inc.)	Argentina	100
Kadant Johnson China-TZ Holding Inc.	Michigan	100
Tengzhou Feixuan Rotary Joints Manufacturing Co., Ltd.	China	100
Kadant Johnson Latin America Holding Inc.	Michigan	100
Kadant South America Ltda. (99.9% owned by Kadant Johnson Latin America Holding Inc. and .1% owned by Kadant Johnson LLC)	Brazil	100
Kadant Johnson Holdings Inc.	Michigan	100
Kadant Unaflex LLC	Delaware	100
The Johnson Corporation de Mexico S.A. de C.V.	Mexico	100
Kadant Northern U.S. LLC	Delaware	100
Nicholson Manufacturing Company LLC.	Delaware	100
VK North America LLC	Delaware	100
Kadant PAAL LLC	Delaware	100
Kadant Syntron Holdings, LLC	Delaware	100
Syntron Material Handling Group, LLC	Delaware	100
Syntron Material Handling Holdings, LLC	Delaware	100
Syntron Material Handling Intermediate Holdings, LLC	Delaware	100
Syntron Material Handling, LLC	Delaware	100
Syntron Material Handling Holdings Limited	Hong Kong	100
Syntron Material Handling (Changshu) Co., Ltd.	China	100
Syntron Material Handling (Changshu) Trading Co. Ltd.	China	100
Fiberprep Inc. (31.05% owned by Kadant Lamort SAS and 68.95% owned by Kadant Inc.)	Delaware	100

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
Kadant Inc.:

We consent to the incorporation by reference in the registration statements (No. 333-202855, 33-67190, 333-48498, 333-142247, 333-176371 on Form S-8 and the registration statement (No. 333-229888) on Form S-3ASR of Kadant Inc. and subsidiaries (“Kadant Inc.”) of our report dated February 25, 2020, with respect to the consolidated balance sheets of Kadant Inc. as of December 28, 2019 and December 29, 2018, the related consolidated statements of income, comprehensive income, cash flows, and stockholders’ equity for each of the fiscal years in the three-year period ended December 28, 2019, and the related notes (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 28, 2019, which report appears in the December 28, 2019 annual report on Form 10-K of Kadant Inc.

Our report dated February 25, 2020, on the effectiveness of internal control over financial reporting as of December 28, 2019, contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of Kadant Inc.’s internal control over financial reporting as of December 28, 2019, Syntron Material Handling Group, LLC and certain of its affiliates (SMH) internal control over financial reporting associated with total assets of \$196.9 million and total revenues of \$83.4 million included in the consolidated financial statements of Kadant Inc. and subsidiaries as of and for the fiscal year ended December 28, 2019. Our audit of internal control over financial reporting of Kadant Inc. also excluded an evaluation of the internal control over financial reporting of SMH.

/s/ KPMG LLP

Boston, Massachusetts  
February 25, 2020

CERTIFICATION

I, Jeffrey L. Powell, certify that:

1. I have reviewed this Annual Report on Form 10-K for the period ended December 28, 2019 of Kadant 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 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 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.

Date: February 25, 2020

/s/ Jeffrey L. Powell

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Jeffrey L. Powell

President and Chief Executive Officer

CERTIFICATION

I, Michael J. McKenney, certify that:

1. I have reviewed this Annual Report on Form 10-K for the period ended December 28, 2019 of Kadant 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 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 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.

Date: February 25, 2020

/s/ Michael J. McKenney

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Michael J. McKenney

Executive Vice President and Chief Financial Officer

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

Pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, Jeffrey L. Powell, Chief Executive Officer, and Michael J. McKenney, Chief Financial Officer, of Kadant Inc., a Delaware corporation (the "Company"), do hereby certify, to our best knowledge and belief, that: The Annual Report on Form 10-K for the period ended December 28, 2019 of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the information contained in this Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 25, 2020

/s/ Jeffrey L. Powell

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Jeffrey L. Powell

President and Chief Executive Officer

/s/ Michael J. McKenney

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Michael J. McKenney

Executive Vice President and Chief Financial Officer

This certification accompanies this Annual Report on Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by the Company for purposes of Section 18 of the Exchange Act. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.