MASONITE®

Doors that do more™

2019 MASONITE

ANNUAL REPORT

Our Vision

Opening New Doors for Customers, Partners and Employees

MASONITE.
Doors that do more.

LETTER TO SHAREHOLDERS

Dear shareholders, customers, supplier partners, and colleagues,

I am delighted to write my first letter as President and CEO of Masonite and to share significant progress against our objectives in what we believe will be considered a transformational year for our company. 2019 was a banner year for Masonite. We delivered continued net sales growth and our highest adjusted EBITDA margin[1] since going public in 2013. Despite current market uncertainties, we believe we set the stage for consistent long-term profitable growth in the years to come.

Perhaps our most important initiative in 2019 was the completion of a thorough "voice of the customer" research project designed to better understand our markets, channels, and end users to set the foundation for our long-term growth framework. The work consisted of both quantitative and qualitative studies and we learned a great deal about the consumer. While most everything around the house has evolved, doors generally have not. Consumers want more, specifically more light, privacy, and protection from the elements, and we intend to deliver "Doors that do more"™. Additionally, this research gave us the confidence to implement a new pricing strategy for our North America residential business that was disclosed in the fourth quarter of 2019. In conjunction with this strategy, we announced our intent to invest an additional $100 million over the next five years in the areas of service and quality, new product innovation, and down-channel marketing, as part of our commitment to drive sustainable growth for Masonite and our channel partners.

Our intense focus on continuous improvement and productivity through our MVantage operating model paid dividends in 2019. We increased Kaizen events across the company by over 100% year on year, with over 1,000 events held across our facilities. Roughly one-third of our approximately 10,000 employees participated in one or more Kaizen events targeting waste and inefficiencies in our operations. Further, we continued to optimize our footprint and portfolio. During the year we closed four plants, relocated one, and opened a brand-new highly productive door plant in Tijuana, Mexico. Our objective is to have the most efficient network of facilities required to service our customers around the globe. In addition, we exited three non-core businesses in our UK segment.

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[1] Adjusted EBITDA margin is defined as Adjusted EBITDA divided by Net Sales. See Note 17 to our consolidated financial statements beginning on page 82 of our Annual Report on Form 10-K for the definition of Adjusted EBITDA, a non-GAAP measure, and a reconciliation of net income attributable to Masonite.

Through these efforts, our company delivered improved financial results in 2019. We reported net sales of almost $2.2 billion, and our consolidated gross profit margin improved meaningfully despite unplanned tariffs and a moderately inflationary environment, as a result of our pricing, productivity, and portfolio initiatives. Adjusted EBITDA[1] increased 6% to $283 million and we delivered another year of strong free cash flow.[2] Finally, we returned capital to our shareholders by buying back almost 1.2 million shares of Masonite stock for approximately $60 million. Since we initiated our share repurchase program in 2016, we have repurchased nearly 25% of our stock.

We improved the capital structure of the company by issuing $500 million of new bonds in the third quarter to refinance our existing notes that were due in 2023. This was a great opportunity to further extend our debt maturities at a reduced coupon rate with no impact to our overall leverage. We are pleased with the position of our balance sheet as we enter 2020.

I am also pleased that in 2019 we published our inaugural Corporate Responsibilities Highlights Report. As a company that was founded 95 years ago because of one person's desire to turn waste wood from the lumber industry into something of value, we have a long history of environmental sustainability. Driven by this history, coupled with the ever-increasing focus from our key stakeholders on corporate environmental, social and governance (ESG) efforts, we felt it was important to summarize how we integrate these considerations into our business. We are committed to enhancing our efforts in this area going forward as we believe that protecting our environment and providing our employees with a great place to work are critical to our success.

Our purpose is clear, we help people walk through walls[sm]. We do so physically by offering great doors, with hundreds of millions of our doors in the market today, and metaphorically through our culture, by helping our employees and people in the communities we operate do things they might never have thought possible. We believe our culture and purpose contributed to improved employee engagement scores and significantly reduced turnover in our business in 2019. The engagement and continuity of the team are key drivers to deliver our goals.

I am proud to be leading Masonite and will work hard to increase the momentum and progress that Fred Lynch drove during his nearly 13 years at the helm. I would like to thank him for his dedicated service, and thank each of you for your trust and support as key stakeholders of our company. I am excited for our future and look forward to "opening new doors" for our customers, partners, and employees.

Howard C. Heckes
President and Chief Executive Officer
Masonite International Corporation
March 27, 2020

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[2] Free cash flow is a non-GAAP financial measure calculated by subtracting additions to property, plant and equipment from net cash flow provided by operating activities. See Consolidated Statements of Cash Flows on page 51 of our Annual Report.

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

FORM 10-K

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

For the fiscal year ended December 29, 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: 001-11796

Masonite International Corporation
(Exact name of registrant as specified in its charter)

British Columbia, Canada	**98-0377314**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2771 Rutherford Road
Concord, Ontario L4K 2N6 Canada
(Address of principal executive offices, zip code)

(800) 895-2723
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Common Stock (no par value)	**DOOR**	**New York Stock Exchange**
(Title of class)	(Trading symbol)	(Name of exchange on which registered)

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, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

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

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

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

As of June 30, 2019, the last business day of the registrant’s most recently completed second fiscal quarter, the aggregate market value of the shares of voting common stock held by non-affiliates of the registrant, computed by reference to the closing sales price of such shares on the New York Stock Exchange on June 30, 2019, was $1.3 billion.

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of the securities under a plan confirmed by a court. Yes ☒ No ☐

The registrant had outstanding 24,931,203 shares of Common Stock, no par value, as of February 17, 2020.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive Proxy Statement for its 2020 Annual General Meeting of Shareholders scheduled to be held on May 14, 2020, to be filed with the Securities and Exchange Commission not later than 120 days after December 29, 2019, are incorporated by reference into Part III, Items 10-14 of this Annual Report on Form 10-K.

MASONITE INTERNATIONAL CORPORATION
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December 29, 2019

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the federal securities laws, including, without limitation, statements concerning the conditions in our industry, our operations, our economic performance and financial condition, including, in particular, statements relating to our business and growth strategy and product development efforts under "Management's Discussion and Analysis of Financial Condition and Results of Operations." Forward-looking statements include all statements that do not relate solely to historical or current facts and can be identified by the use of words such as "may," "might," "could," "will," "would," "should," "expect," "believes," "outlook," "predict," "forecast," "objective," "remain," "anticipate," "estimate," "potential," "continue," "plan," "project," "targeting," and other similar expressions. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. These forward-looking statements are based on estimates and assumptions by our management that, although we believe to be reasonable, are inherently uncertain and subject to a number of risks and uncertainties. These risks and uncertainties include, without limitation, those identified under "Risk Factors" and elsewhere in this Annual Report.

The following list represents some, but not necessarily all, of the factors that could cause actual results to differ from historical results or those anticipated or predicted by these forward-looking statements:

- downward trends in our end markets and in economic conditions;
- reduced levels of residential new construction; residential repair, renovation and remodeling; and non-residential building construction activity due to increases in mortgage rates, changes in mortgage interest deductions and related tax changes and reduced availability of financing;
- competition;
- the continued success of, and our ability to maintain relationships with, certain key customers in light of price increases and customer concentration and consolidation;
- tariffs and evolving trade policy and friction between the United States and other countries, including China, and the impact of anti-dumping and countervailing trade cases;
- increases in prices of raw materials and fuel;
- increases in labor costs, the availability of labor, or labor relations (i.e., disruptions, strikes or work stoppages);
- our ability to manage our operations including anticipating demand for our products, managing disruptions in our operations, managing manufacturing realignments (including related restructuring charges), managing customer credit risk and successful integration of acquisitions;
- the continuous operation of our information technology and enterprise resource planning systems and management of potential cyber security threats and attacks;
- our ability to generate sufficient cash flows to fund our capital expenditure requirements, to meet our pension obligations, and to meet our debt service obligations, including our obligations under our senior notes and our asset-based revolving credit facility ("ABL Facility");
- political, economic and other risks that arise from operating a multinational business;
- uncertainty relating to the United Kingdom's exit from the European Union;
- fluctuating exchange and interest rates;
- our ability to innovate and keep pace with technological developments;
- product liability claims and product recalls;
- retention of key management personnel;
- limitations on operating our business as a result of covenant restrictions under our existing and future indebtedness, including our senior notes and our ABL Facility; and
- environmental and other government regulations, including the United States Foreign Corrupt Practices Act ("FCPA"), and any changes in such regulations.

We caution you that the foregoing list of important factors is not exclusive. In addition, in light of these risks and uncertainties, the matters referred to in the forward-looking statements contained in this Annual Report may not in fact occur. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.

PART I

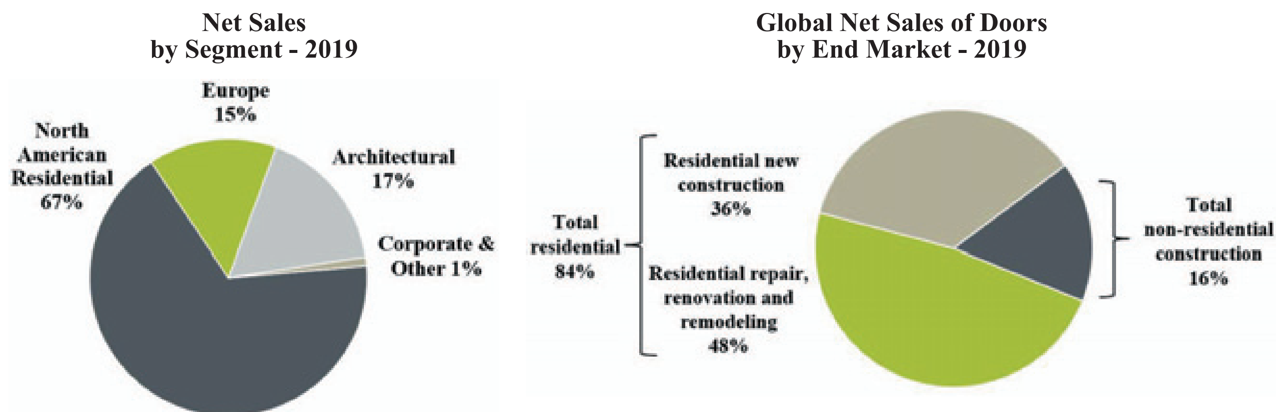
Unless we state otherwise or the context otherwise requires, in this Annual Report all references to "Masonite", "we", "us", "our" and the "Company" refer to Masonite International Corporation and its subsidiaries.

Item 1. Business

Overview

We are a leading global designer, manufacturer and distributor of interior and exterior doors for the new construction and repair, renovation and remodeling sectors of the residential and non-residential building construction markets. Since 1925, we have provided our customers with innovative products and superior service at compelling values. In order to better serve our customers and create sustainable competitive advantages, we focus on developing innovative products, advanced manufacturing capabilities and technology-driven sales and service solutions. Today, we believe we hold either the number one or two market positions in the seven product categories we target in North America: interior molded residential doors; interior stile and rail residential doors; exterior fiberglass residential doors; exterior steel residential doors; interior architectural wood doors; wood veneers and molded door facings; and door core.

We market and sell our products to remodeling contractors, builders, homeowners, retailers, dealers, lumberyards, commercial and general contractors and architects through well-established wholesale and retail distribution channels. Our broad portfolio of brands, including Masonite®, Premdor®, Masonite Architectural™, Marshfield-Algoma™, Mohawk®, Megantic®, Solidor®, Residor®, Nicedor®, Door-Stop International™, Harring Doors™, National Hickman™ and Graham-Maiman™ are among the most recognized in the door industry and are associated with innovation, quality and value. In the fiscal year ended December 29, 2019, we sold approximately 32 million doors to approximately 8,500 customers in 60 countries. Our fiscal year 2019 net sales by segment and global net sales of doors by end market are set forth below:



See Note 17 to our consolidated financial statements for additional information about our segments.

Over the past several years, we have invested in advanced technologies to increase the automation of our manufacturing processes, increase quality and shorten lead times and introduced targeted e-commerce and other marketing initiatives to improve our sales and marketing efforts and customer experience. In addition, we implemented a disciplined acquisition strategy that solidified our presence in the United Kingdom's interior and exterior residential door industry, the North American residential molded and stile and rail interior door industry and created leadership positions in the attractive North American commercial and architectural interior wood door, door core and wood veneer industry.

We operate 63 manufacturing and distribution facilities in eight countries in North America, Europe, South America and Asia, which are strategically located to serve our customers. We are one of the few vertically integrated door manufacturers in the world and one of only two in the North American residential molded interior door industry as well as the only vertically integrated door manufacturer in the North American architectural interior wood door industry. Our vertical integration extends to all steps of the production process from initial design, development and production of steel press plates to produce interior molded and exterior fiberglass door facings to the manufacturing of door

components, such as door cores, wood veneers and molded facings, to door slab assembly. We also offer incremental value by pre-machining doors for hardware, hanging doors in frames with glass and hardware and pre-finishing doors with paint or stain. We believe that our vertical integration and automation enhance our ability to develop new and proprietary products, provide greater value and improved customer service and create high barriers to entry. We also believe vertical integration enhances our ability to cut costs, although our cost structure is subject to certain factors beyond our control, such as global commodity shocks.

Product Lines

Residential Doors

We sell an extensive range of interior and exterior doors in a wide array of designs, materials and sizes. While substantially all interior doors are made with wood and related materials such as hardboard (including wood composite molded and flat door facings), the use of wood in exterior doors in North America and Europe has declined over the last two decades as a result of the increased penetration of steel and fiberglass doors. Our exterior doors are made primarily of steel or fiberglass. Our residential doors are molded panel, flush, stile and rail, routed medium-density fiberboard ("MDF"), steel or fiberglass.

Molded panel doors are interior doors available either with a hollow or solid core and are made by assembling two molded door skin panels around a wood or MDF frame. Molded panel doors are routinely used for closets, bedrooms, bathrooms and hallways. Our molded panel product line is subdivided into several distinct product groups: our original Molded Panel series is a combination of classic styling, period and architectural style-specific designs, durable construction and a variety of profiles preferred by our customers when price sensitivity is a critical component in the product selection; the West End™ Collection strengthens our tradition of design innovation by introducing the clean and simple aesthetics found in modern linear designs to the molded panel interior door category; the Heritage® Series, which features recessed, flat panels and sharp, Shaker-style profiles which speak to a clean, modern aesthetic while retaining comfortable familiarity found in today's interiors; and the Livingston door, which features versatile and timeless design for any style of home and was introduced in 2019. All of our molded panel doors can be upgraded with our proprietary, wheat straw based Safe 'N Sound® door core or our environmentally friendly Emerald™ door construction which enables homeowners, builders and architects to meet specific product requirements and "green" specifications to attain Leadership in Energy and Environmental Design ("LEED") certification for a building or dwelling.

Flush interior doors are available either with a hollow or solid core and are made by assembling two facings of plywood, MDF, composite wood or hardboard over a wood or MDF frame. These doors can either have a wood veneer surface suitable for paint or staining or a composite wood surface suitable for paint. Our flush doors range from base residential flush doors consisting of unfinished composite wood to the ultra high-end exotic wood veneer doors.

Stile and rail doors are made from wood or MDF with individual vertical stiles, horizontal rails and panels, which have been cut, milled, veneered and assembled from lumber such as clear pine, knotty pine, oak and cherry. Within our stile and rail line, glass panels can be inserted to create what is commonly referred to as a French door and we have over 50 glass designs for use in making French doors. Where horizontal slats are inserted between the stiles and rails, the resulting door is referred to as a louver door. For interior purposes, stile and rail doors are primarily used for hallways, room dividers, closets and bathrooms. For exterior purposes, these doors are used as entry doors with decorative glass inserts (known as lites) often inserted into them.

Routed MDF doors are produced by using a computer controlled router carver to machine a single piece of double refined MDF. Our routed MDF door category is sold under the Carte Blanche® brand. The offering of designs in this category is extensive, as the manufacturing of routed MDF doors is based on a routing program where the milling machine selectively removes material to reveal the final design.

Steel doors are exterior doors made by assembling two interlocking steel facings (paneled or flat) or attaching two steel facings to a wood or steel frame and injecting the core with polyurethane insulation. With our functional Utility Steel series, the design centric High Definition family and the prefinished Sta-Tru® HD, we offer customers the freedom to select the right combination of design, protection and compliance required for essentially any paint grade exterior door application. In addition, our product offering is significantly increased through our variety of compatible clear or decorative glass designs.

Fiberglass doors are considered premier exterior doors and are made by assembling two fiberglass door facings to a wood frame or composite material and injecting the core with polyurethane insulation. Led by the Barrington® door, our fiberglass door lines offer innovative designs, construction and finishes. The Barrington® family of doors is specifically designed to replicate the construction, look and feel of a real wood door. The Door-Stop™ branded fiberglass doors are manufactured into prehung door sets and shipped to our customers with industry-leading lead times. We believe that our patented panel designs, sophisticated wood grain texturing and multiple application-specific construction processes will help our Barrington® and Belleville® fiberglass lines retain a distinct role in the exterior product category in the future.

Architectural Doors

Architectural doors are typically highly specified products designed, constructed and tested to ensure that regulatory compliance and environmental certifications such as Forest Stewardship Council and LEED certifications are met. These doors are sold into high-end architectural projects (schools, healthcare and government facilities) and commercial projects (hotels, offices, commercial/retail and industrial facilities). We believe that the architectural door industry is shifting focus from transactional, component sales to selling total opening solutions in key performance areas such as fire, security, acoustics and technology. Our two primary product series for the architectural business, Aspiro™ and Cendura™, are comprised of four product categories: stile and rail, flush wood veneer, painted and laminate doors. The Aspiro series offers high-end aesthetic and performance qualities, and its doors are available in exotic and domestic veneers, with acoustic, fire-rated and lead- and bullet-resistant options and include lifetime warranties. The Cendura series provides a balance of performance and value and its doors are available with domestic veneers, with acoustic and fire-rated options and include limited warranties. These product offerings provide general contractors and influencers more of a singular source for the total opening.

Components

In addition to residential and architectural doors, we also sell several door components to the building materials industry. Within the residential new construction market, we provide interior door facings, agri-fiber and particleboard door cores, MDF and wood cut stock components to multiple manufacturers. Within the architectural building construction market, we are a leading component supplier of various critical door components and the largest wood veneer door skin supplier. Additionally, we are one of the leading providers of mineral and particleboard door cores to the North American architectural door industry.

Molded door facings are thin sheets of molded hardboard produced by grinding or defibrating wood chips, adding resin and other ingredients, creating a thick fibrous mat composed of dry wood fibers and pressing the mat between two steel press plates to form a molded sheet, the surface of which may be smooth or may contain a wood grain pattern. Following pressing, molded door facings are trimmed, primed and shipped to door manufacturing plants where they are mounted on frames to produce molded doors.

Door framing materials, commonly referred to as cut stock, are wood or MDF components that constitute the frame on which interior and exterior door facings are attached. Door cores are pressed fiber mats of refined wood chips or agri-fiber used in the construction of solid core doors. For doors that must achieve a fire rating higher than 45 minutes, the door core consists of an inert mineral core or inorganic intumescent compounds.

Sales and Marketing

Our sales and marketing efforts are focused around several key initiatives designed to drive organic growth, influence the mix sold and strengthen our customer relationships.

Multi-Level/Segment Distribution Strategy

We market our products through and to wholesale distributors, retail stores, independent and pro dealers, builders, remodelers, architects, door and hardware distributors and general contractors.

In the residential market, we deploy an "All Products" cross merchandising strategy, which provides certain of our retail and wholesale customers with access to our entire product range. Our "All Products" customers benefit from consolidating their purchases, leveraging our branding, marketing and selling strategies and improving their ability to influence the mix of products sold to generate greater value. We service our big box retail customers directly from our own door fabrication facilities which provide value added services and logistics, including store direct delivery of doors and entry systems and a full complement of in-store merchandising, displays and field service. Our wholesale

residential channel customers are managed by our own sales professionals who focus on down channel initiatives designed to ensure our products are "pulled" through our North American wholesale distribution network.

Our architectural building construction customers are serviced by a separate and distinct sales team providing architects, door and hardware distributors, general contractors and project owners a wide variety of technical specifications, specific brand differentiation, compliance and regulatory approvals, product application advice and multisegment specialization work across North America. Additionally, our sales team is supported by marketing strategies aimed to drive product specification throughout our value chains via distributors, architects and end users.

Service Innovation

We leverage our marketing, sales and customer service activities to ensure our products are strategically pulled through our multiple distribution channels rather than deploying a more common, tactical "push" strategy like some of our competitors. Our marketing approach is designed to increase the value of each and every door opening we fill with our doors and entry systems, regardless of the channel being used to access our products.

Our proprietary web-based tools accessible on our website also provide our customers with a direct link to our information systems to allow for accelerated and easy access to a wide variety of information and selling aids designed to increase customer satisfaction. Within our North American Residential business, our web-based tools include Mconnect®, an online service portal allowing our customers access to several other e-commerce tools designed to enhance the manufacturer-customer relationship. Once connected to our system, customers have secure access to MAX®, Masonite's Xpress Configurator®, a web-based tool created to design customized door systems and influence the mix, improve selection and ordering processes, reduce order entry and quoting errors and improve overall communication throughout the channel; the Product Corner, a section advising customers of the features and benefits of our newest products; the Media Library, a comprehensive supply of marketing materials and self-service resources; and Order Tracker, which allows customers to follow their purchase orders through the production process and confirm delivery dates. Our newest commercial configurator, eMerge®, was introduced in 2019 as a future replacement for MAX®. eMerge® affords our customers the same benefits as MAX® and introduces an enhanced user experience with the added capability for seamless integration with customer systems using the latest cloud technology to streamline demand and reduce the need for manual order entry.

In Europe, our Solidor and Door-Stop International websites are fully functional configuration and order platforms that support our entry door customers in the United Kingdom. The dynamic integration of Solidor's and Door-Stop's enterprise resource planning systems and their websites ensures that the products customers see, configure and order are in stock, which ensures that we are able to deliver on our promise of dependability.

In our Architectural business, we launched our new door configurator, DoorBuilder™ Live, for mill direct customers that makes selecting and ordering the right door easier and more intuitive. DoorBuilder™ Live is a cloud-based software that streamlines the door ordering process for fast, accurate results. Additionally, we have developed the new DoorSelector tool and Acoustic Sound tools designed to educate architects to help them select the right products for the opening based on aesthetic and performance attributes.

Customers

During fiscal year 2019, we sold our products worldwide to approximately 8,500 customers. We have developed strong relationships with these customers through our "All Products" cross merchandising strategy. Our vertical integration facilitates our "All Products" strategy with our door fabrication facilities in particular providing value-added fabrication and logistical services to our customers, including store delivery of pre-hung interior and exterior doors to our customers in North America. All of our top 20 customers have purchased doors from us for at least 10 years.

Although we have a large number of customers worldwide, our largest customer, The Home Depot, accounted for approximately 17% of our total net sales in fiscal year 2019. Due to the depth and breadth of the relationship with this customer, which operates in multiple North American geographic regions and which sells a variety of our products, our management believes that this relationship is likely to continue.

Distribution

Residential doors are primarily sold through wholesale and retail distribution channels.

- *Wholesale*. In the wholesale channel, door manufacturers sell their products to homebuilders, contractors, lumber yards, dealers and building products retailers in two steps or one step. Two-step distributors typically purchase doors from manufacturers in bulk and customize them by installing windows, or "lites", and pre-hanging them. One-step distributors sell doors directly to homebuilders and remodeling contractors who install the doors.

- *Retail*. The retail channel generally targets consumers and smaller remodeling contractors who purchase doors through retail home centers and smaller specialty retailers. Retail home centers offer large, warehouse size retail space with large selections, while specialty retailers are niche players that focus on certain styles and types of doors.

Architectural doors are primarily sold through specialized one-step wholesale distribution channels where distributors sell to general contractors and end-use clients.

Research and Development

We believe we are a global leader in technological innovation and development of doors, door components and door entry solutions and the manufacturing processes involved in making such products. We believe that research and development is a competitive advantage for us, and we intend to capitalize on our leadership in this area through the development of more new and innovative products. Our research and development and engineering capabilities enable us to develop and implement product and manufacturing process improvements that enable new features, enhance the manufacturing efficiency of our products, improve quality and reduce costs. In the past few years, our research and development activities have had a significant focus on the development of new, differentiated products, while continuing to focus on process and material improvements for our products. Further, we have directed increased research and development to address the growing need for safety and security, sound-dampening and fire-resistant products in the architectural wood door market.

As an integrated manufacturer, we believe that we are well positioned to take advantage of the growing global demand for a variety of molded door facing designs. We have an internal capability to create new molded door facing designs and manufacture our own molds for use in our own facilities. We believe this provides us with the ability to develop proprietary designs that enjoy a strong identity in the marketplace; more flexibility in meeting customer demand; quicker reaction time in the production of new designs or design changes; and greater responsiveness to customer needs. This capability also enables us to develop and implement product and process improvements with respect to the production of molded door facings and doors which enhance production efficiency and reduce costs.

Manufacturing Process

Our manufacturing operations consist of three major manufacturing processes: (1) component manufacturing, (2) door slab assembly and (3) value-added ready to install door fabrication.

We have a leading position in the manufacturing of door components, including internal framing components (stile and rails), glass inserts (lites), door core, interior door facings (molded and veneer) and exterior door facings. The manufacturing of interior molded door facings is the most complex of these processes requiring a significant investment in large scale wood fiber processing equipment. Interior molded door facings are produced by combining fine wood particles, synthetic resins and other additives under heat and pressure in large multi-opening automated presses utilizing Masonite proprietary steel plates. The facings are then primed, cut and inspected in a second highly automated continuous operation prior to being packed for shipping to our door assembly plants. We operate five interior molded door facing plants around the world, two in North America and one in each of South America, Europe and Asia. Our sole United States based plant in Laurel, Mississippi, is one of the largest door facing plants in the world and we believe one of the most technologically advanced in the industry.

Interior residential hollow and solid core door manufacturing is an assembly operation that is primarily accomplished in the United States through the use of semi-skilled manual labor. The construction process for a standard flush or molded interior door is based on assembly of door facings and various internal framing and support components, followed by the doors being trimmed to their final specifications.

The assembly process varies by type of door, from a relatively simple process for flush and molded doors, where the door facings are glued to a wood frame, to more complex processes where many pieces of solid and engineered wood are converted to louver or stile and rail door slabs. Architectural interior doors require another level of customization and sophistication employing the use of solid cores with varying degrees of sound dampening and fire retarding attributes, furniture quality wood veneer facings, as well as secondary machining operations to incorporate more sophisticated commercial hardware, openers and locks. Additionally, architectural doors are typically pre-finished prior to sale.

The manufacturing of steel and fiberglass exterior door slabs is a semi-automated process that entails combining laminated wood or rot free composite framing components between two door facings and then injecting the resulting hollow core structure with insulating polyurethane expanding foam core materials. We invested in fiberglass manufacturing technology, including the vertical integration of our own fiberglass sheet molding compound plant at our Laurel, Mississippi, facility in 2006. In 2008, we consolidated fiberglass slab manufacturing from multiple locations throughout North America into a single highly automated facility in Dickson, Tennessee, significantly improving the reliability and quality of these products while simultaneously lowering cost and reducing lead times.

Short set-up times, proper production scheduling and coordinated material movement are essential to achieve a flexible process capable of producing a wide range of door types, sizes, materials and styles. We make use of our vertically integrated and flexible manufacturing operations together with scalable logistics primarily through the use of common carriers to fill customers' orders and to minimize our investment in finished goods inventory.

Finally, interior flush and molded, stile and rail, louver and exterior door slabs manufactured at our door assembly plants are either sold directly to our customers or transferred to our door fabrication facilities where value added services are performed. These value added services include machining doors for hinges and locksets, installing the door slabs into ready to install frames, installing hardware, adding glass inserts and side lites, painting and staining, packaging and logistical services to our customers.

Within our manufacturing processes, we leverage the Mvantage operating system to systemically focus on the elimination of waste and non-value-added activities within the organization. In 2019, we continued to drive operational improvement to a new level using our three-pronged Mvantage strategy which includes the Model Plant Transformation Process, Process Improvement Teams and the focus on global standards and training. Our Model Plant Transformation Process continues to allow the seamless flow of material through our facilities. Our Process Improvements Teams work closely with manufacturing sites to utilize our Mvantage lean toolbox to diagnose operational inefficiencies and apply corrective actions to stabilize and standardize our day-to-day operations. Our focus on training, through our Internal Training and Certification programs, and implementing global standards has allowed us to drive continuous improvement through an increased number of Kaizen events that are being led by our trained facilitators. Through this structured approach, we realized improvements in certain key performance indicators in 2019.

Raw Materials

While Masonite is vertically integrated, we require a regular supply of raw materials, such as wood chips, some cut stock components, various composites, steel, glass, paint, stain and primer as well as petroleum-based products such as binders, resins and plastic injection frames to manufacture and assemble our products. In 2019, our materials cost accounts for approximately 52% of the total cost of the finished product. In certain instances, we depend on a single or limited number of suppliers for these supplies. Wood chips, logs, resins, binders and other additives utilized in the manufacturing of interior molded facings, exterior fiberglass door facings and door cores are purchased from global, regional and local suppliers taking into consideration the relative freight cost of these materials. Internal framing components, MDF, cut stock and internal door cores are manufactured internally at our facilities and supplemented from suppliers located throughout the world. We utilize a network of suppliers based in North America, Europe, South America and Asia to purchase other components including steel coils for the stamping of steel door facings, MDF, plywood and hardboard facings, door jambs and frames and glass frames and inserts.

Safety

We believe that safety is as important to our success as productivity and quality. This is reflected in our goal of Target Zero and our continued effort to create an injury-free workplace. We also believe that incidents can be prevented through proper management, employee involvement, standardized operations and equipment and attention to detail. Safety programs and training are provided throughout the company to ensure employees and managers have effective tools to help identify and address both unsafe conditions and at-risk behaviors.

Through a sustained commitment to improve our safety performance, we have been successful in reducing the number of injuries sustained by our employees. In 2019, the total incident rate, the annual number of injuries per 100 full time equivalent employees, decreased by 0.2.

Environmental and Other Regulatory Matters

We strive to minimize any adverse environmental impact our operations might have to our employees, the general public and the communities of which we are a part. We are subject to extensive environmental laws and regulations. The geographic breadth of our facilities subjects us to environmental laws, regulations and guidelines in a number of jurisdictions, including, among others, the United States, Canada, Mexico, the United Kingdom, the Republic of Ireland, the Czech Republic, Chile and Malaysia. Such laws, regulations and guidelines relate to, among other things, the discharge of contaminants into water and air and onto land, the storage and handling of certain regulated materials used in the manufacturing process, waste minimization, the disposal of wastes and the remediation of contaminated sites. Many of our products are also subject to various regulations such as building and construction codes, product safety regulations, health and safety laws and regulations and mandates related to energy efficiency.

Our efforts to ensure environmental compliance include the review of our operations on an ongoing basis utilizing in-house staff and on a selective basis by specialized environmental consultants. The Environmental, Health and Safety team participates in industry groups to monitor developing regulatory actions and actively develop comments on specific issues. Furthermore, for our prospective acquisition targets, environmental assessments are conducted as part of our due diligence review process. Based on recent experience and current projections, environmental protection requirements and liabilities are not expected to have a material effect on our business, capital expenditures, operations or financial position.

In addition to the various environmental laws and regulations, our operations are subject to numerous foreign, federal, state and local laws and regulations, including those relating to the presence of hazardous materials and protection of worker health and safety, consumer protection, trade, labor and employment, tax and others. We believe we are in compliance in all material respects with existing applicable laws and regulations affecting our operations.

Intellectual Property

In North America, our doors are marketed primarily under the Masonite® brand. Other North American brands include: Premdor®, Masonite Architectural®, Barrington®, Oakcraft®, Sta-Tru® HD, AvantGuard®, Vistagrande®, Flagstaff®, Hollister®, Sierra®, Fast-Frame®, Safe ’N Sound®, Heritage Series®, Livingston®, AquaSeal™, Cheyenne®, Glenview®, Riverside®, Saddlebrook®, Fast-Fit®, Mohawk®, Megantic®, Birchwood Best®, Algoma®, Vignette®, RhinoDoor®, Lemieux®, Harring Doors™, FyreWerks®, Graham-Maiman™, Maiman™ and Marshfield-Algoma®. In Europe, doors are marketed under the Masonite®, Premdor®, Premdor Speed Set®, Door-Stop International®, National Hickman®, Defining Spaces®, Solidor®, Residor®, Nicedor® and Residence Collection® brands. We consider the use of trademarks and trade names to be important in the development of product awareness, and for differentiating products from competitors and between customers.

We protect the intellectual property that we develop through, among other things, filing for patents in the United States and various foreign countries. In the United States, we currently have 271 design patents and design patent applications and 146 utility patents and patent applications. We currently have 174 foreign design patents and patent applications and 232 foreign utility patents and patent applications. Our United States utility patents are generally applicable for 20 years from the earliest filing date, our United States design patents for 15 years and our United States registered trademarks and tradenames are generally applicable for 10 years and are renewable. Our foreign patents and trademarks have terms as set by the particular country, although trademarks generally are renewable.

Competition

The North American door industry is highly competitive and includes a number of global and local participants. In the North American residential interior door industry, the primary participants are Masonite and JELD-WEN, which are the only vertically integrated manufacturers of molded door facings. There are also a number of smaller competitors in the residential interior door industry that primarily source door facings from third party suppliers. In the North American residential exterior door industry, the primary participants are Masonite, JELD-WEN, Plastpro, Therma-Tru, Feather River and Novatech. In the North American non-residential building construction door industry, the primary participants are Masonite and VT Industries with the remainder supplied by multiple regional manufacturers. Our primary market in Europe is the United Kingdom. The United Kingdom door industry is similarly

competitive, including a number of global and local participants. The primary participants in the United Kingdom are our subsidiary Premdor, JELD-WEN, Vicaima and Distinction Doors. Competition in these markets is primarily based on product quality, design characteristics, brand awareness, serviceability, distribution capabilities and value. We also face competition in the other countries in which we operate. In Europe, South America and Asia, we face significant competition from a number of regionally based competitors and importers.

A large portion of our products are sold through large home centers and other large retailers. The consolidation of our customers and our reliance on fewer larger customers has increased the competitive pressures as some of our largest customers, such as The Home Depot, perform periodic product line reviews to assess their product offerings and suppliers.

We are one of the largest manufacturers of molded door facings in the world. The rest of the industry consists of one other large, integrated door manufacturer and a number of smaller regional manufacturers. Competition in the molded door facing business is based on quality, price, product design, logistics and customer service. We produce molded door facings to meet our own requirements and outside of North America we serve as an important supplier to the door industry at large. We manufacture molded door facings at our facilities in Mississippi, Ireland, Chile, Canada and Malaysia.

Employees

As of December 29, 2019, we employed approximately 10,000 employees and contract personnel. This includes approximately 2,200 unionized employees, approximately 70% of whom are located in North America with the remainder in various foreign locations. Nine of our North American facilities have individual collective bargaining agreements, which are negotiated locally and the terms of which vary by location.

History and Reporting Status

Masonite was founded in 1925 in Laurel, Mississippi, by William H. Mason, to utilize vastly available quantities of sawmill waste to manufacture a usable end product. Masonite was acquired by Premdor from International Paper Company in August 2001.

Prior to 2005, Masonite was a public company with shares of our predecessor's common stock listed on both the New York and Toronto Stock Exchanges. In March 2005, we were acquired by an affiliate of Kohlberg Kravis Roberts & Co. L.P.

On March 16, 2009, Masonite International Corporation and several affiliated companies, voluntarily filed to reorganize under the Company's Creditors Arrangement Act (the "CCAA") in Canada in the Ontario Superior Court of Justice. Additionally, Masonite International Corporation and Masonite Inc. (the former parent of the Company) and all of its U.S. subsidiaries filed voluntary petitions for reorganization under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court in the District of Delaware. On June 9, 2009, we emerged from reorganization proceedings under the CCAA in Canada and under Chapter 11 of the U.S. Bankruptcy Code in the United States.

Effective July 4, 2011, pursuant to an amalgamation under the Business Corporations Act (British Columbia), Masonite Inc. amalgamated with Masonite International Corporation to form an amalgamated corporation named Masonite Inc., which then changed its name to Masonite International Corporation.

On September 9, 2013, our shares commenced listing on the New York Stock Exchange under the symbol "DOOR" and we became subject to periodic reporting requirements under the United States federal securities laws. We are currently not a reporting issuer, or the equivalent, in any province or territory of Canada and our shares are not listed on any recognized Canadian stock exchange.

Our United States executive offices are located at One Tampa City Center, 201 North Franklin Street, Suite 300, Tampa, Florida 33602 and our Canadian executive offices are located at 2771 Rutherford Road, Concord, Ontario L4K 2N6.

Available Information

We make our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 available through our website, free of charge, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. Our website is www.masonite.com. Information on our website does not constitute part of this Annual Report on Form 10-K.

Item 1A. Risk Factors

You should carefully consider the following factors in addition to the other information set forth in this Annual Report before investing in our common shares. The risks and uncertainties described below are not the only ones facing us. If any of the following risks actually occur, our business, financial condition or results of operations would likely suffer. In such case, the trading price of our common shares could fall, and you may lose all or part of your investment.

Risks Related to Our Business

Downward trends in our end markets or in economic conditions could negatively impact our business and financial performance.

Our business may be adversely impacted by changes in United States, Canadian, European, Asian, South American or global economic conditions, including inflation, deflation, interest rates, foreign exchange rate fluctuation, availability and cost of capital, consumer spending rates, energy availability and costs, and the effects of governmental initiatives to manage economic conditions. Volatility in the financial markets in the regions in which we operate and the deterioration of national and global economic conditions have in the past and could in the future materially adversely impact our operations, financial results and liquidity.

Trends in our primary end markets (residential new construction, repair, renovation and remodeling and non-residential building construction) directly impact our financial performance because they are directly correlated to the demand for doors and door components. Accordingly, the following factors may have a direct impact on our business in the countries and regions in which our products are sold:

- the strength of the economy;
- the amount and type of residential and non-residential construction;
- housing sales and home values;
- the age of existing home stock, home vacancy rates and foreclosures;
- non-residential building occupancy rates;
- increases in the cost of raw materials or wages, or any shortage in supplies or labor;
- the availability and cost of credit;
- employment rates and consumer confidence; and
- demographic factors such as immigration and migration of the population and trends in household formation.

In the United States, the housing market crisis had a negative impact on residential housing construction and related product suppliers. In addition, the current housing recovery is characterized by new construction levels still well below historical levels, and at times including an increased number of multi-family new construction starts, which generally use fewer of our products and may generate less net sales at a lower margin than typical single family homes.

In many of the non-North American markets in which we manufacture and sell our products, economic conditions deteriorated as various countries suffered from the after effects of the global financial downturn that began in the United States in 2006. Certain of our non-North American markets were acutely affected by the housing downturn and future downturns could cause excess capacity in housing and building products, including doors and door products, which may make it difficult for us to raise prices. Due in part to both market and operating conditions, we exited certain markets in the past several years, including Ukraine, Turkey, Romania, Hungary, Poland, Israel, France and South Africa.

Our relatively narrow focus within the building products industry amplifies the risks inherent in a prolonged global market downturn. The impact of this weakness on our net sales, net income and margins will be determined by many factors, including industry capacity, industry pricing, and our ability to implement our business plan.

Increases in mortgage rates, changes in mortgage interest deductions and related tax changes and the reduced availability of financing for the purchase of new homes and home construction and improvements could have a material adverse impact on our sales and profitability.

In general, demand for new homes and home improvement products may be adversely affected by increases in mortgage rates and the reduced availability of consumer financing. Mortgage rates remain near historic lows but have recently increased and will likely increase in the future. If mortgage rates increase and, consequently, the ability of prospective buyers to finance purchases of new homes or home improvement products is adversely affected, our business, financial condition and results of operations may be materially and adversely affected.

In addition, the Tax Cuts and Jobs Act in the United States placed a cap on the amount of mortgage debt on which interest can be deducted and also made interest on home equity debt non-deductible. These changes and future changes in policies set to encourage home ownership and improvement may adversely impact demand for our products and have a material adverse impact on us.

The ability of consumers to finance these purchases is affected by such factors as new and existing home prices, homeowners' equity values, interest rates and home foreclosures. Adverse developments affecting any of these factors could result in a tightening of lending standards by financial institutions and reduce the ability of some consumers to finance home purchases or repair and remodeling expenditures. The global financial downturn that began in the United States in 2006, included declining home and other building values, increased home foreclosures and tightening of credit standards by lending institutions, negatively impacted the home and other building new construction and repair and remodeling sectors. While these credit market trends have improved in recent years, if they were to reoccur or worsen, our net sales and net income may be adversely affected.

We operate in a competitive business environment. If we are unable to compete successfully, we could lose customers and our sales could decline.

The building products industry is highly competitive. Some of our principal competitors may have greater financial, marketing and distribution resources than we do and may be less leveraged than we are, providing them with more flexibility to respond to new technology or shifting consumer demand. Accordingly, these competitors may be better able to withstand changes in conditions within the industry in which we operate and may have significantly greater operating and financial flexibility than we do. Also, certain of our competitors may have excess production capacity, which may lead to pressure to decrease prices in order for us to remain competitive and may limit our ability to raise prices even in markets where economic and market conditions have improved. For these and other reasons, these competitors could take a greater share of sales and cause us to lose business from our customers or hurt our margins.

As a result of this competitive environment, we face pressure on the sales prices of our products. Because of these pricing pressures, we may in the future experience limited growth and reductions in our profit margins, sales or cash flows, and may be unable to pass on future raw material price, labor cost and other input cost increases to our customers which would also reduce profit margins.

Because we depend on a core group of significant customers, our sales, cash flows from operations, results of operations and our ability to implement price increases for our products may be negatively affected if our key customers reduce the amount of products they purchase from us.

Our customers consist mainly of wholesalers, retail home centers and contractors. Our top ten customers together accounted for approximately 43% of our net sales in fiscal year 2019, while our largest customer, The Home Depot, accounted for approximately 17% of our net sales in fiscal year 2019. We expect that a small number of customers will continue to account for a substantial portion of our net sales for the foreseeable future. However, net sales from customers that have accounted for a significant portion of our net sales in past periods, individually or as a group, may not continue to do so in future periods, or if continued, may not reach or exceed historical levels in any period. For example, many of our largest customers, including The Home Depot, perform periodic line reviews to assess their product offerings, which have, on past occasions, led to loss of business and pricing pressures. In addition, as a result of competitive bidding processes, we may not be able to increase or maintain the margins at which we sell our products to our most significant customers. Moreover, if any of these customers fails to remain competitive in the respective markets or encounters financial or operational problems, our net sales and profitability may decline. We generally do not enter into long-term contracts with our customers and they generally do not have an obligation to purchase products from us. Therefore, we could lose a significant customer with little or no notice. The loss of, or a

significant adverse change in, our relationships with The Home Depot or any other major customer could cause a material decrease in our net sales. The loss of, or a reduction in orders from, any significant customers, losses arising from customer disputes regarding shipments, fees, merchandise condition or related matters, or our inability to collect accounts receivable from any major customer, could have a material adverse effect on us. Also, we have no operational or financial control over these customers and have limited influence over how they conduct their businesses.

In the fourth quarter of 2019, we communicated price increases that became effective on February 3, 2020, to our North American Residential customers that, for certain products, were significantly greater than our typical annual increases. We also communicated our intent to incrementally invest $100 million over the next five years in the areas of service and quality improvements, product innovation and end user marketing. While we believe that these initiatives are necessary in order to increase the profile of, and demand for, our products and that they will benefit both us and our customers, we cannot predict whether our efforts will ultimately be successful or how our customers will react to these initiatives which could have a material impact on our results of operations for future periods. Further, our competitors may adopt more aggressive sales policies and devote greater resources to the development, promotion and sale of their products than we do, which could result in a loss of customers.

Consolidation of our customers and their increasing size could adversely affect our results of operations.

In many of the countries in which we operate, an increasingly large number of building products are sold through large retail home centers and other large retailers. In addition, we have experienced consolidation of distributors in our wholesale distribution channel and among businesses operating in different geographic regions resulting in more customers operating nationally and internationally. If the consolidation of our customers and distributors were to continue, leading to the further increase of their size and purchasing power, we may be challenged to continue to provide consistently high customer service levels for increasing sales volumes, while still offering a broad portfolio of innovative products and on-time and complete deliveries. If we fail to provide high levels of service, broad product offerings, competitive prices and timely and complete deliveries, we could lose a substantial amount of our customer base and our profitability, margins and net sales could decrease. We have also experienced the consolidation of our wholesale distributors by our competitors, such as JELD-WEN's acquisitions of American Building Supply, Inc., in 2018 and Milliken Millwork, Inc., in 2017. Consolidation of our customers could also result in the loss of a customer or a substantial portion of a customer's business.

Tariffs and evolving trade policy between the United States and other countries, including China, and the impact of anti-dumping and countervailing trade cases may have an adverse effect on our business and results of operations.

Recent steps taken by the United States government to apply and consider applying tariffs on certain products and materials, including steel, could potentially disrupt our existing supply chains and impose additional costs on our business, including costs with respect to raw materials upon which our business depends. The increased costs may negatively impact our margins as we may not be able to pass on the additional costs by increasing the prices of our products. Additionally, antidumping and countervailing duty trade cases, such as the January 8, 2020, Coalition of American Producers antidumping and countervailing duty petitions against Wood Mouldings and Millwork Products from Brazil and China, could impact our business and results of operations, While we believe our exposure to the potential increased costs of these tariffs and duties is no greater than the industry as a whole, our business and results of operations may be adversely affected if our efforts to mitigate their effects are unsuccessful.

Increased prices for raw materials or finished goods used in our products or interruptions in deliveries of raw materials or finished goods could adversely affect our profitability, margins and net sales.

Our profitability is affected by the prices of raw materials and finished goods used in the manufacture of our products. These prices have fluctuated and may continue to fluctuate based on a number of factors beyond our control, including world oil prices, changes in supply and demand, general economic or environmental conditions, labor costs, competition, import duties, tariffs, currency exchange rates and, in some cases, government regulation. The commodities we use may undergo major price fluctuations and there is no certainty that we will be able to pass these costs through to our customers. Significant increases in the prices of raw materials or finished goods are more difficult to pass through to customers in a short period of time and may negatively impact our short-term profitability, margins and net sales. In the current competitive environment, opportunities to pass on these cost increases to our customers may be limited.

We require a regular supply of raw materials, such as wood, wood composites, cut stock, steel, glass, core material, paint, stain and primer as well as petroleum-based products such as binders, resins and frames. In certain

instances, we depend on a single or limited number of suppliers for these supplies. We typically do not have long-term contracts with our suppliers. If we are not able to accurately forecast our supply needs, the limited number of suppliers may make it difficult to obtain additional raw materials to respond to shifting or increased demand. Our dependency upon regular deliveries from particular suppliers means that interruptions or stoppages in such deliveries could adversely affect our operations until arrangements with alternate suppliers could be made. Furthermore, because our products and the components of some of our products are subject to regulation, such alternative suppliers, even if available, may not be substituted until regulatory approvals for such substitution are received, thereby delaying our ability to respond to supply changes. Moreover, some of our raw materials, especially those that are petroleum or chemical based, interact with other raw materials used in the manufacture of our products and therefore significant lead time may be required to procure a compatible substitute. Substitute materials may also not be of the same quality as our original materials.

If any of our suppliers were unable to deliver materials to us for an extended period of time (including as a result of delays in land or sea shipping), or if we were unable to negotiate acceptable terms for the supply of materials with these or alternative suppliers, our business could suffer. In the future, we may not be able to find acceptable supply alternatives, and any such alternatives could result in increased costs for us. Even if acceptable alternatives are found, the process of locating and securing such alternatives might be disruptive to our business.

Furthermore, raw material prices could increase, and supply could decrease, if other industries compete with us for such materials. For example, we are highly dependent upon our supply of wood chips used for the production of our door facings and wood composite materials. Failure to obtain significant supply may disrupt our operations and even if we are able to obtain sufficient supply, we may not be able to pass increased supply costs on to our customers in the form of price increases, thereby resulting in reduced margins and profits.

A rapid and prolonged increase in fuel prices may significantly increase our costs and have an adverse impact on our results of operations.

Fuel prices may be volatile and are significantly influenced by international, political and economic circumstances. While fuel prices have fallen from historical highs over the last several years, lower fuel prices may not be permanent. If fuel prices were to rise for any reason, including fuel supply shortages or unusual price volatility, the resulting higher fuel prices could materially increase our shipping costs, adversely affecting our results of operations. In addition, competitive pressures in our industry may have the effect of inhibiting our ability to reflect these increased costs in the prices of our products.

Increases in labor costs, availability of labor, or potential labor disputes and work stoppages at our facilities or the facilities of our suppliers could materially adversely affect our financial performance.

Our financial performance is affected by the availability of qualified personnel and the cost of labor as it impacts our direct labor, overhead, distribution and selling, general and administration costs. Increased costs of wages and benefits and the lack of qualified labor available has had and could continue to have an adverse effect on our results of operations.

Additionally, we have approximately 10,000 employees and contract personnel worldwide, including approximately 2,200 unionized workers. Employees represented by these unions are subject to collective bargaining agreements that are subject to periodic negotiation and renewal, including our agreements with employees and their respective work councils in Chile, Mexico and the United Kingdom, which are subject to annual negotiation. If we are unable to enter into new, satisfactory labor agreements with our unionized employees upon expiration of their agreements, we could experience a significant disruption of our operations, which could cause us to be unable to deliver products to customers on a timely basis. If our workers were to engage in strikes, a work stoppage or other slowdowns, we could also experience disruptions of our operations. Such disruptions could result in a loss of business and an increase in our operating expenses, which could reduce our net sales and profit margins. In addition, our non-unionized labor force may become subject to labor union organizing efforts, such as the attempt to organize our Northumberland facility in 2015, which could cause us to incur additional labor costs and increase the related risks that we now face.

We believe many of our direct and indirect suppliers and customers also have unionized workforces. Strikes, work stoppages or slowdowns experienced by these suppliers and customers could result in slowdowns or closures of facilities where components of our products are manufactured or delivered. Any interruption in the production or delivery of these components could reduce sales, increase costs and have a material adverse effect on us.

If we are unable to accurately predict future demand preferences for our products, our business and results of operations could be materially affected.

A key element to our continued success is the ability to maintain accurate forecasting of future demand preferences for our products. Our business in general is subject to changing consumer and industry trends, demands and preferences. Changes to consumer shopping habits and potential trends towards "online" purchases could also impact our ability to compete as we currently sell our products mainly through our distribution channels. Our continued success depends largely on the introduction and acceptance by our customers of new product lines and improvements to existing product lines that respond to such trends, demands and preferences. Trends within the industry change often and our failure to anticipate, identify or quickly react to changes in these trends could lead to, among other things, rejection of a new product line and reduced demand and price reductions for our products, and could materially adversely affect us. In addition, we are subject to the risk that new products could be introduced that would replace or reduce demand for our products. Furthermore, new proprietary designs and/or changes in manufacturing technologies may render our products obsolete or we may not be able to manufacture products or designs at prices that would be competitive in the marketplace. We may not have sufficient resources to make necessary investments or we may be unable to make the investments or acquire the intellectual property rights necessary to develop new products or improve our existing products.

Our business is seasonal which may affect our net sales, cash flows from operations and results of operations.

Our business is moderately seasonal and our sales vary from quarter to quarter based upon the timing of the building season in our markets. Severe weather conditions in any quarter, such as unusually prolonged warm or cold conditions, rain, blizzards or hurricanes, could accelerate, delay or halt construction and renovation activity. The impact of these types of events on our business may adversely impact our sales, cash flows from operations and results of operations. Also, we cannot predict the effects on our business that may result from global climate change, including potential new related laws or regulations. If sales were to fall substantially below what we would normally expect during certain periods, our annual financial results would be adversely impacted. Moreover, our facilities are vulnerable to severe weather conditions.

A disruption in our operations could materially affect our operating results.

We operate facilities worldwide. Many of our facilities are located in areas that are vulnerable to hurricanes, earthquakes and other natural disasters. In the event that a hurricane, earthquake, natural disaster, fire or other catastrophic event were to interrupt our operations for any extended period of time, particularly at one or more of our door facing facilities or architectural door plants, such as when our Stockton, California, cut stock plant was destroyed when a fire broke out at a non-Masonite facility adjacent to our plant in April 2019, it could delay shipment of merchandise to our customers, damage our reputation or otherwise have a material adverse effect on our financial condition and results of operations. Closure of one of our door facing facilities, which are our most capital intensive and least replaceable production facilities, could have a substantial negative effect on our earnings.

In addition, our operations may be interrupted by terrorist attacks, other acts of violence or war or public health crises, such as the coronavirus. These events may directly impact our suppliers' or customers' physical facilities. Furthermore, these events may make travel and the transportation of our supplies and products more difficult and more expensive and ultimately affect our operating results. The United States has entered into, and may enter into, additional armed conflicts which could have a further impact on our sales and our ability to deliver product to our customers in the United States and elsewhere. Political and economic instability in some regions of the world, including the current instabilities in the Middle East and North Korea, may also negatively impact our business. The consequences of any of these armed conflicts are unpredictable, and we may not be able to foresee events that could have an adverse effect on our business or your investment. More generally, any of these events could cause consumer confidence and spending to decrease or result in increased volatility in the United States and worldwide financial markets and economy. They could also result in economic recession in the United States or abroad. Any of these occurrences could have a significant impact on our operating results.

Manufacturing realignments may result in a decrease in our short-term earnings, until the expected cost reductions are achieved, as well as reduce our flexibility to respond quickly to improved market conditions.

We continually review our manufacturing operations and sourcing capabilities. Effects of periodic manufacturing realignments and cost savings programs have in the past and could in the future result in a decrease in our short-term earnings, including the impacts of restructuring charges and related impairments and other expenses,

until the expected cost reductions are achieved. We also cannot assure you we will achieve all of our cost savings. Such programs may include the consolidation, integration and upgrading of facilities, functions, systems and procedures. The success of these efforts will depend in part on market conditions, and such actions may not be accomplished as quickly as anticipated and the expected cost reductions may not be achieved or sustained.

In connection with our manufacturing realignment and cost savings programs, we have closed or consolidated a substantial portion of our global operations and reduced our personnel, which may reduce our flexibility to respond quickly to improved market conditions. In addition, we have in the past and may again in the future, restructure portions of our global workforce to simplify and streamline our organization, improve our cost structure and strengthen our overall business. These changes could affect employee morale and productivity and be disruptive to our business and financial performance. For example, in 2017 we closed our Algoma, Wisconsin, facility in order to improve our cost structure and enhance operational efficiencies. Further, a failure to anticipate a sharp increase in levels of residential new construction, residential repair, renovation and remodeling and non-residential building construction activity could result in operational difficulties, adversely impacting our ability to provide our products to our customers. This may result in the loss of business to our competitors in the event they are better able to forecast or respond to market demand. There can be no assurance that we will be able to accurately forecast the level of market demand or react in a timely manner to such changes, which may have a material adverse effect on our business, financial condition and results of operations.

We are subject to the credit risk of our customers.

We provide credit to our customers in the normal course of business. We generally do not require collateral in extending such credit. An increase in the exposure, coupled with material instances of default, could have a material adverse effect on our business, financial condition, results of operations and cash flow.

Our recent acquisitions and any future acquisitions, if available, could be difficult to integrate and could adversely affect our operating results.

In the past several years we completed several strategic acquisitions of door and door component manufacturers in North America and the United Kingdom. Historically, we have made acquisitions to vertically integrate and expand our operations, such as our acquisitions of TOPDOORS, s.r.o. ("Top Doors") in 2019, Bridgewater Wholesalers Inc. ("BWI"), Graham Manufacturing Corporation and The Maiman Company (collectively, "Graham & Maiman") and DW3 Products Holdings Limited ("DW3") in 2018; and A&F Wood Products, Inc. ("A&F") in 2017. From time to time, we have evaluated and we continue to evaluate possible acquisition transactions on an on-going basis. Our acquisitions may not be accretive. At any time we may be engaged in discussions or negotiations with respect to possible acquisitions or may have entered into non-binding letters of intent. As part of our strategy, we expect to continue to pursue complementary acquisitions and investments and may expand into product lines or businesses with which we have little or no operating experience. For example, future acquisitions may involve building product categories other than doors. We may also engage in further vertical integration. However, we may face competition for attractive targets and we may not be able to source appropriate acquisition targets at prices acceptable to us, or at all. In addition, in order to pursue our acquisition strategy, we will need significant liquidity, which, as a result of the other factors described herein, may not be available on terms favorable to us, or at all.

Our recent and any future acquisitions involve a number of risks, including:

- our inability to integrate the acquired business, including their information technology systems;
- our inability to manage acquired businesses or control integration and other costs relating to acquisitions;
- our lack of experience with a particular business should we invest in a new product line;
- diversion of management attention;
- our failure to achieve projected synergies or cost savings;
- impairment of goodwill affecting our reported net income;
- our inability to retain the management or other key employees of the acquired business;
- our inability to establish uniform standards, controls, procedures and policies;
- our inability to retain customers of our acquired companies;
- risks associated with the internal controls of acquired companies;
- exposure to legal claims for activities of the acquired business prior to the acquisition;
- our due diligence procedures could fail to detect material issues related to the acquired business;
- unforeseen management and operational difficulties, particularly if we acquire assets or businesses in new foreign jurisdictions where we have little or no operational experience;

- damage to our reputation as a result of performance or customer satisfaction problems relating to any acquired business;
- the performance of any acquired business could be lower than we anticipated; and
- our inability to enforce indemnifications and non-compete agreements.

The integration of any future acquisition into our business will likely require substantial time, effort, attention and dedication of management resources and may distract our management in unpredictable ways from our ordinary operations. The integration may also result in consolidation of certain existing operations. If we cannot successfully execute on our investments on a timely basis, we may be unable to generate sufficient net sales to offset acquisition, integration or expansion costs, we may incur costs in excess of what we anticipate, and our expectations of future results of operations, including cost savings and synergies, may not be achieved. If we are not able to effectively manage recent or future acquisitions or realize their anticipated benefits, it may harm our results of operations.

We rely on the continuous operation of our information technology systems. Failure to maintain or prevent damage to such information technology systems or implement contemporary technology systems may adversely affect our business, results of operations and customer relationships.

Our information technology systems allow us to accurately maintain books and records, record transactions, provide information to management and prepare our consolidated financial statements. We may not have sufficient redundant operations to cover a loss or failure in a timely manner. Our operations depend on our network of information technology systems, which are vulnerable to damage from hardware failure, fire, power loss, telecommunications failure, impacts of terrorism, cyber security vulnerabilities (such as threats and attacks), computer viruses, natural disasters or other disasters. Any damage to our information technology systems could cause interruptions to our operations that materially adversely affect our ability to meet customers' requirements, resulting in an adverse impact to our business, financial condition and results of operations. Periodically, these systems need to be expanded, updated or upgraded as our business needs change. For example, we are in the process of implementing a new enterprise resource planning system in our Architectural business. In addition, we are increasingly using cloud-based technology to enable our customers a secure link to our systems in ways that enhance our customer relationships. We may not be able to successfully implement changes in our information technology systems without experiencing difficulties, which could require significant financial and human resources and impact our ability to efficiently service our customers. Moreover, our recent technological initiatives and increasing dependence on technology may exacerbate this risk.

Potential cyber threats and attacks could disrupt our information security systems and cause damage to our business and our reputation.

Information security threats, which pose a risk to the security of our network of systems and the confidentiality and integrity of our data, are increasing in frequency and sophistication. We have established policies, processes and multiple layers of defenses designed to help identify and protect against intentional and unintentional misappropriation or corruption of our network of systems, including third party vendors' systems. Should damage to our network of systems occur, it could lead to the compromise of confidential information, manipulation and destruction of data and product specifications, production downtimes, disruption in the availability of financial data, or misrepresentation of information via digital media. While we have not experienced any material breaches in information security, the occurrence of any of these events could adversely affect our reputation and could result in litigation, regulatory action, financial loss, project delay claims and increased costs and operational consequences of implementing further data protection systems.

Certain of our pension obligations are currently underfunded. We may have to make significant cash payments to our pension plans, which would reduce the cash available for our business.

As of December 29, 2019, our accumulated benefit obligations under our United Kingdom defined benefit pension plan exceeded the fair value of plan assets by $5.9 million. Our United States defined benefit pension plan is in a net funded status as plan assets exceeded our accumulated benefit obligations by $0.9 million, primarily due to higher returns on plan assets. During the years ended December 29, 2019, December 30, 2018 and December 31, 2017, we contributed $5.0 million each year to the United States pension plan and $1.3 million, $0.7 million and $1.0 million, respectively, to the United Kingdom pension plan. Additional contributions will be required in future years. We currently anticipate making $5.0 million and $0.8 million of contributions to our United States and United Kingdom pension plans, respectively, in 2020. If the performance of the assets in our pension plans does not meet our expectations or other actuarial assumptions are modified, our contributions to our pension plans could be materially higher than we expect, which would reduce the cash available for our businesses.

We are exposed to political, economic and other risks that arise from operating a multinational business.

We have operations in the United States, Canada, Europe and, to a lesser extent, other foreign jurisdictions. In the year ended December 29, 2019, approximately 68% of our net sales were in the United States, 14% in Canada and 13% in the United Kingdom. Further, certain of our businesses obtain raw materials and finished goods from foreign suppliers. Accordingly, our business is subject to political, economic and other risks that are inherent in operating in numerous countries.

These risks include:

- the difficulty of enforcing agreements and collecting receivables through foreign legal systems;
- trade protection measures and import or export licensing requirements;
- tax rates in foreign countries and the imposition of withholding requirements on foreign earnings;
- the imposition of tariffs, such as those recently adopted by the United States and other jurisdictions, or other restrictions;
- difficulty in staffing and managing widespread operations and the application of foreign labor regulations;
- required compliance with a variety of foreign laws and regulations; and
- changes in general economic and political conditions in countries where we operate.

Our business success depends in part on our ability to anticipate and effectively manage these and other risks. We cannot assure you that these and other factors will not have a material adverse effect on our international operations or on our business as a whole. See also "*Tariffs and evolving trade policy between the United States and other countries, including China, may have an adverse effect on our business and results of operations.*"

Uncertainty relating to the United Kingdom's exit from the European Union could adversely affect our financial results.

In June 2016, voters in the United Kingdom voted in favor of the United Kingdom exiting the European Union (“Brexit”). On January 31, 2020, the United Kingdom ceased to be part of the European Union. The impact of the United Kingdom's departure from, and future relationship with, the European Union are uncertain. The consequences for the economies of the European Union member states as a result of the United Kingdom's withdrawal from the European Union are unknown and unpredictable. Any impact from Brexit on our business will depend, in part, on the outcome of tariff, trade and other negotiations. If the ultimate terms of the United Kingdom’s exit from the European Union negatively impact the United Kingdom economy or result in disruptions to sales or our supply chain, the adverse impact to our results of operations, financial condition and cash flows could be material.

Since the United Kingdom triggered Brexit, there has been instability in global financial and foreign exchange markets, including volatility in the value of the Pound Sterling and the Euro. Uncertainty about global or regional economic conditions poses a risk as consumers and businesses may postpone spending in response to tighter credit, negative financial news and declines in income or asset values, which could have a material negative effect on the European housing market, particularly in the United Kingdom, and demand for our products. The effects of Brexit will depend upon any agreements the United Kingdom makes to retain access to European Union markets. It is possible that there will be higher tariffs or greater restrictions on imports and exports between the United Kingdom and the other European Union member states and increased regulatory complexities. These could potentially disrupt our supply chain, access to human capital and sales to some of our target markets and jurisdictions in which we operate. The effects of Brexit could also lead to adverse changes in tax laws in these or other jurisdictions. Additionally, the movement of goods between the United Kingdom and the remaining European Union member states could be subject to additional inspections and documentation checks, which could lead to possible delays at ports of entry and departure. Brexit could also lead to legal uncertainty and potentially divergent national laws and regulations, including environmental and other regulations currently under the European Union’s jurisdiction, which may or may not be replaced or replicated by the United Kingdom. Any of these effects of Brexit, and others we cannot anticipate, could have a material adverse impact on our results of operations, financial condition and cash flows.

Fluctuating exchange and interest rates could adversely affect our financial results.

Our financial results may be adversely affected by fluctuating exchange rates. Net sales generated outside of the United States were approximately 32% for the year ended December 29, 2019. In addition, a significant percentage of our costs during the same period were not denominated in U.S. dollars. For example, for most of our manufacturing facilities, the prices for a significant portion of our raw materials are quoted in the domestic currency of the country where the facility is located or other currencies that are not U.S. dollars. We also have substantial assets outside the

United States. As a result, the volatility in the price of the U.S. dollar has exposed, and in the future may continue to expose, us to currency exchange risks. For example, we are subject to currency exchange rate risk to the extent that some of our costs will be denominated in currencies other than those in which we earn revenues. Also, since our financial statements are denominated in U.S. dollars, changes in currency exchange rates between the U.S. dollar and other currencies have had, and will continue to have, an impact on many aspects of our financial results. Changes in currency exchange rates for any country in which we operate may require us to raise the prices of our products in that country and may result in the loss of business to our competitors that sell their products at lower prices in that country.

Moreover, as our current indebtedness is denominated in a currency that is different from the currencies in which we derive a portion of our net sales, we are also exposed to currency exchange rate risk with respect to those financial obligations. When the outstanding indebtedness is repaid, we may be subject to taxes on any corresponding foreign currency gain.

Borrowings under our current ABL Facility are incurred at variable rates of interest, which exposes us to interest rate fluctuation risk. If interest rates increase, the payments we are required to make on any variable rate indebtedness will increase.

We may face claims that we infringe third party intellectual property rights, or be unable to protect our intellectual property from infringement by others except by incurring substantial costs as a result of litigation or other proceedings relating to patent or trademark rights, any of which could cause our net sales or profitability to decline.

We rely on a combination of United States, Canadian and, to a lesser extent, European patent, trademark, copyright and trade secret laws as well as licenses, nondisclosure, confidentiality and other contractual restrictions to protect certain aspects of our business. We have registered trademarks, copyrights and our patent and trademark applications may not be allowed by the applicable governmental authorities to issue as patents or register as trademarks at all, or in a form that will be advantageous to us. In addition, we have selectively pursued patent and trademark protection, and in some instances we may not have registered important patent and trademark rights in these and other countries. Furthermore, the laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. The failure to obtain worldwide patent and trademark protection may result in other companies copying and marketing products based upon our technologies or under our brand or tradenames outside the jurisdictions in which we are protected. This could impede our growth in existing regions and into new regions, create confusion among consumers and result in a greater supply of similar products that could erode prices for our protected products.

Our success depends in part on our ability to protect our patents, trademarks, copyrights, trade secrets and licensed intellectual property from unauthorized use by others. We cannot be sure that the patents we have obtained, or other protections such as confidentiality, trade secrets and copyrights, will be adequate to prevent imitation of our products by others. If we are unable to protect our products through the enforcement of intellectual property rights, our ability to compete based on our current advantages may be harmed. If we fail to prevent substantial unauthorized use of our trade secrets, we risk the loss of those intellectual property rights and whatever competitive advantage they embody.

Although we are not aware that any of our products or intellectual property rights materially infringe upon the proprietary rights of third parties, third parties may accuse us of infringing or misappropriating their patents, trademarks, copyrights or trade secrets. Third parties may also challenge our trademark rights and branding practices in the future. We may be required to institute or defend litigation to defend ourselves from such accusations or to enforce our patent, trademark and copyright rights from unauthorized use by others, which, regardless of the outcome, could result in substantial costs and diversion of resources and could negatively affect our competitive position, sales, profitability and reputation. If we lose a patent infringement suit, we may be liable for money damages and be enjoined from selling the infringing product unless we can obtain a license or are able to redesign our product to avoid infringement. A license may not be available at all or on terms acceptable to us, and we may not be able to redesign our products to avoid any infringement, which could negatively affect our profitability. In addition, our patents, trademarks and other proprietary rights may be subject to various attacks claiming they are invalid or unenforceable. These attacks might invalidate, render unenforceable or otherwise limit the scope of the protection that our patents and trademarks afford. If we lose the use of a product name, our efforts spent building that brand may be lost and we will have to rebuild a brand for that product, which we may or may not be able to do. Even if we prevail in a patent infringement suit, there is no assurance that third parties will not be able to design around our patents, which could harm our competitive position.

If we are unable to replace our expiring patents or fail to continue to innovate, our ability to compete both domestically and internationally will be harmed. In addition, our products face the risk of obsolescence, which, if realized, could have a material adverse effect on our business.

Our continued success depends on our ability to develop and introduce new or improved products, to improve our manufacturing and product service processes and to protect our rights to the technologies used in our products. If we fail to do so, or if existing or future competitors achieve greater success than we do in these areas, our results of operations and our profitability may decline.

We depend on our door manufacturing intellectual property and products to generate revenue. Some of our patents will begin to expire in the next several years. While we will continue to work to add to our patent portfolio to protect the intellectual property of our products, we believe it is possible that new competitors will emerge in door manufacturing. We do not know whether we will be able to develop additional proprietary designs, processes or products. If any protection we obtain is reduced or eliminated, others could use our intellectual property without compensating us, resulting in harm to our business. Moreover, as our patents expire, competitors may utilize the information found in such patents to commercialize their own products. While we seek to offset the losses relating to important expiring patents by securing additional patents on commercially desirable improvements, and new products, designs and processes, there can be no assurance that we will be successful in securing such additional patents, or that such additional patents will adequately offset the effect of the expiring patents.

Further, we face the risk that third parties will succeed in developing or marketing products that would render our products obsolete or noncompetitive. New, less expensive methods could be developed that replace or reduce the demand for our products or may cause our customers to delay or defer purchasing our products. Accordingly, our success depends in part upon our ability to respond quickly to market changes through the development and introduction of new products. The relative speed with which we can develop products, complete regulatory clearance or approval processes and supply commercial quantities of the products to the market are expected to be important competitive factors. Any delays could result in a loss of market acceptance and market share. We cannot provide assurance that our new product development efforts will result in any commercially successful products.

We may be the subject of product liability claims or product recalls, we may not accurately estimate costs related to such claims or recalls, and we may not have sufficient insurance coverage available to cover potential liabilities.

Our products are used and have been used in a wide variety of residential and architectural applications. We face an inherent business risk of exposure to product liability or other claims, including class action lawsuits, in the event our products are alleged to be defective or that the use of our products is alleged to have resulted in harm to others or to property. Because we manufacture a significant portion of our products based on the specific requirements of our customers, failure to provide our customers the products and services they specify could result in product-related claims and reduced or cancelled orders and delays in the collection of accounts receivable. We may in the future incur expenses if product liability lawsuits against us are successful. Moreover, any such lawsuits, whether or not successful, could result in adverse publicity to us, which could cause our sales to decline materially. In addition, it may be necessary for us to recall defective products, which would also result in adverse publicity, as well as resulting in costs connected to the recall and loss of net sales. We maintain insurance coverage to protect us against product liability claims, but that coverage may not be adequate to cover all claims that may arise or we may not be able to maintain adequate insurance coverage in the future at an acceptable cost. Any liability not covered by insurance or that exceeds our established reserves could materially and adversely impact our financial condition and results of operations.

In addition, consistent with industry practice, we provide warranties on many of our products and we may experience costs of warranty or breach of contract claims if our products have defects in manufacture or design or they do not meet contractual specifications. We estimate our future warranty costs based on historical trends and product sales, but we may fail to accurately estimate those costs and thereby fail to establish adequate warranty reserves for them.

The loss of certain members of our management may have an adverse effect on our operating results.

Our success will depend, in part, on the efforts of our senior management and other key employees. These individuals possess sales, marketing, engineering, manufacturing, financial and administrative skills and know-how that are critical to the operation of our business. If we lose or suffer an extended interruption in the services of one or more of our senior officers or other key employees, our financial condition and results of operations may be negatively affected. Moreover, the pool of qualified individuals may be highly competitive and we may not be able to attract and

retain qualified personnel to replace or succeed members of our senior management or other key employees, should the need arise. The loss of the services of any key personnel or our inability to hire new personnel with the requisite skills, could impair our ability to develop new products or enhance existing products, sell products to our customers or manage our business effectively.

As previously disclosed, the Company appointed Howard C. Heckes as President and Chief Executive Office of the Company, effective, June 3, 2019. Mr. Heckes succeeded Frederick J. Lynch, our former President and Chief Executive Officer, who left the Board of Directors effective June 2, 2019, in connection with his previously disclosed retirement from the Company. Such leadership transitions can be inherently difficult to manage, and an inadequate transition may cause disruption to our business, including to our relationships with our customers, suppliers and employees. It may also make it more difficult to hire and retain key employees.

To service our consolidated indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control, and any failure to meet our debt service obligations could harm our business, financial condition and results of operations.

Our estimated annual payment obligation for 2020 with respect to our consolidated indebtedness is $44.1 million of interest payments. When we draw funds under the ABL Facility, we incur additional interest expense. Our ability to pay interest on and principal of the senior notes and our ability to satisfy our other debt obligations will principally depend upon our future operating performance. As a result, prevailing economic conditions and financial, business and other factors, many of which are beyond our control, will affect our ability to make these payments.

If we do not generate sufficient cash flow from operations to satisfy our consolidated debt service obligations, we may have to undertake alternative financing plans, such as refinancing or restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. Our ability to restructure or refinance our debt will depend on the capital markets and our financial condition at such time. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. In addition, the terms of existing or future debt instruments, including the ABL Facility and the indenture governing the senior notes, may restrict us from adopting some of these alternatives. If we are unable to generate sufficient cash flow to satisfy our debt service obligations, or to refinance our obligations on commercially reasonable terms, it would have an adverse effect, which could be material, on our business, financial condition and results of operations.

Under such circumstances, we may be unable to comply with the provisions of our debt instruments, including the financial covenants in the ABL Facility. If we are unable to satisfy such covenants or other provisions at any future time, we would need to seek an amendment or waiver of such financial covenants or other provisions. The lenders under the ABL Facility may not consent to any amendment or waiver requests that we may make in the future, and, if they do consent, they may not do so on terms which are favorable to us. The lenders will also have the right in these circumstances to terminate any commitments they have to provide further borrowings. If we are unable to obtain any such waiver or amendment, our inability to meet the financial covenants or other provisions of the ABL Facility would constitute an event of default thereunder, which would permit the lenders to accelerate repayment of borrowings under the ABL Facility, which in turn would constitute an event of the default under the indenture governing the senior notes, permitting the holders of the senior notes to accelerate payment thereon. Our assets and/or cash flow, and/or that of our subsidiaries, may not be sufficient to fully repay borrowings under our outstanding debt instruments if accelerated upon an event of default, and the secured lenders under the ABL Facility could proceed against the collateral securing that indebtedness. Such events would have a material adverse effect on our business, financial condition and results of operations, as well as on our ability to satisfy our obligations in respect of the senior notes.

The terms of the ABL Facility and the indenture governing the senior notes may restrict our current and future operations, particularly our ability to respond to changes in our business or to take certain actions.

The credit agreement governing the ABL Facility and the indentures governing the senior notes contain, and the terms of any future indebtedness of ours would likely contain, a number of restrictive covenants that impose significant operating and financial restrictions, including restrictions on our ability to engage in acts that may be in our best long-term interests. The indentures governing the senior notes and the credit agreements governing the ABL Facility include covenants that, among other things, restrict our and our subsidiaries' ability to:

- incur additional indebtedness and issue disqualified or preferred stock;
- make restricted payments;

- sell assets;
- create restrictions on the ability of their restricted subsidiaries to pay dividends or distributions;
- create or incur liens;
- enter into sale and lease-back transactions;
- merge or consolidate with other entities; and
- enter into transactions with affiliates.

The operating and financial restrictions and covenants in the debt agreements entered into in connection with the ABL Facility and any future financing agreements may adversely affect our ability to finance future operations or capital needs or to engage in other business activities.

Lack of transparency, threat of fraud, public sector corruption and other forms of criminal activity involving government officials increases risk for potential liability under anti-bribery or anti-fraud legislation, including the United States Foreign Corrupt Practices Act.

We operate facilities in eight countries and sell our products in 60 countries around the world. As a result of these international operations, we may enter from time to time into negotiations and contractual arrangements with parties affiliated with foreign governments and their officials. In connection with these activities, we are subject to the FCPA, the United Kingdom Bribery Act and other anti-bribery laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by United States and other business entities for the purpose of obtaining or retaining business, or otherwise receiving discretionary favorable treatment of any kind and requires the maintenance of internal controls to prevent such payments. In particular, we may be held liable for actions taken by our local partners and agents in foreign countries where we operate, even though such parties are not always subject to our control. As part of our Masonite Values Operating Guide, we have established FCPA and other anti-bribery policies and procedures and offer several channels for raising concerns in an effort to comply with applicable U.S. and international laws and regulations. However, there can be no assurance that our policies and procedures will effectively prevent us from violating these laws and regulations in every transaction in which we may engage. Any determination that we have violated the FCPA or other anti-bribery laws (whether directly or through acts of others, intentionally or through inadvertence) could result in sanctions that could have a material adverse effect on our results of operations and financial condition.

As we continue to expand our business globally, we may have difficulty anticipating and effectively managing these and other risks that our international operations may face, which may adversely impact our business outside of North America and our financial condition and results of operations. In addition, any acquisition of businesses with operations outside of North America may exacerbate this risk.

Environmental requirements and other government regulation may impose significant environmental and legal compliance costs and liabilities on us.

Our operations are subject to numerous Canadian (federal, provincial and local), United States (federal, state and local), European (European Union, national and local) and other laws and regulations relating to pollution and the protection of human health and the environment, including, without limitation, those governing emissions to air, discharges to water, storage, treatment and disposal of waste, releases of contaminants or hazardous or toxic substances, remediation of contaminated sites and protection of worker health and safety. From time to time, our facilities are subject to investigation by governmental regulators. Despite our efforts to comply with environmental requirements, we are at risk of being subject to civil, administrative or criminal enforcement actions, of being held liable, of being subject to an order or of incurring costs, fines or penalties for, among other things, releases of contaminants or hazardous or toxic substances occurring on or emanating from currently or formerly owned or operated properties or any associated offsite disposal location, or for contamination discovered at any of our properties from activities conducted by us or by previous occupants. Although, with the exception of costs incurred relating to compliance with Maximum Achievable Control Technology requirements (as described below), we have not incurred significant costs for environmental matters in prior years, future expenditures required to comply with any changes in environmental requirements are anticipated to be undertaken as part of our ongoing capital investment program, which is primarily designed to improve the efficiency of our various manufacturing processes. The amount of any resulting liabilities, costs, fines or penalties may be material.

In addition, the requirements of such laws and enforcement policies have generally become more stringent over time. Changes in environmental laws and regulations or in their enforcement or the discovery of previously unknown or unanticipated contamination or non-compliance with environmental laws or regulations relating to our

properties or operations could result in significant environmental liabilities or costs which could adversely affect our business. In addition, we might incur increased operating and maintenance costs and capital expenditures and other costs to comply with increasingly stringent air emission control laws or other future requirements (such as, in the United States, those relating to compliance with Maximum Achievable Control Technology requirements under the Clean Air Act, for which we made capital expenditures totaling approximately $49 million from 2008 through 2010), which may decrease our cash flow. Also, discovery of currently unknown or unanticipated conditions could require responses that would result in significant liabilities and costs. Accordingly, we are unable to predict the ultimate costs of compliance with or liability under environmental laws, which may be larger than current projections.

Changes in government regulation may have a material effect on our results of operations.

Our manufacturing facilities and components of our products are subject to numerous foreign, federal, state and local laws and regulations, including those relating to the presence of hazardous materials and protection of worker health and safety. Liability under these laws involves inherent uncertainties. Changes in such laws and regulations or in their enforcement could significantly increase our costs of operations which could adversely affect our business. Violations of health and safety laws are subject to civil, and, in some cases, criminal sanctions. As a result of these uncertainties, we may incur unexpected interruptions to operations, fines, penalties or other reductions in income which could adversely impact our business, financial condition and results of operations.

Further, in order for our products to obtain the energy efficient “ENERGYSTAR” label, they must meet certain requirements set by the Environmental Protection Agency ("EPA)". Changes in the energy efficiency requirements established by the EPA for the ENERGYSTAR label could increase our costs, and, if there is a lapse in our ability to label our products as such or we are not able to comply with the new standards at all, negatively affect our net sales and results of operations.

Moreover, many of our products are regulated by building codes and require specific fire, penetration or wind resistance characteristics. A change in the building codes could have a material impact on the manufacturing cost for these products, which we may not be able to pass on to our customers.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act, the Dodd-Frank Act and related regulations implemented by the Securities and Exchange Commission ("SEC"), and the stock exchanges are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time-consuming. We are currently evaluating and monitoring developments with respect to new and proposed rules and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management’s time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. We also expect that being a public company and these new rules and regulations will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and attract and retain qualified executive officers.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our United States executive headquarters are located in Tampa, Florida, and consist of approximately 80,000 square feet of leased office space at two sites. Our Canadian executive offices are located in a single leased site in Concord, Ontario. As of December 29, 2019, we owned and leased the following number of properties, by reportable segment:

	Manufacturing and Distribution	Warehouse	Support	Total
Owned properties:				
North American Residential	19	6	—	25
Europe	6	—	1	7
Architectural	9	—	—	9
Corporate & Other	—	—	1	1
Total owned properties	34	6	2	42
Leased properties:				
North American Residential	19	15	1	35
Europe	4	8	1	13
Architectural	5	8	2	15
Corporate & Other	1	—	4	5
Total leased properties	29	31	8	68
Total owned and leased properties	63	37	10	110

Our properties in the North American Residential and Architectural segments are distributed across 28 states in the United States and four provinces in Canada, as well as two manufacturing facilities in Mexico and three manufacturing facilities in Chile. Our properties in the Europe segment are distributed across the United Kingdom, as well as one manufacturing facility in Ireland and two in the Czech Republic. Our material properties in the Corporate and Other category include one manufacturing facility in Malaysia and four support facilities in the United States. As of December 29, 2019, total floor space at our manufacturing facilities was 12.2 million square feet, including 3.2 million square feet in our five molded door facings facilities. In addition to the properties outlined above, we lease two idle manufacturing facilities in the United States and own 17,000 acres of forestland in Costa Rica and 48 acres of undeveloped land in California.

We believe that our facilities are suitable to our respective businesses and have production capacity adequate to support our current level of production to meet our customers' demand. Additional investments in manufacturing facilities are made as appropriate to balance our capacity with our customers' demand.

Item 3. Legal Proceedings

The information required with respect to this item can be found under "Commitments and Contingencies" in Note 10 to the consolidated financial statements in this Annual Report and is incorporated by reference into this Item 3.

Item 4. Mine Safety Disclosures

Not applicable.

Information about our Executive Officers

Information about the Company's executive officers is incorporated herein by reference from Part III, Item 10 hereof.

PART II

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

Market Information

Our common shares have been listed on the New York Stock Exchange (“NYSE”) under the symbol “DOOR” since September 9, 2013.

Holders

As of February 20, 2020, we had three record holders of our common shares, including Cede & Co., the nominee of the Depository Trust Corporation.

Dividends

We do not intend to pay any cash dividends on our common shares for the foreseeable future and instead may retain earnings, if any, for future operations and expansion, share repurchases or debt repayments, among other things. Any decision to declare and pay dividends in the future will be made at the discretion of our Board of Directors and will depend on, among other things, our results of operations, liquidity requirements, financial condition, contractual restrictions and other factors that our Board of Directors may deem relevant. In addition, our ability to pay dividends is limited by covenants in our ABL Facility and in the indenture governing our senior notes. Future agreements may also limit our ability to pay dividends. See Note 9 to our audited consolidated financial statements contained elsewhere in this Annual Report for restrictions on our ability to pay dividends.

Stock Performance Graph

The following graph depicts the total return to shareholders from December 28, 2014, through December 29, 2019, relative to the performance of the Standard & Poor's 500 Index and the Standard & Poor's 1500 Building Products Index. The graph assumes an investment of $100 in our common stock and each index on December 28, 2014, and the reinvestment of dividends paid since that date. The stock performance shown in the graph is not necessarily indicative of future price performance.

Comparison of Cumulative Total Stockholder Return
Masonite International Corporation, Standard & Poor's 500 Index and
Standard & Poor's 1500 Building Products Index
(Performance Results through December 29, 2019)

	December 28, 2014	January 3, 2016	January 1, 2017	December 31, 2017	December 30, 2018	December 29, 2019
Masonite International Corporation	$ 100.00	$ 100.64	$ 108.15	$ 121.88	$ 75.46	$ 118.10
Standard & Poor's 500 Index	100.00	101.38	113.51	138.29	132.23	173.86
Standard & Poor's 1500 Building Products Index	100.00	110.80	134.66	160.25	121.01	173.66

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

Repurchases of Equity Securities by the Issuer and Affiliated Purchasers

During the three months ended December 29, 2019, we repurchased 22,110 of our common shares in the open market.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
September 30, 2019, through October 27, 2019	—	$ —	—	$ 145,610,088
October 28, 2019, through November 24, 2019	—	—	—	145,610,088
November 25, 2019, through December 29, 2019	22,110	70.77	22,110	144,045,440
Total	22,110	$ 70.77	22,110	

We currently have in place a $600.0 million share repurchase authorization, stemming from three separate authorizations by our Board of Directors. On February 23, 2016, our Board of Directors authorized a share repurchase program whereby we may repurchase up to $150.0 million worth of our outstanding common shares, and on February 22, 2017, and May 10, 2018, our Board of Directors authorized an additional $200.0 million and $250.0 million, respectively (collectively, the "share repurchase programs"). The share repurchase programs have no specified end date and the timing and amount of any share repurchases will be determined by management based on our evaluation of market conditions and other factors. Any repurchases under the share repurchase programs may be made in the open market, in privately negotiated transactions or otherwise, subject to market conditions, applicable legal requirements and other relevant factors. The share repurchase programs do not obligate us to acquire any particular amount of common shares, and they may be suspended or terminated at any time at our discretion. Repurchases under the share repurchase programs are permitted to be made under one or more Rule 10b5-1 plans, which would permit shares to be repurchased when we might otherwise be precluded from doing so under applicable insider trading laws. As of December 29, 2019, $144.0 million was available for repurchase in accordance with the share repurchase programs.

Item 6. Selected Financial Data

The following table sets forth selected historical consolidated financial data as of the dates and for the periods indicated. The selected historical consolidated financial data as of December 29, 2019, and December 30, 2018, and for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, have been derived from the audited consolidated financial statements included elsewhere in this Annual Report. The selected historical consolidated financial data as of December 31, 2017, January 1, 2017, and January 3, 2016, and for the years ended January 1, 2017, and January 3, 2016, have been derived from the audited consolidated financial statements not included in this Annual Report.

This historical data includes, in the opinion of management, all adjustments necessary for a fair presentation of the operating results and financial condition of the Company for such periods and as of such dates. The results of operations for any period are not necessarily indicative of the results of future operations. During the periods included below, we have completed several acquisitions and dispositions. The results of these acquired entities are included in our consolidated statements of comprehensive income (loss) for the periods subsequent to their respective acquisition dates. The results of these disposed entities are included in our consolidated statements of comprehensive income (loss) for the periods up to their respective disposal dates. The selected historical consolidated financial data set forth below should be read in conjunction with, and are qualified by reference to, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes thereto included elsewhere in this Annual Report.

	Year Ended				
(In thousands of U.S. dollars, except for share and per share amounts)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**	**January 1, 2017**	**January 3, 2016**
Operating Results:					
Net sales	$ 2,176,683	$ 2,170,103	$ 2,032,925	$ 1,973,964	$ 1,871,965
Gross profit	477,683	435,306	406,983	409,645	350,850
Net income (loss) [1]	49,039	96,544	156,981	104,142	(42,649)
Net income (loss) attributable to Masonite [1]	44,602	92,710	151,739	98,622	(47,111)
Basic earnings per common share attributable to Masonite	1.77	3.38	5.18	3.25	(1.56)
Diluted earnings per common share attributable to Masonite	1.75	3.33	5.09	3.17	(1.56)
Cash Flow Data:					
Capital expenditures	82,720	82,380	73,782	82,287	51,065
Balance Sheet Data:					
Working capital [2]	466,388	451,287	499,745	347,559	326,428
Total assets [3]	1,936,584	1,778,465	1,680,258	1,475,861	1,499,149
Total debt [4]	790,984	796,398	625,657	470,745	468,856
Total equity	636,862	622,305	735,902	659,776	655,566

(1) Refer to Footnote 9. Long-Term Debt, Footnote 13. Restructuring, Footnote 14. Asset Impairment, and Footnote 15. Income Taxes, in Item 8 of this Annual Report for information relating to material drivers of year over year changes in our earnings.

(2) Working capital is defined as current assets less current liabilities and includes cash restricted by letters of credit.

(3) Primary drivers of year over year fluctuations in total assets include acquisitions, the adoption of ASU 2016-02 "Leases (Topics 842)", asset impairments and changes in deferred tax assets, amongst others. Refer to Footnotes 1. Business Overview and Significant Accounting Policies, 2. Acquisitions and Dispositions, 6. Leases, 14. Asset Impairment, and 15. Income Taxes, in Item 8 of this Annual Report for additional information on these drivers.

(4) Refer to Footnote 9. Long-Term Debt, in Item 8 of this Annual Report for information regarding year over year changes in our levels of indebtedness.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is based upon accounting principles generally accepted in the United States of America and discusses the financial condition and results of operations for Masonite International Corporation for the years ended December 29, 2019, and December 30, 2018. For further discussion of our results of operations for the years ended December 30, 2018, and December 31, 2017, see "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 year ended December 30, 2018, which was filed with the SEC on February 26, 2019. In this MD&A, "Masonite," "we," "us," "our" and the "Company" refer to Masonite International Corporation and its subsidiaries.

This discussion should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The following discussion should also be read in conjunction with the disclosure under "Special Note Regarding Forward Looking Statements" and Part I, Item 1A, "Risk Factors" elsewhere in this Annual Report on Form 10-K. Our actual results could differ materially from the forward-looking statements as a result of these risks and uncertainties.

Overview

We are a leading global designer, manufacturer and distributor of interior and exterior doors for the new construction and repair, renovation and remodeling sectors of the residential and non-residential building construction markets. Since 1925, we have provided our customers with innovative products and superior service at compelling values. In order to better serve our customers and create sustainable competitive advantages, we focus on developing innovative products, advanced manufacturing capabilities and technology-driven sales and service solutions.

We market and sell our products to remodeling contractors, builders, homeowners, retailers, dealers, lumberyards, commercial and general contractors and architects through well-established wholesale, retail and direct distribution channels as part of our cross-merchandising strategy. Customers are provided a broad product offering of interior and exterior doors and entry systems at various price points. We manufacture a broad line of interior doors, including residential molded, flush, stile and rail, louver and specially-ordered commercial and architectural doors; door components for internal use and sale to other door manufacturers; and exterior residential steel, fiberglass and wood doors and entry systems.

We operate 63 manufacturing and distribution facilities in eight countries in North America, South America, Europe and Asia, which are strategically located to serve our customers through multiple distribution channels. These distribution channels include: (i) direct distribution to retail home center customers; (ii) one-step distribution that sells directly to homebuilders and contractors; and (iii) two-step distribution through wholesale distributors. For retail home center customers, numerous door fabrication facilities provide value-added fabrication and logistical services, including pre-finishing and store delivery of pre-hung interior and exterior doors. We believe our ability to provide: (i) a broad product range; (ii) frequent, rapid, on-time and complete delivery; (iii) consistency in products and merchandising; (iv) national service; and (v) special order programs enables retail customers to increase comparable store sales and helps to differentiate us from our competitors. We believe investments in innovative new product manufacturing and distribution capabilities, coupled with an ongoing commitment to operational excellence, provide a strong platform for future growth.

Our reportable segments are currently organized and managed principally by end market: North American Residential, Europe and Architectural. In the year ended December 29, 2019, we generated net sales of $1,465.8 million or 67.3%, $321.6 million or 14.8% and $365.3 million or 16.8% in our North American Residential, Europe and Architectural segments, respectively. See "Segment Information" below for a description of our reportable segments.

Key Factors Affecting Our Results of Operations

Product Demand

There are numerous factors that influence overall market demand for our products. Demand for new homes, home improvement products and other building construction products have a direct impact on our financial condition and results of operations. Demand for our products may be impacted by changes in United States, Canadian, European, Asian or other global economic conditions, including inflation, deflation, interest rates, availability of capital, consumer spending rates, energy availability and costs, and the effects of governmental initiatives to manage economic conditions. Additionally, trends in residential new construction, repair, renovation and remodeling and architectural building construction may directly impact our financial performance. Accordingly, the following factors may have a direct impact on our business in the countries and regions in which our products are sold:

- the strength of the economy;
- the amount and type of residential and commercial construction;
- housing sales and home values;
- the age of existing home stock, home vacancy rates and foreclosures;
- non-residential building occupancy rates;
- increases in the cost of raw materials or wages or any shortage in supplies or labor;
- the availability and cost of credit;
- employment rates and consumer confidence; and
- demographic factors such as immigration and migration of the population and trends in household formation.

Additionally, the United Kingdom's exit from the European Union has created uncertainty in European demand, particularly in the United Kingdom, which could have a material adverse effect on the demand for our products in the foreseeable future.

Product Pricing and Mix

The building products industry is highly competitive and we therefore face pressure on sales prices of our products. In addition, our competitors may adopt more aggressive sales policies and devote greater resources to the development, promotion and sale of their products than we do, which could result in a loss of customers. Our business in general is subject to changing consumer and industry trends, demands and preferences. Trends within the industry change often and our failure to anticipate, identify or quickly react to changes in these trends could lead to, among other things, rejection of a new product line and reduced demand and price reductions for our products, which could materially adversely affect us. Changes in consumer preferences may also lead to increased demand for our lower margin products relative to our higher margin products, which could reduce our future profitability.

In the fourth quarter of 2019, we communicated price increases that became effective on February 3, 2020, to our North American Residential customers that, for certain products, were significantly greater than our typical annual increases. We also communicated our intent to incrementally invest $100 million over the next five years in the areas of service and quality improvements, product innovation and end user marketing. While we believe that these initiatives are necessary in order to increase the profile of, and demand for, our products and that they will benefit both us and our customers, we cannot predict whether our efforts will ultimately be successful or how our customers will react to these initiatives which could have a material impact on demand and, consequently, our results of operations for future periods.

Business Wins and Losses

Our customers consist mainly of wholesalers and retail home centers. In fiscal year 2019, our top ten customers together accounted for approximately 43% of our net sales and our top customer, The Home Depot, Inc. accounted for approximately 17% of our net sales in fiscal year 2019. Net sales from customers that have accounted for a significant portion of our net sales in past periods, individually or as a group, may not continue in future periods, or if continued, may not reach or exceed historical levels in any period. Certain customers perform periodic product line reviews to assess their product offerings, which have, on past occasions, led to business wins and losses. In addition, as a result of competitive bidding processes, we may not be able to increase or maintain the margins at which we sell our products to our customers.

Organizational Restructuring

Over the past several years, we have engaged in a series of restructuring programs related to exiting certain geographies and non-core businesses, consolidating certain internal support functions and engaging in other actions designed to reduce our cost structure and improve productivity. These initiatives primarily consist of severance actions and lease termination costs. Management continues to evaluate our business; therefore, in future years, there may be additional provisions for new plan initiatives, as well as changes in previously recorded estimates, as payments are made or actions are completed. Asset impairment charges were also incurred in connection with these restructuring actions for those assets sold, abandoned or made obsolete as a result of these programs.

In February 2019, we began implementing a plan to improve overall business performance that includes the reorganization of our manufacturing capacity and a reduction of our overhead and selling, general and administration workforce across all of our reportable segments and in our head offices. The reorganization of our manufacturing capacity involves specific plants in the North American Residential and Architectural segments and costs associated with the closure of these plants and related headcount reductions began taking place in the first quarter of 2019 (collectively, the "2019 Plan"). Costs associated with the 2019 Plan include severance, retention and closure charges and will continue through 2020. Additionally, the plan to divest non-core assets was determined to be a triggering event requiring a test of the carrying value of the definite-lived assets relating to the divestitures, as further described in Note 14. In the fourth quarter of 2019, we initiated additional restructuring actions related to both manufacturing capacity and reduction of our overhead and selling, general and administration workforce. Once fully implemented, the actions taken as part of the 2019 Plan are expected to increase our annual earnings and cash flows by approximately $17 to 21 million.

During the fourth quarter of 2018, we began implementing a plan to reorganize and consolidate certain aspects of our United Kingdom head office function and optimize our portfolio by divesting non-core assets to enable more effective and consistent business processes in the Europe segment. In addition, in the North American Residential segment we announced a new facility that will optimize and expand capacity through increased automation, which resulted in the closure of one existing facility and related headcount reductions beginning in the second quarter of 2019 (collectively, the “2018 Plan”). Costs associated with the 2018 Plan included severance, retention and closure charges and continued throughout 2019. Additionally, the plan to divest non-core assets was determined to be a triggering event requiring a test of the carrying value of the definite-lived assets relating to the divestitures, as further described in Note 14. Once fully implemented, the actions taken as part of the 2018 Plan are expected to increase our annual earnings and cash flows by approximately $6 million.

Inflation

An increase in inflation could have a significant impact on the cost of our raw material inputs. Wage inflation, increased prices for raw materials or finished goods used in our products, tariffs and/or interruptions in deliveries of raw materials or finished goods could adversely affect our profitability, margins and net sales, particularly if we are not able to pass these incurred costs on to our customers. In addition, interest rates normally increase during periods of rising inflation. Historically, as interest rates increase, demand for new homes and home improvement products decreases.

Seasonality

Our business is moderately seasonal and our net sales vary from quarter to quarter based upon the timing of the building season in our markets. Severe weather conditions in any quarter, such as unusually prolonged warm or cold conditions, rain, blizzards or hurricanes, could accelerate, delay or halt construction and renovation activity.

Acquisitions and Dispositions

We are pursuing a strategic initiative of optimizing our global business portfolio. As part of this strategy, in the last several years we have pursued strategic acquisitions targeting companies who produce components for our existing operations, manufacture niche products and provide value-added services. Additionally, we target companies with strong brands, complementary technologies, attractive geographic footprints and opportunities for cost and distribution synergies. We also continuously analyze our operations to determine which businesses, market channels and products create the most value for our customers and acceptable returns for our shareholders.

Acquisitions

- ***Top Doors:*** On August 29, 2019, we completed the acquisition of TOPDOORS, s.r.o. ("Top Doors") based in the Czech Republic for cash consideration of $1.8 million, net of cash acquired, following a post-closing adjustment. Top Doors is a specialist manufacturer of door frames.

- ***BWI:*** On November 1, 2018, we completed the acquisition of the operating assets of Bridgewater Wholesalers Inc. ("BWI") for cash consideration of $22.3 million, net of cash acquired, and subject to certain customary post-closing adjustments. BWI is headquartered in Branchburg, New Jersey, and is a fabricator and distributor of residential interior and exterior door systems, supporting customers in the Mid-Atlantic and Northeastern United States. Their product offerings include residential interior and exterior doors, commercial doors and hardware as well as value-added pre-finishing services.

- ***Graham and Maiman:*** On June 1, 2018, we completed the acquisition of the operating assets of the wood door companies of AADG, Inc., including the brands Graham Manufacturing Corporation and The Maiman Company (collectively, "Graham & Maiman"). We acquired the operating assets of Graham & Maiman for cash consideration of $39.0 million. Graham & Maiman are based in Mason City, Iowa, and Springfield, Missouri. Graham & Maiman provide the non-residential construction industry with a full range of architectural premium and custom grade flush wood doors, architectural stile and rail wood doors, thermal-fused flush wood doors and wood door frames.

- ***DW3:*** On January 29, 2018, we completed the acquisition of DW3 Products Holdings Limited ("DW3"), a leading United Kingdom provider of high quality premium door solutions and window systems, supplying products under brand names such as Solidor, Residor, Nicedor and Residence. We acquired 100% of the equity interests in DW3 for consideration of $96.3 million, net of cash acquired. DW3 is based in Stoke-on-Trent and Gloucester, England, and their products and service model are a natural addition to our existing United Kingdom business. DW3's online quick ship capabilities and product portfolio both complement and expand the strategies we are pursuing with our business.

- ***A&F:*** On October 2, 2017, we completed the acquisition of A&F Wood Products, Inc. ("A&F"), through the purchase of 100% of the equity interests in A&F and certain assets of affiliates of A&F for consideration of $13.8 million, net of cash acquired. A&F is based in Howell, Michigan, and is a wholesaler and fabricator of architectural and commercial doors in the Midwest United States.

Dispositions

- ***Window Widgets:*** On December 13, 2019, we completed the sale of all of the capital stock of Window Widgets Limited ("WW"), a leading United Kingdom provider of high quality window systems, for consideration of $1.2 million, net of cash disposed.

- ***PDS:*** On March 21, 2019, we completed the sale of all of the capital stock of Performance Doorset Solutions Limited ("PDS"), a leading supplier of custom doors and millwork in the United Kingdom, for nominal consideration.

Results of Operations

(In thousands)	Year Ended December 29, 2019	Year Ended December 30, 2018	Year Ended December 31, 2017
Net sales	$ 2,176,683	$ 2,170,103	$ 2,032,925
Cost of goods sold	1,699,000	1,734,797	1,625,942
Gross profit	477,683	435,306	406,983
Gross profit as a % of net sales	*21.9%*	*20.1%*	*20.0%*
Selling, general and administration expenses	310,567	266,193	247,917
Selling, general and administration expenses as a % of net sales	*14.3%*	*12.3%*	*12.2%*
Restructuring costs	9,776	1,624	850
Asset impairment	13,767	5,243	—
Loss on disposal of subsidiaries	14,260	—	212
Operating income	129,313	162,246	158,004
Interest expense, net	46,489	39,008	30,153
Loss on extinguishment of debt	14,523	5,414	—
Other expense (income), net	1,953	(2,533)	(1,570)
Income before income tax expense (benefit)	66,348	120,357	129,421
Income tax expense (benefit)	17,309	23,813	(27,560)
Net income	49,039	96,544	156,981
Less: net income attributable to non-controlling interests	4,437	3,834	5,242
Net income attributable to Masonite	$ 44,602	$ 92,710	$ 151,739

Year Ended December 29, 2019, Compared with Year Ended December 30, 2018

Net Sales

Net sales in the year ended December 29, 2019, were $2,176.7 million, an increase of $6.6 million or 0.3% from $2,170.1 million in the year ended December 30, 2018. Net sales in 2019 were negatively impacted by $22.8 million as a result of foreign exchange rate fluctuations. Excluding this exchange rate impact, net sales would have increased by $29.4 million or 1.4% due to changes in volume, average unit price and sales of components and other products. Average unit price in 2019 increased net sales by $111.5 million or 5.1% compared to 2018. Our 2018 acquisitions, net of dispositions, contributed $32.8 million or 1.5% of net sales in 2019. Lower volumes excluding the incremental impact of acquisitions ("base volume") decreased net sales by $105.8 million or 4.9% in 2019 compared to 2018. Net sales of components and other products to external customers were $9.1 million lower in 2019 compared to 2018.

Net Sales and Percentage of Net Sales by Reportable Segment

(In thousands)	Year Ended December 29, 2019 North American Residential	Europe	Architectural	Corporate & Other	Total
Sales	$ 1,469,194	$ 323,137	$ 380,300	$ 23,941	$ 2,196,572
Intersegment sales	(3,386)	(1,506)	(14,997)	—	(19,889)
Net sales to external customers	$ 1,465,808	$ 321,631	$ 365,303	$ 23,941	$ 2,176,683
Percentage of consolidated external net sales	*67.3%*	*14.8%*	*16.8%*		

(In thousands)	Year Ended December 30, 2018 North American Residential	Europe	Architectural	Corporate & Other	Total
Sales	$ 1,458,957	$ 371,069	$ 340,609	$ 22,869	$ 2,193,504
Intersegment sales	(4,198)	(2,066)	(17,137)	—	(23,401)
Net sales to external customers	$ 1,454,759	$ 369,003	$ 323,472	$ 22,869	$ 2,170,103
Percentage of consolidated external net sales	*67.0%*	*17.0%*	*14.9%*		

North American Residential

Net sales to external customers from facilities in the North American Residential segment in the year ended December 29, 2019, were $1,465.8 million, an increase of $11.0 million or 0.8% from $1,454.8 million in the year ended December 30, 2018. Net sales in 2019 were negatively impacted by $6.6 million as a result of foreign exchange rate fluctuations. Excluding this exchange rate impact, net sales would have increased by $17.6 million or 1.2% due to changes in volume, average unit price and sales of components and other products. Average unit price increased net sales in 2019 by $78.5 million or 5.4% compared to 2018. Our 2018 acquisition of BWI contributed $38.9 million or 2.7% of net sales in 2019. Lower base volume decreased net sales by $93.2 million or 6.4% in 2019 compared to 2018. Net sales of components and other products to external customers were $6.6 million lower in 2019 compared to 2018.

Europe

Net sales to external customers from facilities in the Europe segment in the year ended December 29, 2019, were $321.6 million, a decrease of $47.4 million or 12.8% from $369.0 million in the year ended December 30, 2018. Net sales in 2019 were negatively impacted by $15.2 million as a result of foreign exchange fluctuations. Excluding this exchange rate impact, net sales would have decreased by $32.2 million or 8.7% due to changes in volume, average unit price and sales of components and other products. Net sales in 2019 were reduced by $30.3 million or 8.2% due to the net impact of acquisitions and dispositions, including lost sales due to the dispositions of three non-core businesses, partially offset by one month of incremental sales from the DW3 acquisition. Lower base volume in 2019 decreased net sales by $13.6 million or 3.7% compared to 2018. Average unit price increased net sales in 2019 by $13.2 million or 3.6% compared to 2018. Net sales of components and other products to external customers were $1.5 million lower in 2019 compared to 2018.

Architectural

Net sales to external customers from facilities in the Architectural segment in the year ended December 29, 2019, were $365.3 million, an increase of $41.8 million or 12.9% from $323.5 million in the year ended December 30, 2018. Net sales in 2019 were negatively impacted by $0.9 million as a result of foreign exchange fluctuations. Excluding this exchange rate impact, net sales would have increased by $42.7 million or 13.2% due to changes in volume, average unit price and sales of components and other products. Our 2018 acquisition of Graham & Maiman contributed $24.2 million or 7.5% of net sales in 2019. Average unit price increased net sales in 2019 by $19.7 million or 6.1% compared to 2018. Higher base volume increased net sales in 2019 by $0.4 million or 0.1% compared to 2018. Net sales of components and other products to external customers were $1.6 million lower in 2019 compared to 2018.

Cost of Goods Sold

Our cost of goods sold is comprised of the cost to manufacture products for our customers and includes the cost of materials, direct labor, overhead, distribution and depreciation associated with assets used to manufacture products. Research and development costs are primarily included within cost of goods sold. We incur significant fixed and variable overhead at our global component locations that manufacture interior molded door facings. Our overall average production capacity utilization at these locations was approximately 73% for the year ended December 29, 2019, and 77% for each of the years ended December 30, 2018, and December 31, 2017.

Cost of goods sold as a percentage of net sales was 78.1% and 79.9% for the years ended December 29, 2019, and December 30, 2018, respectively. Material cost of sales, direct labor costs and distribution costs as a percentage of net sales decreased by 2.2%, 0.4% and 0.1%, respectively, in 2019 compared to 2018. Partially offsetting these

decreases, overhead and depreciation as a percentage of sales increased by 0.6% and 0.3% over the 2018 period. The decrease in material cost of sales as a percentage of net sales was driven by higher average unit prices, partially offset by increases due to inflation, including tariffs. Conversely, overhead as a percentage of net sales was negatively impacted by charges related to plant damages and factory start-up costs and lower volumes in 2019 compared to 2018.

Selling, General and Administration Expenses

Selling, general and administration ("SG&A") expenses primarily include the costs for our sales organization and support staff at various plants and corporate offices. These costs include personnel costs for payroll, related benefits and stock based compensation expense; professional fees; depreciation and amortization of our non-manufacturing equipment and assets; environmental, health and safety costs; advertising expenses and rent and utilities related to administrative office facilities. In the year ended December 29, 2019, selling, general and administration expenses, as a percentage of net sales, were 14.3% compared to 12.3% in the year ended December 30, 2018, an increase of 200 basis points.

Selling, general and administration expenses in the year ended December 29, 2019, were $310.6 million, an increase of $44.4 million from $266.2 million in the year ended December 30, 2018. SG&A expenses were positively impacted by favorable foreign exchange impacts of $2.8 million. Non-cash items drove an increase of $11.0 million, including share based compensation, depreciation and amortization, deferred compensation and loss on disposal of property, plant and equipment including a $2.5 million charge related to the divestiture of a non-core business in the Europe segment. Excluding these impacts, SG&A expenses would have increased by $36.2 million. The remaining increase was driven by personnel cost increases of $22.6 million, primarily due to incentive compensation and resource investments in our Architectural segment to facilitate acquisition integration and support growth, incremental SG&A expenses from our 2018 acquisitions of $7.6 million (net of dispositions), professional and other corporate costs of $3.3 million, advertising costs of $1.5 million and other increases of $1.2 million.

Restructuring Costs

Restructuring costs in the year ended December 29, 2019, were $9.8 million, compared to $1.6 million in the year ended December 30, 2018. Restructuring costs in 2019 related to severance, retention and closure charges associated with the 2019 and 2018 Plans. Restructuring costs in 2018 related to severance, retention and closure charges associated with the 2018 Plan.

Asset Impairment

Asset impairment charges in the year ended December 29, 2019, were $13.8 million compared to $5.2 million in the year ended December 30, 2018. Asset impairment charges in 2019 resulted from actions associated with the 2019 Plan. Asset impairment charges in 2018 resulted from actions associated with the 2018 Plan.

Loss on Disposal of Subsidiaries

Loss on disposal of subsidiaries represents the difference between proceeds received upon disposition and the book value of a subsidiary which has been divested and was excluded from treatment as a discontinued operation. Also included in loss on disposal of subsidiaries is recognition of the cumulative translation adjustment out of accumulated other comprehensive loss. Loss on disposal of subsidiaries was $14.3 million in the year ended December 29, 2019. There were no charges associated with the disposal of subsidiaries in the year ended December 30, 2018. The loss in the current year was related to the sale of WW and PDS. WW was sold for consideration of $2.2 million, net of cash disposed. PDS was sold for nominal consideration. Charges related to the disposition of WW and PDS consist of $8.3 million and $3.6 million, respectively, relating to the write-off of the net assets sold and other professional fees as well as $1.4 million and $1.0 million, respectively, relating to the recognition of the cumulative translation adjustment out of accumulated other comprehensive loss.

Interest Expense, Net

Interest expense, net, in the year ended December 29, 2019, was $46.5 million, compared to $39.0 million in the year ended December 30, 2018. This increase primarily relates to the issuance of $500.0 million aggregate principal amount of 2028 Senior Notes on July 25, 2019 and $300.0 million aggregate principal amount of 2026 Senior Notes on September 27, 2018.

Loss on Extinguishment of Debt

Loss on extinguishment of debt represents the difference between the reacquisition price of debt and the net carrying amount of the extinguished debt. The net carrying amount includes the principal, unamortized premium and unamortized debt issuance costs. Loss on extinguishment of debt was $14.5 million in the year ended December 29, 2019, compared to $5.4 million in the year ended December 30, 2018. Loss on extinguishment of debt in the current year related to the redemption of our senior unsecured notes due 2023. This charge represents the difference between the redemption price of our senior unsecured notes due 2023 of $514.1 million and the net carrying amount of such notes of $499.6 million. In addition to the $500.0 million of principal, the redemption price included a make-whole premium of $14.1 million and the net carrying amount included unamortized debt issuance costs of $3.5 million, partially offset by unamortized premiums of $3.1 million. Loss on extinguishment of debt in the prior year related to the partial redemption of our senior unsecured notes due 2023.

Other Expense (Income), Net

Other expense (income), net includes profits and losses related to our non-majority owned unconsolidated subsidiaries that we recognize under the equity method of accounting, unrealized gains and losses on foreign currency remeasurements, pension settlement charges and other miscellaneous non-operating expenses. Other expense (income), net, in the year ended December 29, 2019, was $2.0 million of expense, compared to $2.5 million of income in the year ended December 30, 2018. The change in other expense (income), net, is primarily due to a pre-tax pension settlement charge of $5.7 million recognized in the fourth quarter, unrealized gains and losses on foreign currency remeasurements and other miscellaneous non-operating expenses.

Income Tax Expense (Benefit)

Our income tax expense in the year ended December 29, 2019, was $17.3 million, a change of $6.5 million from $23.8 million of income tax expense in the year ended December 30, 2018. The decrease in income tax expense is primarily attributable to (i) the mix of income or losses within the tax jurisdictions with various tax rates in which we operate offset by (ii) the increase in income tax expense in the United Kingdom due to nondeductible loss on disposal of subsidiaries.

Segment Information

Our reportable segments are organized and managed principally by end market: North American Residential, Europe and Architectural. The North American Residential reportable segment is the aggregation of the Wholesale and Retail operating segments. The Europe reportable segment is the aggregation of the United Kingdom and the Central Eastern Europe operating segments. The Architectural reportable segment consists solely of the Architectural operating segment. The Corporate & Other category includes unallocated corporate costs and the results of immaterial operating segments which were not aggregated into any reportable segment. Operating segments are aggregated into reportable segments only if they exhibit similar economic characteristics. In addition to similar economic characteristics we also consider the following factors in determining the reportable segments: the nature of business activities, the management structure directly accountable to our chief operating decision maker for operating and administrative activities, availability of discrete financial information and information presented to the Board of Directors and investors.

Our management reviews net sales and Adjusted EBITDA (as defined below) to evaluate segment performance and allocate resources. Net assets are not allocated to the reportable segments. Adjusted EBITDA is a non-GAAP financial measure which does not have a standardized meaning under GAAP and is unlikely to be comparable to similar measures used by other companies. Adjusted EBITDA should not be considered as an alternative to either net income or operating cash flows determined in accordance with GAAP. Adjusted EBITDA is defined as net income (loss) attributable to Masonite adjusted to exclude the following items:

- depreciation;
- amortization;
- share based compensation expense;
- loss (gain) on disposal of property, plant and equipment;
- registration and listing fees;
- restructuring costs;
- asset impairment;
- loss (gain) on disposal of subsidiaries;
- interest expense (income), net;
- loss on extinguishment of debt;
- other expense (income), net;
- income tax expense (benefit);
- loss (income) from discontinued operations, net of tax; and
- net income (loss) attributable to non-controlling interest.

This definition of Adjusted EBITDA differs from the definitions of EBITDA contained in the indenture governing the 2028 and 2026 Notes and the credit agreement governing the ABL Facility. Adjusted EBITDA is used to evaluate and compare the performance of the segments and it is one of the primary measures used to determine employee incentive compensation. Intersegment sales are recorded using market prices.

We believe that Adjusted EBITDA, from an operations standpoint, provides an appropriate way to measure and assess segment performance. Our management team has established the practice of reviewing the performance of each segment based on the measures of net sales and Adjusted EBITDA. We believe that Adjusted EBITDA is useful to users of the consolidated financial statements because it provides the same information that we use internally to evaluate and compare the performance of the segments and it is one of the primary measures used to determine employee incentive compensation.

	Year Ended December 29, 2019				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
Adjusted EBITDA	$ 232,512	$ 46,219	$ 40,470	$ (35,817)	$ 283,384
Adjusted EBITDA as a percentage of segment net sales	*15.9%*	*14.4%*	*11.1%*		*13.0%*

	Year Ended December 30, 2018				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
Adjusted EBITDA	$ 202,465	$ 44,985	$ 37,742	$ (17,256)	$ 267,936
Adjusted EBITDA as a percentage of segment net sales	*13.9%*	*12.2%*	*11.7%*		*12.3%*

The following reconciles Adjusted EBITDA to net income (loss) attributable to Masonite:

	Year Ended December 29, 2019				
(In thousands)	North American Residential	Europe	Architectural	Corporate & Other	Total
Net income (loss) attributable to Masonite	$ 167,097	$ 2,664	$ 19,928	$ (145,087)	$ 44,602
Plus:					
Depreciation	35,992	11,604	11,343	11,797	70,736
Amortization	1,697	14,653	8,362	4,401	29,113
Share based compensation expense	—	—	—	10,023	10,023
Loss on disposal of property, plant and equipment	3,934	2,109	331	22	6,396
Restructuring costs	6,929	1,322	506	1,019	9,776
Asset impairment	13,767	—	—	—	13,767
Loss on disposal of subsidiaries	—	14,260	—	—	14,260
Interest expense, net	—	—	—	46,489	46,489
Loss on extinguishment of debt	—	—	—	14,523	14,523
Other expense (income), net	—	(393)	—	2,346	1,953
Income tax expense	—	—	—	17,309	17,309
Net income attributable to non-controlling interest	3,096	—	—	1,341	4,437
Adjusted EBITDA	$ 232,512	$ 46,219	$ 40,470	$ (35,817)	$ 283,384

	Year Ended December 30, 2018				
(In thousands)	North American Residential	Europe	Architectural	Corporate & Other	Total
Net income (loss) attributable to Masonite	$ 165,981	$ 13,602	$ 17,895	$ (104,768)	$ 92,710
Plus:					
Depreciation	29,959	9,922	10,431	8,777	59,089
Amortization	1,466	14,716	9,236	3,165	28,583
Share based compensation expense	—	—	—	7,681	7,681
Loss on disposal of property, plant and equipment	1,799	92	180	1,399	3,470
Restructuring costs	275	1,349	—	—	1,624
Asset impairment	—	5,243	—	—	5,243
Interest expense, net	—	—	—	39,008	39,008
Loss on extinguishment of debt	—	—	—	5,414	5,414
Other expense (income), net	(57)	61	—	(2,537)	(2,533)
Income tax expense	—	—	—	23,813	23,813
Net income attributable to non-controlling interest	3,042	—	—	792	3,834
Adjusted EBITDA	$ 202,465	$ 44,985	$ 37,742	$ (17,256)	$ 267,936

Adjusted EBITDA in our North American Residential segment increased $30.0 million, or 14.8%, to $232.5 million in the year ended December 29, 2019, from $202.5 million in the year ended December 30, 2018. Adjusted EBITDA in the North American Residential segment included corporate allocations of shared costs of $55.9 million and $54.7 million in 2019 and 2018, respectively. The allocations generally consist of certain costs of human resources, legal, finance, information technology, research and development and share based compensation.

Adjusted EBITDA in our Europe segment increased $1.2 million, or 2.7%, to $46.2 million in the year ended December 29, 2019, from $45.0 million in the year ended December 30, 2018. Adjusted EBITDA in the Europe segment included corporate allocations of shared costs of $1.0 million in the year ended December 29, 2019. There were no such allocations in the year ended December 30, 2018. The allocations generally consist of certain costs of human resources, legal, finance and information technology.

Adjusted EBITDA in our Architectural segment increased $2.8 million or 7.4% to $40.5 million in the year ended December 29, 2019, from $37.7 million in the year ended December 30, 2018. Adjusted EBITDA in the Architectural segment also included corporate allocations of shared costs of $10.6 million and $8.9 million in 2019 and 2018, respectively. The allocations generally consist of certain costs of human resources, legal, finance, information technology and research and development.

Liquidity and Capital Resources

Our liquidity needs for operations vary throughout the year. Our principal sources of liquidity are cash flows from operating activities, the borrowings under our ABL Facility and an accounts receivable sales program with a third party ("AR Sales Program") and our existing cash balance. Our anticipated uses of cash in the near term include working capital needs, capital expenditures and share repurchases. As of December 29, 2019, we do not have any material commitments for capital expenditures. We anticipate capital expenditures in fiscal year 2020 to be approximately $70 million to $75 million. On a continual basis, we evaluate and consider strategic acquisitions, divestitures and joint ventures to create shareholder value and enhance financial performance.

We believe that our cash balance on hand, future cash generated from operations, the use of our AR Sales Program, our ABL Facility, and ability to access the capital markets will provide adequate liquidity for the foreseeable future. As of December 29, 2019, we had $167.0 million of cash and cash equivalents, availability under our ABL Facility of $198.0 million and availability under our AR Sales Program of $12.4 million.

Cash Flows

Year Ended December 29, 2019, Compared with Year Ended December 30, 2018

Cash provided by operating activities was $221.7 million during the year ended December 29, 2019, compared to $203.2 million during the year ended December 30, 2018. This $18.5 million increase in cash provided by operating activities is primarily due to $16.0 million of net working capital improvements in 2019 compared to 2018.

Cash used in investing activities was $82.1 million during the year ended December 29, 2019, compared to $254.5 million cash used during the year ended December 30, 2018. This $172.4 million decrease in cash used in investing activities was primarily driven by a decrease in cash paid for acquisitions of $155.4 million and a $12.0 million decrease in cash paid in the issuance of a note receivable in 2019 compared to 2018. The remaining $5.0 million decrease is a result of a $2.2 million increase in cash proceeds for the sale of property plant and equipment, decreases in other investing outflows of $2.1 million, and a $1.0 million increase in cash obtained from the sale of subsidiaries in 2019 compared to 2018, partially offset by a $0.3 million increase in capital expenditures.

Cash used in financing activities was $89.4 million during the year ended December 29, 2019, compared to $10.0 million of cash used during the year ended December 30, 2018. This $79.4 million increase in cash used in financing activities was primarily driven by a $186.0 million net increase in cash used in debt-related transactions, partially offset by a $107.0 million decrease in cash used for repurchases of common shares in 2019 compared to 2018.

Share Repurchases

We currently have in place a $600.0 million share repurchase authorization, stemming from three separate authorizations by our Board of Directors. On February 23, 2016, our Board of Directors authorized a share repurchase program whereby we may repurchase up to $150.0 million worth of our outstanding common shares and on February 22, 2017, and May 10, 2018, our Board of Directors authorized an additional $200.0 million and $250.0 million, respectively (collectively, the “share repurchase programs”). The share repurchase programs have no specified end date and the timing and amount of any share repurchases will be determined by management based on our evaluation of market conditions and other factors. Any repurchases under the share repurchase programs may be made in the open market, in privately negotiated transactions or otherwise, subject to market conditions, applicable legal requirements and other relevant factors. The share repurchase programs do not obligate us to acquire any particular amount of common shares, and they may be suspended or terminated at any time at our discretion. Repurchases under the share repurchase programs are permitted to be made under one or more Rule 10b5-1 plans, which would permit shares to be repurchased when we might otherwise be precluded from doing so under applicable insider trading laws. During the year ended December 29, 2019, we repurchased and retired 1,170,925 of our common shares in the open market at an aggregate cost of $59.9 million as part of the share repurchase programs. During the year ended December 30, 2018, we repurchased 2,771,684 of our common shares in the open market at an aggregate cost of $166.9 million. As of December 29, 2019, $144.0 million was available for repurchase in accordance with the share repurchase programs.

Other Liquidity Matters

Our cash and cash equivalents balance includes cash held in foreign countries in which we operate. Cash held outside Canada, in which we are incorporated, is free from significant restrictions that would prevent the cash from being accessed to meet our liquidity needs including, if necessary, to fund operations and service debt obligations in Canada. However, earnings from certain jurisdictions are indefinitely reinvested in those jurisdictions. Upon the repatriation of any earnings to Canada, in the form of dividends or otherwise, we may be subject to Canadian income taxes and withholding taxes payable to the various foreign countries. As of December 29, 2019, we do not believe adverse tax consequences exist that restrict our use of cash or cash equivalents in a material manner.

We also routinely monitor the changes in the financial condition of our customers and the potential impact on our results of operations. There has not been a change in the financial condition of a customer that has had a material adverse effect on our results of operations. However, if economic conditions were to deteriorate, it is possible that there could be an impact on our results of operations in a future period and this impact could be material.

Accounts Receivable Sales Program

Under the AR Sales Program, we can transfer ownership of eligible trade accounts receivable of certain customers. Receivables are sold outright to a third party who assumes the full risk of collection, without recourse to us in the event of a loss. Transfers of receivables under this program are accounted for as sales. Proceeds from the transfers reflect the face value of the accounts receivable less a discount. Receivables sold under the AR Sales Program are excluded from trade accounts receivable in the consolidated balance sheets and are included in cash flows from operating activities in the consolidated statements of cash flows. The discounts on the sales of trade accounts receivable sold under the AR Sales Program were not material for any of the periods presented and were recorded in selling, general and administration expense within the consolidated statements of comprehensive income.

Senior Notes

On July 25, 2019, we issued $500.0 million aggregate principal senior unsecured notes (the "2028 Notes"). The 2028 Notes were issued in a private placement for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended (the "Securities Act"), and to buyers outside of the United States pursuant to Regulation S under the Securities Act. The 2028 Notes were issued without registration rights and are not listed on any securities exchange. The 2028 Notes bear interest at 5.375% per annum, payable in cash semiannually in arrears on February 1 and August 1 of each year and are due February 1, 2028. The 2028 notes were issued at par. We received net proceeds of $493.3 million after deducting $6.7 million of debt issuance costs. The debt issuance costs were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over the term of the 2028 Notes using the effective interest method. The net proceeds from issuance of the 2028 Notes, together with available cash balances, were used to redeem the remaining $500.0 million aggregate principal amount of the 2023 Notes (as described below), including the payment of related premiums, fees and expenses.

Obligations under the 2028 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis, by certain of our directly or indirectly wholly-owned subsidiaries. We may redeem the 2028 Notes under certain circumstances specified therein. The indenture governing the 2028 Notes contains restrictive covenants that, among other things, limit our ability and the ability of our subsidiaries to: (i) incur additional debt and issue disqualified or preferred stock, (ii) make restricted payments, (iii) sell assets, (iv) create or permit restrictions on the ability of our restricted subsidiaries to pay dividends or make other distributions to the parent company, (v) create or incur certain liens, (vi) enter into sale and leaseback transactions, (vii) merge or consolidate with other entities and (viii) enter into transactions with affiliates. The foregoing limitations are subject to exceptions as set forth in the indenture governing the 2028 Notes. In addition, if in the future the 2028 Notes have an investment grade rating from at least two nationally recognized statistical rating organizations, certain of these covenants will be terminated. The indenture governing the 2028 Notes contains customary events of default (subject in certain cases to customary grace and cure periods). As of December 29, 2019, we were in compliance with all covenants under the indenture governing the 2028 Notes.

On August 27, 2018, we issued $300.0 million aggregate principal senior unsecured notes (the “2026 Notes”). The 2026 Notes were issued in a private placement for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act, and to buyers outside of the United States pursuant to Regulation S under the Securities Act. The 2026 Notes were issued without registration rights and are not listed on any securities exchange. The 2026 Notes bear interest at 5.75% per annum, payable in cash semiannually in arrears on March 15 and September 15 of each year and are due September 15, 2026. The 2026 Notes were issued at par. We received net proceeds of $295.7 million after deducting $4.3 million of debt issuance costs. The debt issuance costs were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over the term of the 2026 Notes using the effective interest method. The net proceeds from issuance of the 2026 Notes were used to redeem $125.0 million aggregate principal amount of the 2023 Notes (as described in the footnotes to the consolidated financial statements), including the payment of related premiums, fees and expenses, with the balance of the proceeds available for general corporate purposes.

Obligations under the 2026 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis, by certain of our directly or indirectly wholly-owned subsidiaries. We may redeem the 2026 Notes under certain circumstances specified therein. The indenture governing the 2026 Notes contains restrictive covenants that, among other things, limit our ability and the ability of our subsidiaries to: (i) incur additional debt and issue disqualified or preferred stock, (ii) make restricted payments, (iii) sell assets, (iv) create or permit restrictions on the ability of our restricted subsidiaries to pay dividends or make other distributions to the parent company, (v) create or incur certain liens, (vi) enter into sale and leaseback transactions, (vii) merge or consolidate with other entities and (viii) enter into transactions with affiliates. The foregoing limitations are subject to exceptions as set forth in the indenture governing the 2026 Notes. In addition, if in the future the 2026 Notes have an investment grade rating from at least two nationally recognized statistical rating organizations, certain of these covenants will be terminated. The indenture governing the 2026 Notes contains customary events of default (subject in certain cases to customary grace and cure periods). As of December 29, 2019, we were in compliance with all covenants under the indenture governing the 2026 Notes.

On September 27, 2017, and March 23, 2015, we issued $150.0 million and $475.0 million aggregate principal senior unsecured notes, respectively (the "2023 Notes"). The 2023 Notes were issued in two private placements for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act, and to buyers outside the United States pursuant to Regulation S under the Securities Act. The 2023 Notes were issued without registration rights and are not listed on any securities exchange. The 2023 Notes bear interest at 5.625% per annum, payable in cash semiannually in arrears on March 15 and September 15 of each year and are due March 15, 2023. The 2023 Notes were issued at 104.0% and par in 2017 and 2015, respectively, and the resulting premium of $6.0 million is being amortized to interest expense over the term of the 2023 Notes using the effective interest method. We received net proceeds of $153.9 million and $467.9 million, respectively, after deducting $2.1 million and $7.1 million of debt issuance costs in 2017 and 2015, respectively. The debt issuance costs were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over the term of the 2023 Notes using the effective interest method. The net proceeds from the 2017 issuance of the 2023 Notes were for general corporate purposes. The net proceeds from the 2015 issuance of the 2023 Notes, together with available cash balances, were used to redeem $500.0 million aggregate principal of prior 8.25% senior unsecured notes due 2021 and to pay related premiums, fees and expenses. As of August 10, 2019, the 2023 Notes were fully redeemed, as described above.

ABL Facility

On January 31, 2019, we and certain of our subsidiaries entered into a $250.0 million asset-based revolving credit facility (the "ABL Facility") maturing on January 31, 2024. The borrowing base is calculated based on a percentage of the value of selected United States, Canadian and United Kingdom accounts receivable and inventory, less certain ineligible amounts. Obligations under the ABL Facility are secured by a first priority security interest in such accounts receivable, inventory and other related assets of Masonite and our subsidiaries. In addition, obligations under the ABL Facility are fully and unconditionally guaranteed, jointly and severally, on a senior secured basis, by certain of our directly or indirectly wholly-owned subsidiaries. Borrowings under the ABL Facility bear interest at a rate equal to, at our option, (i) the United States, Canadian and United Kingdom Base Rate (each as defined in the credit agreement relating to the ABL Facility, the "Amended and Restated Credit Agreement") plus a margin ranging from 0.25% to 0.50% per annum, or (ii) the Adjusted LIBO Rate or BA Rate (each as defined in the Amended and Restated Credit Agreement), plus a margin ranging from 1.25% to 1.50% per annum. In addition to paying interest on any outstanding principal under the ABL Facility, a commitment fee is payable on the undrawn portion of the ABL Facility in an amount equal to 0.25% per annum of the average daily balance of unused commitments during each calendar quarter.

The ABL Facility contains various customary representations, warranties and covenants by us that, among other things, and subject to certain exceptions, restricts our ability and the ability of our subsidiaries to: (i) pay dividends on our common shares and make other restricted payments, (ii) make investments and acquisitions, (iii) engage in transactions with our affiliates, (iv) sell assets, (v) merge and (vi) create liens. The Amended and Restated Credit Agreement amended the ABL Facility to, among other things, (i) permit us to incur unlimited unsecured debt as long as such debt does not contain covenants or default provisions that are more restrictive than those contained in the ABL Facility, (ii) permit us to incur debt as long as the pro forma secured leverage ratio is less than 4.5 to 1.0, and (iii) add certain additional exceptions and exemptions under the restricted payment, investment and indebtedness covenants (including increasing the amount of certain debt permitted to be incurred under existing exceptions). As of December 29, 2019, we were in compliance with all covenants under the credit agreement governing the ABL Facility and there were no amounts outstanding under the ABL Facility.

Supplemental Guarantor Financial Information

Our obligations under the 2028 Notes and 2026 Notes and the ABL Facility are fully and unconditionally guaranteed, jointly and severally, by certain of our directly or indirectly wholly-owned subsidiaries. The following unaudited supplemental financial information for our non-guarantor subsidiaries is presented:

Our non-guarantor subsidiaries generated external net sales of $1.9 billion, $1.9 billion and $1.8 billion in the years ended December 29, 2019, December 30, 2018 and December 31, 2017, respectively. Our non-guarantor subsidiaries generated Adjusted EBITDA of $241.6 million, $224.1 million and $209.2 million for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively. Our non-guarantor subsidiaries had total assets of $2.0 billion and $1.8 billion as of December 29, 2019, and December 30, 2018; and total liabilities of $834.5 million and $711.8 million as of December 29, 2019, and December 30, 2018, respectively.

Contractual Obligations

The following table presents our contractual obligations over the periods indicated as of December 29, 2019:

	Fiscal Year Ended						
(In thousands)	**2020**	**2021**	**2022**	**2023**	**2024**	**Thereafter**	**Total**
Long-term debt maturities	$ —	$ —	$ —	$ —	$ —	$ 800,000	$ 800,000
Scheduled interest payments	44,125	44,125	44,125	44,125	44,125	128,563	349,188
Operating leases	27,197	20,058	17,276	14,212	13,515	87,088	179,346
Finance leases	1,393	1,326	1,365	1,287	1,445	52,981	59,797
Pension contributions [1]	785	1,086	1,141	1,197	1,258	3,794	9,261
Total [2]	$ 73,500	$ 66,595	$ 63,907	$ 60,821	$ 60,343	$1,072,426	$1,397,592

(1) Pension contributions relate to our United Kingdom pension plan.

(2) As of December 29, 2019, we have $5.8 million recorded as a long-term liability for uncertain tax positions. We are not able to reasonably estimate the timing of payments, or the amount by which our liability for these uncertain tax positions will increase or decrease over time, and accordingly, this liability has been excluded from the above table.

Off-Balance Sheet Arrangements

We do not have any material off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our significant accounting policies are fully disclosed in our annual consolidated financial statements included elsewhere in this Annual Report. We consider the following policies to be most critical in understanding the judgments that are involved in preparing our consolidated financial statements.

Business Acquisition Accounting

We use the acquisition method of accounting for all business acquisitions. We allocate the purchase price of our business acquisitions based on the fair value of identifiable tangible and intangible assets. The difference between the total cost of the acquisitions and the sum of the fair values of the acquired tangible and intangible assets less liabilities is recorded as goodwill.

Goodwill

We evaluate all business combinations for intangible assets that should be recognized and reported apart from goodwill. Goodwill is not amortized but instead is tested annually for impairment on the last day of fiscal November, or more frequently if events or changes in circumstances indicate the carrying amount may not be recoverable. The test for impairment is performed at the reporting unit level by comparing the reporting unit's carrying amount to its fair value. Possible impairment in goodwill is first analyzed using qualitative factors such as macroeconomic and market conditions, changing costs and actual and projected performance, amongst others, to determine whether it is more likely than not that the book value of the reporting unit exceeds its fair value. If it is determined more likely than not that the book value exceeds fair value, a quantitative analysis is performed to test for impairment. When quantitative steps are determined necessary, the fair values of the reporting units are estimated through the use of discounted cash flow analyses and market multiples. If the carrying amount exceeds fair value, then goodwill is impaired. Any impairment in goodwill is measured as the excess of the carrying value of goodwill over the fair value. The inputs utilized to derive projected cash flows are subject to significant judgments and uncertainties. As such, the realized cash flows could differ significantly from those estimated. We performed a quantitative impairment test during the fourth quarter of 2019 and determined that goodwill was not impaired. The resulting fair values of each reporting unit tested based upon such inputs exceeded their respective carrying values by greater than 10%. Further, had the discount rate of each of our reporting units been hypothetically increased by 100 basis points, the fair values of each reporting unit would still have exceeded their respective carrying values. To the extent that future operating results of the reporting units do not meet the

forecasted cash flow projections, we can provide no assurance that a future goodwill impairment charge would not be incurred.

Intangible Assets

Intangible assets with definite lives include customer relationships, non-compete agreements, patents, supply agreements, certain acquired trademarks and system software development. Definite-lived intangible assets are amortized on a straight-line basis over their estimated useful lives. Amortizable intangible assets are tested for impairment whenever events or changes in circumstances indicate that the carrying value may be greater than the fair value. An impairment loss is recognized when the estimate of undiscounted future cash flows generated by such assets is less than the carrying amount. Measurement of the impairment loss is based on the fair value of the asset, determined using discounted cash flows when quoted market prices are not readily available. Indefinite-lived intangible assets are tested for impairment annually on the last day of fiscal November, or more frequently if events or circumstances indicated that the carrying value may exceed the fair value. We performed a qualitative impairment test during the fourth quarter of 2019 and determined that indefinite-lived intangible assets were not impaired.

Long-lived Assets

Long-lived assets other than goodwill and indefinite-lived intangible assets, which are separately tested for impairment, are evaluated for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. When evaluating long-lived assets for potential impairment, we first compare the carrying value of the asset to the estimates of asset's useful lives and undiscounted future cash flows based on market participant assumptions. If the undiscounted expected future cash flows are less than the carrying amount of the asset and the carrying amount of the asset exceeds its fair value, an impairment loss is recognized.

Income Taxes

As a multinational corporation, we are subject to taxation in many jurisdictions and the calculation of our tax liabilities involves dealing with inherent uncertainties in the application of complex tax laws and regulations in various taxing jurisdictions. We assess the income tax positions and record tax liabilities for all years subject to examination based upon our evaluation of the facts, circumstances and information available as of the reporting date.

We account for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities at enacted rates. We base our estimate of deferred tax assets and liabilities on current tax laws and rates and, in certain cases, business plans and other expectations about future outcomes. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. While we have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event that we were to determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the deferred tax assets would be a credit to income in the period such determination was made. The consolidated financial statements include changes to the valuation allowances as a result of uncertainty regarding our ability to realize certain deferred tax assets in the future.

Our accounting for deferred tax consequences represents our best estimate of future events that can be appropriately reflected in the accounting estimates. Changes in existing tax laws, regulations, rates and future operating results may affect the amount of deferred tax liabilities or the valuation of deferred tax assets over time. The application of tax laws and regulations is subject to legal and factual interpretation, judgment and uncertainty. Tax laws and regulations themselves are also subject to change as a result in changes in fiscal policy, changes in legislation, the evolution of regulations and court rulings.

Although we believe the measurement of liabilities for uncertain tax positions is reasonable, no assurance can be given that the final outcomes of these matters will not be different than what is reflected in the historical income tax provisions and accruals. If we ultimately determine that the payment of these liabilities will be unnecessary, the liability is reversed and a tax benefit is recognized in the period in which such determination is made. Conversely, additional tax charges are recorded in a period in which it is determined that a recorded tax liability is less than the ultimate assessment is expected to be. If additional taxes are assessed as a result of an audit or litigation, there could be a material effect on our income tax provision and net income in the period or periods for which that determination is made.

Inventory

We value inventories at the lower of cost or replacement cost for raw materials, and the lower of cost or net realizable value for finished goods, with expense estimates made for obsolescence or unsaleable inventory. In determining net realizable value, we consider such factors as yield, turnover and aging, expected future demand and market conditions, as well as past experience. A change in the underlying assumptions related to these factors could affect the valuation of inventory and have a corresponding effect on cost of goods sold. Historically, actual results have not significantly deviated from those determined using these estimates.

Share Based Compensation Plan

We have a share based compensation plan, which governs the issuance of common shares to employees as compensation through various grants of share instruments. We apply the fair value method of accounting using the Black-Scholes-Merton option pricing model to determine the compensation expense for stock appreciation rights. The compensation expense for the restricted stock units awarded is based on the fair value of the restricted stock units at the date of grant. Additionally, the compensation expense for certain performance based awards was determined using the Monte Carlo simulation method. There were no awards outstanding as of December 29, 2019, valued using this method. Compensation expense is recorded in the consolidated statements of comprehensive income and is recognized over the requisite service period. The determination of obligations and compensation expense requires the use of several mathematical and judgmental factors, including stock price, expected volatility, the anticipated life of the award, estimated risk free rate and the number of shares or share options expected to vest. Any difference in the number of shares or share options that actually vest can affect future compensation expense. Other assumptions are not revised after the original estimate.

Changes in Accounting Standards and Policies

Changes in accounting standards and policies are discussed in Note 1. Business Overview and Significant Accounting Policies in the Notes to the Consolidated Financial Statements in this Annual Report.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk from changes in foreign currency exchange rates, interest rates and commodity prices, which can affect our operating results and overall financial condition. We manage exposure to these risks through our operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments. Derivative financial instruments are viewed as risk management tools and are not used for speculation or for trading purposes. Derivative financial instruments are generally contracted with a diversified group of investment grade counterparties to reduce exposure to nonperformance on such instruments.

We have in place an enterprise risk management process that involves systematic risk identification and mitigation covering the categories of enterprise, strategic, financial, operation and compliance and reporting risk. The enterprise risk management process receives Board of Directors and Management oversight, drives risk mitigation decision-making and is fully integrated into our internal audit planning and execution cycle.

Foreign Exchange Rate Risk

We have foreign currency exposures related to buying, selling, and financing in currencies other than the local currencies in which we operate. In the years ended December 29, 2019, December 30, 2018, and December 31, 2017, approximately 32%, 36% and 34% of our net sales were generated outside of the United States, respectively. In addition, a significant percentage of our costs during the same period were not denominated in U.S. dollars. For example, for most of our manufacturing and distribution facilities, the prices for a significant portion of our raw materials are quoted in the domestic currency of the country where the facility is located or other currencies that are not U.S. dollars. We also have substantial assets outside the United States. As a result, the volatility in the price of the U.S. dollar has exposed, and in the future may continue to expose, us to currency exchange risks. Also, since our financial statements are denominated in U.S. dollars, changes in currency exchange rates between the U.S. dollar and other currencies have had, and will continue to have, an impact on many aspects of our financial results. Changes in currency exchange rates for any country in which we operate may require us to raise the prices of our products in that country or allow our competitors to sell their products at lower prices in that country. Unrealized exchange gains and losses arising from the translation of the financial statements of our non-U.S. functional currency operations are accumulated in the

cumulative translation adjustments account in accumulated other comprehensive loss. Net gains from currency translation adjustments as a result of translating our foreign assets and liabilities into U.S. dollars during the year ended December 29, 2019, were $16.9 million, which were primarily driven by the weakening of the U.S. dollar against the other major currencies in which we transact.

When deemed appropriate, we enter into various derivative financial instruments to preserve the carrying amount of foreign currency-denominated assets, liabilities, commitments and certain anticipated foreign currency transactions. We held no derivative financial instruments as of December 29, 2019, or December 30, 2018. If not mitigated by derivative financial instruments, price increases or other methods, a hypothetical 10% strengthening of the U.S. Dollar against all foreign currencies in the jurisdictions in which we operate would result in an approximate $65 million translational decrease in our net sales and an approximate $1 million translational decrease in our net income.

Interest Rate Risk

We are subject to market risk from exposure to changes in interest rates with respect to borrowings under our ABL Facility to the extent it is drawn on and due to our other financing, investing and cash management activities. As of December 29, 2019, and December 30, 2018, there were no outstanding borrowings under our ABL Facility.

Impact of Inflation, Deflation and Changing Prices

We have experienced inflation and deflation related to our purchase of certain commodity products. We believe that volatile prices for commodities have impacted our net sales and results of operations. We maintain strategies to mitigate the impact of higher raw material, energy and commodity costs, which include cost reduction, sourcing and other actions, which typically offset only a portion of the adverse impact. Inflation and deflation related to our purchases of certain commodity products could have an adverse impact on our operating results in the future. A hypothetical 10% inflationary increase in our material cost of goods sold would result in approximately $90 million of increased consolidated cost of goods sold.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Masonite International Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Masonite International Corporation (the Company) as of December 29, 2019 and December 30, 2018, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for each of the three fiscal years in the period ended December 29, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 29, 2019 and December 30, 2018, and the results of its operations and its cash flows for each of the three fiscal years in the period ended December 29, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 29, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 20, 2020 expressed an unqualified opinion thereon.

Adoption of ASU No. 2016 -02

As discussed in Notes 1 and 6 to the consolidated financial statements, the Company changed its method of accounting for leases in fiscal 2019 due to the adoption of Accounting Standards Update (ASU) No. 2016-02, *Leases* (Topic 842), and the related amendments.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

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

Valuation of Goodwill related to the Architectural Reporting Unit

Description of the Matter	At December 29, 2019, the Company's goodwill was $184.2 million, of which $111.0 million related to the Architectural reporting unit. As discussed in Notes 1 and 7 of the consolidated financial statements, the Company's goodwill is assigned to its reporting units as of the acquisition date and is tested for impairment at least annually at the reporting unit level during the fourth quarter of the fiscal year or whenever changes in circumstances may indicate the carrying amounts may not be recoverable. Auditing management's annual goodwill impairment test for the Architectural reporting unit was complex and judgmental due to the significant estimation required to determine the fair value of the reporting unit. In particular, the fair value estimate was sensitive to significant assumptions such as net sales growth rates, EBITDA margins, and the discount rate, which are affected by expectations about future market or economic conditions, including industry and company-specific factors.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment review process, including management's review of the significant assumptions described above and data underlying the estimate. To test the estimated fair value of the Company's Architectural reporting unit, we performed audit procedures that included, among others, assessing the valuation methodologies and testing the significant assumptions discussed above and the underlying data used by the Company in its analysis. We involved our valuation specialists to assist in our evaluation of the Company's valuation methodology and significant assumptions. We compared the significant assumptions used by management to current industry and economic trends, the Company's historical results and other guideline companies within the same industry and evaluated whether changes in the Company's business would affect the significant assumptions. We assessed the historical accuracy of management's estimates and performed sensitivity analyses of the significant assumptions to evaluate the changes in the fair value of the reporting unit that would result from changes in the assumptions.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2016.

Tampa, Florida
February 20, 2020

MASONITE INTERNATIONAL CORPORATION
Consolidated Statements of Comprehensive Income
(In thousands of U.S. dollars, except per share amounts)

	Year Ended		
	December 29, 2019	**December 30, 2018**	**December 31, 2017**
Net sales	$ 2,176,683	$ 2,170,103	$ 2,032,925
Cost of goods sold	1,699,000	1,734,797	1,625,942
Gross profit	477,683	435,306	406,983
Selling, general and administration expenses	310,567	266,193	247,917
Restructuring costs	9,776	1,624	850
Asset impairment	13,767	5,243	—
Loss on disposal of subsidiaries	14,260	—	212
Operating income	129,313	162,246	158,004
Interest expense, net	46,489	39,008	30,153
Loss on extinguishment of debt	14,523	5,414	—
Other expense (income), net	1,953	(2,533)	(1,570)
Income before income tax expense (benefit)	66,348	120,357	129,421
Income tax expense (benefit)	17,309	23,813	(27,560)
Net income	49,039	96,544	156,981
Less: net income attributable to non-controlling interests	4,437	3,834	5,242
Net income attributable to Masonite	$ 44,602	$ 92,710	$ 151,739
Basic earnings per common share attributable to Masonite	$ 1.77	$ 3.38	$ 5.18
Diluted earnings per common share attributable to Masonite	$ 1.75	$ 3.33	$ 5.09
Comprehensive income:			
Net income	$ 49,039	$ 96,544	$ 156,981
Other comprehensive income (loss):			
Foreign currency translation gain (loss)	16,912	(40,880)	38,970
Pension and other post-retirement adjustment	962	(4,754)	529
Pension settlement charges	5,651	—	—
Amortization of actuarial net losses	1,798	1,291	1,113
Income tax (expense) benefit related to other comprehensive income (loss)	(2,230)	742	(1,026)
Other comprehensive income (loss), net of tax:	23,093	(43,601)	39,586
Comprehensive income	72,132	52,943	196,567
Less: comprehensive income attributable to non-controlling interests	4,780	3,000	5,994
Comprehensive income attributable to Masonite	$ 67,352	$ 49,943	$ 190,573

See accompanying notes to the consolidated financial statements.

MASONITE INTERNATIONAL CORPORATION
Consolidated Balance Sheets
(In thousands of U.S. dollars, except share amounts)

ASSETS	December 29, 2019	December 30, 2018
Current assets:		
Cash and cash equivalents	$ 166,964	$ 115,656
Restricted cash	10,644	10,485
Accounts receivable, net	276,208	283,580
Inventories, net	242,230	250,407
Prepaid expenses	33,190	32,970
Income taxes receivable	4,819	3,495
Total current assets	734,055	696,593
Property, plant and equipment, net	625,585	609,753
Operating lease right-of-use assets	121,367	—
Investment in equity investees	16,100	13,474
Goodwill	184,192	180,297
Intangible assets, net	184,532	212,045
Deferred income taxes	25,945	28,509
Other assets	44,808	37,794
Total assets	$ 1,936,584	$ 1,778,465
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 84,912	$ 96,362
Accrued expenses	180,405	147,345
Income taxes payable	2,350	1,599
Total current liabilities	267,667	245,306
Long-term debt	790,984	796,398
Long-term operating lease liabilities	110,497	—
Deferred income taxes	83,465	82,122
Other liabilities	47,109	32,334
Total liabilities	1,299,722	1,156,160
Commitments and Contingencies (Note 10)		
Equity:		
Share capital: unlimited shares authorized, no par value, 24,869,921 and 25,835,664 shares issued and outstanding as of December 29, 2019, and December 30, 2018, respectively	558,514	575,207
Additional paid-in capital	216,584	218,988
Accumulated deficit	(20,047)	(30,836)
Accumulated other comprehensive loss	(130,169)	(152,919)
Total equity attributable to Masonite	624,882	610,440
Equity attributable to non-controlling interests	11,980	11,865
Total equity	636,862	622,305
Total liabilities and equity	$ 1,936,584	$ 1,778,465

See accompanying notes to the consolidated financial statements.

MASONITE INTERNATIONAL CORPORATION
Consolidated Statements of Changes in Equity
(In thousands of U.S. dollars, except share amounts)

	December 29, 2019	December 30, 2018	December 31, 2017
Total equity, beginning of period	$ 622,305	$ 735,902	$ 659,776
Share capital:			
Beginning of period	575,207	624,403	650,007
Common shares issued for delivery of share based awards	8,396	11,375	12,290
Common shares issued under employee stock purchase plan	1,045	949	1,168
Common shares repurchased and retired	(26,134)	(61,520)	(39,062)
End of period	558,514	575,207	624,403
Additional paid-in capital:			
Beginning of period	218,988	226,528	234,926
Share based compensation expense	10,023	7,681	11,644
Common shares issued for delivery of share based awards	(8,396)	(11,375)	(12,290)
Common shares withheld to cover income taxes payable due to delivery of share based awards	(3,852)	(3,743)	(7,466)
Common shares issued under employee stock purchase plan	(179)	(103)	(286)
End of period	216,584	218,988	226,528
Accumulated deficit:			
Beginning of period	(30,836)	(18,150)	(89,063)
Net income attributable to Masonite	44,602	92,710	151,739
Common shares repurchased and retired	(33,813)	(105,396)	(80,826)
End of period	(20,047)	(30,836)	(18,150)
Accumulated other comprehensive loss:			
Beginning of period	(152,919)	(110,152)	(148,986)
Other comprehensive income (loss) attributable to Masonite, net of tax	22,750	(42,767)	38,834
End of period	(130,169)	(152,919)	(110,152)
Equity attributable to non-controlling interests:			
Beginning of period	11,865	13,273	12,892
Net income attributable to non-controlling interests	4,437	3,834	5,242
Other comprehensive income (loss) attributable to non-controlling interests, net tax	343	(834)	752
Dividends to non-controlling interests	(4,665)	(4,408)	(5,613)
End of period	11,980	11,865	13,273
Total equity, end of period	$ 636,862	$ 622,305	$ 735,902
Common shares outstanding:			
Beginning of period	25,835,664	28,369,877	29,774,784
Common shares issued for delivery of share based awards	186,242	223,487	372,826
Common shares issued under employee stock purchase plan	18,940	13,984	16,368
Common shares repurchased and retired	(1,170,925)	(2,771,684)	(1,794,101)
End of period	24,869,921	25,835,664	28,369,877

See accompanying notes to the consolidated financial statements.

MASONITE INTERNATIONAL CORPORATION
Consolidated Statements of Cash Flows
(In thousands of U.S. dollars)

	Year Ended		
Cash flows from operating activities:	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Net income	$ 49,039	$ 96,544	$ 156,981
Adjustments to reconcile net income to net cash flow provided by operating activities:			
Loss on disposal of subsidiaries	14,260	—	212
Loss on extinguishment of debt	14,523	5,414	—
Depreciation	70,736	59,089	57,528
Amortization	29,113	28,583	24,375
Share based compensation expense	10,023	7,681	11,644
Deferred income taxes	3,292	10,563	(34,230)
Unrealized foreign exchange loss	320	700	1,496
Share of income from equity investees, net of tax	(2,626)	(2,164)	(2,008)
Pension and post-retirement funding, net of expense	(827)	(7,112)	(6,806)
Non-cash accruals and interest	57	857	1,226
Loss on sale of property, plant and equipment	6,396	3,470	1,893
Asset impairment	13,767	5,243	—
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	6,723	(4,543)	(15,926)
Inventories	5,735	(1,192)	692
Prepaid expenses	(332)	(5,316)	(2,026)
Accounts payable and accrued expenses	4,742	11,909	(15,809)
Other assets and liabilities	(3,285)	(6,494)	(5,761)
Net cash flow provided by operating activities	221,656	203,232	173,481
Cash flows from investing activities:			
Additions to property, plant and equipment	(82,720)	(82,380)	(73,782)
Acquisition of businesses, net of cash acquired	(2,029)	(157,363)	(13,813)
Issuance of note receivable	—	(12,000)	—
Proceeds from sale of subsidiaries, net of cash disposed	1,001	—	—
Proceeds from sale of property, plant and equipment	3,640	1,353	1,114
Other investing activities	(2,018)	(4,087)	(3,653)
Net cash flow used in investing activities	(82,126)	(254,477)	(90,134)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	500,000	300,000	156,746
Repayments of long-term debt	(500,177)	(125,363)	(422)
Payment of debt extinguishment costs	(14,065)	(5,274)	—
Payment of debt issuance costs	(6,701)	(4,344)	(2,141)
Tax withholding on share based awards	(3,852)	(3,743)	(7,466)
Distributions to non-controlling interests	(4,665)	(4,408)	(5,613)
Repurchases of common shares	(59,947)	(166,916)	(119,888)
Net cash flow (used in) provided by financing activities	(89,407)	(10,048)	21,216
Net foreign currency translation adjustment on cash	1,344	(1,130)	91
Increase (decrease) in cash, cash equivalents and restricted cash	51,467	(62,423)	104,654
Cash, cash equivalents and restricted cash, beginning of period	126,141	188,564	83,910
Cash, cash equivalents and restricted cash, at end of period	$ 177,608	$ 126,141	$ 188,564

See accompanying notes to the consolidated financial statements.

1. Business Overview and Significant Accounting Policies

Unless we state otherwise or the context otherwise requires, references to “Masonite,” “we,” “our,” “us” and the “Company” in these notes to the consolidated financial statements refer to Masonite International Corporation and its subsidiaries.

Description of Business

Masonite International Corporation is one of the largest manufacturers of doors in the world, with significant market share in both interior and exterior door products. Masonite operates 63 manufacturing locations in eight countries and sells doors to customers throughout the world, including the United States, Canada and the United Kingdom.

Basis of Presentation

We prepare these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”). These consolidated financial statements include the accounts of Masonite International Corporation, a company incorporated under the laws of British Columbia, and its subsidiaries, as of December 29, 2019, and December 30, 2018, and for the years ended December 29, 2019, December 30, 2018, and December 31, 2017.

Our fiscal year is the 52- or 53-week period ending on the Sunday closest to December 31. In a 52-week year, each fiscal quarter consists of 13 weeks. For ease of disclosure, the 13-week periods are referred to as three-month periods and the 52- or 53-week periods are referred to as years.

Changes in Accounting Standards and Policies

Adoption of Recent Accounting Pronouncements

In August 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Updates ("ASU") 2018-15, “Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.” This ASU amended the definition of a hosting arrangement and required a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance in ASC 350-40 “Intangibles-Goodwill and Other-Internal-Use Software” to determine which implementation costs to capitalize as assets or expense as incurred. Capitalized implementation costs related to a hosting arrangement that is a service contract will be amortized over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use. The guidance is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods; early adoption is permitted and either retrospective or prospective application is required for all implementation costs incurred after the date of adoption. We have early adopted this guidance prospectively as of December 31, 2018, the beginning of fiscal year 2019, and the adoption did not have a material impact on our financial statements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment," which amends ASC 350 "Intangibles - Goodwill and Other." This ASU simplified the accounting for goodwill impairments and allowed a goodwill impairment charge to be based upon the amount of a reporting unit's carrying value in excess of its fair value; thus, eliminating what is currently known as "Step 2" under the current guidance. This ASU was effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods; early adoption was permitted and prospective application was required. We have adopted this guidance prospectively as of December 31, 2018, the beginning of fiscal year 2019, and the adoption did not have a material impact on our financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which replaced the existing guidance in ASC 840, "Leases." This standard was supplemented by ASUs 2018-01, 2018-10, 2018-11 and 2019-01. The updated standards aimed to increase transparency and comparability among organizations by requiring lessees to recognize right-of-use ("ROU") assets and lease liabilities on the balance sheet and requiring disclosure of key information about leasing arrangements. The transition option in ASU 2018-11 allowed entities to not apply the standards to the comparative periods they present in their financial statements in the year of adoption. These ASUs were effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods; early adoption was permitted. We

have elected to adopt these standards utilizing the modified retrospective method as of December 31, 2018, with the package of practical expedients permitted under the transition guidance of the new standards, which allowed us to not reassess whether any expired or existing contracts contain leases, to carry forward the historical lease classification and permitted us to exclude from our assessment initial direct costs for any existing leases. Additionally, we elected to utilize the practical expedient which allowed us to account for each separate lease component and the non-lease components associated with that lease component as a single lease component. We also made an accounting policy election to exclude leases with an initial term of twelve months or less from our transition adjustment. Lease payments are recognized in the consolidated statements of comprehensive income on a straight-line basis over the lease term.

The adoption of the standard resulted in the recognition of a ROU asset and lease liability for our operating leases of $108.0 million and $113.9 million, respectively, as of December 31, 2018. At the time of the adoption our operating leases included leases for real estate and machinery and equipment and we did not have any material finance leases. The difference between the opening ROU asset and lease liability amounts was due to the reclassification of the existing deferred rent liability balance against the opening ROU assets to which it related. The standard did not materially affect our results of operations, liquidity or compliance with our debt covenants under our current agreements. Additional transition disclosures, including our updated lease accounting policy, are included in Note 6.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers," which created ASC 606, "Revenue from Contracts with Customers," and largely superseded the existing guidance of ASC 605, "Revenue Recognition." This standard outlined a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and superseded most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers - Deferral of the Effective Date," and the guidance would now be effective for annual and interim periods beginning on or after December 15, 2017. We adopted the guidance of ASC 606 as of January 1, 2018, using the modified retrospective method and applied the standard to only those contracts which were not completed as of the transition date. The adoption of this standard did not have a material impact on revenues in the years ended December 29, 2019, or December 30, 2018. Prior period amounts were not adjusted and have continued to be reported in accordance with our historic accounting under Topic 605. While we considered an adjustment to opening retained earnings as prescribed by the modified retrospective method, there was no material adjustment ultimately required. Furthermore, there was no material difference between the prior period amounts as reported under ASC 605 and such amounts as would have been reported under ASC 606. Information about the nature, amount and timing of our revenues from contracts with customers is disclosed in Note 11. Revenues. Our accounting policy for revenue recognition is set forth under Summary of Significant Accounting Policies below.

Other Recent Accounting Pronouncements not yet Adopted

In December 2019, the FASB issued ASU 2019-12, "Simplifying the Accounting for Income Taxes," as part of its Simplification Initiative to reduce the cost and complexity in accounting for income taxes. This standard removes certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. It also amends other aspects of the guidance to help simplify and promote consistent application of GAAP. The guidance is effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. We are in the process of evaluating this guidance to determine the impact it may have on our financial statements.

In August 2018, the FASB issued ASU 2018-14, "Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans," which amended ASC 715, "Compensation—Retirement Benefits." This standard is applicable for employers that sponsor defined benefit pension or other postretirement plans, and eliminates disclosures no longer considered cost beneficial, clarifies specific disclosure requirements for entities that provide aggregate disclosures for two or more plans and adds requirements for explanations for significant gains and losses related to changes in benefit obligations. The guidance will be effective for annual periods ending after December 15, 2020; early adoption is permitted and retrospective application is required. We are in the process of evaluating this guidance to determine the impact it may have on our financial statements.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments—Credit Losses (Topic 326)," which replaces the incurred loss methodology for recognizing credit losses with a current expected credit losses model. This standard applies to all financial assets, including trade receivables. Our current accounts receivable policy is described in detail in Note 1 and uses historical and current information to estimate the amount of probable credit losses in our existing account receivable balances. The guidance is effective for annual periods beginning after December 15, 2019, including interim periods within those fiscal years; early adoption is permitted and modified retrospective application is required. We do not expect the adoption of this standard will have a material impact on our financial statements.

Summary of Significant Accounting Policies

(a) Principles of consolidation:

These consolidated financial statements include the accounts of Masonite and our subsidiaries and the accounts of any variable interest entities for which we are the primary beneficiary. Intercompany accounts and transactions have been eliminated upon consolidation. The results of subsidiaries acquired during the periods presented are consolidated from their respective dates of acquisition using the acquisition method. Subsidiaries are prospectively deconsolidated as of the date when we no longer have effective control of the entity.

(b) Translation of consolidated financial statements into U.S. dollars:

These consolidated financial statements are expressed in U.S. dollars. The accounts of the majority of our self-sustaining foreign operations are maintained in functional currencies other than the U.S. dollar. Assets and liabilities for these subsidiaries have been translated into U.S. dollars at the exchange rates prevailing at the end of the period and results of operations at the average exchange rates for the period. Unrealized exchange gains and losses arising from the translation of the financial statements of our non-U.S. functional currency operations are accumulated in the cumulative translation adjustments account in accumulated other comprehensive loss. For our foreign subsidiaries where the U.S. dollar is the functional currency, all foreign currency-denominated accounts are remeasured into U.S. dollars. Unrealized exchange gains and losses arising from remeasurements of foreign currency-denominated assets and liabilities are included within other income, net of expense, in the consolidated statements of comprehensive income. Gains and losses arising from international intercompany transactions that are of a long-term investment nature are reported in the same manner as translation gains and losses. Realized exchange gains and losses are included in net income for the periods presented.

(c) Cash and cash equivalents:

Cash includes cash equivalents which are short-term highly liquid investments with original maturities of three months or less.

(d) Restricted cash:

Restricted cash includes cash we have placed as collateral for standby letters of credit. The letters of credit guarantee payment to third parties in the event the company is in breach of contract terms as detailed in each letter of credit. As of December 29, 2019, and December 30, 2018, we had standby letters of credit totaling $2.6 million and $2.9 million, respectively. There were no amounts drawn upon these letters of credit as of December 29, 2019, or December 30, 2018.

(e) Accounts receivable:

We record accounts receivable as our products are received by our customers. Our customers are primarily retailers, distributors and contractors. We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to pay. We consider the overall quality and aging of receivables and specifically identified customer risks. The expense is included within selling, general and administration expense in the consolidated statements of comprehensive income. Generally, we do not require collateral for our accounts receivable.

(f) Inventories:

Raw materials and finished goods are valued at the lower of cost or net realizable value. Cost is determined on a first in, first out basis. In determining the net realizable value, we consider factors such as yield, turnover, expected future demand and past experience.

The cost of inventories includes all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. The costs of conversion of inventories include costs directly related to the units of production, such as direct labor. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting raw materials into finished goods. Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as depreciation and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labor.

To determine the cost of inventory, we allocate fixed expenses to the cost of production based on the normal capacity, which refers to a range of production levels and is considered the production expected to be achieved over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. Fixed overhead costs allocated to each unit of production are not increased due to abnormally low production. Those excess costs are recognized as a current period expense. When a production facility is completely shut down temporarily, it is considered idle, and all related expenses are charged to cost of goods sold.

(g) Property, plant and equipment

Property, plant and equipment are stated at cost. Depreciation is recorded based on the carrying values of buildings, machinery and equipment using the straight-line method over the estimated useful lives set forth as follows:

	Useful Life (Years)
Buildings	20 - 40
Machinery and equipment	
Tooling	10 - 25
Machinery and equipment	5 - 25
Molds and dies	12 - 25
Office equipment, fixtures and fittings	3 - 12
Information technology systems	5 - 15

Improvements and major maintenance that extend the life of an asset are capitalized; other repairs and maintenance are expensed as incurred. When assets are retired or otherwise disposed, their carrying values and accumulated depreciation are removed from the accounts.

Property, plant and equipment are tested for impairment when events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. An impairment loss is recognized when the carrying amount of an asset or asset group being tested for recoverability exceeds the sum of the undiscounted cash flows expected from its use and disposal. Impairments are measured as the amount by which the carrying amount of the asset or asset group exceeds its fair value, as determined using a discounted cash flows approach when quoted market prices are not available.

(h) Goodwill:

We use the acquisition method of accounting for all business combinations, and we evaluate all business combinations for intangible assets that should be recognized apart from goodwill. Goodwill adjustments are recorded for the effect on goodwill of changes to net assets acquired during the measurement period (up to one year from the date of acquisition) for new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized as of that date.

Goodwill is not amortized, but instead is tested annually for impairment on the last day of fiscal November, or more frequently if events or changes in circumstances indicate the carrying amount may not be recoverable. The test for impairment is performed at the reporting unit level by comparing the reporting unit's carrying amount to its fair value. Possible impairment in goodwill is first analyzed using qualitative factors such as macroeconomic and market conditions, changing costs and actual and projected performance, amongst others, to determine whether it is more likely than not that the book value of the reporting unit exceeds its fair value. If it is determined more likely than not that the book value exceeds fair value, a quantitative analysis is performed to test for impairment. When quantitative steps are determined necessary, the fair values of the reporting units are estimated through the use of discounted cash flow analysis and market multiples. If the carrying amount exceeds fair value, then goodwill is impaired. Any impairment in goodwill is measured as the excess of the carrying value of goodwill over the fair value. There were no impairment charges recorded against goodwill in any period presented.

When developing our discounted cash flow analyses, a number of assumptions and estimates are involved to forecast operating cash flows, including future net sales growth, EBITDA margin growth, benefits from restructuring initiatives, income tax rates, capital spending, business initiatives and working capital changes. These assumptions may vary significantly among the reporting units. Operating cash flow forecasts are based on operating plans for the early years and historical relationships and long-term economic outlooks for our industry in later years. The discount rate is estimated for each specific reporting unit. Due to the many variables inherent in the estimation of a reporting unit's fair value and the relative size of our recorded goodwill, differences in assumptions may have a material effect on the results of our impairment analyses.

The performance of our 2019 annual impairment test based on the inputs outlined above did not result in any impairment of our goodwill. The resulting fair values of each reporting unit tested based upon such inputs exceeded their respective carrying values by greater than 10%.

There were no impairment charges recorded against goodwill in 2018 or 2017 and we have not materially changed our methodology for goodwill impairment testing for the years presented.

(i) Intangible assets:

Intangible assets with definite lives include customer relationships, non-compete agreements, patents, system software development, supply agreements and acquired trademarks and tradenames. Definite lived intangible assets are amortized over their estimated useful lives. Information pertaining to the estimated useful lives of intangible assets is as follows:

	Estimated Useful Life
Customer relationships	Over expected relationship period, not exceeding 10 years
Non-compete agreements	Straight-line over life of the agreement
Patents	Over expected useful life, not exceeding 17 years
System software development	Over expected useful life
Supply agreements	Straight-line over life of the agreement
Acquired trademarks and tradenames	Straight-line over expected useful life

Amortizable intangible assets are tested for impairment whenever events or changes in circumstances indicate that the carrying value may be greater than fair value. An impairment loss is recognized when the estimate of undiscounted future cash flows generated by such assets is less than the carrying amount. Measurement of the impairment loss is based on the fair value of the asset. Fair value is measured using discounted cash flows.

Indefinite lived intangible assets are not amortized, but instead are tested for impairment annually on the last day of fiscal November, or more frequently if events or circumstances indicate the carrying value may exceed the fair value.

(j) Income taxes:

We use the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the deferred tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities due to a change in tax rates is recognized in income in the period that includes the date of enactment. A valuation allowance is recorded to reduce deferred tax assets to an amount that is anticipated to be realized on a more likely than not basis.

We account for uncertain taxes in accordance with ASC 740, “Income Taxes.” The initial benefit recognition model follows a two-step approach. First we evaluate if the tax position is more likely than not of being sustained if audited based solely on the technical merits of the position. Second, we measure the appropriate amount of benefit to recognize. This is calculated as the largest amount of tax benefit that has a greater than 50% likelihood of ultimately being realized upon settlement. Subsequently at each reporting date, the largest amount that has a greater than 50% likelihood of ultimately being realized, based on information available at that date, will be measured and recognized.

We recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the consolidated statements of comprehensive income. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheets.

(k) Employee future benefits:

We maintain defined benefit pension plans. Benefits under the plans were frozen or curtailed at various times in the past. Earnings are charged with the cost of benefits earned by employees as services are rendered. The cost reflects management’s best estimates of the pension plans’ expected investment yields, wage and salary escalation, mortality of members, terminations and the ages at which members will retire. Changes in these assumptions could impact future pension expense. Service cost components are recognized within cost of goods sold and non-service cost components are recognized within other expense (income), net in the consolidated statements of comprehensive income. The excess of the net actuarial gain (loss) over 10% of the greater of the benefit obligation or fair value of plan assets at the beginning of the year is amortized over the average remaining service lives of the members.

Assets are valued at fair value for the purpose of calculating the expected return on plan assets. Past service costs arising from plan amendments are amortized on a straight-line basis over the average remaining service period of employees active at the date of amendment.

When a restructuring of a benefit plan gives rise to both a curtailment and a settlement of obligations, the curtailment is accounted for prior to the settlement. Curtailment gains are offset against unrecognized losses and any excess gains and all curtailment losses are recorded in the period in which the curtailment occurs.

(l) Restructuring costs:

Restructuring costs include all salary-related severance benefits that are accrued and expensed when a restructuring plan has been put into place, the plan has received approval from the appropriate level of management and the benefit is probable and reasonably estimable. In addition to salary-related costs, we incur other restructuring costs when facilities are closed or capacity is realigned within the organization. Upon termination of a contract we record liabilities and expenses pursuant to the terms of the relevant agreement. For non-contractual restructuring activities, liabilities and expenses are measured and recorded at fair value in the period in which they are incurred.

Restructuring-related costs are presented separately in the consolidated statements of comprehensive income whereas non-restructuring severance benefits are charged to cost of goods sold or selling, general and administration expense depending on the nature of the job responsibilities.

(m) Financial instruments:

We have applied a framework consistent with ASC 820, "Fair Value Measurement and Disclosure," and have disclosed all financial assets and liabilities measured at fair value and non-financial assets and liabilities measured at fair value on a non-recurring basis (at least annually).

We classify and disclose assets and liabilities carried at fair value in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

The estimated fair value of a financial instrument is the amount at which the instrument could be exchanged in a current transaction between willing parties, other than a forced or liquidation sale. These estimates, although based on the relevant market information about the financial instrument, are subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

(n) Share based compensation expense:

We have a share based compensation plan, which is described in detail in Note 12. We apply the fair value method of accounting using comprehensive valuation models, including the Black-Scholes-Merton option pricing model, to determine the compensation expense.

(o) Revenue recognition:

Revenue from the sale of products is recognized when control of the promised goods is transferred to our customers based on the agreed-upon shipping terms, in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. Volume rebates, expected returns, discounts and other incentives to customers are considered variable consideration and we estimate these amounts based on the expected amount to be provided to customers and reduce the revenues we recognize accordingly. Sales taxes and value added taxes assessed by governmental entities are excluded from the measurement of consideration expected to be received. Shipping and handling costs incurred after a customer has taken possession of our goods are treated as a fulfillment cost and are not considered a separate performance obligation. Shipping and other transportation costs charged to customers are recorded in both revenues and cost of goods sold in the consolidated statements of comprehensive income.

(p) Product warranties:

We warrant certain qualitative attributes of our door products. We have recorded provisions for estimated warranty and related costs within accrued expenses on the consolidated balance sheets, based on historical experience and we periodically adjust these provisions to reflect actual experience. The rollforward of our warranty provision is as follows for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Balance at beginning of period	$ 4,270	$ 2,189	$ 2,717
Additions charged to expense	7,142	6,965	5,715
Deductions	(6,998)	(4,884)	(6,243)
Balance at end of period	$ 4,414	$ 4,270	$ 2,189

(q) Vendor rebates:

We account for cash consideration received from a vendor as a reduction of cost of goods sold and inventory, in the consolidated statements of comprehensive income and consolidated balance sheets, respectively. The cash consideration received represents agreed-upon vendor rebates that are earned in the normal course of operations.

(r) Advertising costs:

We recognize advertising costs as they are incurred. Advertising costs incurred primarily relate to tradeshows and are included within selling, general and administration expense in the consolidated statements of comprehensive income. Advertising costs were $14.2 million, $12.6 million and $12.9 million in the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively.

(s) Research and development costs:

We recognize research and development costs as they are incurred. Research and development costs incurred primarily relate to the development of new products and the improvement of manufacturing processes, and are primarily included within cost of goods sold in the consolidated statements of comprehensive income. These costs exclude the significant investments in other areas such as advanced automation and e-commerce. Research and development costs were $7.2 million, $7.3 million and $7.5 million in the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively.

(t) Insurance losses and proceeds:

All involuntary conversions of property, plant and equipment are recorded as losses within loss (gain) on disposal of property, plant and equipment, which is included within selling, general and administration expense in the consolidated statements of comprehensive income and as reductions to property, plant and equipment in the consolidated balance sheets. Any subsequent proceeds received for insured losses of property, plant and equipment are also recorded as gains within loss (gain) in disposal of property, plant and equipment, and are classified as cash flows from investing activities in the consolidated statements of cash flows in the period in which the cash is received. Proceeds received for business interruption recoveries are recorded as a reduction to selling, general and administration expense in the consolidated statements of comprehensive income and are classified as cash flows from operating activities in the consolidated statements of cash flows in the period in which an acknowledgment from the insurance carrier of settlement or partial settlement of a non-refundable nature has been presented to us.

(u) Equity investments:

We account for investments in affiliates of between 20% and 50% ownership, over which we have significant influence, using the equity method. We record our share of earnings of the affiliate within other income, net of expense, in the consolidated statements of comprehensive income and dividends as a reduction of the investment in the affiliate in the consolidated balance sheets when declared.

(v) Segment Reporting:

Our reportable segments are organized and managed principally by end market: North American Residential, Europe and Architectural. The North American Residential reportable segment is the aggregation of the Wholesale and Retail operating segments. The Europe reportable segment is the aggregation of the United Kingdom and Central Eastern Europe operating segments. The Architectural reportable segment consists solely of the Architectural operating segment. The Corporate & Other category includes unallocated corporate costs and the results of immaterial operating segments which were not aggregated into any reportable segment. Operating segments are aggregated into reportable segments only if they exhibit similar economic characteristics. In addition to similar economic characteristics we also consider the following factors in determining the reportable segments: the nature of business activities, the management structure directly accountable to our chief operating decision maker for operating and administrative activities, availability of discrete financial information and information presented to the Board of Directors and investors.

(w) Use of estimates:

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions which affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of net sales and expenses during the reporting periods. During 2019, there were no material changes in the methods or policies used to establish estimates and assumptions. Actual results may differ from our estimates.

2. Acquisitions and Dispositions

2019 Acquisition

On August 29, 2019, we completed the acquisition of TOPDOORS, s.r.o. ("Top Doors") based in the Czech Republic for cash consideration of $1.6 million, net of cash acquired. Top Doors is a specialist manufacturer of door frames. The excess purchase price over the fair value of net assets acquired of $1.1 million was allocated to goodwill in our Europe segment. During the fourth quarter of 2019, as a result of working capital adjustments we paid an additional $0.2 million, which resulted in a $0.2 million increase in goodwill. The goodwill principally represents anticipated synergies from Top Doors' integration into our existing Europe door business. The purchase price allocation, net sales, net income (loss) attributable to Masonite and pro forma information for Top Doors are not presented as they were not material for any period presented.

2018 Acquisitions

On November 1, 2018, we completed the acquisition of the operating assets of Bridgewater Wholesalers Inc. (“BWI”) for cash consideration of $22.3 million, net of cash acquired. BWI is headquartered in Branchburg, New Jersey, and is a fabricator and distributor of residential interior and exterior door systems, supporting customers in the Mid-Atlantic and Northeastern United States. Their product offerings include residential interior and exterior doors, commercial doors and hardware as well as value-added pre-finishing services. The excess purchase price over the fair value of net assets acquired of $3.7 million was allocated to goodwill. The goodwill principally represents anticipated synergies to be gained from the integration into our existing North American Residential business and the goodwill is deductible for tax purposes.

On June 1, 2018, we completed the acquisition of the operating assets of the wood door companies of AADG, Inc., including the brands Graham Manufacturing Corporation and The Maiman Company (collectively, "Graham & Maiman"). We acquired the operating assets of Graham & Maiman for cash consideration of $39.0 million. Graham & Maiman are based in Mason City, Iowa, and Springfield, Missouri. Graham & Maiman provide the non-residential construction industry with a full range of architectural premium and custom grade flush wood doors, architectural stile and rail wood doors, thermal-fused flush wood doors and wood door frames. The excess purchase price over the fair value of net assets acquired of $11.0 million was allocated to goodwill. The goodwill principally represents anticipated synergies to be gained from the integration into our existing Architectural business and the goodwill is deductible for tax purposes.

On January 29, 2018, we completed the acquisition of DW3 Products Holdings Limited (“DW3”), a leading UK provider of high quality premium door solutions and window systems, supplying products under brand names such as Solidor, Residor, Nicedor and Residence. We acquired 100% of the equity interests in DW3 for cash consideration of $96.3 million, net of cash acquired. DW3 is based in Stoke-on-Trent and Gloucester, England, and their online quick ship capabilities and product portfolio both complement and expand the strategies we are pursuing with our business. The excess purchase price over the fair value of net assets acquired of $33.6 million was allocated to goodwill. The goodwill principally represents anticipated synergies to be gained from the integration into our existing United Kingdom business. This goodwill is not deductible for tax purposes and relates to the Europe segment.

The fair value of assets acquired and liabilities assumed in the 2018 Acquisitions are as follows:

(In thousands)	BWI	Graham & Maiman	DW3	Total 2018 Acquisitions
Accounts Receivable	$ 9,215	$ —	$ 8,590	$ 17,805
Inventory	10,736	6,090	5,059	21,885
Property, plant and equipment	2,222	19,557	8,196	29,975
Goodwill	3,739	10,996	33,623	48,358
Intangible assets	2,970	2,750	62,873	68,593
Accounts payable and accrued expenses	(6,816)	(426)	(10,418)	(17,660)
Deferred income taxes	—	—	(11,546)	(11,546)
Other assets and liabilities, net	240	—	(68)	172
Cash consideration, net of cash acquired	$ 22,306	$ 38,967	$ 96,309	$ 157,582

The fair values of intangible assets acquired are based on management's estimates and assumptions including variations of the income approach, the cost approach and the market approach. The intangible assets acquired are not expected to have any residual value. During the year ended December 29, 2019, we finalized the purchase price allocation for the BWI acquisition, which resulted in a $0.4 million increase in goodwill due to final working capital adjustments. We finalized the Graham & Maiman and DW3 purchase price allocations during the year ended December 30, 2018. The gross contractual value of acquired trade receivables was $9.3 million and $9.1 million for the BWI and DW3 acquisitions, respectively.

Intangible assets acquired from the 2018 Acquisitions consist of the following:

(In thousands)	BWI	Expected Useful Life (Years)	Graham & Maiman	Expected Useful Life (Years)	DW3	Expected Useful Life (Years)
Customer relationships	$ 1,200	10.0	$ 2,400	10.0	$ 49,554	10.0
Trademarks and tradenames	900	10.0	350	1.5	11,785	10.0
Patents	—		—		1,420	10.0
Other	870	2.2	—		114	3.0
Total intangible assets acquired	$ 2,970		$ 2,750		$ 62,873	

The following schedule represents the amounts of net sales and net income (loss) attributable to Masonite from the 2018 Acquisitions which have been included in the consolidated statements of comprehensive income for the period indicated subsequent to the acquisition date.

	Year Ended December 30, 2018			
(In thousands)	BWI	Graham & Maiman	DW3	Total 2018 Acquisitions
Net sales	$ 13,168	$ 38,901	$ 68,474	$ 120,543
Net income (loss) attributable to Masonite	(1,231)	314	6,712	5,795

2017 Acquisition

On October 2, 2017, we completed the acquisition of A&F Wood Products, Inc. (“A&F”), through the purchase of 100% of the equity interests in A&F and certain assets of affiliates of A&F for consideration of $13.8 million, net of cash acquired. A&F is based in Howell, Michigan, and is a wholesaler and fabricator of architectural and commercial doors in the Midwest United States. The excess purchase price over the fair value of net assets acquired of $5.9 million was allocated to goodwill. The goodwill principally represents anticipated synergies from A&F's integration into our

existing Architectural door business. This goodwill is not deductible for tax purposes and relates to the Architectural segment.

The fair values of intangible assets acquired of $4.4 million are based on management's estimates and assumptions including variations of the income approach, the cost approach and the market approach. Intangible assets acquired from A&F consist of customer relationships and are being amortized over the weighted average amortization period of 10 years. The intangible assets are not expected to have any residual value.

The following schedule represents the amounts of net sales and net income attributable to Masonite from the A&F acquisition which have been included in the consolidated statements of comprehensive income for the period indicated subsequent to the acquisition date.

(In thousands)	**December 31, 2017**
Net sales	$ 3,883
Net income attributable to Masonite	825

Pro Forma Information

The following unaudited pro forma financial information represents the consolidated financial information as if the acquisitions had been included in our consolidated results beginning on the first day of the fiscal year prior to their respective acquisition dates. The pro forma results have been calculated after adjusting the results of the acquired entities to remove intercompany transactions and transaction costs incurred and to reflect the additional depreciation and amortization that would have been charged assuming the fair value adjustments to property, plant and equipment and intangible assets had been applied on the first day of the fiscal year prior to the respective acquisitions, together with the consequential tax effects. The pro forma results do not reflect any cost savings, operating synergies or revenue enhancements that the combined company may achieve as a result of the acquisitions; the costs to combine the companies' operations; or the costs necessary to achieve these costs savings, operating synergies and revenue enhancements. The pro forma results do not necessarily reflect the actual results of operations of the combined companies under our ownership and operation.

	Year Ended December 30, 2018					
(In thousands, except per share amounts)	**Masonite**	**BWI**	**Graham & Maiman**	**DW3**	**Intercompany Eliminations**	**Pro Forma**
Net sales	$ 2,170,103	77,110	26,887	4,918	$ (32,720)	$ 2,246,298
Net income attributable to Masonite	92,710	436	89	81	—	93,316
Basic earnings per common share	$ 3.38					$ 3.40
Diluted earnings per common share	3.33					3.35

	Year Ended December 31, 2017						
(In thousands, except per share amounts)	**Masonite**	**BWI**	**Graham & Maiman**	**DW3**	**A&F**	**Intercompany Eliminations**	**Pro Forma**
Net sales	$ 2,032,925	104,291	65,468	58,086	$ 11,104	$ (43,543)	$ 2,228,331
Net income attributable to Masonite	151,739	(1,811)	145	2,035	1,299	—	153,407
Basic earnings per common share	$ 5.18						$ 5.24
Diluted earnings per common share	5.09						5.15

Dispositions

Window Widgets

On December 13, 2019, we completed the sale of all of the capital stock of Window Widgets Limited ("WW") for consideration of $1.2 million, net of cash disposed. We have had and will continue to have no continuing involvement with WW subsequent to the sale. The disposition of this business resulted in a loss on disposal of subsidiaries of $9.7 million, which was recognized in 2019 in the Europe segment. The total charge consists of $8.3 million relating to the write-off of the assets sold and other professional fees and $1.4 million relating to the recognition of the cumulative translation adjustment out of accumulated other comprehensive loss.

Performance Doorset Solutions Limited

On March 21, 2019, we completed the sale of all the capital stock of Performance Doorset Solutions Limited ("PDS") for nominal consideration. We have had and will continue to have no continuing involvement with PDS subsequent to the sale, and the purchasers are not considered to be a related party. The disposition of this business resulted in a loss on disposal of subsidiaries of $4.6 million, which was recognized in 2019 in the Europe segment. The total charge consists of $3.6 million relating to the write-off of the assets sold and other professional fees and $1.0 million relating to the recognition of the cumulative translation adjustment out of accumulated other comprehensive loss.

Hungary

On June 28, 2017, we completed the liquidation of our legal entity in Hungary. As a result, we recognized $0.2 million of cumulative translation loss in loss on disposal of subsidiaries from accumulated other comprehensive loss during the year ended December 31, 2017.

3. Accounts Receivable

Our customers consist mainly of wholesale distributors, dealers, and retail home centers. Our ten largest customers accounted for 44.9% and 54.6% of total accounts receivable as of December 29, 2019, and December 30, 2018, respectively. Our largest customer, The Home Depot, Inc. accounted for more than 10% of the consolidated gross accounts receivable balance as of December 29, 2019, and December 30, 2018. No other individual customer accounted for greater than 10% of the consolidated gross accounts receivable balance at either December 29, 2019, or December 30, 2018.

The changes in the allowance for doubtful accounts were as follows for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Balance at beginning of period	$ 2,109	$ 1,785	$ 1,010
Additions charged to expense	78	676	793
Deductions	(435)	(352)	(18)
Balance at end of period	$ 1,752	$ 2,109	$ 1,785

We maintain an accounts receivable sales program with a third party (the "AR Sales Program"). Under the AR Sales Program, we can transfer ownership of eligible trade accounts receivable of certain customers. Receivables are sold outright to a third party who assumes the full risk of collection, without recourse to us in the event of a loss. Transfers of receivables under this program are accounted for as sales. Proceeds from the transfers reflect the face value of the accounts receivable less a discount. Receivables sold under the AR Sales Program are excluded from trade accounts receivable in the consolidated balance sheets and are included in cash flows from operating activities in the consolidated statements of cash flows. The discounts on the sales of trade accounts receivable sold under the AR Sales Program were not material for any of the periods presented and were recorded in selling, general and administration expense within the consolidated statements of comprehensive income.

4. Inventories

The amounts of inventory on hand were as follows as of the dates indicated:

(In thousands)	December 29, 2019	December 30, 2018
Raw materials	$ 179,155	$ 189,145
Finished goods	70,211	69,026
Provision for obsolete or aged inventory	(7,136)	(7,764)
Inventories, net	$ 242,230	$ 250,407

We carry an inventory provision which is the result of obsolete or aged inventory. The rollforward of our inventory provision is as follows for the periods indicated:

	Year Ended		
(In thousands)	December 29, 2019	December 30, 2018	December 31, 2017
Balance at beginning of period	$ 7,764	$ 7,769	$ 5,747
Additions charged to expense	4,159	3,146	3,283
Deductions	(4,787)	(3,151)	(1,261)
Balance at end of period	$ 7,136	$ 7,764	$ 7,769

5. Property, Plant and Equipment

The carrying amounts of our property, plant and equipment and accumulated depreciation were as follows as of the dates indicated:

(In thousands)	December 29, 2019	December 30, 2018
Land	$ 29,706	$ 30,653
Buildings	207,318	179,888
Machinery and equipment	741,954	724,431
Property, plant and equipment, gross	978,978	934,972
Accumulated depreciation	(353,393)	(325,219)
Property, plant and equipment, net	$ 625,585	$ 609,753

Total depreciation expense was $70.7 million, $59.1 million, and $57.5 million for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively. Depreciation expense is included primarily within cost of goods sold in the consolidated statements of comprehensive income.

6. Leases

Lease Accounting Policy

Our updated policy for lease accounting, which we adopted for leases entered into beginning December 31, 2018, is as follows:

We determine if a contract is a lease at inception or upon acquisition and reevaluate each time a lease contract is amended or otherwise modified. A lease will be classified as an operating lease if it does not meet any of the criteria for a finance lease. Those criteria include the transfer of ownership of the underlying asset by the end of the lease term; an option to purchase the underlying asset that we would be reasonably certain to exercise; the lease term is for the major part of the remaining economic life of the underlying asset; the present value of the sum of the lease payments and any residual value guaranteed by us that is not already reflected in the lease payments equals or exceeds substantially all of the fair value of the underlying asset or if the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term.

The assets and liabilities relating to operating leases are included in operating lease right-of-use assets, accrued expenses, and long-term operating lease liabilities in our consolidated balance sheets. The assets and liabilities relating to finance leases are included in property, plant and equipment, net and other liabilities in our consolidated balance sheets.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the respective lease commencement date based on the present value of lease payments over the expected lease term. Since our leases do not specify implicit discount rates, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The operating lease ROU asset also includes any initial direct costs and is adjusted for lease incentives and prepaid or accrued rent. The lease term begins on the date when the lessor makes the underlying asset available for use to us, and our expected lease terms include options to extend the lease when it is reasonably certain that we will exercise those options. Lease payments are recognized in the consolidated statements of comprehensive income on a straight-line basis over the expected lease term.

Leases with an initial term of 12 months or less are not recorded on the balance sheet, with the related lease expense recognized on a straight-line basis over the lease term. Lease and non-lease components of a contract are combined into a single lease component for accounting purposes.

Our operating leases include leases for real estate (including manufacturing sites, warehouses and offices) and machinery and equipment and our finance leases include leases for real estate. We have no material subleases. Certain of our operating leases contain provisions for renewal ranging from one to four options of one to ten years each.

The following table summarizes the components of lease expense recorded in the consolidated statements of comprehensive income for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Operating lease expense	$ 39,025	$ 32,306	$ 28,844
Finance lease expense			
Amortization of leased assets	649	—	—
Interest on lease liabilities	1,063	—	—
Total lease expense	$ 40,737	$ 32,306	$ 28,844

The following table includes a detail of lease assets and liabilities included in the consolidated balance sheet as of the period indicated:

(In thousands)	**December 29, 2019**
Operating lease right-of-use assets	$ 121,367
Finance lease right-of-use assets [(1)]	25,677
Total lease assets, net	$ 147,044
Current portion of operating lease liabilities	20,980
Long-term operating lease liabilities	110,497
Long-term finance lease liabilities	$ 26,861
Total lease liabilities	$ 158,338

(1) Net of accumulated amortization of $0.6 million.

The following table is a summary of the weighted-average remaining lease terms and weighted-average discount rates of the Company's leases as of the period indicated:

	December 29, 2019
Weighted-average remaining lease term (years)	
Operating leases	11.4
Finance leases	29.7
Weighted-average discount rate [(1)]	
Operating leases	4.6%
Finance leases	5.4%

(1) Based on the Company's incremental borrowing rate at lease commencement.

As of December 29, 2019, the future minimum lease payments under non-cancelable leases are as follows:

(In thousands)		
Fiscal year:	Operating Leases	Finance Leases
2020	$ 27,197	$ 1,393
2021	20,058	1,326
2022	17,276	1,365
2023	14,212	1,287
2024	13,515	1,445
Thereafter	87,088	52,981
Total minimum lease payments	179,346	59,797
Less imputed interest	(47,869)	(32,936)
Present value of future lease payments	$ 131,477	$ 26,861

As of December 29, 2019, we have additional undiscounted commitments for operating leases, primarily for administrative offices, that have not yet commenced of $18.8 million. These operating leases will commence during fiscal year 2020 with lease terms of 5 to 10 years.

7. Goodwill and Intangible Assets

Changes in the carrying amount of goodwill were as follows as of the dates indicated:

(In thousands)	North American Residential	Europe	Architectural	Total
December 31, 2017	$ 2,867	$ 35,431	$ 100,151	$ 138,449
Goodwill from 2018 acquisitions	3,349	33,623	10,996	47,968
Foreign exchange fluctuations	(27)	(5,834)	(259)	(6,120)
December 30, 2018	6,189	63,220	110,888	180,297
Goodwill from 2019 acquisitions	—	1,083	—	1,083
Measurement period adjustment	390	171	—	561
Foreign exchange fluctuations	11	2,128	112	2,251
December 29, 2019	$ 6,590	$ 66,602	$ 111,000	$ 184,192

During the year ended December 29, 2019, we finalized the purchase price allocation for the BWI and Top Doors acquisitions, which resulted in increases of 0.4 million and 0.2 million, respectively, in goodwill due to final working capital adjustments. We performed a quantitative impairment test of each of our reporting units during the fourth quarter of 2019 and determined that goodwill was not impaired.

The cost and accumulated amortization values of our intangible assets were as follows as of the dates indicated:

	December 29, 2019			December 30, 2018		
(In thousands)	**Cost**	**Accumulated Amortization**	**Net Book Value**	**Cost**	**Accumulated Amortization**	**Net Book Value**
Definite life intangible assets:						
Customer relationships	$ 173,856	$ (101,055)	$ 72,801	$ 173,637	$ (81,220)	$ 92,417
Patents	31,176	(23,784)	7,392	31,363	(21,840)	9,523
Software	33,928	(32,529)	1,399	32,660	(29,296)	3,364
Trademarks and tradenames	33,350	(7,324)	26,026	33,784	(3,948)	29,836
Other	962	(527)	435	971	(97)	874
Total definite life intangible assets	273,272	(165,219)	108,053	272,415	(136,401)	136,014
Indefinite life intangible assets:						
Trademarks and tradenames	76,479	—	76,479	76,031	—	76,031
Total intangible assets	$ 349,751	$ (165,219)	$ 184,532	$ 348,446	$ (136,401)	$ 212,045

During the year ended December 30, 2018, we reassessed certain tradenames that were previously classified as indefinite-lived, and as a result of this assessment, we reclassified $20.7 million of tradenames into definite-lived and began to amortize them consistent with their expected useful lives. Amortization of intangible assets was $28.2 million, $27.7 million and $24.2 million for the years ended December 29, 2019, December 30, 2018, and December 31, 2017 respectively. Amortization expense is classified within selling, general and administration expenses in the consolidated statements of comprehensive income.

The estimated future amortization of intangible assets with definite lives as of December 29, 2019, is as follows:

(In thousands)	
Fiscal year:	
2020	$ 22,305
2021	18,723
2022	15,296
2023	13,829
2024	12,290

8. Accrued Expenses

The details of our accrued expenses were as follows as of the dates indicated:

(In thousands)	December 29, 2019	December 30, 2018
Accrued payroll	$ 60,876	$ 39,823
Accrued rebates	33,556	36,711
Current portion of operating lease liabilities	20,980	—
Accrued interest	16,913	14,570
Other accruals	48,080	56,241
Total accrued expenses	$ 180,405	$ 147,345

9. Long-Term Debt

(In thousands)	December 29, 2019	December 30, 2018
5.375% senior unsecured notes due 2028	$ 500,000	$ —
5.750% senior unsecured notes due 2026	300,000	300,000
5.625% senior unsecured notes due 2023	—	500,000
Unamortized premium on 2023 Notes	—	3,684
Debt issuance costs	(9,985)	(8,394)
Other long-term debt	969	1,108
Total long-term debt	$ 790,984	$ 796,398

Interest expense related to our consolidated indebtedness under senior unsecured notes was $46.1 million, $38.7 million and $29.7 million for years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively. Debt issuance costs incurred in connection with the 2028 Notes and the 2026 Notes were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over their respective terms. Additionally, we pay interest on any outstanding principal under our ABL Facility and we are required to pay a commitment fee for unutilized commitments under the ABL Facility, both of which are recorded in interest expense as incurred.

5.375% Senior Notes due 2028

On July 25, 2019, we issued $500.0 million aggregate principal senior unsecured notes (the "2028 Notes"). The 2028 Notes were issued in a private placement for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act, and to buyers outside of the United States pursuant to Regulation S under the Securities Act. The 2028 Notes were issued without registration rights and are not listed on any securities exchange. The 2028 Notes bear interest at 5.375% per annum, payable in cash semiannually in arrears on February 1 and August 1 of each year and are due February 1, 2028. The 2028 notes were issued at par. We received net proceeds of $493.3 million after deducting $6.7 million of debt issuance costs. The debt issuance costs were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over the term of the 2028 Notes using the effective interest method. The net proceeds from issuance of the 2028 Notes, together with available cash balances, were used to redeem the remaining $500.0 million aggregate principal amount of the 2023 Notes (as described below), including the payment of related premiums, fees and expenses.

Subsequent to the closing of the 2028 Notes offering, the 2023 Notes were redeemed, and the notes were considered extinguished as of August 10, 2019. Under the terms of the indenture governing the 2023 Notes, we paid the applicable premium of $14.1 million. Additionally, the unamortized premium of $3.1 million and unamortized debt issuance costs of $3.5 million relating to the 2023 Notes were written off in conjunction with the extinguishment of the 2023 Notes. The resulting loss on extinguishment of debt was $14.5 million and is recorded as part of income before

income tax expense (benefit) in the condensed consolidated statements of comprehensive income. Additionally, the cash payment of interest accrued to, but not including, the redemption date was accelerated to the redemption date.

Obligations under the 2028 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis, by certain of our directly or indirectly wholly-owned subsidiaries. We may redeem the 2028 Notes, in whole or in part, at any time on or after February 1, 2023, at the applicable redemption prices specified under the indenture governing the 2028 Notes, plus accrued and unpaid interest, if any, to the date of redemption. If we experience certain changes of control or consummate certain asset sales and do not reinvest the net proceeds, we must offer to repurchase all of the 2028 Notes at a purchase price of 101.00% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date.

The indenture governing the 2028 Notes contains restrictive covenants that, among other things, limit our ability and the ability of our subsidiaries to: (i) incur additional debt and issue disqualified or preferred stock, (ii) make restricted payments, (iii) sell assets, (iv) create or permit restrictions on the ability of our restricted subsidiaries to pay dividends or make other distributions to the parent company, (v) create or incur certain liens, (vi) enter into sale and leaseback transactions, (vii) merge or consolidate with other entities and (viii) enter into transactions with affiliates. The foregoing limitations are subject to exceptions as set forth in the indenture governing the 2028 Notes. In addition, if in the future the 2028 Notes have an investment grade rating from at least two nationally recognized statistical rating organizations, certain of these covenants will be terminated. The indenture governing the 2028 Notes contains customary events of default (subject in certain cases to customary grace and cure periods). As of December 29, 2019, we were in compliance with all covenants under the indenture governing the 2028 Notes.

5.750% Senior Notes due 2026

On August 27, 2018, we issued $300.0 million aggregate principal senior unsecured notes (the “2026 Notes”). The 2026 Notes were issued in a private placement for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act, and to buyers outside of the United States pursuant to Regulation S under the Securities Act. The 2026 Notes were issued without registration rights and are not listed on any securities exchange. The 2026 Notes bear interest at 5.75% per annum, payable in cash semiannually in arrears on March 15 and September 15 of each year and are due September 15, 2026. The 2026 notes were issued at par. We received net proceeds of $295.7 million after deducting $4.3 million of debt issuance costs. The debt issuance costs were capitalized as a reduction to the carrying value of debt and are being accreted to interest expense over the term of the 2026 Notes using the effective interest method. The net proceeds from issuance of the 2026 Notes were used to redeem $125.0 million aggregate principal amount of the 2023 Notes (as described below), including the payment of related premiums, fees and expenses, with the balance of the proceeds available for general corporate purposes.

Subsequent to the closing of the 2026 Notes offering, the 2023 Notes were partially redeemed, with that portion of the notes considered extinguished as of September 12, 2018. Under the terms of the indenture governing the 2023 Notes, we paid the applicable premium of $5.3 million. Additionally, the proportionate shares of the unamortized premium of $1.0 million and unamortized debt issuance costs of $1.1 million relating to the 2023 Notes were written off in conjunction with the partial extinguishment of the 2023 Notes. The resulting loss on extinguishment of debt was $5.4 million and is recorded as part of income (loss) from continuing operations before income tax expense (benefit) in the consolidated statements of comprehensive income. Additionally, the cash payment of interest accrued to, but not including, the redemption date was accelerated to the redemption date.

Obligations under the 2026 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis, by certain of our directly or indirectly wholly-owned subsidiaries. We may redeem the 2026 Notes, in whole or in part, at any time on or after September 15, 2021, at the applicable redemption prices specified under the indenture governing the 2026 Notes, plus accrued and unpaid interest, if any, to the date of redemption. If we experience certain changes of control or consummate certain asset sales and do not reinvest the net proceeds, we must offer to repurchase all of the 2026 Notes at a purchase price of 101.00% of their principal amount, plus accrued and unpaid interest, if any, to the repurchase date.

The indenture governing the 2026 Notes contains restrictive covenants that, among other things, limit our ability and the ability of our subsidiaries to: (i) incur additional debt and issue disqualified or preferred stock, (ii) make restricted payments, (iii) sell assets, (iv) create or permit restrictions on the ability of our restricted subsidiaries to pay

dividends or make other distributions to the parent company, (v) create or incur certain liens, (vi) enter into sale and leaseback transactions, (vii) merge or consolidate with other entities and (viii) enter into transactions with affiliates. The foregoing limitations are subject to exceptions as set forth in the indenture governing the 2026 Notes. In addition, if in the future the 2026 Notes have an investment grade rating from at least two nationally recognized statistical rating organizations, certain of these covenants will be terminated. The indenture governing the 2026 Notes contains customary events of default (subject in certain cases to customary grace and cure periods). As of December 29, 2019, we were in compliance with all covenants under the indenture governing the 2026 Notes.

5.625% Senior Notes due 2023

On September 27, 2017, and March 23, 2015, we issued $150.0 million and $475.0 million aggregate principal senior unsecured notes, respectively (the “2023 Notes”). The 2023 Notes were issued in two private placements for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act, and to buyers outside the United States pursuant to Regulation S under the Securities Act. The 2023 Notes were issued without registration rights and are not listed on any securities exchange. The 2023 Notes bore interest at 5.625% per annum, payable in cash semiannually in arrears on March 15 and September 15 of each year and were due March 15, 2023. The 2023 Notes were issued at 104.0% and par in 2017 and 2015, respectively, and the resulting premium of $6.0 million was being amortized to interest expense over the term of the 2023 Notes using the effective interest method. We received net proceeds of $153.9 million and $467.9 million, respectively, after deducting $2.1 million and $7.1 million of debt issuance costs in 2017 and 2015, respectively. The debt issuance costs were capitalized as a reduction to the carrying value of debt and were being accreted to interest expense over the term of the 2023 Notes using the effective interest method. The net proceeds from the 2017 issuance of the 2023 Notes were for general corporate purposes. The net proceeds from the 2015 issuance of the 2023 Notes, together with available cash balances, were used to redeem the $500.0 million aggregate principal of 8.25% senior unsecured notes due 2021 (the "2021 Notes") and to pay related premiums, fees and expenses. As of August 10, 2019, the 2023 Notes were fully redeemed, as described above.

ABL Facility

On January 31, 2019, we and certain of our subsidiaries amended and restated our asset-based revolving credit facility (the "ABL Facility") in order to extend the maturity date of the ABL Facility and amend certain other provisions. The amended and restated ABL Facility increased the revolving commitments to $250.0 million from $150.0 million and extended the final maturity date to date to January 31, 2024, from April 9, 2020. The borrowing base is calculated based on a percentage of the value of selected United States, Canadian and United Kingdom accounts receivable and inventory, less certain ineligible amounts. Obligations under the ABL Facility are secured by a first priority security interest in such accounts receivable, inventory and other related assets of Masonite and our subsidiaries. In addition, obligations under the ABL Facility are fully and unconditionally guaranteed, jointly and severally, on a senior secured basis, by certain of our directly or indirectly wholly-owned subsidiaries. Borrowings under the ABL Facility bear interest at a rate equal to, at our option, (i) the United States, Canadian or United Kingdom Base Rate (each as defined in the credit agreement relating to the ABL Facility, the "Amended and Restated Credit Agreement") plus a margin ranging from 0.25% to 0.75% per annum, or (ii) the Adjusted LIBO Rate or BA Rate (each as defined in the Amended and Restated Credit Agreement), plus a margin ranging from 1.25% to 1.50% per annum. In addition to paying interest on any outstanding principal under the ABL Facility, a commitment fee is payable on the undrawn portion of the ABL Facility in an amount equal to 0.25% per annum of the average daily balance of unused commitments during each calendar quarter.

The ABL Facility contains various customary representations, warranties and covenants by us that, among other things, and subject to certain exceptions, restrict Masonite's ability and the ability of our subsidiaries to: (i) pay dividends on our common shares and make other restricted payments, (ii) make investments and acquisitions, (iii) engage in transactions with our affiliates, (iv) sell assets, (v) merge and (vi) create liens. The Amended and Restated Credit Agreement amended the ABL Facility to, among other things, (i) permit us to incur unlimited unsecured debt as long as such debt does not contain covenants or default provisions that are more restrictive than those contained in the ABL Facility, (ii) permit us to incur debt as long as the pro forma secured leverage ratio is less than 4.5 to 1.0, and (iii) add certain additional exceptions and exemptions under the restricted payment, investment and indebtedness covenants (including increasing the amount of certain debt permitted to be incurred under an existing exception). As of December 29, 2019, we were in compliance with all covenants under the credit agreement governing the ABL Facility.

We had availability of $198.0 million under our ABL Facility and there were no amounts outstanding as of December 29, 2019.

10. Commitments and Contingencies

Indemnifications

We have provided customary indemnifications to our landlords under certain property lease agreements for claims by third parties in connection with their use of the premises. We also have provided routine indemnifications against adverse effects related to changes in tax laws and patent infringements by third parties. The maximum amount of these indemnifications cannot be reasonably estimated due to their nature. In some cases, we have recourse against other parties to mitigate the risk of loss from these indemnifications. Historically, we have not made any significant payments relating to such indemnifications.

Class Action Proceedings

On October 19, 2018, a purported class action complaint was filed against us and JELD-WEN, Inc. ("JELD-WEN") in the United States District Court for the Eastern District of Virginia, Richmond Division, alleging, among other things, that defendants conspired to fix prices on, and to eliminate competition with respect to, interior molded doors. The complaint asserts violations of Section 1 of the Sherman Act and seeks treble damages and costs of suit, including reasonable attorneys' fees, prejudgment and post-judgment interest, and injunctive relief. On December 11, 2018, a purported class action complaint with substantially similar allegations under various state antitrust or unfair competition laws and the Sherman Act was filed in the United States District Court for the Eastern District of Virginia, Richmond Division, by several individuals and companies purporting to represent classes of certain indirect purchasers of interior molded doors. The complaint seeks damages (including statutory minimum, multiple, or exemplary damages, where available), reasonable attorneys' fees, prejudgment and post-judgment interest, and injunctive relief. Several other complaints with substantially similar allegations were subsequently filed in the same court by additional plaintiffs who also sought to represent purported classes of direct or indirect purchasers seeking similar damages and relief. These multiple complaints have been consolidated into two proceedings-one for direct purchasers and another for indirect purchasers-both before the same judge in the United States District Court for the Eastern District of Virginia, Richmond Division. On January 17, 2019 we filed a motion to transfer the proceedings from the Eastern District of Virginia to either the Middle District of Florida or Delaware and that motion was denied.

On March 1, 2019, we filed a motion to dismiss all of the claims in both of these complaints. On September 18, 2019, the Court ruled on Defendants' motion to dismiss the consolidated purported class action direct purchaser and indirect purchaser complaints filed against us and JELD-WEN. The Court: (i) denied Defendants' motion to dismiss the direct purchasers' Sherman Act claims, (ii) granted Defendants' motion to dismiss the direct purchasers' fraudulent concealment claims (limiting the claims they may assert to those within four years of the filing of their complaint), and (iii) granted in part and denied in part Defendants' motion to dismiss the state law claims filed by the indirect purchasers, dismissing 66 of 91 state law claims. On October 31, 2019, the Court granted the indirect purchaser's motion to amend their complaint in order to correct certain deficiencies identified by the Court in its order on the motion to dismiss various state law claims. On November 25, 2019 the indirect purchasers filed an amended complaint that sought to reinstate 15 claims from plaintiffs residing in 8 states. Defendants moved to partially dismiss those reinstated claims on December 16, 2019. That motion remains pending before the Court. Fact discovery closed on January 31, 2020 and expert discovery is expected to close in April 2020. Briefing on class certification discovery is expected to be completed by April 10, 2020. Briefing on dispositive motions discovery is expected to be completed by July 9, 2020. The Court has set a trial date of October 13, 2020.

We have not recognized an expense related to damages in connection with this matter because the likelihood of an adverse outcome and the amount or range of any potential loss cannot be reasonably estimated.

In addition, from time to time, we are involved in various claims and legal actions. In the opinion of management, the ultimate disposition of these matters, individually and in the aggregate, will not have a material adverse effect on our financial condition, results of operations or cash flows.

11. Revenues

We derive our revenues primarily from the manufacture and delivery of doors and door components as performance obligations that arise from our contracts with customers are satisfied. Materially all of our revenues are generated from contracts with customers and the nature, timing and any uncertainty in the recognition of revenues are not affected by the type of good, customer or geographical region to which the performance obligation relates. Our contracts with our customers are generally in the form of purchase orders and the performance obligation arises upon receipt of the purchase order and agreement upon the transaction price. The performance obligations are satisfied at a point in time when control of the promised goods is transferred to the customer and payment terms vary from customer to customer. Payment terms are short-term, are customary for our industry and in some cases, early payment incentives are offered.

The transaction price recognized as revenue and accounts receivable is determined based upon a number of estimates, including:

- Incentive-based volume rebates, which are based on individual rebate agreements with our customers, as well as historical and expected performance of each individual customer,
- Estimated sales returns, which are based on historical returns as a percentage of revenues, and
- Adjustments for early payment discounts offered by us.

Contract assets are represented by our trade accounts receivable balances on the consolidated balance sheets, and are described in Note 3. Accounts Receivable. There were no other material contract assets or liabilities as of December 29, 2019 or December 30, 2018. Our warranties are assurance-type warranties and do not represent separate performance obligations to our customers. There were no material impairment losses related to contract assets during the years ended December 29, 2019, December 30, 2018, or December 31, 2017.

12. Share Based Compensation Plans

Share-based compensation expense was $10.0 million, $7.7 million and $11.6 million for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively. As of December 29, 2019, the total remaining unrecognized compensation expense related to share based compensation amounted to $13.9 million, which will be amortized over the weighted average remaining requisite service period of 1.5 years. Share based compensation expense is recognized using a graded-method approach, or to a lesser extent a straight-line approach, depending on the terms of the individual award, and is classified within selling, general and administration expenses in the consolidated statements of comprehensive income. All forfeitures are accounted for as they occur. All share based awards are settled through issuance of new shares of our common stock. The share based award agreements contain restrictions on sale or transfer other than in limited circumstances. All other transfers would cause the share based awards to become null and void.

Equity Incentive Plan

Prior to July 9, 2012, we had a management equity incentive plan (the "2009 Plan"). The 2009 Plan required granting by June 9, 2012, equity instruments which upon exercise would result in management (excluding directors) owning 9.55% of our common equity (3,554,811 shares) on a fully diluted basis, after giving consideration to the potential exercise of warrants and the equity instruments granted to directors. Under the 2009 Plan, we were required to issue equity instruments to directors that represented 0.90% (335,004 shares) of the common equity on a fully diluted basis. The requirement for issuance to employees was satisfied in June 2012, and the requirement for issuance to directors was satisfied in July 2009. No awards have been granted under the 2009 Plan since May 30, 2012, and no future awards will be granted under the 2009 Plan; however, all outstanding awards under the 2009 Plan will continue to be governed by their existing terms. Aside from shares issuable for outstanding awards, there are no further shares of common stock available for future issuance under the 2009 Plan.

On July 12, 2012, the Board of Directors adopted the Masonite International Corporation 2012 Equity Incentive Plan, which was amended on June 21, 2013, by our Board of Directors, further amended and restated by our Board of Directors on February 23, 2015, and approved by our shareholders on May 12, 2015 (as amended and restated, the "2012 Plan"). The 2012 Plan was adopted because the Board of Directors believes awards granted will help to attract, motivate

and retain employees and non-employee directors, align employee and stockholder interests and encourage a performance-based culture built on employee stock ownership. The 2012 Plan permits us to offer eligible directors, employees and consultants cash and share-based incentives, including stock options, stock appreciation rights, restricted stock, other share-based awards (including restricted stock units) and cash-based awards. The 2012 Plan is effective for ten years from the date of its adoption. Awards granted under the 2012 Plan are at the discretion of the Human Resources and Compensation Committee of the Board of Directors. The Human Resources and Compensation Committee may grant any award under the 2012 Plan in the form of a performance award. The 2012 Plan may be amended, suspended or terminated by the Board at any time; provided, that any amendment, suspension or termination which impairs the rights of a participant is subject to such participant's consent and; provided further, that certain material amendments are subject to shareholder approval. The aggregate number of common shares that can be issued with respect to equity awards under the 2012 Plan cannot exceed 2,000,000 shares plus the number of shares subject to existing grants under the 2009 plan that may expire or be forfeited or cancelled. As of December 29, 2019, there were 759,053 shares of common stock available for future issuance under the 2012 Plan.

Deferred Compensation Plan

We offer to certain of our employees and directors a Deferred Compensation Plan ("DCP"). The DCP is an unfunded non-qualified deferred compensation plan that permits those certain employees and directors to defer a portion of their compensation to a future time. Eligible employees may elect to defer a portion of their base salary, bonus and/or restricted stock units and eligible directors may defer a portion of their director fees or restricted stock units. All contributions to the DCP on behalf of the participant are fully vested (other than restricted stock unit deferrals which remain subject to the vesting terms of the applicable equity incentive plan) and placed into a grantor trust, commonly referred to as a "rabbi trust." Although we are permitted to make matching contributions under the terms of the DCP, we have not elected to do so. The DCP invests the contributions in diversified securities from a selection of investments and the participants choose their investments and may periodically reallocate the assets in their respective accounts. Participants are entitled to receive the benefits in their accounts upon separation of service or upon a specified date, with benefits payable as a single lump sum or in annual installments. All plan investments are categorized as having Level 1 valuation inputs as established by the FASB’s Fair Value Framework.

Assets of the rabbi trust, other than Company stock, are recorded at fair value and included in other assets in the consolidated balance sheets. These assets in the rabbi trust are classified as trading securities and changes in their fair values are recorded in other expense (income), net in the consolidated statements of comprehensive income. The liability relating to deferred compensation represents our obligation to distribute funds to the participants in the future and is included in other liabilities in the consolidated balance sheets. As of December 29, 2019, the liability and asset relating to deferred compensation had a fair value of $6.8 million and $7.0 million, respectively. As of December 30, 2018, the liability and asset relating to deferred compensation had a fair value of $6.0 million and $6.2 million, respectively. Any gain or loss relating to changes in the fair value of the deferred compensation liability is recognized in selling, general and administration expense in the consolidated statements of comprehensive income.

As of December 29, 2019, participation in the deferred compensation plan is limited and no restricted stock awards have been deferred into the deferred compensation plan.

Stock Appreciation Rights

We have granted Stock Appreciation Rights ("SARs") to certain employees under both the 2009 Plan and the 2012 Plan, which entitle the recipient to the appreciation in value of a number of common shares over the exercise price over a period of time, each as specified in the applicable award agreement. The exercise price of any SAR granted may not be less than the fair market value of our common shares on the date of grant. The compensation expense for the SARs is measured based on the fair value of the SARs at the date of grant and is recognized over the requisite service period. The SARs vest over a maximum of four years, have a life of ten years and settle in common shares. It is assumed that all time-based SARs will vest.

The total fair value of SARs vested was $1.1 million, $0.7 million and $0.4 million, in the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively.

Twelve months ended December 29, 2019	Stock Appreciation Rights	Aggregate Intrinsic Value (in thousands)	Weighted Average Exercise Price	Average Remaining Contractual Life (Years)
Outstanding, beginning of period	514,313	$ 7,254	$ 39.01	4.6
Granted	111,230		57.29	
Exercised	(212,767)	9,379	19.68	
Forfeited	(8,329)		67.24	
Outstanding, end of period	404,447	$ 7,615	$ 53.62	4.7
Exercisable, end of period	230,440	$ 5,675	$ 47.92	2.5

Twelve months ended December 30, 2018	Stock Appreciation Rights	Aggregate Intrinsic Value (in thousands)	Weighted Average Exercise Price	Average Remaining Contractual Life (Years)
Outstanding, beginning of period	537,930	$ 23,263	$ 32.00	4.5
Granted	69,752		65.00	
Exercised	(93,369)	4,731	18.03	
Outstanding, end of period	514,313	$ 7,254	$ 39.01	4.6
Exercisable, end of period	391,428	$ 7,254	$ 30.20	3.4

Twelve months ended December 31, 2017	Stock Appreciation Rights	Aggregate Intrinsic Value (in thousands)	Weighted Average Exercise Price	Average Remaining Contractual Life (Years)
Outstanding, beginning of period	790,290	$ 32,659	$ 24.47	4.6
Granted	59,265		77.00	
Exercised	(281,444)	16,378	17.96	
Forfeited	(30,181)		54.28	
Outstanding, end of period	537,930	$ 23,263	$ 32.00	4.5
Exercisable, end of period	443,998	$ 22,588	$ 24.28	3.7

The value of SARs granted in the year ended December 29, 2019, as determined using the Black-Scholes-Merton valuation model, was $1.4 million and is expected to be recognized over the average requisite service period of 2.0 years. Expected volatility is based upon the historical volatility of our public industry peers' common shares amongst other considerations. The expected term is calculated using the simplified method, due to insufficient exercise activity during recent years as a basis from which to estimate future exercise patterns. The weighted average grant date assumptions used for the SARs granted were as follows for the periods indicated:

	2019 Grants	2018 Grants	2017 Grants
SAR value (model conclusion)	$ 12.26	$ 18.63	$ 22.65
Risk-free rate	2.2%	2.7%	2.0%
Expected dividend yield	0.0%	0.0%	0.0%
Expected volatility	21.9%	22.8%	25.8%
Expected term (years)	6.0	6.0	6.0

Restricted Stock Units

We have granted Restricted Stock Units ("RSUs") to directors and certain employees under the 2012 Plan. The RSUs confer the right to receive shares of our common stock at a specified future date or when certain conditions are met. The compensation expense for the RSUs awarded is based on the fair value of the RSUs at the date of grant and is recognized over the requisite service period. The RSUs vest over a maximum of three years and call for the underlying shares to be delivered no later than 30 days following the vesting date unless the participant is subject to a blackout period. In such case, the shares are to be delivered once the blackout restriction has been lifted. It is assumed that all time-based RSUs will vest.

	Year Ended					
	December 29, 2019		December 30, 2018		December 31, 2017	
	Total Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value	Total Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value	Total Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value
Outstanding, beginning of period	429,027	$ 66.03	417,598	$ 66.14	501,926	$ 58.51
Granted	303,740	56.31	227,487	63.55	163,835	78.29
Performance adjustment (1)	(21,953)	57.51	25,046	63.49	78,212	54.73
Delivered	(120,982)		(169,830)		(197,255)	
Withheld to cover (2)	(20,024)		(45,117)		(58,739)	
Forfeited	(46,601)		(26,157)		(70,381)	
Outstanding, end of period	523,207	$ 59.58	429,027	$ 66.03	417,598	$ 66.14

(1) Performance-based RSUs are presented as outstanding, granted and forfeited in the table above assuming targets are met and the awards pay out at 100%. These awards are settled with payouts ranging from zero to 200% of the target award value depending on achievement. The performance adjustment represents the difference in shares ultimately awarded due to performance attainment above or below target.

(2) A portion of the vested RSUs delivered were net share settled to cover statutory requirements for income and other employment taxes. We remit the equivalent cash to the appropriate taxing authorities. These net share settlements had the effect of share repurchases by us as we reduced and retired the number of shares that would have otherwise been issued as a result of the vesting.

Approximately four-fifths of the RSUs granted during the year ended December 29, 2019, vest at specified future dates with only service requirements, while the remaining portion of the RSUs vest based on both performance and service requirements. The value of RSUs granted in the year ended December 29, 2019, was $17.1 million and is being recognized over the weighted average requisite service period of 2.3 years. During the year ended December 29, 2019, there were 141,502 RSUs vested at a fair value of $8.8 million.

13. Restructuring Costs

Over the past several years, we have engaged in a series of restructuring programs related to exiting certain geographies and non-core businesses, consolidating certain internal support functions and engaging in other actions designed to reduce our cost structure and improve productivity. These initiatives primarily consist of severance actions and lease termination costs. Management continues to evaluate our business; therefore, in future years, there may be additional provisions for new plan initiatives, as well as changes in previously recorded estimates, as payments are made or actions are completed. Asset impairment charges were also incurred in connection with these restructuring actions for certain assets sold, abandoned or made obsolete as a result of these programs.

Restructuring costs include all salary-related severance benefits that are accrued and expensed when a restructuring plan has been put into place, the plan has received approval from the appropriate level of management and the benefit is probable and reasonably estimable. In addition to salary-related costs, we incur other restructuring costs when facilities are closed or capacity is realigned within the organization. Upon termination of a contract we record

liabilities and expenses pursuant to the terms of the relevant agreement. For non-contractual restructuring activities, liabilities and expenses are measured and recorded at fair value in the period in which they are incurred.

In February 2019, we began implementing a plan to improve overall business performance that includes the reorganization of our manufacturing capacity and a reduction of our overhead and selling, general and administration workforce across all of our reportable segments and in our head offices. The reorganization of our manufacturing capacity involves specific plants in the North American Residential and Architectural segments and costs associated with the closure of these plants and related headcount reductions began taking place in the first quarter of 2019 (collectively, the "2019 Plan"). Costs associated with the 2019 Plan include severance, retention and closure charges and will continue through 2020. Additionally, the plan to divest non-core assets was determined to be a triggering event requiring a test of the carrying value of the definite-lived assets relating to the divestitures, as further described in Note 14. In the fourth quarter of 2019, we initiated additional restructuring actions related to both manufacturing capacity and reduction of our overhead and selling, general and administration workforce and estimate that such actions will incur an additional $5 million to $6 million. As of December 29, 2019, we expect to incur approximately $6 million to $8 million of additional charges related to the 2019 Plan.

During the fourth quarter of 2018, we began implementing a plan to reorganize and consolidate certain aspects of our United Kingdom head office function and optimize our portfolio by divesting non-core assets to enable more effective and consistent business processes in the Europe segment. In addition, in the North American Residential segment we announced a new facility that will optimize and expand capacity through increased automation, which resulted in the closure of one existing facility and related headcount reductions beginning in the second quarter of 2019 (collectively, the “2018 Plan”). Costs associated with the 2018 Plan included severance, retention and closure charges and continued throughout 2019. Additionally, the plan to divest non-core assets was determined to be a triggering event requiring a test of the carrying value of the definite-lived assets relating to the divestitures, as further described in Note 14. As of December 29, 2019, we do not expect to incur any material future charges related to the 2018 Plan.

Other plans initiated in prior years did not have a material impact on the consolidated statements of comprehensive income or consolidated statements of cash flows for the years ended December 29, 2019, December 30, 2018, or December 31, 2017, or on the consolidated balance sheets as of December 29, 2019, or December 30, 2018.

The following table summarizes the restructuring charges recorded for the periods indicated:

	Year Ended December 29, 2019				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
2019 Plan	$ 5,459	$ 396	506	1,019	$ 7,380
2018 Plan	$ 1,470	$ 926	—	—	$ 2,396
Total Restructuring Costs	$ 6,929	$ 1,322	$ 506	$ 1,019	$ 9,776

	Year Ended December 30, 2018		
(In thousands)	**North American Residential**	**Europe**	**Total**
2018 Plan	$ 275	1,349	$ 1,624
Total Restructuring Costs	$ 275	$ 1,349	$ 1,624

	Cumulative Amount Incurred Through December 29, 2019				
(In thousands)	North American Residential	Europe	Architectural	Corporate & Other	Total
2019 Plan	$ 5,459	$ 396	$ 506	$ 1,019	$ 7,380
2018 Plan	$ 1,745	$ 2,275	$ —	$ —	$ 4,020
Total Restructuring Costs	$ 7,204	$ 2,671	$ 506	$ 1,019	$ 11,400

The changes in the accrual for restructuring by activity were as follows for the periods indicated:

(In thousands)	December 30, 2018	Severance	Closure Costs	Cash Payments	December 29, 2019
2019 Plan	$ —	$ 5,100	$ 2,280	$ (5,845)	$ 1,535
2018 Plan	596	1,995	401	(2,992)	—
Other	58	—	—	(58)	—
Total	$ 654	$ 7,095	$ 2,681	$ (8,895)	$ 1,535

(In thousands)	December 31, 2017	Severance	Closure Costs	Cash Payments	December 30, 2018
2018 Plan	$ —	$ 859	$ 765	$ (1,028)	$ 596
Other	284	—	—	(226)	58
Total	$ 284	$ 859	$ 765	$ (1,254)	$ 654

14. Asset Impairment

Asset impairment includes charges that are taken when impairment testing indicates that the carrying values of our long-lived assets or asset groups exceed their respective fair values. Definite-lived assets are evaluated for impairment when events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. Indefinite-lived intangible assets and goodwill are tested annually for impairment on the last day of fiscal November, or more frequently if events or changes in circumstances indicate the carrying value may not be recoverable. An impairment loss is recognized when the carrying value of the asset or asset group being tested exceeds its fair value, except in the case of goodwill, which is tested based on the fair value of the reporting unit where the goodwill is recorded.

During the year ended December 29, 2019, we recognized asset impairment charges of $13.8 million related to two asset groups in the North American Residential segment, as a result of announced plant closures under the 2019 Plan. This amount was determined based upon the excess of the asset groups' carrying values of property, plant and equipment and operating lease right-of-use assets over the respective fair values of such assets, determined using a discounted cash flows approach for each asset group. Each of these valuations was performed on a non-recurring basis and is categorized as having Level 3 valuation inputs as established by the FASB's Fair Value Framework. The Level 3 unobservable inputs include an estimate of future cash flows and the salvage value for each of the asset groups. The fair value of the asset groups was determined to be $9.4 million, compared to a book value of $23.2 million, with the difference representing the asset impairment charge recorded in the condensed consolidated statements of comprehensive income.

During the year ended December 30, 2018, we recognized asset impairment charges of $5.2 million related to one asset group in the Europe segment, as a result of the 2018 Plan. This amount was determined based upon the excess of the asset group's carrying value of property, plant and equipment and definite-lived intangible assets over the fair value of such assets, determined using a discounted cash flows approach. This valuation was performed on a non-recurring basis and is categorized as having Level 3 valuation inputs as established by the FASB's Fair Value

Framework. The Level 3 unobservable inputs include an estimate of future cash flows for the asset group and a market value for the asset group's property, plant and equipment. The fair value of the asset group was determined to be $3.2 million, solely based upon the market value of the property, plant and equipment, compared to a book value of $8.4 million, with the difference representing the asset impairment charge recorded in the consolidated statements of comprehensive income. These assets were disposed of in 2019.

15. Income Taxes

For financial reporting purposes, income before income taxes includes the following components:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Income before income tax expense (benefit):			
Canada	$ 21,345	$ 19,552	$ 25,617
Foreign	45,003	100,805	103,804
Total income before income tax expense (benefit)	$ 66,348	$ 120,357	$ 129,421

Income tax expense (benefit) for income taxes consists of the following:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Current income tax expense (benefit):			
Canada	$ 7,600	$ 7,997	$ 7,293
Foreign	6,417	5,253	(623)
Total current income tax expense:	14,017	13,250	6,670
Deferred income tax expense (benefit):			
Canada	1,497	122	(22,287)
Foreign	1,795	10,441	(11,943)
Total deferred income tax expense (benefit):	3,292	10,563	(34,230)
Income tax expense (benefit)	$ 17,309	$ 23,813	$ (27,560)

The Canadian statutory rate is 26.7%, 26.5% and 26.5% for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively. A summary of the differences between expected income tax expense calculated at the Canadian statutory rate and the reported consolidated income tax expense (benefit) follows:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Income tax expense computed at statutory income tax rate	$ 17,702	$ 31,895	$ 34,477
Foreign rate differential	(4,503)	(4,926)	2,772
Permanent differences	1,195	(1,822)	1,527
Disposal of subsidiaries	2,751	(21)	(160)
Income attributable to a permanent establishment	148	1,873	347
Change in valuation allowance	(1,463)	3,878	(27,603)
Tax exempt income	(2,451)	(5,673)	(6,469)
Share based compensation	(341)	(737)	(7,583)
Income tax credits	(1,869)	(3,252)	(1,833)
Foreign exchange gains (losses)	(991)	(2,683)	770
Unrecognized tax benefits	(848)	646	(116)
Change in tax rate	267	(284)	1,209
Change in tax rate due to U.S. reform	—	—	(27,138)
Limitation on executive compensation	773	2,038	—
Withholding and other taxes	2,006	3,631	1,943
Nondeductible interest	4,814	—	—
Other	119	(750)	297
Income tax expense (benefit)	$ 17,309	$ 23,813	$ (27,560)

Deferred tax assets arise from available net operating losses and deductions. Our ability to use those net operating losses is dependent upon our results of operations in the tax jurisdictions in which such losses or deductions arose. The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities are presented below:

	Year Ended	
(In thousands)	**December 29, 2019**	**December 30, 2018**
Deferred tax assets:		
Non-capital loss carryforwards	$ 23,363	$ 24,536
Capital loss carryforwards	9,740	12,674
Deferred interest expense	10,181	8,990
Pension and post-retirement liability	925	3,410
Accruals and reserves currently not deductible for tax purposes	19,222	16,683
Share based compensation	3,220	3,314
Income tax credits	6,632	5,694
Lease right-of-use assets	40,921	—
Other	2,075	2,114
Total deferred tax assets	116,279	77,415
Valuation allowance	(15,569)	(16,373)
Total deferred tax assets, net of valuation allowance	100,710	61,042
Deferred tax liabilities:		
Plant and equipment	(77,882)	(64,831)
Intangibles	(32,491)	(35,740)
Basis difference in subsidiaries	(7,771)	(7,070)
Unrealized foreign exchange gain	(328)	(5,102)
Lease liabilities	(37,930)	—
Other	(1,828)	(1,912)
Total deferred tax liabilities	(158,230)	(114,655)
Net deferred tax liability	$ (57,520)	$ (53,613)

Management assesses the available positive and negative evidence to estimate if sufficient future taxable income will be generated to use the existing deferred tax assets.

As of December 29, 2019, and December 30, 2018, a valuation allowance of $15.6 million and $16.4 million, respectively, has been established to reduce the deferred tax assets to an amount that is more likely than not to be realized. We have established valuation allowances on certain deferred tax assets resulting from net operating loss carryforwards and other assets in Costa Rica and the United Kingdom. Additionally, we have established valuation allowances on capital loss carryforwards in Canada. The amount of the deferred tax assets considered realizable, however, could be adjusted if estimates of future taxable income during the carryforward period are reduced or increased or if objective negative evidence in the form of cumulative losses is no longer present and additional weight may be given to subjective evidence such as our projections for growth.

The following is a rollforward of the valuation allowance for deferred tax assets:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Balance at beginning of period	$ 16,373	$ 13,912	$ 36,800
Additions charged to expense and other	2,863	12,590	5,566
Deductions	(3,667)	(10,129)	(28,454)
Balance at end of period	$ 15,569	$ 16,373	$ 13,912

The losses carried forward for tax purposes are available to reduce future taxable income by $89.6 million. We can apply these losses against future taxable income based on the period of expiration as follows:

(In thousands)	**Canada**	**Other Foreign**	**Total**
2020-2027	$ —	$ 5,876	$ 5,876
2028-2040	60,605	—	60,605
Indefinitely	—	23,160	23,160
Total tax losses carried forward	$ 60,605	$ 29,036	$ 89,641

We believe that it is more likely than not that the benefit from certain net operating loss carryforwards will not be realized. In recognition of this risk, we have provided valuation allowances of $1.3 million on these gross net operating loss carryforwards. If or when recognized, the tax benefit related to any reversal of the valuation allowance on deferred tax assets as of December 29, 2019, will be accounted for as a reduction of income tax expense.

We have outside basis differences, including undistributed earnings in our foreign subsidiaries. For those subsidiaries in which we are considered to be indefinitely reinvested, no provision for Canadian income or local country withholding taxes has been recorded. Upon reversal of the outside basis difference and/or repatriation of those earnings, in the form of dividends or otherwise, we may be subject to both Canadian income taxes and withholding taxes payable to the various foreign countries. For those subsidiaries where the earnings are not considered indefinitely reinvested, taxes have been provided as required. The determination of the unrecorded deferred tax liability for temporary differences related to investments in foreign subsidiaries that are considered to be indefinitely reinvested is not considered practical.

As of December 29, 2019, and December 30, 2018, our unrecognized tax benefits were $8.2 million and $9.1 million, respectively, excluding interest and penalties. Included in the balance of unrecognized tax benefits as of December 29, 2019, and December 30, 2018, are $5.8 million and $6.7 million, respectively, of tax benefits that, if recognized, would favorably impact the effective tax rate. The unrecognized tax benefits are recorded in other long-term liabilities and as a reduction to related long-term deferred income taxes in the consolidated balance sheets. The changes to our unrecognized tax benefits were as follows:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Unrecognized tax benefit at beginning of period	$ 9,084	$ 8,560	$ 9,004
Gross increases in tax positions in current period	46	508	1,208
Gross decreases in tax positions in prior period	(973)	(244)	(464)
Gross increases in tax positions in prior period	—	274	1,336
Lapse of statute of limitations	(1)	(14)	(17)
Decrease due to change in tax rate	—	—	(2,507)
Unrecognized tax benefit at end of period	$ 8,156	$ 9,084	$ 8,560

We recognize interest and penalties accrued related to unrecognized tax benefits as income tax expense. During the years ended December 29, 2019, December 30, 2018, and December 31, 2017, we recorded accrued interest of 0.3 million, $0.5 million and $0.4 million, respectively. Additionally, we have recognized a liability for penalties of $0.4 million, $0.4 million and $0.4 million, and interest of $2.9 million, $3.3 million and $3.2 million, respectively.

We estimate that the amount of unrecognized tax benefits will not significantly increase or decrease within the 12 months following the reporting date.

We are subject to taxation in Canada, the United States and other foreign jurisdictions. As of December 29, 2019, the 2015 tax year is subject to Canadian income tax examination. We are no longer subject to Federal tax examinations in the United States for years prior to 2016 (except to the extent of loss carryforwards in 2012 and prior years). However, we are subject to United States state and local income tax examinations for years prior to 2014.

16. Earnings Per Share

Basic earnings per share ("EPS") is calculated by dividing earnings attributable to Masonite by the weighted average number of our common shares outstanding during the period. Diluted EPS is calculated by dividing earnings attributable to Masonite by the weighted average number of common shares plus the incremental number of shares issuable from non-vested and vested RSUs and SARs outstanding during the period.

	Year Ended		
(In thousands, except share and per share information)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Net income attributable to Masonite	$ 44,602	$ 92,710	$ 151,739
Shares used in computing basic earnings per share	25,130,027	27,412,268	29,298,236
Effect of dilutive securities:			
Incremental shares issuable under share compensation plans	322,695	452,960	516,423
Shares used in computing diluted earnings per share	25,452,722	27,865,228	29,814,659
Basic earnings per common share attributable to Masonite	$ 1.77	$ 3.38	$ 5.18
Diluted earnings per common share attributable to Masonite	$ 1.75	$ 3.33	$ 5.09
Anti-dilutive instruments excluded from diluted earnings per common share	295,879	120,881	51,129

The weighted average number of shares outstanding utilized for the diluted EPS calculation contemplates the exercise of all currently outstanding SARs and the conversion of all RSUs. The dilutive effect of such equity awards is calculated based on the weighted average share price for each fiscal period using the treasury stock method.

17. Segment Information

Our reportable segments are organized and managed principally by end market: North American Residential, Europe and Architectural. The North American Residential reportable segment is the aggregation of the Wholesale and Retail operating segments. The Europe reportable segment is the aggregation of the United Kingdom and the Central Eastern Europe operating segments. The Architectural reportable segment consists solely of the Architectural operating segment. The Corporate & Other category includes unallocated corporate costs and the results of immaterial operating segments which were not aggregated into any reportable segment. Operating segments are aggregated into reportable segments only if they exhibit similar economic characteristics. In addition to similar economic characteristics we also consider the following factors in determining the reportable segments: the nature of business activities, the management structure directly accountable to our chief operating decision maker for operating and administrative activities, availability of discrete financial information and information presented to the Board of Directors and investors.

Our management reviews net sales and Adjusted EBITDA (as defined below) to evaluate segment performance and allocate resources. Net assets are not allocated to the reportable segments. Adjusted EBITDA is a non-GAAP financial measure which does not have a standardized meaning under GAAP and is unlikely to be comparable to similar measures used by other companies. Adjusted EBITDA should not be considered as an alternative to either net income or operating cash flows determined in accordance with GAAP. Adjusted EBITDA is defined as net income (loss) attributable to Masonite adjusted to exclude the following items:

- depreciation;
- amortization;
- share based compensation expense;
- loss (gain) on disposal of property, plant and equipment;
- registration and listing fees;
- restructuring costs;
- asset impairment;
- loss (gain) on disposal of subsidiaries;
- interest expense (income), net;
- loss on extinguishment of debt;
- other expense (income), net;
- income tax expense (benefit);
- loss (income) from discontinued operations, net of tax; and
- net income (loss) attributable to non-controlling interest.

This definition of Adjusted EBITDA differs from the definitions of EBITDA contained in the indenture governing the 2028 and 2026 Notes and the credit agreement governing the ABL Facility. Although Adjusted EBITDA is not a measure of financial condition or performance determined in accordance with GAAP, it is used to evaluate and compare the operating performance of the segments and it is one of the primary measures used to determine employee incentive compensation. Intersegment sales are recorded using market prices.

Certain information with respect to reportable segments is as follows for the periods indicated:

	Year Ended December 29, 2019				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
Sales	$ 1,469,194	$ 323,137	$ 380,300	$ 23,941	$ 2,196,572
Intersegment sales	(3,386)	(1,506)	(14,997)	—	(19,889)
Net sales to external customers	$ 1,465,808	$ 321,631	$ 365,303	$ 23,941	$ 2,176,683
Adjusted EBITDA	$ 232,512	$ 46,219	$ 40,470	$ (35,817)	$ 283,384
Depreciation and amortization	37,689	26,257	19,705	16,198	99,849
Interest expense, net	—	—	—	46,489	46,489
Income tax expense	—	—	—	17,309	17,309

	Year Ended December 30, 2018				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
Sales	$ 1,458,957	$ 371,069	$ 340,609	$ 22,869	$ 2,193,504
Intersegment sales	(4,198)	(2,066)	(17,137)	—	(23,401)
Net sales to external customers	$ 1,454,759	$ 369,003	$ 323,472	$ 22,869	$ 2,170,103
Adjusted EBITDA	$ 202,465	$ 44,985	$ 37,742	$ (17,256)	$ 267,936
Depreciation and amortization	31,425	24,638	19,667	11,942	87,672
Interest expense, net	—	—	—	39,008	39,008
Income tax expense	—	—	—	23,813	23,813

	Year Ended December 31, 2017				
(In thousands)	**North American Residential**	**Europe**	**Architectural**	**Corporate & Other**	**Total**
Sales	$ 1,433,268	$ 295,862	$ 307,237	$ 23,605	$ 2,059,972
Intersegment sales	(4,338)	(3,936)	(18,773)	—	(27,047)
Net sales to external customers	$ 1,428,930	$ 291,926	$ 288,464	$ 23,605	$ 2,032,925
Adjusted EBITDA	$ 200,179	$ 33,820	$ 30,050	$ (9,543)	$ 254,506
Depreciation and amortization	33,167	17,455	17,774	13,507	81,903
Interest expense, net	—	—	—	30,153	30,153
Income tax benefit	—	—	—	(27,560)	(27,560)

A reconciliation of our consolidated Adjusted EBITDA to net income attributable to Masonite is set forth as follows for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Net income attributable to Masonite	$ 44,602	$ 92,710	$ 151,739
Plus:			
Depreciation	70,736	59,089	57,528
Amortization	29,113	28,583	24,375
Share based compensation expense	10,023	7,681	11,644
Loss on disposal of property, plant and equipment	6,396	3,470	1,893
Restructuring costs	9,776	1,624	850
Asset impairment	13,767	5,243	—
Loss on disposal of subsidiaries	14,260	—	212
Interest expense, net	46,489	39,008	30,153
Loss on extinguishment of debt	14,523	5,414	—
Other expense (income), net	1,953	(2,533)	(1,570)
Income tax expense	17,309	23,813	(27,560)
Net income attributable to non-controlling interest	4,437	3,834	5,242
Adjusted EBITDA	$ 283,384	$ 267,936	$ 254,506

We derive revenues from two major product lines: interior and exterior products. We do not review or analyze our two major product lines below net sales. Additionally, we sell door components to external customers which are not otherwise consumed in our vertical operations. Sales for the product lines are summarized as follows for the periods indicated:

(In thousands)	Year Ended		
	December 29, 2019	December 30, 2018	December 31, 2017
Net sales to external customers:			
Interior products [1]	$ 1,427,459	$ 1,429,532	$ 1,366,871
Exterior products [1]	628,301	612,888	557,808
Components [1]	120,923	127,683	108,246
Total	$ 2,176,683	$ 2,170,103	$ 2,032,925

(1) Prior year amounts have been reclassified to conform to the current year presentation. There were no impacts at the reportable segment level.

Net sales information with respect to geographic areas exceeding 10% of consolidated net sales is as follows for the periods indicated:

(In thousands)	Year Ended		
	December 29, 2019	December 30, 2018	December 31, 2017
Net sales to external customers from facilities in:			
United States	$ 1,483,697	$ 1,388,680	$ 1,333,223
Canada	304,497	329,292	327,644
United Kingdom	281,888	328,669	253,564
Other	106,601	123,462	118,494
Total	$ 2,176,683	$ 2,170,103	$ 2,032,925

In the years ended December 29, 2019, December 30, 2018, and December 31, 2017, net sales to The Home Depot, Inc., were $372.4 million, $385.3 million and $356.5 million, respectively, which are included in the North American Residential segment. No other individual customer's net sales exceeded 10% of consolidated net sales for any of the periods presented.

Geographic information regarding property, plant and equipment which exceed 10% of consolidated property, plant and equipment is as follows as of the dates indicated:

(In thousands)	December 29, 2019	December 30, 2018
United States	$ 396,914	$ 412,072
Canada	63,786	62,626
Other	164,885	135,055
Total	$ 625,585	$ 609,753

18. Employee Future Benefits

United States Defined Benefit Pension Plan

We have a defined benefit pension plan covering certain active and former employees in the United States ("U.S."). Benefits under the plan were frozen at various times in the past. The measurement date used for the accounting valuation of the defined benefit pension plan was December 29, 2019. Information about the U.S. defined benefit pension plan is as follows for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Components of net periodic benefit cost:			
Service cost	$ 548	$ 670	$ 811
Interest cost	3,423	3,322	3,421
Expected return on assets	(5,723)	(6,253)	(5,852)
Amortization of actuarial net losses	1,521	1,149	1,113
Settlement loss	5,651	—	—
Net pension expense (benefit)	$ 5,420	$ (1,112)	$ (507)

During the fourth quarter of 2019, the plan purchased annuity contracts to settle liabilities for certain fully vested participants associated with benefits arising under the plan. Payments related to this offer were made from existing plan assets to settle the liabilities. As a result, total lump sum payments exceeded annual service and interest costs in 2019, and we recognized a pre-tax pension settlement charge of $5.7 million in the fourth quarter of 2019. This non-cash charge is recorded within other expense (income), net in the consolidated statements of comprehensive income.

Information with respect to the assets, liabilities and net accrued benefit obligation of the U.S. defined benefit pension plan is set forth as follows for the periods indicated:

	Year Ended	
(In thousands)	**December 29, 2019**	**December 30, 2018**
Pension assets:		
Fair value of plan assets, beginning of year	$ 86,992	$ 92,716
Company contributions	5,000	5,000
Actual return on plan assets	17,030	(4,453)
Plan settlements	(23,556)	—
Benefits paid	(5,560)	(5,730)
Administrative expenses paid	(484)	(541)
Fair value of plan assets, end of year	79,422	86,992
Pension liability:		
Accrued benefit obligation, beginning of year	95,171	104,909
Current service cost	548	670
Interest cost	3,423	3,322
Plan settlements	(23,556)	—
Actuarial loss (gain)	9,015	(7,459)
Benefits paid	(5,560)	(5,730)
Administrative expenses paid	(484)	(541)
Accrued benefit obligation, end of year	78,557	95,171
Net plan assets (accrued benefit obligation), end of year	$ 865	$ (8,179)

The net plan assets are carried within other assets in the consolidated balance sheets. Pension fund assets are invested primarily in equity and debt securities. Asset allocation between equity and debt securities and cash is adjusted based on the expected life of the plan and the expected retirement age of the plan participants. No plan assets are expected to be returned to us in the next twelve months. Information with respect to the amounts and types of securities that are held in the U.S. defined benefit pension plan is set forth as follows for the periods indicated:

	Year Ended			
	December 29, 2019		December 30, 2018	
(In thousands)	Amount	% of Total Plan	Amount	% of Total Plan
Equity securities	$ 47,017	59.2%	$ 51,412	59.1%
Debt securities	29,863	37.6%	32,361	37.2%
Other	2,542	3.2%	3,219	3.7%
	$ 79,422	100.0%	$ 86,992	100.0%

Under the Plan's investment policy statement, plan assets are invested to achieve a fully-funded status based on actuarial calculations, maintain a level of liquidity that is sufficient to pay benefit and expense obligations when due, maintain flexibility in determining the future level of contributions and maximize returns within the limits of risk. The target asset allocation for plan assets in the U.S. defined benefit pension plan for 2019 is 60% equity securities, 38% debt securities and 2% of other securities. Our pension funds are not invested directly in the debt or equity of Masonite, but may have been invested indirectly as a result of inclusion of Masonite in certain market or investment funds.

The weighted average actuarial assumptions adopted in measuring our U.S. accrued benefit obligations and costs were as follows for the periods indicated:

	Year Ended		
	December 29, 2019	December 30, 2018	December 31, 2017
Discount rate applied for:			
Accrued benefit obligation	3.3%	4.3%	3.6%
Net periodic pension cost	4.3%	3.6%	4.2%
Expected long-term rate of return on plan assets	6.8%	6.8%	7.0%

The rate of compensation increase for the accrued benefit obligation and net periodic pension costs for the U.S. defined benefit pension plan is not applicable, as benefits under the plan are not affected by compensation increases.

The expected long-term rate of return on plan assets assumption is derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers. An asset return model is used to develop an expected range of returns on the plan investments over a 30-year period, with the expected rate of return selected from a best estimate range within the total range of projected results.

United Kingdom Defined Benefit Pension Plan

We also have a defined benefit pension plan in the United Kingdom ("U.K."), which has been curtailed in prior years. The measurement date used for the accounting valuation of the U.K. defined benefit pension plan was December 29, 2019. Information about the U.K. defined benefit pension plan is as follows for the periods indicated:

	Year Ended		
(in thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Components of net periodic benefit cost:			
Interest cost	$ 685	$ 648	$ 685
Expected return on assets	(948)	(990)	(429)
Amortization of actuarial net losses	246	142	—
Net pension expense (benefit)	$ (17)	$ (200)	$ 256

Information with respect to the assets, liabilities and net accrued benefit obligation of the U.K. defined benefit pension plan is as follows for the periods indicated:

	Year Ended	
(In thousands)	**December 29, 2019**	**December 30, 2018**
Pension assets:		
Fair value of plan assets, beginning of year	$ 22,307	$ 25,141
Company contributions	1,265	661
Actual return on plan assets	3,201	(1,106)
Benefits paid	(863)	(886)
Translation adjustment	838	(1,503)
Fair value of plan assets, end of year	26,748	22,307
Pension liability		
Accrued benefit obligation, beginning of year	28,303	30,812
Interest cost	685	648
Actuarial loss (gain)	3,446	(962)
Benefits paid	(863)	(886)
Plan amendment	—	585
Translation adjustment	1,030	(1,894)
Accrued benefit obligation, end of year	32,601	28,303
Net accrued benefit obligation, end of year	$ 5,853	$ 5,996

The net accrued benefit obligation is recorded within other long-term liabilities in the consolidated balance sheets. Pension fund assets are invested primarily in equity and debt securities. Asset allocation between equity and debt securities and cash is adjusted based on the expected life of the plan and the expected retirement age of the plan participants. Information with respect to the amounts and types of securities that are held in the U.K. defined benefit pension plan is set forth as follows for the periods indicated:

	Year Ended			
	December 29, 2019		December 30, 2018	
(In thousands)	**Amount**	**% of Total Plan**	**Amount**	**% of Total Plan**
Equity securities	$ 10,297	38.5%	$ 10,207	45.8%
Debt securities	13,600	50.8%	11,909	53.3%
Other	2,851	10.7%	191	0.9%
	$ 26,748	100.0%	$ 22,307	100.0%

Under the Plan's investment policy and strategy, plan assets are invested to achieve a fully funded status based on actuarial calculations, maintain a level of liquidity that is sufficient to pay benefit and expense obligations when due, maintain flexibility in determining the future level of contributions and maximize returns within the limits of risk. The target asset allocation for plan assets in the U.K. defined benefit pension plan for 2019 is 50% equity securities and 50% debt securities.

The weighted average actuarial assumptions adopted in measuring our U.K. accrued benefit obligations and costs were as follows for the periods indicated:

	Year Ended		
	December 29, 2019	**December 30, 2018**	**December 31, 2017**
Discount rate applied for:			
Accrued benefit obligation	1.9%	2.7%	2.4%
Net periodic pension cost	1.7%	2.4%	2.2%
Expected long-term rate of return on plan assets	3.9%	4.2%	4.0%

The rate of compensation increase for the accrued benefit obligation and net pension cost for the U.K. defined benefit pension plan is not applicable, as the plan was curtailed in prior years and benefits under the plan are not affected by compensation increases.

The expected long-term rate of return on plan assets assumption is derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers. An asset return model is used to develop an expected range of returns on the plan investments over a 9-year period, with the expected rate of return selected from a best estimate range within the total range of projected results.

Overall Pension Obligation

For all periods presented, the U.S. and U.K. defined benefit pension plans were invested in equity securities, equity funds, bonds, bond funds and cash and cash equivalents. Other than those recorded at net asset value per share (NAV) as described below, all investments are publicly traded and possess a high level of marketability or liquidity. All plan investments are categorized as having Level 1 valuation inputs as established by the FASB’s Fair Value Framework.

As of December 29, 2019, the U.S. defined benefit pension plan held an investment valued at NAV representing $8.0 million of total plan assets. The investment is a collective investment trust consisting primarily of publicly traded U.S. and non-U.S. equities. Publicly traded equities are valued at the closing price reported in the active market in which the individual securities are traded. Redemptions can be made daily with redemptions greater than $0.2 million requiring a five day redemption notice period. There were no unfunded commitments as of December 29, 2019.

The change in the net difference between the pension plan assets and projected benefit obligation that is not attributed to our recognition of pension expense or funding of the plan is recognized in other comprehensive income (loss) within the consolidated statements of comprehensive income and the balance of such changes is included in accumulated other comprehensive loss ("AOCL") in the consolidated balance sheets. The estimated actuarial net losses that will be amortized from AOCL into net periodic benefit cost during 2020 are $1.0 million.

As of December 29, 2019, the estimated future benefit payments from the U.S. and U.K. defined benefit pension plans for the following future periods are set forth as follows:

(In thousands)	**Expected Future Benefit Payments**
Fiscal year:	
2020	$ 5,356
2021	5,632
2022	5,753
2023	5,867
2024	5,975
2025 through 2029	30,620
Total estimated future benefit payments	$ 59,203

Expected contributions to the U.S. and U.K. defined benefit pension plans during 2020 are $5.8 million.

Defined Contribution Benefit Plans

We have defined contribution benefit plans covering certain U.S. and foreign subsidiary employees subject to eligibility requirements set up in accordance with local statutory requirements. Contributions made to these plans were $12.4 million, $11.8 million and $7.8 million for the years ended December 29, 2019, December 30, 2018, and December 31, 2017, respectively.

19. Accumulated Other Comprehensive Loss and Other Comprehensive Income (Loss)

A rollforward of the components of accumulated other comprehensive loss is as follows for the periods indicated:

	Year Ended		
(In thousands)	**December 29, 2019**	**December 30, 2018**	**December 31, 2017**
Accumulated foreign exchange losses, beginning of period	$ (129,930)	$ (89,824)	$ (127,433)
Foreign exchange gain (loss)	14,544	(40,880)	38,758
Income tax benefit (expense) on foreign exchange losses	25	(60)	(609)
Cumulative translation adjustment recognized upon deconsolidation of subsidiaries	2,368	—	212
Less: foreign exchange gain (loss) attributable to non-controlling interest	343	(834)	752
Accumulated foreign exchange losses, end of period	(113,336)	(129,930)	(89,824)
Accumulated pension and other post-retirement adjustments, beginning of period	(22,989)	(20,328)	(21,553)
Pension and other post-retirement adjustments	962	(4,754)	529
Income tax (expense) benefit on pension and other post-retirement adjustments	(347)	1,113	39
Amortization of actuarial net losses	1,798	1,291	1,113
Income tax expense on amortization of actuarial net losses	(442)	(311)	(456)
Pension settlement charges	5,651	—	—
Income tax expense on pension settlement charges	(1,466)	—	—
Accumulated pension and other post-retirement adjustments	(16,833)	(22,989)	(20,328)
Accumulated other comprehensive loss	$ (130,169)	$ (152,919)	$ (110,152)
Other comprehensive income (loss), net of tax:	$ 23,093	$ (43,601)	$ 39,586
Less: other comprehensive income (loss) attributable to non-controlling interest	343	(834)	752
Other comprehensive income (loss) attributable to Masonite	$ 22,750	$ (42,767)	$ 38,834

Cumulative translation adjustments are reclassified out of accumulated other comprehensive loss into loss on disposal of subsidiaries in the years ended December 29, 2019, and December 31, 2017, in the consolidated statements of comprehensive income. Actuarial net losses are reclassified out of accumulated other comprehensive loss into cost of goods sold in the consolidated statements of comprehensive income. Pension settlement charges are reclassified out of accumulated other comprehensive loss into other expense (income), net, in the consolidated statements of comprehensive income.

20. Supplemental Cash Flow Information

Certain cash and non-cash transactions were as follows for the periods indicated:

(In thousands)	Year Ended December 29, 2019	Year Ended December 30, 2018	Year Ended December 31, 2017
Transactions involving cash:			
Interest paid	$ 44,388	$ 35,877	$ 27,396
Interest received	2,064	1,304	381
Income taxes paid	14,809	10,858	10,169
Income tax refunds	1,713	124	68
Cash paid for operating lease liabilities	24,522	—	—
Cash paid for finance lease liabilities	528	—	—
Non-cash transactions from operating activities:			
Right-of-use assets acquired under operating leases	36,774	—	—
Non-cash transactions from investing and financing activities:			
Right-of-use assets acquired under finance leases	26,326	—	—

The following reconciles total cash, cash equivalents and restricted cash as of the dates indicated:

	December 29, 2019	December 30, 2018
Cash and cash equivalents	$ 166,964	$ 115,656
Restricted cash	10,644	10,485
Total cash, cash equivalents and restricted cash	$ 177,608	$ 126,141

Property, plant and equipment additions in accounts payable were $6.3 million and $8.7 million as of December 29, 2019, and December 30, 2018, respectively.

During the fourth quarter of 2018, we provided debt financing to a distribution company via an interest-bearing note that is scheduled to mature in 2028. The interest-bearing note receivable is carried at amortized cost, with the interest payable in kind at the election of the borrower. This transaction is reflected as issuance of note receivable on the statements of cash flows and is recorded as a component of other assets on the consolidated balance sheets.

21. Variable Interest Entity

As of December 29, 2019, and December 30, 2018, we held an interest in one variable interest entity ("VIE"), Magna Foremost Sdn Bhd, which is located in Bintulu, Malaysia. The VIE is integrated into our supply chain and manufactures door facings. We are the primary beneficiary of the VIE based on the terms of the existing supply agreement with the VIE. As primary beneficiary via the supply agreement, we receive a disproportionate amount of earnings on sales to third parties in relation to our voting interest, and as a result, receive a majority of the VIE's residual returns. Sales to third parties did not have a material impact on our consolidated financial statements. We also have the power to direct activities of the VIE that most significantly impact the entity's economic performance. As its primary beneficiary, we have consolidated the results of the VIE. Our net cumulative investment in the VIE was comprised of the following as of the dates indicated:

(In thousands)	December 29, 2019	December 30, 2018
Current assets	$ 10,662	$ 9,632
Property, plant and equipment, net	8,179	9,327
Long-term deferred income taxes	3,032	4,306
Other assets	3,575	3,122
Current liabilities	(2,989)	(2,653)
Other long-term liabilities	(517)	(859)
Non-controlling interest	(3,730)	(3,835)
Net assets of the VIE consolidated by Masonite	$ 18,212	$ 19,040

Current assets include $6.5 million and $5.7 million of cash and cash equivalents as of December 29, 2019, and December 30, 2018, respectively. Assets recognized as a result of consolidating this VIE do not represent additional assets that could be used to satisfy claims against our general assets. Furthermore, liabilities recognized as a result of consolidating these entities do not represent additional claims on our general assets; rather, they represent claims against the specific assets of the consolidated VIE.

22. Fair Value of Financial Instruments

The carrying amounts of our cash and cash equivalents, restricted cash, accounts receivable, income taxes receivable, accounts payable, accrued expenses and income taxes payable approximate fair value because of the short-term maturity of those instruments. The estimated fair values and carrying values of our long-term debt instruments were as follows for the periods indicated:

	December 29, 2019		December 30, 2018	
(In millions)	Fair Value	Carrying Value	Fair Value	Carrying Value
5.375% Senior unsecured notes due 2028	$ 529.1	$ 493.6	$ —	$ —
5.750% Senior unsecured notes due 2026	318.8	296.4	282.6	295.8
5.625% Senior unsecured notes due 2023	—	—	484.9	499.5

These estimates are based on market quotes and calculations based on current market rates available to us and are categorized as having Level 2 valuation inputs as established by the FASB's Fair Value Framework. Market quotes used in these calculations are based on bid prices for our debt instruments and are obtained from and corroborated with multiple independent sources. The market quotes obtained from independent sources are within the range of management's expectations.

23. Supplemental Unaudited Quarterly Financial Information

The following table sets forth the historical unaudited quarterly financial data for the periods indicated. The information for each of these periods has been prepared on the same basis as the audited consolidated financial statements and, in our opinion, reflects all adjustments necessary to present fairly our financial results. Operating results for previous periods do not necessarily indicate results that may be achieved in any future period.

	Quarter Ended			
(In thousands, except per share information)	December 29, 2019	September 29, 2019	June 30, 2019	March 31, 2019
Net sales	$ 531,237	$ 552,192	$ 562,943	$ 530,311
Cost of goods sold	420,192	426,588	434,013	418,207
Gross profit	111,045	125,604	128,930	112,104
Selling, general and administration expenses	76,752	77,573	78,142	78,100
Restructuring costs	2,681	1,994	1,361	3,740
Asset impairment	—	—	3,142	10,625
Loss on disposal of subsidiaries	9,655	—	—	4,605
Operating income	21,957	46,037	46,285	15,034
Interest expense, net	12,096	11,909	11,357	11,127
Loss on extinguishment of debt	—	14,523	—	—
Other expense (income), net	4,363	(824)	(456)	(1,130)
Income before income tax expense	5,498	20,429	35,384	5,037
Income tax expense	2,624	4,334	10,293	58
Net income	2,874	16,095	25,091	4,979
Less: net income attributable to non-controlling interest	1,272	1,126	849	1,190
Net income attributable to Masonite	$ 1,602	$ 14,969	$ 24,242	$ 3,789
Basic earnings per common share attributable to Masonite	$ 0.06	$ 0.60	$ 0.96	$ 0.15
Diluted earnings per common share attributable to Masonite	$ 0.06	$ 0.59	$ 0.96	$ 0.15

	Quarter Ended			
	December 30, 2018	September 30, 2018	July 1, 2018	April 1, 2018
Net sales	$ 528,350	$ 557,148	$ 566,726	$ 517,879
Cost of goods sold	432,989	446,306	443,052	412,450
Gross profit	95,361	110,842	123,674	105,429
Selling, general and administration expenses	61,601	64,530	71,851	68,211
Restructuring costs	1,624	—	—	—
Asset impairment	5,243	—	—	—
Operating income	26,893	46,312	51,823	37,218
Interest expense, net	11,027	10,151	9,074	8,756
Loss on extinguishment of debt	—	5,414	—	—
Other expense (income), net	(724)	(948)	(839)	(22)
Income before income tax expense	16,590	31,695	43,588	28,484
Income tax expense	3,067	6,151	7,894	6,701
Net income	13,523	25,544	35,694	21,783
Less: net income attributable to non-controlling interest	1,176	748	953	957
Net income attributable to Masonite	$ 12,347	$ 24,796	$ 34,741	$ 20,826
Basic earnings per common share attributable to Masonite	$ 0.47	$ 0.90	$ 1.26	$ 0.74
Diluted earnings per common share attributable to Masonite	$ 0.46	$ 0.89	$ 1.24	$ 0.73

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rule 13a-15(e) under the Exchange Act that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Because of its 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.

Under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, we carried out an evaluation of the effectiveness of our internal control over financial reporting as of December 29, 2019, based on the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based upon our evaluation, management concluded that our internal control over financial reporting was effective as of December 29, 2019.

The effectiveness of our internal control over financial reporting as of December 29, 2019, has been audited by Ernst & Young, an independent registered public accounting firm, as stated in their report which is included herein, and which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 29, 2019. See "Report of Independent Registered Public Accounting Firm" elsewhere in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the most recently completed quarter covered by this Annual Report that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Masonite International Corporation

Opinion on Internal Control Over Financial Reporting

We have audited Masonite International Corporation's internal control over financial reporting as of December 29, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Masonite International Corporation (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 29, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Masonite International Corporation as of December 29, 2019 and December 30, 2018, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 29, 2019, and the related notes and our report dated February 20, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible 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 internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 material effect on the financial statements.

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

/s/ Ernst & Young LLP

Tampa, Florida
February 20, 2020

Item 9B. Other Information

Annual Meeting and Record Date. The Board of Directors has set the date of the 2020 Annual General Meeting of Shareholders and the related record date. The Annual General Meeting will be held in Tampa, Florida, on May 14, 2020, and the shareholders entitled to receive notice of and vote at the meeting will be the shareholders of record at the close of business on March 16, 2020.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Some of the information required in response to this item with regard to directors is incorporated by reference into this Annual Report on Form 10-K from our definitive Proxy Statement for our 2020 Annual General Meeting of Shareholders (the "2020 Proxy Statement"). Such information will be included under the captions "Election of Directors," "Corporate Governance; Delinquent Section 16(a) Reports," "Corporate Governance; Board and Committee Matters—Corporate Governance Guidelines and Code of Ethics," "Corporate Governance; Board and Committee Matters—Board Structure and Director Independence" and "Corporate Governance; Board and Committee Matters—Board Committees; Membership—Audit Committee."

The following table sets forth information as of February 20, 2020, regarding each of our executive officers:

Name	Age	Positions
Howard C. Heckes	55	President and Chief Executive Officer and Director
Russell T. Tiejema	51	Executive Vice President and Chief Financial Officer
Randal A. White	49	Senior Vice President, Global Operations and Supply Chain
James A. "Tony" Hair	53	President, Global Residential
Robert E. Lewis	59	Senior Vice President, General Counsel and Secretary
Robert A. Paxton	46	Senior Vice President, Human Resources

Biographies

The present principal occupations and recent employment history of each of the executive officers and directors listed above are as follows:

Howard C. Heckes, (age 55) has served as President and Chief Executive Officer of Masonite and as a Director of Masonite since June 2019. Mr. Heckes joined Masonite from Energy Management Collaborative where he served as Chief Executive Officer since 2017. From 2008 to 2017, Mr. Heckes served in a variety of operations roles at Valspar Corporation, now a subsidiary of The Sherwin-Williams Company, most recently overseeing Valspar's industrial coatings portfolio. Prior to joining Valspar, Mr. Heckes held various leadership roles at Newell Rubbermaid, including President of Sanford Brands and President of Graco Children's Products.

Russell T. Tiejema, (age 51) is Executive Vice President and Chief Financial Officer of Masonite. Mr. Tiejema joined Masonite in November 2015, from Lennox International, a global leader in the heating, ventilation, air conditioning and refrigeration industry, where he served as the Vice President of Finance and Chief Financial Officer of LII Residential, the largest reporting segment of Lennox International, since 2013. From 2011 to 2013, Mr. Tiejema served as the Vice President, Business Analysis & Planning, of Lennox International. Prior to joining Lennox in 2011, Mr. Tiejema spent 20 years with General Motors in a variety of financial leadership roles across a number of operating units and staffs, including Finance Director for GM Fleet & Commercial and Director of Financial Planning and Analysis.

Randal A. White, (age 49) joined Masonite in September 2017 as Senior Vice President, Global Operations and Supply Chain. Prior to joining Masonite, Mr. White was with Joy Global, Inc., a leading manufacturer of high productivity mining equipment now operating as Komatsu Mining, where he served in various operations and manufacturing roles since 2008, most recently serving as the Vice President Operations, Supply Chain, Quality and Operational Excellence (Lean) since 2014. Prior to joining Joy Global, Inc., Mr. White held various marketing and operational positions with Magnum Magnetics Inc. and Cooper Crouse-Hinds.

James A. "Tony" Hair, (age 53) joined Masonite in November 2013 as Vice President and Business Leader for the Residential Door Business and he has served most recently as President of the Global Residential Door Business. Prior to joining Masonite, Mr. Hair was with Newell Rubbermaid, a global manufacturer and marketer of consumer and commercial products, from 2005 to 2013, most recently serving as Senior Vice President and General Manager of the Décor Business Unit. Mr. Hair also held executive leadership positions in the Home Solutions and Tools business groups. Prior to joining Newell Rubbermaid, Mr. Hair held various engineering, supply chain and sales positions with Maytag Corporation.

Robert E. Lewis, (age 59) has served as the Senior Vice President, General Counsel and Secretary of Masonite since April 2012. Mr. Lewis joined Masonite from Gerdau Ameristeel Corporation, a mini-mill steel producer, where he served as Vice President, General Counsel and Corporate Secretary from January 2005 to May 2011. Prior to joining Gerdau, Mr. Lewis served as Senior Vice President, General Counsel and Secretary of Eckerd Corporation, a national retail drugstore chain from 1994 to January 2005. Prior to joining Eckerd, Mr. Lewis was an attorney and shareholder with the Tampa law firm of Shackleford, Farrior, Stallings & Evans, P.A.

Robert A. Paxton, (age 46) has served as Masonite's Senior Vice President, Human Resources since February 2018. Prior to joining Masonite, Mr. Paxton was with Owens Corning, a global developer and producer of insulation, roofing and fiberglass composites, where he served as Vice President, Human Resources and Vice President, Business Integration from May 2010 to February 2018. Prior to joining Owens Corning, he served as Senior Vice President, Human Resources of Broadwind Energy from 2008 to 2010. Prior to joining Broadwind, he served Whirlpool Corporation in various human resources leadership roles from 2002 to 2008, most recently serving as Vice President, Global Human Resources from 2007 to 2008. Mr. Paxton began his career with British Petroleum in 1995.

Item 11. Executive Compensation

Information required in response to this item is incorporated by reference into this Annual Report on Form 10-K from the 2020 Proxy Statement. Such information will be included in the 2020 Proxy Statement under the captions "Director Compensation", "Compensation Committee Report," "Executive Compensation" and "Corporate Governance; Board and Committee Matters—Compensation Interlocks and Insider Participation."

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

Information required in response to this item is incorporated by reference into this Annual Report on Form 10-K from the 2020 Proxy Statement. Such information will be included in the 2020 Proxy Statement under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance Under Equity Compensation Plans".

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

Information required in response to this item is incorporated by reference into this Annual Report on Form 10-K from the 2020 Proxy Statement. Such information will be included under the captions "Corporate Governance; Board and Committee Matters—Board Structure and Director Independence", "Corporate Governance; Board and Committee Matters—Board Committees; Membership" and "Certain Relationships and Related Party Transactions".

Item 14. Principal Accountant Fees and Services

Information required in response to this item is incorporated by reference into this Annual Report on Form 10-K from the 2020 Proxy Statement. Such information will be included under the caption "Appointment of Independent Registered Public Accounting Firm".

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)	The following documents are filed as part of this Form 10-K:		Page No.
	1.	Consolidated Financial Statements:	
		Report of Independent Registered Public Accounting Firm	46
		Consolidated Statements of Comprehensive Income	48
		Consolidated Balance Sheets	49
		Consolidated Statements of Changes in Equity	50
		Consolidated Statements of Cash Flows	51
		Notes to the Consolidated Financial Statements	52
	2.	Financial Statement Schedules	
		All schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule or the required information is otherwise included.	
	3.	See "Index to Exhibits" below.	
(b)	The exhibits listed on the "Index to Exhibits" below are filed or furnished with this Form 10-K or incorporated by reference as set forth below.		
(c)	Additional Financial Statement Schedules		
	None.		

INDEX TO EXHIBITS

The following is a list of all exhibits filed or furnished as part of this report:

Exhibit No.	Description
3.1	Amended and Restated Articles of Masonite International Corporation (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2015)
4.1	Indenture, dated as of July 25, 2019, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 5.375% Senior Notes due 2028. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on July 25, 2019)
4.2	Indenture, dated as of August 27, 2018, by and among the Company, the guarantors named therein and Wells Fargo Bank, National Association, as trustee, governing the 5.75% Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on August 27, 2018)
4.3	Transfer Agency and Registrar Services, dated July 1, 2013, between Masonite International Corporation and American Stock Transfer & Trust Company, LLC of New York (incorporated by reference to Exhibit 4.3(e) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 27, 2014)
4.4	Form of Second Amended and Restated Shareholders Agreement (Incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on May 15, 2014)
4.5*	Description of Securities
10.1 #	Masonite International Corporation 2014 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on May 15, 2014)
10.2 #	Masonite International Corporation Deferred Compensation Plan, effective as of August 13, 2012 (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.3(a) #	Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on May 18, 2015)

Exhibit No.	Description
10.3(b) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States Directors (incorporated by reference to Exhibit 10.3(b) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.3(c) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States Employees (incorporated by reference to Exhibit 10.3(c) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.3(d) #	Form of Stock Appreciation Rights Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States Employees (incorporated by reference to Exhibit 10.3(d) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.3(e) #	Form of Amendment to Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.3(e) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.3(f) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States Directors (incorporated by reference to Exhibit 10.3(h) to the Company's Quarterly Report on Form 10-Q (File No. 001-11796) filed with the Securities and Exchange Commission on November 6, 2013)
10.3(g) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States employees (incorporated by reference to Exhibit 10.3(b) to the Company's Quarterly Report on Form 10-Q (File No. 001-11796) filed with the Securities and Exchange Commission on May 8, 2014)
10.3(h) #	Form of Performance Restricted Stock Unit Agreement pursuant to the Masonite International Corporation 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.3(f) to the Company's Quarterly Report on Form 10-Q (File No. 001-11796) filed with the Securities and Exchange Commission on May 8, 2014)
10.3(i) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States Employees (incorporated by reference to Exhibit 10.3(k) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2015)
10.3(j) #	Form of Performance Restricted Stock Unit Agreement Pursuant to the Masonite International Corporation 2012 Equity Incentive Plan for United States employees (incorporated by reference to Exhibit 10.3(l) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2015)
10.3(k) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Directors (2015) (incorporated by reference to Exhibit 10.3(m) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)
10.3(l) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (November 2015) (incorporated by reference to Exhibit 10.3(n) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)
10.3(m) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (December 2015) (incorporated by reference to Exhibit 10.3(o) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)
10.3(n) #	Form of Performance Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2016) (incorporated by reference to Exhibit 10.3(p) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)
10.3(o) #	Form of Stock Appreciation Rights Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2016) (incorporated by reference to Exhibit 10.3(q) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)

Exhibit No.	Description
10.3(p) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2016) (incorporated by reference to Exhibit 10.3(r) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 2, 2016)
10.3(q) #	Amendment No. 1 to Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan dated February 7, 2017 (incorporated by reference to Exhibit 10.3(s) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 1, 2017)
10.3(r) #	Form of Performance Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2017) (incorporated by reference to Exhibit 10.3(t) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 1, 2017)
10.3(s) #	Form of Stock Appreciation Rights Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2017) (incorporated by reference to Exhibit 10.3(u) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 1, 2017)
10.3(t) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2017) (incorporated by reference to Exhibit 10.3(v) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 1, 2017)
10.3(u) #	Form of Stock Appreciation Rights Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2019) (incorporated by reference to Exhibit 10.3(v) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2019)
10.3(v) #	Form of Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2019) (incorporated by reference to Exhibit 10.3(w) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2019)
10.3(w) #	Form of Performance Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan for United States Employees (February 2019) (incorporated by reference to Exhibit 10.3(x) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2019)
10.3(x) #	Restricted Stock Unit Agreement pursuant to the Masonite International Corporation Amended and Restated 2012 Equity Incentive Plan, dated as of May 24, 2019, by and between Masonite International Corporation and James A. Hair (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on May 24, 2019)
10.4(a) #	Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.4(a) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(b) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan for Directors (incorporated by reference to Exhibit 10.4(b) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(c) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.4(c) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(d) #	Form of Stock Appreciation Rights Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.4(d) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(e) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan for United States Executives (incorporated by reference to Exhibit 10.4(e) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)

Exhibit No.	Description
10.4(f) #	Form of Stock Appreciation Rights Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan for United States Executives (incorporated by reference to Exhibit 10.4(f) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(g) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (2011 Grant) (incorporated by reference to Exhibit 10.4(g) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(h) #	Form of Stock Appreciation Rights Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (2011 Grant) (incorporated by reference to Exhibit 10.4(h) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(i) #	Form of Performance Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (2011 Grant) (incorporated by reference to Exhibit 10.4(i) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(j) #	Form of Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan for United States Executives (Exchange Agreement) (incorporated by reference to Exhibit 10.4(j) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(k) #	Form of Stock Appreciation Rights Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan for United States Executives (Exchange Agreement) (incorporated by reference to Exhibit 10.4(k) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(l) #	Form of Amendment to Restricted Stock Unit Agreement Pursuant to the Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.4(l) to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.4(m) #	Amendment No. 1 to Masonite Worldwide Holdings Inc. 2009 Equity Incentive Plan dated February 7, 2017 (incorporated by reference to Exhibit 10.4(m) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on March 1, 2017)
10.4(n) #	Omnibus Amendment to Masonite International Corporation Restricted Stock Unit Agreements, Performance Restricted Stock Unit Agreement, and Stock Appreciation Rights Agreements, dated as of May 14, 2019, by and between Masonite International Corporation and Frederick J. Lynch (incorporated by reference to Exhibit 10.2 to the Company’s Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on May 17, 2019)
10.5(a) #	Amended and Restated Employment Agreement, dated as of December 31, 2018, by and between Masonite International Corporation and Frederick J. Lynch (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on December 31, 2018)
10.5(b) #	Amended and Restated Employment Agreement, dated as of December 31, 2018, by and between Masonite International Corporation and Russell T. Tiejema (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on December 31, 2018)
10.5(c) #	Amended and Restated Employment Agreement, dated as of December 31, 2018, by and between Masonite International Corporation and James A. Hair (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on December 31, 2018)
10.5(d) #	Amended and Restated Employment Agreement, dated as of December 31, 2018, by and between Masonite International Corporation and Randal A. White (incorporated by reference to Exhibit 10.5(c) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2019)
10.5(e) #	Amended and Restated Employment Agreement, dated as of December 31, 2018, by and between Masonite International Corporation and Robert A. Paxton (incorporated by reference to Exhibit 10.5(e) to the Company's Annual Report on Form 10-K (File No. 001-11796) filed with the Securities and Exchange Commission on February 26, 2019)

Exhibit No.	Description
10.5(f) #	Employment Agreement, dated as of May 1, 2019, by and between Masonite International Corporation and Howard C. Heckes (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-11796) filed with the Securities and Exchange Commission on August 6, 2019)
10.5(g) #	Consulting Agreement, dated as of May 14, 2019, by and between Masonite International Corporation and Frederick J. Lynch (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-11796) filed with the Securities and Exchange Commission on May 17, 2019)
10.6 #	Form of Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form 10 (File No. 001-11796) filed with the Securities and Exchange Commission on August 19, 2013)
10.7(a)	Second Amended and Restated Credit Agreement, dated as of January 31, 2019, among Masonite International Corporation, as Canadian borrower and parent borrower, Masonite Corporation and the other U.S. borrowers from time to time party thereto, as U.S. borrowers, Premdor Crosby Limited and the other U.K. borrowers from time to time party thereto, as U.K. Borrowers, the lenders from time to time party thereto, Wells Fargo Bank, National Association, as administrative agent and letter of credit issuer, Bank of America, N.A., as a syndication agent, and Royal Bank of Canada, HSBC Bank USA, National Association, JPMorgan Chase Bank, N.A., PNC Bank, National Association, Regions Bank and TD Bank, N.A., as co-documentation agents, Wells Fargo Bank, National Association, Bank of America, N.A., Royal Bank of Canada, and HSBC Bank USA, National Association, as joint lead arrangers and joint lead bookrunners (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
10.7(b)	Amended and Restated U.S. Security Agreement, dated as of January 31, 2019, among Masonite Corporation, the other U.S. Borrowers from time to time party thereto and Wells, the U.S. Guarantors from time to time party thereto, and Wells Fargo Bank, National Association, as Collateral Agent (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
10.7(c)	Amended and Restated Canadian Security Agreement, dated as of January 31, 2019, among Masonite International Corporation, as Canadian Borrower and the Canadian Subsidiary Guarantors from time to time party thereto and Wells Fargo Bank, National Association, as Collateral Agent (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
10.7(d)	Amended and Restated U.S. Guaranty, dated as of January 31, 2019, among Masonite Corporation, the other U.S. Borrowers from time to time party thereto, the U.S. Subsidiary Guarantors from time to time party thereto, and Wells Fargo Bank, National Association, as Administrative Agent (incorporated by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
10.7(e)	Amended and Restated Canadian Guarantee, dated as of January 31, 2019, among Masonite International Corporation and the Canadian Subsidiary Guarantors from time to time party thereto and Wells Fargo Bank, National Association, as Administrative Agent (incorporated by reference to Exhibit 4.5 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
10.7(f)	Guarantee and Debenture, dated as of January 31, 2019, among Premdor Crosby Limited (and others as Chargors) and Wells Fargo Bank, National Association (as Agent) (incorporated by reference to Exhibit 4.6 to the Company's Current Report on Form 8-K (File No. 011-11796) filed with the Securities and Exchange Commission on February 6, 2019)
21.1*	Subsidiaries of the Registrant
23.1*	Consent of Ernst & Young LLP, an Independent Registered Public Accounting Firm
31.1*	Certification of Periodic Report by Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Periodic Report by Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Exhibit No.	Description
101*	Interactive Data Files pursuant to Rule 405 of Regulation S-T formatted in Inline Extensible Business Reporting Language ("Inline XBRL"): (i) the Registrant's Consolidated Statements of Comprehensive Income for the years ended December 29, 2019, December 30, 2018, and December 31, 2017; (ii) the Registrant's Consolidated Balance Sheets as of December 29, 2019, and December 30, 2018; (iii) the Registrant's Consolidated Statements of Changes in Equity for the years ended December 29, 2019, December 30, 2018, and December 31, 2017; (iv) the Registrant's Consolidated Statements of Cash Flows for the years ended December 29, 2019, and December 30, 2018; and (v) the notes to the Registrant's Consolidated Financial Statements
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

\# Denotes management contract or compensatory plan.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

MASONITE INTERNATIONAL CORPORATION
(Registrant)

Date: February 20, 2020

By /s/ Russell T. Tiejema
Russell T. Tiejema
Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

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

Signatures	Title	Date
/s/ Howard C. Heckes **Howard C. Heckes**	President and Chief Executive Officer and Director (Principal Executive Officer)	February 20, 2020
/s/ Russell T. Tiejema **Russell T. Tiejema**	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 20, 2020
/s/ Robert J. Byrne **Robert J. Byrne**	Director and Chairman of the Board	February 20, 2020
/s/ Jody L. Bilney **Jody L. Bilney**	Director	February 20, 2020
/s/ Peter R. Dachowski **Peter R. Dachowski**	Director	February 20, 2020
/s/ Jonathan F. Foster **Jonathan F. Foster**	Director	February 20, 2020
/s/ Thomas W. Greene **Thomas W. Greene**	Director	February 20, 2020
/s/ Daphne E. Jones **Daphne E. Jones**	Director	February 20, 2020
/s/ George A. Lorch **George A. Lorch**	Director	February 20, 2020
/s/ William S. Oesterle **William S. Oesterle**	Director	February 20, 2020
/s/ Francis M. Scricco **Francis M. Scricco**	Director	February 20, 2020

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Forward-looking Statements

This annual report, including the letter to shareholders contained herein, includes forward-looking statements within the meaning of the federal securities laws, all of which are subject to risks and uncertainties. One can identify these forward-looking statements by their use of words such as "may," "might," "could," "will," "would," "should," "expect," "believes," "outlook," "predict," "forecast," "objective," "remain," "anticipate," "estimate," "potential," "continue," "plan," "project," "targeting," or the negative of these terms or other similar terminology. Forward-looking statements involve significant known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Masonite, or industry results, to be materially different from any future plans, goals, targets, objectives, results, performance or achievements expressed or implied by such forward-looking statements. As a result, such forward-looking statements should not be read as guarantees of future performance or results, should not be unduly relied upon, and will not necessarily be accurate indications of whether or not such results will be achieved. Factors that could cause actual results to differ materially from the results discussed in the forward-looking statements include, but are not limited to, downward trends in our end markets and in economic conditions; reduced levels of residential new construction; residential repair, renovation and remodeling; and non-residential building construction activity due to increases in mortgage rates, changes in mortgage interest deductions and related tax changes and reduced availability of financing; competition; the continued success of, and our ability to maintain relationships with, certain key customers in light of price increases and customer concentration and consolidation; tariffs and evolving trade policy and friction between the United States and other countries, including China; the impact of anti-dumping and countervailing trade cases; increases in prices of raw materials and fuel; increases in labor costs, the availability of labor, or labor relations (i.e., disruptions, strikes or work stoppages); our ability to manage our operations including anticipating demand for our products, managing disruptions in our operations, managing manufacturing realignments (including related restructuring charges), managing customer credit risk and successful integration of acquisitions; the continuous operation of our information technology and enterprise resource planning systems and management of potential cyber security threats and attacks; our ability to generate sufficient cash flows to fund our capital expenditure requirements, to meet our pension obligations, and to meet our debt service obligations, including our obligations under our senior notes and our ABL Facility; political, economic and other risks that arise from operating a multinational business; uncertainty relating to the United Kingdom's exit from the European Union; fluctuating exchange and interest rates; our ability to innovate and keep pace with technological developments; product liability claims and product recalls; retention of key management personnel; limitations on operating our business as a result of covenant restrictions under our existing and future indebtedness, including our senior notes and our ABL Facility; and environmental and other government regulations, including the FCPA, and any changes in such regulations; and other factors publicly disclosed by the Company from time to time (including those discussed in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q (available through the Investors section of our website at www.masonite.com) under the sections entitled "Risk Factors." No forward-looking statement can be guaranteed and actual future results may vary materially. Therefore, we caution you not to place undue reliance on our forward-looking statements. The Company disclaims any responsibility to update these forward-looking statements, whether as a result of new information, future events or otherwise unless required by applicable law.

CORPORATE INFORMATION

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Concord, Ontario L4K 2N6 Canada

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Simpson Thatcher & Bartlett LLP

Independent Auditors
Ernst & Young

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Vice President and Treasurer

Farand Pawlak, CPA
Director of Investor Relations

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Stock Symbol
NYSE: DOOR

Quarterly Earnings, News Summaries, Copies of News Releases and Corporate Publications
Investor.masonite.com

KEY BRANDS

Graham

Maiman

PREMDOR®

BOARD OF DIRECTORS

Robert J. Byrne
Chairman of the Board,
Executive Chairman of Source2, Inc.
Former Founder and President of Power Pro Tech Services, Inc.

Jody L. Bilney
Retired Chief Consumer Officer of Humana, Inc.

Peter R. Dachowski
Senior Advisor, Graham Partners
Retired Chairman and Chief Executive Officer of CertainTeed Corporation

Jonathan F. Foster
Founder and Managing Director of Current Capital Partners LLC

Thomas W. Greene
Retired Chief Information and Business Services Officer of Colgate-Palmolive

Howard C. Heckes
President and Chief Executive Officer of Masonite International Corporation

Daphne E. Jones
Retired Senior Vice President – Digital/ Future of Work of GE Healthcare

George A. Lorch
Retired Chief Executive Officer and President of Armstrong World Industries, Inc.

William S. Oesterle
Founder and Chief Executive Officer of tMap, L.L.C.
Former Executive Chairman of OurHealth, L.L.C. and Co-Founder of Angie's List

Francis M. Scricco
Retired Senior Vice President, Manufacturing, Logistics and Procurement of Avaya, Inc.
Former President and Chief Executive Officer of Arrow Electronics

OFFICERS

Howard C. Heckes
President and Chief Executive Officer

Russell T. Tiejema
Executive Vice President and Chief Financial Officer

James A. "Tony" Hair
President – Global Residential

Robert E. Lewis
Senior Vice President, General Counsel and Corporate Secretary

Robert A. Paxton
Senior Vice President, Human Resources

Clare R. Doyle
Senior Vice President and General Manager – UK Business

Cory J. Sorice
Senior Vice President and Chief Innovation Officer

Andrew G. "Graham" Thayer
Senior Vice President and Business Leader – Architectural

Randal A. White
Senior Vice President, Global Operations and Supply Chain

Daniel J. "Dan" Shirk
Senior Vice President and Chief Information Officer

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