LENNOX INTERNATIONAL INC
Form 10-K
February 19, 2019

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 31, 2018

Commission File Number 001-15149

LENNOX INTERNATIONAL INC.
(Exact name of Registrant as specified in its charter)

Delaware	42-0991521
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

2140 Lake Park Blvd. Richardson, Texas 75080
(Address of principal executive offices, including zip code)

(Registrant’s telephone number, including area code): (972) 497-5000

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

Title of each class	Name of each exchange on which registered
Common Stock, $.01 par value per share	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by checkmark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [X] No [ ]

Indicate by checkmark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act.
Yes [ ] No [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 last 90 days. Yes [X] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes [X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer (see definition of “accelerated filer” and “large accelerated filer” in Rule 12b-2 of the Exchange Act).

Large Accelerated Filer	[X]	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[X]

As of June 30, 2018, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately $8 billion based on the closing price of the registrant’s common stock on the New York Stock Exchange. As of February 8, 2019, there were 39,872,002 shares of the registrant’s common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s 2019 Definitive Proxy Statement to be filed with the Securities and Exchange Commission in connection with the registrant’s 2019 Annual Meeting of Stockholders to be held on May 23, 2019 are incorporated by reference into Part III of this report.

LENNOX INTERNATIONAL INC.
FORM 10-K
For the Fiscal Year Ended December 31, 2018

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PART I
Item 1. Business

References in this Annual Report on Form 10-K to "we," "our," "us," "LII" or the "Company" refer to Lennox International In and its subsidiaries, unless the context requires otherwise.

The Company

We are a leading global provider of climate control solutions. We design, manufacture and market a broad range of products for the heating, ventilation, air conditioning and refrigeration ("HVACR") markets. We have leveraged our expertise to become an industry leader known for innovation, quality and reliability. Our products and services are sold through multiple distribution channels under various brand names. The Company was founded in 1895, in Marshalltown, Iowa, by Dave Lennox, the owner of a machine repair business for railroads. He designed and patented a riveted steel coal-fired furnace, which led to numerous advancements in heating, cooling and climate control solutions.

Shown in the table below are our three business segments, the key products, services and well-known product and brand names within each segment and net sales in 2018 by segment. Segment financial data for 2018, 2017 and 2016, including financial information about foreign and domestic operations, is included in Note 20 of the Notes to our Consolidated Financial Statements in "Item 8. Financial Statements and Supplementary Data" and is incorporated herein by reference.

Segment	Products & Services	Product and Brand Names	2018 Net Sales (in millions)
Residential Heating & Cooling	Furnaces, air conditioners, heat pumps, packaged heating and cooling systems, indoor air quality equipment, comfort control products, replacement parts and supplies	Lennox, Dave Lennox Signature, Armstrong Air, Ducane, Aire-Flo, Air-Ease, Concord, Magic-Pak, ADP Advanced Distributor Products, iComfort and Lennox PartsPlus	$ 2,225.0
Commercial Heating & Cooling	Unitary heating and air conditioning equipment, applied systems, controls, installation and service of commercial heating and cooling equipment, variable refrigerant flow commercial products	Lennox, Allied Commercial, Magic-Pak, Raider, Landmark, Prodigy, Strategos, Energence, Lennox VRF and Lennox National Account Services	1,043.5
Refrigeration	Condensing units, unit coolers, fluid coolers, air cooled condensers, air handlers, process chillers, controls, compressorized racks, supermarket display cases and systems	Heatcraft Worldwide Refrigeration, Bohn, Larkin, Climate Control, Chandler Refrigeration, Kysor/Warren, Friga-Bohn, HK Refrigeration, Hyfra, Kirby and Interlink	615.4
		Total	$ 3,883.9

Products and Services

Residential Heating & Cooling

Heating & Cooling Products. We manufacture and market a broad range of furnaces, air conditioners, heat pumps, packaged heating and cooling systems, equipment and accessories to improve indoor air quality, comfort control products, replacement parts and supplies and related products for both the residential replacement and new construction markets in North America. These products are available in a variety of designs and efficiency levels and at a range of price points, and are intended to provide a complete line of home comfort systems. We believe that by maintaining a broad product line marketed under multiple brand names, we can address different market segments and penetrate multiple distribution channels.

The “Lennox” and “Aire-Flo” brands are sold directly to a network of approximately 7,000 independent installing dealers, making us one of the largest wholesale distributors of residential heating and air conditioning products in North America. The Allied Air Enterprise brands (“Armstrong Air,” “Air-Ease,” “Concord,” “Ducane,” and “Magic-Pak”) include a full line of heating and air conditioning products and are sold through independent distributors in North America.

We are continuing to grow our network of 240 Lennox PartsPlus stores across the United States and Canada. These stores provide an easy access solution for contractors and independent dealers to obtain universal service and replacement parts, supplies, convenience items, tools, Lennox equipment and OEM parts.

Our Advanced Distributor Products ("ADP") operation builds evaporator coils and air handlers under the "ADP Advanced Distributor Products" brand and also builds evaporator coils under the "Lennox" brand and Allied Air Enterprise brands. ADP sells its own ADP branded evaporator coils to over 450 HVAC wholesale distributors across North America.

Commercial Heating & Cooling

North America. In North America, we manufacture and sell unitary heating and cooling equipment used in light commercial applications, such as low-rise office buildings, restaurants, retail centers, churches and schools. Our product offerings for these applications include rooftop units ranging from 2 to 50 tons of cooling capacity and split system/air handler combinations, which range from 1.5 to 20 tons of cooling capacity. These products are distributed primarily through commercial contractors and directly to national account customers. In 2014, we launched Lennox-branded variable refrigerant flow ("VRF") commercial products through Lennox company-owned distribution. We believe the success of our products is attributable to their efficiency, design flexibility, total cost of ownership, low life-cycle cost, ease of service and advanced control technology.

National Account Services. National Account Service ("NAS") provides installation, service and preventive maintenance for commercial HVAC national account customers in the United States and Canada.

Europe. In Europe, we manufacture and sell unitary products, which range from 2 to 70 tons of cooling capacity, and applied systems with up to 200 tons of cooling capacity. Our European products consist of small package units, rooftop units, chillers, air handlers and fan coils that serve medium-rise commercial buildings, shopping malls, other retail and entertainment buildings, institutional applications and other field-engineered applications. We manufacture heating and cooling products in several locations in Europe and market these products through both direct and indirect distribution channels in Europe, Russia, Turkey and the Middle East.

Refrigeration

We manufacture and market equipment for the global commercial refrigeration markets under the Heatcraft Worldwide Refrigeration name. We sell these products to distributors, installing contractors, engineering design firms, original equipment manufacturers and end-users. Our global manufacturing, distribution, sales and marketing footprint serves customers in over 103 countries worldwide.

North America. Our commercial refrigeration products for the North American market include condensing units, unit coolers, fluid coolers, air-cooled condensers, air handlers, display cases and refrigeration rack systems. These products preserve food and other perishables in supermarkets, convenience stores, restaurants, warehouses and distribution centers. In addition, our products are used to cool a wide variety of industrial processes, including data centers, machine tooling, and other critical cooling applications. We routinely provide application engineering for consulting engineers, contractors, store planners, end customers and others to support the sale of commercial refrigeration products. In addition to providing complete refrigeration systems and display cases, we also provide turnkey installations for our supermarket customers in Mexico.

International. In international markets, we manufacture and market refrigeration products including condensing units, unit coolers, air-cooled condensers, fluid coolers, compressor racks and industrial process chillers. We have manufacturing locations in Germany, France and Spain. In addition, we own a 50% common stock interest in a joint venture in Mexico that produces unit coolers, air-cooled condensers, condensing units, compressors and compressorized racks of the same design and quality as those manufactured by our U.S. business. This joint venture product line is complemented with imports from the U.S., which are sold through the joint venture's distribution network. During 2018, we completed the sale of our Australia, Asia and South America businesses.

Business Strategy

Our business strategy is to sustain and expand our premium market position as well as offer a full spectrum of products to meet our customers' needs. We plan to expand our market position through organic growth while maintaining our focus on cost reductions to drive margin expansion and support growth in target business segments. This strategy is supported by the following four strategic priorities:

Innovative Product and System Solutions. In all of our markets, we are building on our heritage of innovation by developing residential, commercial and refrigeration products that give families and business owners more precise control over more aspects of their indoor environments, while significantly lowering their energy costs.

Manufacturing and Sourcing Excellence. We maintain our commitment to manufacturing and sourcing excellence by driving low-cost assembly through rationalization of our facilities and product lines, maximizing factory efficiencies, and leveraging our purchasing power and sourcing initiatives to expand the use of lower-cost components that meet our high-quality requirements.

Distribution Excellence. By investing resources in expanding our distribution network, we are making products available to our customers in a timely, cost-efficient manner. Additionally, we provide enhanced dealer support through the use of technology, training, advertising and merchandising.

Expense Reduction. Through our cost management initiatives, we are optimizing operating, manufacturing and administrative costs.

Marketing and Distribution

We utilize multiple channels of distribution and offer different brands at various price points in order to better penetrate the HVACR markets. Our products and services are sold through a combination of direct sales, distributors and company-owned parts and supplies stores. Dedicated sales forces and manufacturers' representatives are deployed across our business segments and brands in a manner designed to maximize our ability to service each distribution channel. To optimize enterprise-wide effectiveness, we have active cross-functional and cross-organizational teams coordinating approaches to pricing, product design, distribution and national account customers.

The North American residential heating and cooling market provides an example of the competitive strength of our marketing and distribution strategy. We use three distinct distribution approaches in this market: the company-owned distribution system, the independent distribution system and direct sales to end-users. We distribute our "Lennox" and "Aire-Flo" brands in a company-owned process directly to independent dealers that install these heating and cooling products. We distribute our "Armstrong Air," "Ducane," "Air-Ease," "Concord," "Magic-Pak" and "ADP Advanced Distributo Products" brands through the traditional independent distribution process pursuant to which we sell our products to distributors who, in turn, sell the products to installing contractors. We also sell our products directly to customers through our Lennox PartsPlus stores.

Manufacturing

We operate manufacturing facilities worldwide and utilize the best available manufacturing techniques based on the needs of our businesses, including the use of lean manufacturing and principles of Six Sigma, a disciplined, data-driven approach and methodology for improving quality. We use numerous metrics to track and manage annual efficiency improvements. Some facilities are impacted by seasonal production demand, and we manufacture both heating and cooling products in those facilities to balance production and maintain a relatively stable labor force. We may also hire temporary employees to meet changes in demand.

Strategic Sourcing

We rely on various suppliers to furnish the raw materials and components used in the manufacturing of our products. To maximize our buying effectiveness in the marketplace, we have a central strategic sourcing group that consolidates purchases of certain materials, components and indirect items across business segments. The goal of the strategic sourcing group is to develop global strategies for a given component group, concentrate purchases with three to five suppliers and develop long-term relationships with these vendors. By developing these strategies and relationships, we seek to leverage our material needs to reduce costs and improve financial and operating performance. Our strategic sourcing group also works with selected suppliers to reduce costs, improve quality and delivery performance by employing lean manufacturing and Six Sigma.

Compressors, motors and controls constitute our most significant component purchases, while steel, copper and aluminum account for the bulk of our raw material purchases. We own an equity interest in a joint venture that manufactures compressors. This joint venture provide us with compressors for our residential and commercial heating and cooling and refrigeration businesses.

Research and Development and Technology

Research and development is a key pillar of our growth strategy. We operate a global engineering and technology organization that focuses on new technology invention, product development, product quality improvements and process enhancements, including our development of next-generation control systems as well as heating and cooling products that include some of the most efficient products in their respective categories. We leverage intellectual property and innovative designs across our businesses. We also leverage product development cycle time improvements and product data management systems to commercialize new products to market more rapidly. We use advanced, commercially available computer-aided design, computer-aided manufacturing, computational fluid dynamics and other sophisticated design tools to streamline the design and manufacturing processes. We use complex computer simulations and analyses in the conceptual design phase before functional prototypes are created. We also operate a full line of prototype machine equipment and advanced laboratories certified by applicable industry associations.

Seasonality

Our sales and related segment profit tend to be seasonally higher in the second and third quarters of the year because summer is the peak season for sales of air conditioning equipment and services in the U.S. and Canada. For the same reason, our working capital needs are generally greater in the first and second quarters, and we generally have higher operating cash inflows in the third and fourth quarters.

Our markets are driven by seasonal weather patterns. HVAC products and services are sold year round, but the volume and mix of product sales and service change significantly by season. The industry generally ships roughly twice as many units during June as it does in December. Overall, cooling equipment represents a substantial portion of the annual HVAC market. Between the heating season (roughly November through February) and cooling season (roughly May through August) are periods commonly referred to as “shoulder seasons” when the distribution channel transitions its buying patterns from one season to the next. These seasonal fluctuations in mix and volume drive our sales and related segment profit, resulting in somewhat higher sales in the second and third quarters due to the higher volume in the cooling season relative to the heating season.

Patents and Trademarks

We hold numerous patents that relate to the design and use of our products. We consider these patents important, but no single patent is material to the overall conduct of our business. We proactively obtain patents to further our strategic intellectual property objectives. We own or license several trademarks and service marks we consider important in the marketing of our products and services, and we protect our marks through national registrations and common law rights.

Competition

Substantially all markets in which we participate are competitive. The most significant competitive factors we face are product reliability, product performance, service and price, with the relative importance of these factors varying among our businesses. The following are some of the companies we view as significant competitors in each of our three business segments, with relevant brand names, when different from the company name, shown in parentheses. The marks below may be the registered or unregistered trademarks or trade names of their respective owners.

- Residential Heating & Cooling - United Technologies Corp. (Carrier, Bryant, Tempstar, Comfortmaker, Heil, Arcoaire, KeepRite, Day & Night); Ingersoll-Rand plc (Trane, American Standard); Paloma Industries, Inc. (Rheem, Ruud); Johnson Controls, Inc. (York); Daikin Industries, Ltd. (Goodman, Amana); and Melrose Industries PLC (Maytag, Westinghouse, Frigidaire, Tappan, Philco, Kelvinator, Gibson, Broan, NuTone).

- Commercial Heating & Cooling - United Technologies Corp. (Carrier, ICP Commercial); Ingersoll-Rand plc (Trane); Paloma Industries, Inc. (Rheem, Ruud); Johnson Controls, Inc. (York); Daikin Industries, Ltd. (Goodman, McQuay); Melrose Industries PLC (Mammoth); and AAON, Inc.

- Refrigeration - Hussmann Corporation; Paloma Industries, Inc. (Rheem Manufacturing Company (Heat Transfer Products Group)); Emerson Electric Co. (Copeland); United Technologies Corp. (Carrier); GEA Group (Kuba, Searle, Goedhart); Alfa Laval; Guntner GmbH; and Panasonic Corp. (Sanyo).

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Employees

As of December 31, 2018, we employed approximately 11,350 employees. Approximately 4,950 of these employees were salaried and 6,400 were hourly. The number of hourly workers we employ may vary in order to match our labor needs during periods of fluctuating demand. Approximately 3,175 employees, including international locations, are represented by unions. We believe we have good relationships with our employees and with the unions representing our employees. We currently do not anticipate any material adverse consequences resulting from negotiations to renew any collective bargaining agreements.

Environmental Regulation

Our operations are subject to evolving and often increasingly stringent international, federal, state and local laws and regulations concerning the environment. Environmental laws that affect or could affect our domestic operations include, among others, the National Appliance Energy Conservation Act of 1987, as amended (“NAECA”), the Energy Policy Act ("EPAct"), the Energy Policy and Conservation Act ("EPCA"), the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the National Environmental Policy Act ("NEPA"), the Toxic Substances Control Act, any regulations promulgated under these acts and various other international, federal, state and local laws and regulations governing environmental matters. We believe we are in substantial compliance with such existing environmental laws and regulations.

Energy Efficiency. The U.S. Department of Energy has numerous active energy conservation rulemakings that impact residential and commercial heating, air conditioning and refrigeration equipment. We are actively involved in U.S. Department of Energy and Congressional activities related to energy efficiency. We are prepared to have compliant products in place in advance of the effective dates of all such regulations being considered by the U.S. Department of Energy.

Refrigerants. The use of hydrochlorofluorocarbons (“HCFCs”) and hydroflurocarbons (“HFCs”) as refrigerants for air conditioning and refrigeration equipment is common practice in the HVACR industry and is regulated. We believe we have complied with applicable rules and regulations in various countries governing the use of HCFCs and HFCs. The U.S. Congress and the Environmental Protection Agency are considering steps to phase down the future use of HFCs in HVACR products and an international accord was adopted in October 2016 which would significantly phase-down the use of HFCs when ratified by the United Sates and globally. We are an active participant in the ongoing international and domestic dialogue on this subject and are well positioned to react in a timely manner to changes in the regulatory landscape. In addition, we are taking proactive steps to implement responsible use principles and guidelines with respect to limiting refrigerants from escaping into the atmosphere throughout the life span of our HVACR equipment.

Remediation Activity. In addition to affecting our ongoing operations, applicable environmental laws can impose obligations to remediate hazardous substances at our properties, at properties formerly owned or operated by us and at facilities to which we have sent or send waste for treatment or disposal. We are aware of contamination at some of our facilities; however, based on facts presently known, we do not believe that any future remediation costs at such facilities will be material to our results of operations. For more information, see Note 11 in the Notes to our Consolidated Financial Statements.

In the past, we have received notices that we are a potentially responsible party along with other potentially responsible parties in Superfund proceedings under the Comprehensive Environmental Response, Compensation and Liability Act for cleanup of hazardous substances at certain sites to which the potentially responsible parties are alleged to have sent waste. Based on the facts presently known, we do not believe environmental cleanup costs associated with any Superfund sites about which we have received notice that we are a potentially responsible party will be material.

European WEEE and RoHS Compliance. In the European marketplace, electrical and electronic equipment is required to comply with the Directive on Waste Electrical and Electronic Equipment (“WEEE”) and the Directive on Restriction of Use of Certain Hazardous Substances (“RoHS”). WEEE aims to prevent waste by encouraging reuse and recycling and RoHS restricts the use of six hazardous substances in electrical and electronic products. All HVACR products and certain components of such products “put on the market” in the EU (whether or not manufactured in the EU) are potentially subject to WEEE and RoHS. Because all HVACR manufacturers selling within or from the EU are subject to the standards promulgated under WEEE and RoHS, we believe that neither WEEE nor RoHS uniquely impacts us as compared to such other manufacturers. Similar directives are being introduced in other parts of the world, including the U.S. For example, California, China and Japan have all adopted standards possessing similar intent as RoHS. We are actively monitoring the development of such directives and believe we are well positioned to comply with such directives in the required time frames.

Available Information

Our web site address is www.lennoxinternational.com. We make available, free of charge through our web site, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as soon as reasonably possible after such material is electronically filed with, or furnished to, the Securities and Exchange Commission. The information on our web site is not a part of, or incorporated by reference into, this annual report on Form 10-K.

You can also read and copy any document that we file, including this Annual Report on Form 10-K, at the Securities and Exchange Commission’s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Call the Securities and Exchange Commission at 1-800-SEC-0330 for information on the operation of the Public Reference Room. In addition, the Securities and Exchange Commission maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers, including Lennox International, that file electronically with the Securities and Exchange Commission.

Executive Officers of the Company

Our executive officers, their present positions and their ages are as follows as of February 4, 2019:

Name	Age	Position
Todd M. Bluedorn	55	Chairman of the Board and Chief Executive Officer
Joseph W. Reitmeier	54	Executive Vice President, Chief Financial Officer
Douglas L. Young	56	Executive Vice President, President and Chief Operating Officer, Residential Heating & Cooling
Terry L. Johnston	61	Executive Vice President, President and Chief Operating Officer, North America Commercial Heating & Cooling
Gary S. Bedard	54	Executive Vice President, President and Chief Operating Officer, Worldwide Refrigeration
Prakash Bedapudi	52	Executive Vice President, Chief Technology Officer
Daniel M. Sessa	54	Executive Vice President, Chief Human Resources Officer
John D. Torres	60	Executive Vice President, Chief Legal Officer and Secretary
Chris A. Kosel	51	Vice President, Chief Accounting Officer and Controller

Todd M. Bluedorn was appointed Chief Executive Officer and was elected to our Board of Directors in April 2007. Mr. Bluedorn was elected Chairman of the Board of Directors in May 2012. Prior to joining Lennox International, Mr. Bluedorn served in numerous senior management positions for United Technologies since 1995, including President, Americas - Otis Elevator Company; President, North America - Commercial Heating, Ventilation and Air Conditioning for Carrier Corporation; and President, Hamilton Sundstrand Industrial. He began his professional career with McKinsey & Company in 1992. A graduate of the United States Military Academy at West Point with a bachelor of science in electrical engineering, Mr. Bluedorn served in the United States Army as a combat engineer officer and United States Army Ranger from 1985 to 1990. He received his MBA from Harvard University School of Business in 1992. Mr. Bluedorn also serves on the Board of Directors of Eaton Corporation, a diversified industrial manufacturer, on the Board of Directors of Texas Instruments Incorporated, a global designer and manufacturer of semiconductors, and on the Board of Trustees of Washington University in St. Louis. Mr. Bluedorn possesses considerable industry knowledge and executive leadership experience. Mr. Bluedorn’s extensive knowledge of our Company and its business, combined with his drive for excellence and innovation, position him well to serve as CEO and a director of our Company.

Joseph W. Reitmeier was appointed Executive Vice President, Chief Financial Officer in July 2012. He had served as Vice President of Finance for the LII’s Commercial Heating & Cooling segment since 2007 and as Director of Internal Audit from 2005 to 2007. Before joining the Company, he held financial leadership roles at Cummins Inc. and PolyOne Corporation. He is a director of Watts Water Technologies, Inc., a global provider of plumbing, heating and water quality solutions for residential, industrial, municipal and commercial settings. Mr. Reitmeier holds a bachelor’s degree in accounting from the University of Akron and an MBA from Case Western Reserve University. He is also a Certified Public Accountant.

Douglas L. Young was appointed Executive Vice President, President and Chief Operating Officer of LII’s Residential Heating & Cooling segment in October 2006. Mr. Young had previously served as Vice President and General Manager of North American Residential Products since 2003 and as Vice President and General Manager of Lennox North American Residential Sales, Marketing, and Distribution from 1999 to 2003. Prior to his career with LII, Mr. Young was employed in the Appliances division of GE, where he held various management positions before serving as General Manager of Marketing for GE Appliance division’s retail group from 1997 to 1999 and as General Manager of Strategic Initiatives in 1999. He holds a BSBA from Creighton University and a master’s of science in management from Purdue University. Mr. Young serves on the Board of Directors of Beacon Roofing Supply, a general building material distributor and is a past Chairman of the Board of Directors of AHRI (the Air-Conditioning, Heating, and Refrigeration Institute), the trade association for the HVACR and water heating equipment industries.

Terry L. Johnston was appointed Executive Vice President, President and Chief Operating Officer of LII’s North America Commercial Heating & Cooling business in January 2013. Since May 2007, he had served as Vice President and General Manager, North America Commercial. He had previously served as Vice President, Marketing and Product Management, LII Worldwide Heating & Cooling and as Vice President, Marketing and Product Management for Lennox Industries. Before joining LII in 2001, Mr. Johnston worked for 20 years at GE in a variety of product management and sales and marketing roles. He is on the Board of Directors of CSW Industrials, Inc., a diversified industrial growth company with businesses in industrial products, sealants and adhesives and specialty chemicals segments. He holds a bachelor of science in marketing from the University of Arkansas.

Gary S. Bedard was appointed Executive Vice President, President and Chief Operating Officer of LII’s Worldwide Refrigeration business in October 2017. Since 2005, Mr. Bedard served as Vice President and General Manager, LII Residential Heating and Cooling. He has also held the positions of Vice President, Residential Product Management, LII Worldwide Heating and Cooling, Director of Brand and Product Management, and District Manager for Lennox Industries’ New York District. Prior to joining LII in 1998, Mr. Bedard spent eight years at York International in product management and sales leadership roles for commercial applied and unitary systems as well as residential systems. Mr. Bedard has a bachelor’s degree in engineering management from the United States Military Academy at West Point.

Prakash Bedapudi was appointed Executive Vice President, Chief Technology Officer in July 2008. He had previously served as Vice President, Global Engineering and Program Management for Trane Inc. Commercial Systems from 2006 through 2008, and as Vice President, Engineering and Technology for Trane’s Residential Systems division from 2003 through 2006. Prior to his career at Trane, Mr. Bedapudi served in senior engineering leadership positions for GE Transportation Systems, a division of General Electric Company, and for Cummins Engine Company. He holds a bachelor of science in mechanical/automotive engineering from Karnataka University, India and a master’s of science in mechanical/aeronautical engineering from the University of Cincinnati.

Daniel M. Sessa was appointed Executive Vice President, Chief Human Resources Officer in June 2007. He had previously served in numerous senior human resources and legal leadership positions for United Technologies Corporation since 1996, including Vice President, Human Resources for Otis Elevator Company - Americas from 2005 to 2007, Director, Employee Benefits and Human Resources Systems for United Technologies Corporation from 2004 to 2005, and Director, Human Resources for Pratt & Whitney from 2002 to 2004. He holds a bachelor of arts in law and society from the State University of New York at Binghamton and a juris doctor from the Hofstra University School of Law.

John D. Torres was appointed Executive Vice President , Chief Legal Officer and Secretary in December 2008. He had previously served as Senior Vice President, General Counsel and Secretary for Freescale Semiconductor, a semiconductor manufacturer that was originally part of Motorola. He joined Motorola's legal department as Senior Counsel in 1996 and was appointed Vice President, General Counsel of the company's semiconductor business in 2001. Prior to joining Motorola, Mr. Torres served 13 years in private practice in Phoenix, specializing in commercial law. He holds a bachelor of arts from Notre Dame and a juris doctor from the University of Chicago.

Chris A. Kosel was appointed Vice President, Chief Accounting Officer and Controller in May 2017. He had previously served as Vice President, Business Analysis and Planning for the Company since 2016. He also had served as Vice President, Finance and Controller / Director, Finance for the Company's North America Commercial Business from 2015 - 2016 and Director, Financial Planning and Analysis for the Company's Residential Business Unit from 2014 to 2015. Prior to 2014 he had served as Director, Finance for the Company's Parts Plus Business and Director of the Company's Financial Shared Services function. Prior to joining Lennox, he worked for Ernst & Young. He holds a bachelor's degree in accounting from Texas A&M University. He is also a Certified Public Accountant.

Item 1A. Risk Factors
Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act that are based on information currently available to management as well as management’s assumptions and beliefs as of the date hereof. All statements, other than statements of historical fact, included in this Annual Report on Form 10-K constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by the words “may,” “will,” “should,” “plan,” “predict,” “anticipate,” “believe,” “intend,” “estimate” and “expect” a expressions. Statements that are not historical should also be considered forward-looking statements. Such statements reflect our current views with respect to future events. Readers are cautioned not to place undue reliance on these forward-looking statements. We believe these statements are based on reasonable assumptions; however, such statements are inherently subject to risks and uncertainties, including but not limited to the specific uncertainties discussed elsewhere in this Annual Report on Form 10-K and the risk factors set forth in Item 1A. Risk Factors in this Annual Report on Form 10-K. These risks and uncertainties may affect our performance and results of operations. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may differ materially from those in the forward-looking statements. We disclaim any intention or obligation to update or review any forward-looking statements or information, whether as a result of new information, future events or otherwise unless required by law.

Risk Factors

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. We believe these are the principal material risks currently facing our business; however, additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. If any of the following risks or those disclosed in our other SEC filings actually occurs, our business, financial condition or results of operations could be materially adversely affected.

We May Not be Able to Compete Favorably in the Competitive HVACR Business.

Substantially all of the markets in which we operate are competitive. The most significant competitive factors we face are product reliability, product performance, reputation of our company and brands, service and price, with the relative importance of these factors varying among our product lines. Other factors that affect competition in the HVACR market include the development and application of new technologies, an increasing emphasis on the development of more efficient HVACR products and new product introductions. We may not be able to adapt to market changes as quickly or effectively as our current and future competitors. Also, the establishment of manufacturing operations in low-cost countries could provide cost advantages to existing and emerging competitors. Some of our competitors may have greater financial resources than we have, allowing them to invest in more extensive research and development and/or marketing activity and making them better able to withstand adverse HVACR market conditions. Current and future competitive pressures may cause us to reduce our prices or lose market share, or could negatively affect our cash flow, all of which could have an adverse effect on our results of operations.

Our Financial Performance Is Affected by the Conditions of the U.S. Construction Industry.

Our business is affected by the performance of the U.S. construction industry. Our sales in the residential and commercial new construction markets correlate to the number of new homes and buildings that are built, which in turn is influenced by cyclical factors such as interest rates, inflation, availability of financing, consumer spending habits and confidence, employment rates and other macroeconomic factors over which we have no control. Although the industry has improved over the last several years, our sales may not continue to improve or such improvement may be limited or lower than expected.

Cooler than Normal Summers and Warmer than Normal Winters May Depress Our Sales.

Demand for our products and for our services is seasonal and strongly affected by the weather. Cooler than normal summers depress our sales of replacement air conditioning and refrigeration products and services. Similarly, warmer than normal winters have the same effect on our heating products and services.

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Changes in Legislation or Government Regulations or Policies Can Have a Significant Impact on Our Results of Operations.

The sales, gross margins and profitability for each of our segments could be directly impacted by changes in legislation, trade agreements or government regulations, such as the changes to taxes, tariffs and trade agreements. Changes in environmental and energy efficiency standards and regulations, such as the recent amendments to the Montreal Protocol to phase down the use of hydrofluorocarbons, may particularly have a significant impact on the types of products that we are allowed to develop and sell, and the types of products that are developed and sold by our competitors. Our inability or delay in developing or marketing products that match customer demand and that meet applicable efficiency and environmental standards may negatively impact our results. The demand for our products and services could also be affected by the size and availability of tax incentives for purchasers of our products and services. Future legislation or regulations, including environmental matters, product certification, product liability, tariffs, duties, taxes, tax incentives and other matters, may impact the results of each of our operating segments and our consolidated results.

Global General Business, Economic and Market Conditions Could Adversely Affect Our Financial Performance and Limit our Access to the Capital Markets.

Future disruptions in U.S. or global financial and credit markets or increases in the costs of capital might have an adverse impact on our business. The tightening, unavailability or increased costs of credit adversely affects the ability of our customers to obtain financing for significant purchases and operations, which could result in a decrease in sales of our products and services and may impact the ability of our customers to make payments to us. Similarly, tightening of credit may adversely affect our supplier base and increase the potential for one or more of our suppliers to experience financial distress or bankruptcy. Our business may also be adversely affected by future decreases in the general level of economic activity and increases in borrowing costs, which may cause our customers to cancel, decrease or delay their purchases of our products and services.

If financial markets were to deteriorate, or costs of capital were to increase significantly due to a lowering of our credit ratings, prevailing industry conditions, the volatility of the capital markets or other factors, we may be unable to obtain new financing on acceptable terms, or at all. A deterioration in our financial performance could also limit our future ability to access amounts currently available under our domestic credit facility. In addition, availability under our asset securitization agreement may be adversely impacted by credit quality and performance of our customer accounts receivable. The availability under our asset securitization agreement is based on the amount of accounts receivable that meet the eligibility criteria of the asset securitization agreement. If receivable losses increase or credit quality deteriorates, the amount of eligible receivables could decline and, in turn, lower the availability under the asset securitization.

We cannot predict the likelihood, duration or severity of any future disruption in financial markets or any adverse economic conditions in the U.S. and other countries.

Our International Operations Subject Us to Risks Including Foreign Currency Fluctuations, Regulations and Other Risks.

We earn revenue, pay expenses, own assets and incur liabilities in countries using currencies other than the U.S. dollar. Our consolidated financial statements are presented in U.S. dollars and we translate revenue, income, expenses, assets and liabilities into U.S. dollars at exchange rates in effect during or at the end of each reporting period. Therefore, increases or decreases in the value of the U.S. dollar relative to other currencies may affect our net operating revenues, operating income and the value of balance sheet items denominated in foreign currencies. Because of the geographic diversity of our operations, weaknesses in some currencies might be offset by strengths in others over time. However, we cannot assure that fluctuations in foreign currency exchange rates, particularly the strengthening of the U.S. dollar against major currencies, would not materially affect our financial results.

In addition to the currency exchange risks inherent in operating in foreign countries, our international sales and operations, including purchases of raw materials from international suppliers, are subject to risks associated with local government laws, regulations and policies (including those related to tariffs and trade barriers, investments, taxation, exchange controls, employment regulations and changes in laws and regulations). Our international sales and operations are also sensitive to changes in foreign national priorities, including government budgets, as well as to geopolitical and economic instability. International transactions may involve increased financial and legal risks due to differing legal systems and customs in foreign countries, as well as compliance with anti-corruption laws such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act. The ability to manage these risks could be difficult and may limit our operations and make the manufacture and sale of our products internationally more difficult, which could negatively affect our business and results of operations.

Conflicts, wars, natural disasters or terrorist acts could also cause significant damage or disruption to our operations, employees, facilities, systems, suppliers, distributors, resellers or customers in the United States and internationally for extended periods of time and could also affect demand for our products.

Net sales outside of the United States comprised 15.7% of our net sales in 2018.

Our Ability to Meet Customer Demand may be Limited by Our Single-Location Production Facilities, Reliance on Certain Key Suppliers and Unanticipated Significant Shifts in Customer Demand.

We manufacture many of our products at single-location production facilities, and we rely on certain suppliers who also may concentrate production in single locations. Any significant interruptions in production at one or more of our facilities, or at a facility of one of our suppliers, could negatively impact our ability to deliver our products to our customers. Further, even with all of our facilities running at full production, we could potentially be unable to fully meet demand during an unanticipated period of exceptionally high demand. Our inability to meet our customers' demand for our products could have a material adverse impact on our business, financial condition and results of operations.

Price Volatility for Commodities and Components We Purchase or Significant Supply Interruptions Could Have an Adverse Effect on Our Cash Flow or Results of Operations.

We depend on raw materials, such as steel, copper and aluminum, and components purchased from third parties to manufacture our products. We generally concentrate purchases for a given raw material or component with a small number of suppliers. If a supplier is unable or unwilling to meet our supply requirements, including suffering any disruptions at its facilities or in its supply chain, we could experience supply interruptions or cost increases, either of which could have an adverse effect on our results of operations. Similarly, suppliers of components that we purchase for use in our products may be affected by rising material costs and pass these increased costs on to us. Although we regularly pre-purchase a portion of our raw materials at fixed prices each year to hedge against price increases, an increase in raw materials prices not covered by our fixed price arrangements could significantly increase our cost of goods sold and negatively impact our margins if we are unable to effectively pass such price increases on to our customers. Alternatively, if we increase our prices in response to increases in the prices or quantities of raw materials or components or if we encounter significant supply interruptions, our competitive position could be adversely affected, which may result in depressed sales and profitability.

In addition, we use derivatives to hedge price risk associated with forecasted purchases of certain raw materials. Our hedged prices could result in paying higher or lower prices for commodities as compared to the market prices for those commodities when purchased.

We May Incur Substantial Costs as a Result of Claims Which Could Have an Adverse Effect on Our Results of Operations.

The development, manufacture, sale and use of our products involve warranty, intellectual property infringement, product liability claim and other risks. In some cases, we may incur liability claims for the installation and service of our products. Our product liability insurance policies have limits that, if exceeded, may result in substantial costs that would have an adverse effect on our results of operations. In addition, warranty claims are not covered by our product liability insurance and certain product liability claims may also not be covered by our product liability insurance.

For some of our HVAC products, we provide warranty terms ranging from one to 20 years to customers for certain components such as compressors or heat exchangers. For certain limited products, we provided lifetime warranties for heat exchangers. Warranties of such extended lengths pose a risk to us as actual future costs may exceed our current estimates of those costs. Warranty expense is recorded on the date that revenue is recognized and requires significant assumptions about what costs will be incurred in the future. We may be required to record material adjustments to accruals and expense in the future if actual costs for these warranties are different from our assumptions.

If We Cannot Successfully Execute our Business Strategy, Our Results of Operations Could be Adversely Impacted

Our future success depends on our continued investment in research and new product development as well as our ability to commercialize new HVACR technological advances in domestic and global markets. If we are unable to continue to timely and successfully develop and market new products, achieve technological advances or extend our business model and technological advances into international markets, our business and results of operations could be adversely impacted.

We are engaged in various manufacturing rationalization actions designed to achieve our strategic priorities of manufacturing, sourcing and distribution excellence and of lowering our cost structure. For example, we are continuing to reorganize our North

American distribution network in order to better serve our customers' needs by deploying parts and equipment inventory closer to them and are expanding our sourcing activities outside of the U.S. We also continue to rationalize and reorganize various support and administrative functions in order to reduce ongoing selling and administrative expenses. If we cannot successfully implement such distribution and restructuring strategies or other cost savings plans, we may not achieve our expected cost savings in the time anticipated, or at all. In such case, our results of operations and profitability may be negatively impacted, making us less competitive and potentially causing us to lose market share.

We May Not be Able to Successfully Integrate and Operate Businesses that We May Acquire nor Realize the Anticipated Benefits of Strategic Relationships We May Form.

From time to time, we may seek to complement or expand our businesses through strategic acquisitions, joint ventures and strategic relationships. The success of these transactions will depend, in part, on our ability to timely identify those relationships, negotiate and close the transactions and then integrate, manage and operate those businesses profitably. If we are unable to successfully do those things, we may not realize the anticipated benefits associated with such transactions, which could adversely affect our business and results of operations.

Because a Significant Percentage of Our Workforce is Unionized in Certain Manufacturing Facilities, We Face Risks of Work Stoppages and Other Labor Relations Problems.

As of February 6, 2019, approximately 28% of our workforce, including international locations, was unionized. The results of future negotiations with these unions and the effects of any production interruptions or labor stoppages could have an adverse effect on our results of operations.

We are Subject to Litigation and Tax, Environmental and Other Regulations that Could Have an Adverse Effect on Our Results of Operations.

We are involved in various claims and lawsuits incidental to our business, including those involving product liability, labor relations, alleged exposure to asbestos-containing materials and environmental matters, some of which claim significant damages. Estimates related to our claims and lawsuits, including estimates for asbestos-related claims and related insurance recoveries, involve numerous uncertainties. Given the inherent uncertainty of litigation and estimates, we cannot be certain that existing claims or litigation or any future adverse legal developments will not have a material adverse impact on our financial condition. In addition, we are subject to extensive and changing federal, state and local laws and regulations designed to protect the environment. These laws and regulations could impose liability for remediation costs and civil or criminal penalties in cases of non-compliance. Compliance with environmental laws increases our costs of doing business. Because these laws are subject to frequent change, we are unable to predict the future costs resulting from environmental compliance.

Any Future Determination that a Significant Impairment of the Value of Our Goodwill Intangible Asset Occurred Could Have a Material Adverse Effect on Our Results of Operations.

As of December 31, 2018, we had goodwill of $186.6 million on our Consolidated Balance Sheet. Any future determination that an impairment of the value of goodwill occurred would require a write-down of the impaired portion of goodwill to fair value and would reduce our assets and stockholders' equity and could have a material adverse effect on our results of operations.

Volatility in Capital Markets Could Necessitate Increased Cash Contributions by Us to Our Pension Plans to Maintain Required Levels of Funding.

Volatility in the capital markets may have a significant impact on the funding status of our defined benefit pension plans. If the performance of the capital markets depresses the value of our defined benefit pension plan assets or increases the liabilities, we would be required to make additional contributions to the pension plans. The amount of contributions we may be required to make to our pension plans in the future is uncertain and could be significant, which may have a material impact on our results of operations.

Security Breaches and Other Disruptions or Misuse of Information Systems We Rely Upon Could Affect Our Ability to Conduct Our Business Effectively.

Our information systems and those of our business partners are important to our business activities. We also outsource various information systems, including data management, to third party service providers. Despite our security measures as well as those of our business partners and third-party service providers, the information systems we rely upon may be vulnerable to interruption or damage from computer hackings, computer viruses, worms or other destructive or disruptive software, process breakdowns, denial of service attacks, malicious social engineering or other malicious activities, or any combination thereof. These information systems have been, and will likely continue to be, subject to attack. While we have implemented controls and taken other preventative actions to strengthen these systems against future attacks, we can give no assurance that these controls and preventative actions will be effective. Any breach of data security could result in a disruption of our services or improper disclosure of personal data or confidential information, which could harm our reputation, require us to expend resources to remedy such a security breach or defend against further attacks or subject us to liability under laws that protect personal data, resulting in increased operating costs or loss of revenue.

Our Results of Operations May Suffer if We Cannot Continue to License or Enforce the Intellectual Property Rights on Which Our Businesses Depend or if Third Parties Assert That We Violate Their Intellectual Property Rights.

We rely upon patent, copyright, trademark and trade secret laws and agreements to establish and maintain intellectual property rights in the products we sell. Our intellectual property rights could be challenged, invalidated, infringed, circumvented, or be insufficient to permit us to take advantage of current market trends or to otherwise provide competitive advantages. Further, the laws of certain countries do not protect proprietary rights to the same extent as the laws of the United States.

Third parties may also claim that we are infringing upon their intellectual property rights. If we do not license infringed intellectual property or if we are required to substitute similar technology from another source, our operations could be adversely affected. Even if we believe that intellectual property claims are without merit, they can be time consuming, require significant resources and be costly to defend. Claims of intellectual property infringement also might require us to redesign affected products, pay costly damage awards, or face injunction prohibiting us from manufacturing, importing, marketing or selling certain of our products. Even if we have agreements to indemnify us, indemnifying parties may be unable or unwilling to do so.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The following chart lists our principal domestic and international manufacturing, distribution and office facilities as of December 31, 2018 and indicates the business segment that uses such facilities, the approximate size of such facilities and whether such facilities are owned or leased. Also included in the chart are large warehouses that hold significant inventory balances.

Location	Segment	Type or Use of Facility	Approx. Sq. Ft. (In thousands)	Owned/Leased
Marshalltown, IA	Residential Heating & Cooling	Manufacturing & Distribution	1,000	Owned & Leased
Orangeburg, SC	Residential Heating & Cooling	Manufacturing & Distribution	750	Owned & Leased
Saltillo, Mexico	Residential Heating & Cooling	Manufacturing & Distribution	638	Owned
Grenada, MS	Residential Heating & Cooling	Manufacturing & Distribution	395	Leased
Romeoville, IL	Residential Heating & Cooling	Distribution	312	Leased
McDonough, GA	Residential Heating & Cooling	Distribution	254	Leased
Columbus, OH	Residential Heating & Cooling	Distribution	144	Leased
Pittston, PA	Residential Heating & Cooling	Distribution	144	Leased
Concord, NC	Residential Heating & Cooling	Distribution	123	Leased
Harahan, LA	Residential Heating & Cooling	Distribution	83	Leased
Kansas City, MI	Residential Heating & Cooling	Distribution	59	Leased
Denver, CO	Residential Heating & Cooling	Distribution	49	Leased
St. Louis, MO	Residential Heating & Cooling	Distribution	48	Leased
Salt Lake City,UT	Residential Heating & Cooling	Distribution	45	Leased
Minneapolis, MN	Residential Heating & Cooling	Distribution	44	Leased
Eastvale, CA	Residential & Commercial Heating & Cooling	Distribution	377	Leased
Carrollton, TX	Residential & Commercial Heating & Cooling	Distribution	252	Leased
Brampton, Canada	Residential & Commercial Heating & Cooling	Distribution	251	Leased
Houston, TX	Residential & Commercial Heating & Cooling	Distribution	216	Leased
Orlando, FL	Residential & Commercial Heating & Cooling	Distribution	173	Leased
Middletown, PA	Residential & Commercial Heating & Cooling	Distribution	166	Leased
Lenexa, KS	Residential & Commercial Heating & Cooling	Distribution	147	Leased
East Fife, WA	Residential & Commercial Heating & Cooling	Distribution	112	Leased
Calgary, Canada	Residential & Commercial Heating & Cooling	Distribution	110	Leased
Stuttgart, AR	Commercial Heating & Cooling	Manufacturing	750	Owned
Longvic, France	Commercial Heating & Cooling	Manufacturing	142	Owned
Longvic, France		Distribution	133	Owned

	Commercial Heating & Cooling			
Dallas, TX	Commercial Heating & Cooling	Distribution	227	Leased
Norcross, GA	Commercial Heating & Cooling	Distribution	95	Leased
Burgos, Spain	Commercial Heating & Cooling & Refrigeration	Manufacturing	140	Owned
Mions, France	Commercial Heating & Cooling & Refrigeration	Research & Development	129	Owned
Genas, France	Commercial Heating & Cooling & Refrigeration	Manufacturing, Distribution & Offices	111	Owned
Tifton, GA	Refrigeration	Manufacturing & Distribution	738	Owned & Leased
Columbus, GA	Refrigeration	Manufacturing, Warehousing & Offices	523	Owned & Leased
Stone Mountain, GA	Refrigeration	Manufacturing & Business Unit Headquarters	139	Owned
Krunkel, Germany	Refrigeration	Manufacturing, Distribution & Offices	43	Owned
Richardson, TX	Corporate and other	Corporate Headquarters	356	Owned & Leased
Carrollton, TX	Corporate and other	Research & Development	294	Owned

In addition to the properties described above, we lease numerous facilities in the U.S. and worldwide for use as sales offices, service offices and district and regional warehouses. We routinely evaluate our facilities to ensure adequate capacity, effective cost structure, and consistency with our business strategy. We believe that our properties are in good condition, suitable and adequate for their present requirements and that our principal manufacturing plants are generally adequate to meet our production needs.

Item 3. Legal Proceedings

We are involved in a number of claims and lawsuits incident to the operation of our businesses. Insurance coverages are maintained and estimated costs are recorded for such claims and lawsuits. It is management's opinion that none of these claims or lawsuits will have a material adverse effect, individually or in the aggregate, on our financial position, results of operations or cash flows. For more information, see Note 11 in the Notes to the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information for Common Stock

Our common stock is listed for trading on the New York Stock Exchange under the symbol "LII."

Dividends

During 2018 and 2017, we declared quarterly cash dividends as set forth below:

	2018	2017
First Quarter	$0.51	$0.43
Second Quarter	0.64	0.51
Third Quarter	0.64	0.51
Fourth Quarter	0.64	0.51
Fiscal Year	$2.43	$1.96

The amount and timing of dividend payments are determined by our Board of Directors and subject to certain restrictions under our domestic revolving credit facility.

Holders of Common Stock

As of the close of business on February 8, 2019, approximately 621 holders of record held our common stock.

Comparison of Total Stockholder Return

The following graph compares the cumulative total returns of LII’s common stock with the cumulative total returns of the Standards & Poor’s Midcap 400 Index, a broad index of mid-size U.S. companies of which the Company is a part, and with a peer group of U.S. industrial manufacturing and service companies in the HVACR businesses. The graph assumes that $100 was invested on December 31, 2013, with dividends reinvested. Our peer group includes AAON, Inc., Ingersoll-Rand plc, Comfort Systems USA, Inc., United Technologies Corporation, Johnson Controls Inc., and Watsco, Inc. Peer group returns are weighted by market capitalization.

This performance graph and other information furnished under this Comparison of Total Stockholder Return section shall not be deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission or subject to Regulation 14A or 14C, or to the liabilities of Section 18 of the Exchange Act.

Our Purchases of LII Equity Securities

Our Board of Directors has authorized a total of $2.5 billion towards the repurchase of shares of our common stock (collectively referred to as the “Share Repurchase Plans”), including a $500 million share repurchase authorization in March 2018. The Share Repurchase Plans authorize open market repurchase transactions and do not have a stated expiration date. As of December 31, 2018, $446 million may be used to repurchase shares under the Share Repurchase Plans.

In the fourth quarter of 2018, we purchased shares of our common stock as follows:

	Total Shares Purchased (1)	Average Price Paid per Share (including fees)	Shares Purchased As Part of Publicly Announced Plans	Approximate Dollar Value of Shares that may yet be Purchased Under the Plans (in millions) (2)
October 1 through October 31	74,796	$ 200.02	74,300	530.9
November 1 through November 30	423,374	204.95	415,434	445.8
December 1 through December 31	19,372	210.37	—	445.8
	517,542		489,734	

(1) Includes the surrender to LII of 27,808 shares of common stock to satisfy employee tax-withholding obligations in connection with the exercise of vested stock appreciation rights and the vesting of restricted stock units.
(2) After $150 million payment for Accelerated Share Repurchase Plan (ASR) executed in February 2018, $200.2 million share repurchase from open market transactions during the second quarter and $100 million share repurchase from open market transactions during the fourth quarter. Final settlement of the ASR occurred in April 2018. The ASR and the stock repurchase was executed pursuant to a previously announced repurchase plan. See Note 16 in the Notes to the Consolidated Financial Statements for further details.

Item 6. Selected Financial Data

The following table presents selected financial data for each of the five years ended December 31, 2018 to 2014 (in millions, except per share data):

	For the Years Ended December 31,				
	2018	2017	2016	2015	2014
Statements of Operations Data:					
Net Sales	$3,883.9	$3,839.6	$3,641.6	$3,467.4	$3,367.4
Operating Income	509.5	494.5	429.4	305.4	334.7
Income From Continuing Operations	360.3	307.1	278.6	187.2	208.1
Net Income	359.0	305.7	277.8	186.6	205.8
Basic Earnings Per Share From Continuing Operations	8.87	7.28	6.41	4.17	4.35
Diluted Earnings Per Share From Continuing Operations	8.77	7.17	6.34	4.11	4.28
Cash Dividends Declared Per Share	2.43	1.96	1.65	1.38	1.14
Other Data:					
Capital Expenditures	$95.2	$98.3	$84.3	$69.9	$88.4
Research and Development Expenses	72.2	73.6	64.6	62.3	60.7
Balance Sheet Data at Period End:					
Total Assets	$1,817.2	$1,891.5	$1,760.3	$1,677.4	$1,764.3
Total Debt	1,041.3	1,004.0	868.2	741.1	925.6
Stockholders' (Deficit) Equity	(149.6)	50.1	38.0	101.6	9.0

Information in the table above is not necessarily indicative of results of future operations. To understand the factors that may affect comparability, the financial data should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the Consolidated Financial Statements and the related Notes to the Consolidated Financial Statements in Item 8, "Financial Statements and Supplementary Data," of this Form 10-K.

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

The following discussion should be read in conjunction with the other sections of this report, including the consolidated financial statements and related notes contained in Item 8 of this Annual Report on Form 10-K.

Business Overview

We operate in three reportable business segments of the heating, ventilation, air conditioning and refrigeration ("HVACR") industry. Our reportable segments are Residential Heating & Cooling, Commercial Heating & Cooling, and Refrigeration. For more detailed information regarding our reportable segments, see Note 20 in the Notes to the Consolidated Financial Statements.

We sell our products and services through a combination of direct sales, distributors and company-owned stores. The demand for our products and services is seasonal and significantly impacted by the weather. Warmer than normal summer temperatures generate demand for replacement air conditioning and refrigeration products and services, and colder than normal winter temperatures have a similar effect on heating products and services. Conversely, cooler than normal summers and warmer than normal winters depress the demand for HVACR products and services. In addition to weather, demand for our products and services is influenced by national and regional economic and demographic factors, such as interest rates, the availability of financing, regional population and employment trends, new construction, general economic conditions and consumer spending habits and confidence. A substantial portion of the sales in each of our business segments is attributable to replacement business, with the balance comprised of new construction business.

The principal elements of cost of goods sold are components, raw materials, factory overhead, labor, estimated costs of warranty expense and freight and distribution costs. The principal raw materials used in our manufacturing processes are steel, copper and aluminum. In recent years, pricing volatility for these commodities and related components has impacted us and the HVACR industry in general. We seek to mitigate the impact of commodity price volatility through a combination of pricing actions, vendor contracts, improved production efficiency and cost reduction initiatives. We also partially mitigate volatility in the prices of these commodities by entering into futures contracts and fixed forward contracts.

On July 19, 2018 our manufacturing facility in Marshalltown, Iowa was damaged by a tornado. Insurance covers the repair or replacement of our assets that suffered damage or loss. We are working closely with our insurance carriers and claims adjusters to ascertain the full amount of insurance recoveries due to us as a result of the damage and loss we suffered. Our insurance policies also provide business interruption coverage, including lost profits, and reimbursement for other expenses and costs that have been incurred relating to the damages and losses suffered. For the year ended December 31, 2018 we incurred expenses of $86.0 million related to damages caused by the tornado, which included the write-off of damaged property, equipment and inventory, freight to move product to other warehouses and professional fees to secure and maintain the site. We have received insurance recoveries of $124.3 million for the year ended December 31, 2018. We have allocated the first $96.9 million of insurance recoveries to cover our expenses and rebuilding costs incurred to date which is included in Gain from insurance recoveries, net of losses incurred in the Consolidated Statements of Operations. The remaining $27.4 million of insurance recoveries represents amounts for lost profits and is shown in Insurance proceeds for lost profits in the Consolidated Statements of Operations. In 2019, we expect to receive approximately $83 million of insurance proceeds related to lost profits and $149 million of insurance proceeds to fund the reconstruction of the facility and as reimbursement for other losses and expenses expected to be incurred. As part of our recovery efforts, we have shifted production of certain products that were previously only produced at our Marshalltown facility to our other facilities. We believe this provides increased manufacturing flexibility.

Financial Highlights

- Net sales increased $44 million, or 1.2%, to $3,884 million in 2018 from $3,840 million in 2017.
- Operating income in 2018 was $510 million compared to $495 million in 2017. The increase was primarily due to increased sales, reductions in SG&A expenses, and insurance proceeds received for third-quarter lost profits, partially offset by lower gross profit.
- Net income in 2018 increased to $359 million from $306 million in 2017.
- Diluted earnings per share from continuing operations were $8.77 per share in 2018 compared to $7.17 per share in 2017.
- We generated $496 million of cash flow from operating activities in 2018 compared to $325 million in 2017. The increase was primarily due to a decrease in working capital and an increase in net income.
- In 2018, we returned $94 million to shareholders through dividend payments and we used $450 million to purchase 2.3 million shares of stock under our Share Repurchase Plans. We also received $115 million in net proceeds from the sale of our businesses in Australia, Asia and South America along with the sale of the related property.

Overview of Results

Despite the impact of the tornado at our Marshalltown facility the Residential Heating & Cooling segment performed well in 2018, with a 4.0% increase in net sales and a $26 million increase in segment profit compared to 2017, including the insurance proceeds received for lost profits in 2018. Our Commercial Heating & Cooling segment also performed well in 2018 with a 7.2% increase in net sales and a $2 million increase in segment profit compared to 2017. This segment’s results were driven by volume and price gains. Sales in our Refrigeration segment decreased

15% and segment profit decreased $7 million compared to 2017 mostly due to the sale of our Australia, Asia and South America businesses.

On a consolidated basis, our gross profit margins decreased to 28.6% in 2018 due primarily to unfavorable commodities, factory inefficiencies due to disruption caused by the tornado at our Marshalltown facility, and higher freight and distribution costs. These declines were partially offset by favorable price and mix and sourcing and engineering-led cost reductions across our business.

Results of Operations

The following table provides a summary of our financial results, including information presented as a percentage of net sales (dollars in millions):

	For the Years Ended December 31,					
	2018		2017		2016	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Net sales	$3,883.9	100.0 %	$3,839.6	100.0 %	$3,641.6	100.0 %
Cost of goods sold	2,772.7	71.4 %	2,714.4	70.7 %	2,565.1	70.4 %
Gross profit	1,111.2	28.6 %	1,125.2	29.3 %	1,076.5	29.6 %
Selling, general and administrative expenses	608.2	15.7 %	637.7	16.6 %	621.0	17.1 %
Losses (gains) and other expenses, net	13.4	0.3 %	7.1	0.2 %	11.3	0.3 %
Restructuring charges	3.0	0.1 %	3.2	0.1 %	1.8	— %
Loss (gain), net on sale of businesses and related property	27.0	0.7 %	1.1	— %	—	— %
Gain from insurance recoveries, net of losses incurred	(10.9)	(0.3)%	—	— %	—	— %
Insurance proceeds for lost profits	(27.4)	(0.7)%	—	— %	—	— %
Pension settlement	0.4	— %	—	— %	31.4	0.9 %
Income from equity method investments	(12.0)	(0.3)%	(18.4)	(0.5)%	(18.4)	(0.5)%
Operating income	$509.5	13.1 %	$494.5	12.9 %	$429.4	11.8 %
Loss from discontinued operations	(1.3)	— %	(1.4)	— %	(0.8)	— %
Net income	$359.0	9.2 %	$305.7	8.0 %	$277.8	7.6 %

The following table provides net sales by geographic market (dollars in millions):

	For the Years Ended December 31,					
	2018		2017		2016	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Net Sales by Geographic Market:						
U.S.	$3,275.9	84.3 %	$3,128.7	81.5 %	$2,966.8	81.5 %
Canada	254.8	6.6	237.8	6.2	218.8	6.0
International	353.2	9.1	473.1	12.3	456.0	12.5
Total net sales	$3,883.9	100.0%	$3,839.6	100.0%	$3,641.6	100.0%

Year Ended December 31, 2018 Compared to Year Ended December 31, 2018 - Consolidated Results

Net Sales

Net sales increased 1.2% in 2018 compared to 2017, primarily driven by volume and price increases. The increase in volume was primarily due to market growth in our Residential Heating and Cooling and Commercial Heating and Cooling segments. These increases were partially offset by the impact due to the sale of our Australia, Asia and South America businesses in our Refrigeration segment.

Gross Profit

Gross profit margins for 2018 decreased 70 basis points (“bps”) to 28.6% compared to 29.3% in 2017. We saw margin decreases of 120 bps from higher commodity costs, 100 bps from higher freight and distribution costs, and 50 bps from other product costs. These decreases were offset by increases of 130 bps from favorable price and mix and 70 bps from sourcing and engineering-led cost reductions.

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Selling, General and Administrative Expenses

SG&A expenses decreased by $30 million in 2018 compared to 2017. As a percentage of net sales, SG&A expenses decreased 90 bps from 16.6% to 15.7% in the same periods. SG&A decreased primarily due to the sale of our divested businesses in Australia, Asia and South America.

Losses (Gains) and Other Expenses, Net

Losses (gains) and other expenses, net for 2018 and 2017 included the following (in millions):

	For the Years Ended December 31,	
	2018	2017
Realized gains, net on settled futures contracts	$(0.4)	$(1.7)
Foreign currency exchange losses (gains), net	1.7	(1.8)
Losses on disposal of fixed assets	0.7	0.2
Net change in unrealized losses, net on unsettled futures contracts	1.5	0.9
Asbestos-related litigation	4.0	3.5
Special legal contingency charge	1.9	3.7
Environmental liabilities	2.2	2.2
Contractor tax payments	—	0.1
Other items, net	1.8	—
Losses (gains) and other expenses, net	$13.4	$7.1

The realized gains on settled futures contracts in 2018 was attributable to changes in commodity prices relative to our settled futures contract prices, as commodity prices have increased in 2018 relative to 2017. Additionally, the change in unrealized losses, net on unsettled futures contracts was due to lower commodity prices relative to the unsettled futures contract prices. For more information on our derivatives, see Note 9 in the Notes to the Consolidated Financial Statements.

Foreign currency exchange losses increased in 2018 primarily due to weakening in foreign exchange rates in our primary markets. The special legal contingency charges decreased primarily due to lower legal costs associated with outstanding legal settlements. The asbestos-related litigation relates to known and estimated future asbestos matters. The environmental liabilities relate to estimated remediation costs for contamination at some of our facilities. Refer to Note 11 in the Notes to the Consolidated Financial Statements for more information on litigation, including the asbestos-related litigation, and the environmental liabilities.

Restructuring Charges

Restructuring charges were $3.0 million in 2018 compared to $3.2 million in 2017. The charges in 2018 and 2017 were primarily for projects to realign resources and enhance manufacturing and distribution capabilities. For more information on our restructuring activities, see Note 18 in the Notes to the Consolidated Financial Statements.

Goodwill

We performed a qualitative impairment analysis and noted no indicators of goodwill impairment for the year ended December 31, 2018. In the current year, we wrote off $11.5 million of goodwill as a part of the completed sales of our Australia, Asia and South America businesses (discussed further in Note 17 of the Notes to the Consolidated Financial Statements). Also, we did not record any goodwill impairments in 2017. Refer to Note 5 in the Notes to the

Consolidated Financial Statements for more information on goodwill.

Asset Impairment

We did not have any impairments of assets related to continuing operations in 2018 or 2017.

Pension Settlement

We did not have significant pension buyout activity in 2018 or 2017. Refer to Note 13 in the Notes to the Consolidated Financial Statements for more information on pensions and employee benefit plans.

Income from Equity Method Investments

Investments over which we do not exercise control but have significant influence are accounted for using the equity method of accounting. Income from equity method investments was $12 million in 2018 compared to $18 million in 2017. The decrease is because the joint ventures have experienced increased costs related to commodities and components and have not passed these increased costs on through price increases.

Interest Expense, net

Net interest expense of $38 million in 2018 increased from $31 million in 2017 primarily due to an increase in our average borrowings and rising interest rates.

Income Taxes

The income tax provision was $108 million in 2018 compared to $157 million in 2017, and the effective tax rate was 23% in 2018 compared to 34% in 2017. The 2018 effective tax rate differs from the statutory rate of 21% primarily due to state and foreign taxes. The 2017 effective tax rate was negatively impacted by changes in U.S. tax legislation that reduced the value of our deferred tax assets by $31.8 million, partially offset by the benefit from the impact of excess tax benefits of $23.6 million. We expect our effective tax rate will be between 22% and 23% in future years excluding the impact of excess tax benefits. Refer to Note 10 in the Notes to the Consolidated Financial Statements for more information on the impact of recent changes in tax legislation.

Loss from Discontinued Operations

The $1 million of pre-tax income incurred in 2018 and $2 million of pre-tax losses in 2017 primarily relate to changes in retained product liabilities and general liabilities for the Service Experts business sold in 2013 and the Hearth business sold in 2012.

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017 - Results by Segment

Residential Heating & Cooling

The following table presents our Residential Heating & Cooling segment’s net sales and profit for 2018 and 2017 (dollars in millions):

	For the Years Ended December 31,			
	2018	2017	Difference	% Change
Net sales	$2,225.0	$2,140.4	$ 84.6	4.0 %
Profit	$399.4	$373.9	$ 25.5	6.8 %
% of net sales	18.0 %	17.5 %		

Residential Heating & Cooling net sales increased 4% in 2018 compared to 2017. Sales volume increased 2% and price and mix combined increased 2%.

Segment profit in 2018 increased $26 million due to $52 million of combined price and mix, $27 million of insurance proceeds for the third quarter 2018 lost profits from the Marshalltown tornado, $14 million from higher sales volume, $12 million from sourcing and engineering-led cost reductions, and $5 million of higher factory productivity. Partially offsetting these increases is $35 million of higher commodity costs, $32 million of higher freight and distribution expenses, $9 million of higher other product costs, $4 million from lower equity method income, $3 million from unfavorable foreign exchange rates, and $1 million from higher SG&A.

Commercial Heating & Cooling

The following table presents our Commercial Heating & Cooling segment's net sales and profit for 2018 and 2017 (dollars in millions):

	For the Years Ended December 31,			
	2018	2017	Difference	% Change
Net sales	$1,043.5	$973.8	$ 69.7	7.2 %
Profit	$159.5	$157.3	$ 2.2	1.4 %
% of net sales	15.3 %	16.2 %		

Commercial Heating & Cooling net sales increased 7% in 2018 compared to 2017. Sales volume increased 5% and price and mix combined increased 2%.

Segment profit in 2018 increased $2 million compared to 2017 due to $15 million from higher sales volume, $11 million of combined price and mix, and $4 million from sourcing and engineering-led cost reductions. Partially offsetting these increases is $9 million of higher commodity costs, $8 million of higher other product costs, $5 million of higher freight and distribution expense, $3 million of lower factory productivity, $2 million of higher SG&A expense, and $1 million of lower equity method income.

Refrigeration

The following table presents our Refrigeration segment's net sales and profit for 2018 and 2017 (dollars in millions):

	For the Years Ended December 31,			
	2018	2017	Difference	% Change
Net sales	$615.4	$725.4	$ (110.0)	(15.2)%
Profit	$66.1	$72.6	$ (6.5)	(9.0)%
% of net sales	10.7 %	10.0 %		

Net sales decreased 15% in 2018 compared to 2017. The loss of sales from the divested Australia, Asia and South America businesses contributed 16% and price and mix combined was 1% lower partially offset by sales volume increases of 1% and 1% from foreign currency exchange rates.

Segment profit in 2018 decreased $7 million compared to 2017 due to $6 million of higher commodity costs, $6 million of lower profit due to the divested Australia, Asia and South America businesses, $2 million of lower factory productivity, $2 million of higher freight and distribution expense, $2 million of lower equity method income, and $1 million of higher other product costs. Partially offsetting these decreases is $6 million of sourcing and engineering-led cost reductions, $2 million from selling refrigerant allocations in Europe, $2 million of lower SG&A expense, $1 million from higher sales volume, and $1 million of favorable foreign currency exchange rates.

Corporate and Other

Corporate and other expenses decreased by $5 million in 2018 primarily due to $2 million of non-recurring discretionary expenses in 2017, $2 million of pension expense that was reclassified out of operating income due to a change in accounting rules, and $1 million of lower health and welfare expense.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 - Consolidated Results

Net Sales

Net sales increased 5.4% in 2017 compared to 2016, primarily driven by volume increases. The increase in volume was primarily due to market growth in our Residential Heating and Cooling and Commercial Heating and Cooling segments. Changes in foreign currency exchange rates and the effects of price and mix also had positive impacts on net sales.

Gross Profit

Gross profit margins for 2017 decreased 30 basis points ("bps") to 29.3% compared to 29.6% in 2016. We saw margin decreases of 80 bps from higher commodity costs, 50 bps for investments in distribution expansion, and 40 bps from other product costs. These decreases were offset by increases of 100 bps from sourcing and engineering-led cost reductions and 40 bps from favorable price and mix.

Selling, General and Administrative Expenses

SG&A expenses increased by $17 million in 2017 compared to 2016. As a percentage of net sales, SG&A expenses decreased 50 bps from 17.1% to 16.6% in the same periods. SG&A increased due to general wage inflation, increased healthcare costs and increased investment in information technology and research and development partially offset by decreases in incentive compensation.

Losses (Gains) and Other Expenses, Net

Losses (gains) and other expenses, net for 2017 and 2016 included the following (in millions):

	For the Years Ended December 31,	
	2017	2016
Realized (gains) losses, net on settled futures contracts	$(1.7)	$1.1
Foreign currency exchange (gains) losses, net	(1.8)	2.2
Losses on disposal of fixed assets	0.2	0.5
Net change in unrealized losses (gains), net on unsettled futures contracts	0.9	(3.6)
Asbestos-related litigation	3.5	6.3
Special legal contingency charge	3.7	1.9
Environmental liabilities	2.2	1.9
Contractor tax payments	0.1	0.6
Other items, net	—	0.4
Losses (gains) and other expenses, net	$7.1	$11.3

The realized gains on settled futures contracts in 2017 was attributable to changes in commodity prices relative to our settled futures contract prices, as commodity prices have increased in 2017 relative to 2016. Additionally, the change in unrealized losses, net on unsettled futures contracts was due to lower commodity prices relative to the unsettled futures contract prices.

Foreign currency exchange gains increased in 2017 primarily due to improvement in foreign exchange rates in our primary markets. The special legal contingency charges increased primarily due to costs associated with the matter reported to the Securities and Exchange Commission and Department of Justice. The asbestos-related litigation relates to known and estimated future asbestos matters. The environmental liabilities relate to estimated remediation costs for contamination at some of our facilities. The contractor tax payments relate to a charge for underpaid contractor taxes at one of our non-U.S. subsidiaries. Refer to Note 11 in the Notes to the Consolidated Financial Statements for more information on litigation, including the asbestos-related litigation, and the environmental liabilities.

Restructuring Charges

Restructuring charges were $3.2 million in 2017 compared to $1.8 million in 2016. The charges in 2017 and 2016 were primarily for projects to realign resources and enhance distribution capabilities.

Goodwill

We performed a qualitative impairment analysis and noted no indicators of goodwill impairment through December 31, 2017. Also, we did not record any goodwill impairments in 2016. Refer to Note 5 in the Notes to the Consolidated Financial Statements for more information on goodwill.

Pension Settlement

In 2016 our unfunded pension liability declined by $33 million to $89 million as the favorable impact of our $50 million discretionary contribution was partially offset by lower discount rates across all plans. In addition, we recorded a pension settlement charge of $31 million in the fourth quarter of 2016. We did not have similar funding or pension buyout activity in 2017.

Income from Equity Method Investments

Investments over which we do not exercise control but have significant influence are accounted for using the equity method of accounting. Income from equity method investments was $18 million in 2017 compared to $18 million in 2016 due to flat earnings from our joint ventures.

Interest Expense, net

Net interest expense of $31 million in 2017 increased from $27 million in 2016 primarily due to an increase in our average borrowings.

Income Taxes

The income tax provision was $157 million in 2017 compared to $124 million in 2016, and the effective tax rate was 34% in 2017 compared to 31% in 2016. The 2017 effective tax rate was negatively impacted by recent changes in U.S. tax legislation that reduced the value of our deferred tax assets by $31.8 million, partially offset by the benefit from the impact of excess tax benefits of $23.6 million. The 2016 effective tax rate was not impacted by either U.S. tax rate changes or the impact of excess tax benefits.

Loss from Discontinued Operations

The $2 million of pre-tax losses incurred in 2017 and $1 million of pre-tax losses in 2016 primarily relate to changes in retained product liabilities and general liabilities for the Service Experts business sold in 2013 and the Hearth business sold in 2012.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 - Results by Segment

Residential Heating & Cooling

The following table presents our Residential Heating & Cooling segment’s net sales and profit for 2017 and 2016 (dollars in millions):

	For the Years Ended December 31,			
	2017	2016	Difference	% Change
Net sales	$2,140.4	$2,000.8	$ 139.6	7.0 %
Profit	$373.9	$348.8	$ 25.1	7.2 %
% of net sales	17.5 %	17.4 %		

Residential Heating & Cooling net sales increased 7% in 2017 compared to 2016. Sales volume increased by 7% primarily due to market growth.

Segment profit in 2017 increased $25 million due to $39 million from higher sales volume, $21 million from sourcing and engineering-led cost reductions, $15 million from favorable price, $5 million from favorable foreign currency, $2 million from lower warranty expense, and $1 million from higher income from equity method investments. Partially offsetting these increases was $20 million in higher commodity costs, $15 million in SG&A expenses to support investments in technology and research and development, incremental headcount and higher personnel costs, $12 million in freight and distribution investments, $6 million from unfavorable mix, and $5 million from increases in other product costs.

Commercial Heating & Cooling

The following table presents our Commercial Heating & Cooling segment's net sales and profit for 2017 and 2016 (dollars in millions):

	For the Years Ended December 31,			
	2017	2016	Difference	% Change
Net sales	$973.8	$917.9	$ 55.9	6.1 %
Profit	$157.3	$149.3	$ 8.0	5.4 %
% of net sales	16.2 %	16.3 %		

Commercial Heating & Cooling net sales increased 6% in 2017 compared to 2016. Sales volume increased by 5% primarily due to market growth and 1% from favorable foreign currency.

Segment profit in 2017 increased $8 million compared to 2016 due to $14 million from higher sales volume, $7 million from sourcing and engineering-led cost reductions, and $1 million in favorable foreign currency. Partially offsetting these increases was $5 million from warranty and other product costs, $4 million of higher commodity costs, $3 million from factory inefficiencies, $1 million in higher SG&A expenses, and $1 million in freight and distribution investments.

Refrigeration

The following table presents our Refrigeration segment's net sales and profit for 2017 and 2016 (dollars in millions):

	For the Years Ended December 31,			
	2017	2016	Difference	% Change
Net sales	$725.4	$722.9	$ 2.5	0.3 %
Profit	$72.6	$68.9	$ 3.7	5.4 %
% of net sales	10.0 %	9.5 %		

Net sales in 2017 were flat compared to 2016. Favorable foreign currency increased sales by 1% offset by lower sales volume of 1% primarily from our North America supermarket business.

Segment profit in 2017 increased $4 million compared to 2016 due to $9 million from sourcing and engineering-led cost reductions, $3 million from favorable price and mix, and $3 million in lower other product costs. Partially offsetting these increases was $5 million from factory inefficiencies, $2 million from freight and distribution, $2 million from higher commodity costs, and $2 million from higher SG&A expense.

Corporate and Other

Corporate and other expenses decreased by $8 million in 2017 primarily due from lower incentive compensation with a partial offset from general wage inflation and information technology investments.

Accounting for Futures Contracts

Realized gains and losses on settled futures contracts are a component of segment profit (loss). Unrealized gains and losses on unsettled futures contracts are excluded from segment profit (loss) as they are subject to changes in fair value until their settlement date. Both realized and unrealized gains and losses on futures contracts are a component of Losses (gains) and other expenses, net in the accompanying Consolidated Statements of Operations. See Note 9 of the Notes to Consolidated Financial Statements for more information on our derivatives and Note 20 of the Notes to the Consolidated Financial Statements for more information on our segments and for a reconciliation of segment profit to operating income.

Liquidity and Capital Resources

Our working capital and capital expenditure requirements are generally met through internally generated funds, bank lines of credit and an asset securitization arrangement. Working capital needs are generally greater in the first and second quarters due to the seasonal nature of our business cycle.

Statement of Cash Flows

The following table summarizes our cash flow activity for the years ended December 31, 2018, 2017 and 2016 (in millions):

	2018	2017	2016
Net cash provided by operating activities	$495.5	$325.1	$373.9
Net cash provided by (used in) investing activities	30.5	(98.1)	(84.1)
Net cash used in financing activities	$(537.8)	$(218.3)	$(274.6)

Net Cash Provided by Operating Activities - Net cash provided by operating activities increased $170 million to $496 million in 2018 compared to $325 million in 2017. This increase was primarily attributable to the decrease in working capital and an increase in net income.

Net Cash Provided by (Used in) Investing Activities - Capital expenditures were $95 million, $98 million and $84 million in 2018, 2017 and 2016, respectively. Capital expenditures in 2018 were primarily related to expansion of our manufacturing capacity and equipment and investments in systems and software to support the overall enterprise. Net proceeds of $115 million were provided by the sale of our businesses in Australia and Asia along with the related property as well as the sale of our business in South America.

Net Cash Used in Financing Activities - Net cash used in financing activities increased to $538 million in 2018 from $218 million in 2017. The increase in cash used in financing activities is largely due to an increase in share repurchases. During 2018 we repurchased $450 million of shares as compared to $250 million of shares in 2017. We also returned $94 million to shareholders through dividend payments. For additional information on share repurchases, refer to Note 16 in the Notes to the Consolidated Financial Statements.

Debt Position

The following table details our lines of credit and financing arrangements as of December 31, 2018 (in millions):

	Outstanding Borrowings
Current maturities of long-term debt:	
Asset Securitization Program [1]	$ 268.0
Capital lease obligations	3.5
Domestic credit facility [2]	30.0
Debt issuance costs	(0.7)
Total current maturities of long-term debt	$ 300.8
Long-term debt:	
Capital lease obligations	$ 15.7
Domestic credit facility [2]	378.0
Senior unsecured notes	350.0
Debt issuance costs	(3.2)
Total long-term debt	740.5

Total debt	$ 1,041.3

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(1) The maximum securitization amount ranges from $225.0 million to $380.0 million, depending on the period. The maximum capacity of the Asset Securitization Program ("ASP") is the lesser of the maximum securitization amount or 100% of the net pool balance less reserves, as defined under the ASP.

(2) The available future borrowings on our domestic credit facility are $429.5 million after being reduced by the outstanding borrowings and $2.5 million in outstanding standby letters of credit. We also had $30.7 million in outstanding standby letters of credit outside of the domestic credit facility as of December 31, 2018. In January 2019, we increased the maximum revolving credit commitments by $350 million as permitted under the Domestic Credit Facility bringing the total maximum revolving credit commitments to $1.0 billion.

Financial Leverage

We periodically review our capital structure, including our primary bank facility, to ensure the appropriate levels of liquidity and leverage and to take advantage of favorable interest rate environments or other market conditions. We consider various other financing alternatives and may, from time to time, access the capital markets.

As of December 31, 2018, our senior credit ratings were Baa3 with a stable outlook, and BBB with a stable outlook, by Moody's Investors Service, Inc. ("Moody's") and Standard & Poor's Rating Group ("S&P"), respectively. The security ratings are not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time by the assigning rating agency. Each rating should be evaluated independently of any other rating. Our goal is to maintain investment grade ratings from Moody's and S&P to help ensure the capital markets remain available to us.

Our debt-to-total-capital ratio increased to 116.8% at December 31, 2018 compared to 95.2% at December 31, 2017. The increase in the ratio in 2018 is primarily due to the decrease in equity. We evaluate our debt-to-EBITDA ratio in order to determine the appropriate targets for share repurchases under our share repurchase programs.

Liquidity

We believe our cash and cash equivalents of $46 million, future cash generated from operations and available future borrowings are sufficient to fund our operations, planned capital expenditures, future contractual obligations, share repurchases, anticipated dividends and other needs in the foreseeable future. Included in our cash and cash equivalents as of December 31, 2018 was $29 million of cash held in foreign locations, although that amount can fluctuate significantly depending on the timing of cash receipts and payments. Our cash held in foreign locations is used for investing and operating activities in those locations, and we generally do not have the need or intent to repatriate those funds to the United States. An actual repatriation in the future from our non-U.S. subsidiaries could be subject to foreign withholding taxes and U.S. state taxes.

No contributions are required to be made to our U.S. defined benefit plans in 2019. We made $21 million in total contributions to pension plans in 2018.

On May 16, 2018, our Board of Directors approved a 25% increase in our quarterly dividend on common stock from $0.51 to $0.64 per share effective with the May 2018 dividend payment. Dividend payments were $94 million in 2018 compared to $80 million in 2017, with the increase due primarily to the increase in dividends approved by the Board of Directors.

We also continued to increase shareholder value through our share repurchase programs. We returned $450 million to our investors through share repurchases in 2018 and expect to return another $350 million in 2019. An additional $446 million of repurchases are still available under the programs at December 31, 2018.

We expect capital expenditures of approximately $215 million in 2019, including $115 million to complete the reconstruction of the Marshalltown, Iowa manufacturing facility. We expect the reconstruction of our Iowa facility to be funded by insurance proceeds.

Financial Covenants related to our Debt

Our domestic credit facility is guaranteed by certain of our subsidiaries and contains financial covenants relating to leverage and interest coverage. Other covenants contained in the domestic credit facility restrict, among other things, certain mergers, asset dispositions, guarantees, debt, liens, and affiliate transactions. The financial covenants require us to maintain a defined Consolidated Indebtedness to Adjusted EBITDA Ratio and a Cash Flow (defined as EBITDA minus capital expenditures) to Interest Expense Ratio. The required ratios under our domestic credit facility are detailed below:

Consolidated Indebtedness to Adjusted EBITDA Ratio no greater than	3.5 : 1.0
Cash Flow to Interest Expense Ratio no less than	3.0 : 1.0

Our domestic credit facility contains customary events of default. These events of default include nonpayment of principal or other amounts, material inaccuracy of representations and warranties, breach of covenants, default on certain other indebtedness or receivables securitizations (cross default), certain voluntary and involuntary bankruptcy events and the occurrence of a change in control. A cross default under our credit facility could occur if:

- We fail to pay any principal or interest when due on any other indebtedness or receivables securitization exceeding $75.0 million; or
- We are in default in the performance of, or compliance with any term of any other indebtedness or receivables securitization in an aggregate principal amount exceeding $75.0 million, or any other condition exists which would give the holders the right to declare such indebtedness due and payable prior to its stated maturity.

Each of our major debt agreements contains provisions by which a default under one agreement causes a default in the others (a cross default). If a cross default under our domestic credit facility, our senior unsecured notes, or our ASP were to occur, it could have a wider impact on our liquidity than might otherwise occur from a default of a single debt instrument or lease commitment.

If any event of default occurs and is continuing, the administrative agent, or lenders with a majority of the aggregate commitments may require the administrative agent to, terminate our right to borrow under our domestic credit facility and accelerate amounts due under our domestic credit facility (except for a bankruptcy event of default, in which case such amounts will automatically become due and payable and the lenders’ commitments will automatically terminate).

In the event of a credit rating downgrade below investment grade resulting from a change of control, holders of our senior unsecured notes will have the right to require us to repurchase all or a portion of the senior unsecured notes at a repurchase price equal to 101% of the principal amount of the notes, plus accrued and unpaid interest, if any. The notes are guaranteed, on a senior unsecured basis, by each of our subsidiaries that guarantee payment by us of any indebtedness under our domestic credit facility. The indenture governing the notes contains covenants that, among other things, limit our ability and the ability of the subsidiary guarantors to: create or incur certain liens; enter into certain sale and leaseback transactions; enter into certain mergers, consolidations and transfers of substantially all of our assets; and transfer certain properties. The indenture also contains a cross default provision which is triggered if we default on other debt of at least $75 million in principal which is then accelerated, and such acceleration is not rescinded within 30 days of the notice date.

As of December 31, 2018, we believe we were in compliance with all covenant requirements. Delaware law limits the ability to pay dividends to surplus or, if there is no surplus, out of net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. In addition, stock repurchases can only be made out of surplus and only if our capital would not be impaired.

Leasing Commitments

On March 22, 2013, we entered into an agreement with a financial institution to renew the lease of our corporate headquarters in Richardson, Texas for a term of approximately six years through March 1, 2019 (the “Lake Park Renewal”). The agreement contains customary lease covenants and events of default as well as financial covenants consistent with our credit agreement and we believe we were in compliance with those covenants as of December 31, 2018. We are in the process of finalizing the renewal of our lease that expires on March 1, 2019 and expect the terms and conditions to be similar to the existing lease.

In 2008, we expanded our Tifton, Georgia manufacturing facility using the proceeds from industrial development bonds (“IDBs”). We entered into a lease agreement with the owner of the property and the issuer of the IDBs, and through our lease payments fund the interest payments to investors in the IDBs. We also guaranteed the repayment of the IDBs and have outstanding letters of credit totaling $11.7 million to fund a potential repurchase of the IDBs in the event investors exercised their right to tender the IDBs to the trustee. We had capital lease obligations of $11.7 million and $14.3 million related to these transactions as of December 31, 2018 and 2017, as we made $2.6 million of payments in 2018.

Refer to Note 11 in the Notes to the Consolidated Financial Statements for more details on our leasing commitments.

Off Balance Sheet Arrangements

In addition to the credit facilities, promissory notes and leasing commitments described above, we also lease real estate and machinery and equipment pursuant to operating leases that are not capitalized on the balance sheet, including high-turnover equipment such as autos and service vehicles and short-lived equipment such as personal computers. Rent expense for these leases was $59 million, $58 million, and $58 million in 2018, 2017 and 2016, respectively. Refer to Notes 11 and 24 of the Notes to the Consolidated Financial Statements for more information on our lease commitments and rent expense, respectively.

Contractual Obligations

Summarized below are our contractual obligations as of December 31, 2018 and their expected impact on our liquidity and cash flows in future periods (in millions):

	Payments Due by Period				
	Total	1 Year or Less	1 - 3 Years	3 - 5 Years	More than 5 Years
Total long-term debt obligations (1)	$1,045.2	$301.5	$381.9	$350.1	$11.7
Estimated interest payments on debt obligations (2)	$98.3	33.5	43.9	20.0	0.9
Operating leases	159.7	47.4	65.6	30.6	16.1
Purchase obligations (3)	27.2	27.2	—	—	—
Total contractual obligations	$1,330.4	$409.6	$491.4	$400.7	$28.7

(1) Contractual obligations related to capital leases are included as part of long-term debt.
(2) Estimated interest payments are based on current contractual requirements and do not reflect seasonal changes in the balance of our domestic credit facility.
(3) Purchase obligations consist of inventory that is part of our third party logistics programs.

The table above does not include pension, post-retirement benefit and warranty liabilities because it is not certain when these liabilities will be funded. For additional information regarding our contractual obligations, see Notes 11 and 12 of the Notes to the Consolidated Financial Statements. See Note 13 of the Notes to the Consolidated Financial Statements for more information on our pension and post-retirement benefits obligations.

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date and requires consideration of our creditworthiness when valuing certain liabilities. Our framework for measuring fair value is based on a three-level hierarchy for fair value measurements.

The three-level fair value hierarchy for disclosure of fair value measurements is defined as follows:

Level 1 - Quoted prices for identical instruments in active markets at the measurement date.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets at the measurement date and for the anticipated term of the instrument.

Level 3 - Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

Where available, the fair values were based upon quoted prices in active markets. However, if quoted prices were not available, then the fair values were based upon quoted prices for similar assets or liabilities or independently sourced market parameters, such as credit default swap spreads, yield curves, reported trades, broker/dealer quotes, interest rates and benchmark securities. For assets and liabilities without observable market activity, if any, the fair values were based upon discounted cash flow methodologies incorporating assumptions that, in our judgment, reflect the assumptions a marketplace participant would use.

Valuation adjustments to reflect either party's creditworthiness and ability to pay were incorporated into our valuations, where appropriate, as of December 31, 2018 and 2017, the measurement dates.

See Note 21 of the Notes to the Consolidated Financial Statements for more information on the assets and liabilities measured at fair value.

Market Risk

Commodity Price Risk

We enter into commodity futures contracts to stabilize prices expected to be paid for raw materials and parts containing high copper and aluminum content. These contracts are for quantities equal to or less than quantities expected to be consumed in future production. Fluctuations in metal commodity prices impact the value of the futures contracts that we hold. When metal commodity prices rise, the fair value of our futures contracts increases. Conversely, when commodity prices fall, the fair value of our futures contracts decreases. Information about our exposure to metal commodity price market risks and a sensitivity analysis related to our metal commodity hedges is presented below (in millions):

Notional amount (pounds of aluminum and copper)	19.4
Carrying amount and fair value of net liability	$(10.8)
Change in fair value from 10% change in forward prices	$8.6

Refer to Note 9 of the Notes to the Consolidated Financial Statements for additional information regarding our commodity futures contracts.

Interest Rate Risk

Our results of operations can be affected by changes in interest rates due to variable rates of interest on our debt facilities, cash, cash equivalents and short-term investments. A 10% adverse movement in the levels of interest rates across the entire yield curve would have resulted in an increase to pre-tax interest expense of approximately $2.7 million, $1.8 million and $2.0 million for the years ended December 31, 2018, 2017 and 2016, respectively.

From time to time, we may use an interest rate swap hedging strategy to eliminate the variability of cash flows in a portion of our interest payments. This strategy, when employed, allows us to fix a portion of our interest payments while also taking advantage of historically low interest rates. As of December 31, 2018 and 2017, no interest rate swaps were in effect.

Foreign Currency Exchange Rate Risk

Our results of operations are affected by changes in foreign currency exchange rates. Net sales and expenses in foreign currencies are translated into U.S. dollars for financial reporting purposes based on the average exchange rate for the period. During 2018, 2017 and 2016, net sales from outside the U.S. represented 15.7%, 18.5% and 18.5% , respectively, of our total net sales. For the years ended December 31, 2018 and 2017, foreign currency transaction gains and losses did not have a material impact to our results of operations. A 10% change in foreign exchange rates would have had an estimated $2.1 million, $5.2 million and $4.0 million impact to net income for the years ended December 31, 2018, 2017 and 2016, respectively.

We seek to mitigate the impact of currency exchange rate movements on certain short-term transactions by periodically entering into foreign currency forward contracts. By entering into forward contracts, we lock in exchange rates that would otherwise cause losses should the U.S. dollar appreciate and gains should the U.S. dollar depreciate. Refer to Note 9 of the Notes to the Consolidated Financial Statements for additional information regarding our foreign currency forward contracts.

Critical Accounting Estimates

A critical accounting estimate is one that requires difficult, subjective or complex estimates and assessments and is fundamental to our results of operations and financial condition. The following are our critical accounting estimates and describe how we develop our judgments, assumptions and estimates about future events and how such policies can impact our financial statements:

- Product warranties and product-related contingencies; and
- Self-insurance expense.

This discussion and analysis should be read in conjunction with our Consolidated Financial Statements and related Notes in "Item 8. Financial Statements and Supplementary Data."

Product Warranties and Product-Related Contingencies

The estimate of our liability for future warranty costs requires us to make assumptions about the amount, timing and nature of future product-related costs. Some of the warranties we issue extend 10 years or more in duration and a relatively small adjustment to an assumption may have a significant impact on our overall liability. We may also incur costs related to our products that may not be covered under our warranties and are not covered by insurance, and, from time to time, we may repair or replace installed products experiencing quality issues in order to satisfy our customers and protect our brand.

We periodically review the assumptions used to determine the liabilities for product warranties and product-related contingencies and we adjust our assumptions based upon factors such as actual failure rates and cost experience. Numerous factors could affect actual failure rates and cost experience, including the amount and timing of new product introductions, changes in manufacturing techniques or locations, components or suppliers used. Should actual costs differ from our estimates, we may be required to adjust the liabilities and to record expense in future periods. See Note 11 in the Notes to the Consolidated Financial Statements for more information on our product warranties and product-related contingencies.

Self-Insurance Expense

We use a combination of third-party insurance and self-insurance plans to provide protection against claims relating to workers' compensation/employers' liability, general liability, product liability, auto liability, auto physical damage and other exposures. Many of these plans have large deductibles and may also include per occurrence and annual aggregate limits. As a result, we expect to incur costs related to these types of claims in future periods.

The estimates for self-insurance expense and liabilities involve assumptions about the amount, timing and nature of future claim costs. We estimate these amounts actuarially based primarily on our historical claims information and industry factors and trends. The amounts and timing of payments for future claims may vary depending on numerous factors, including the development and ultimate settlement of reported and unreported claims. To the extent actuarial assumptions change and claims experience differ from historical rates, our liabilities may change. The self-insurance liabilities as of December 31, 2018 represent the best estimate of the future payments to be made on reported and unreported losses. See Note 11 in the Notes to the Consolidated Financial Statements for additional information on our self-insurance expense and liabilities.

Recent Accounting Pronouncements

See Note 2 in the Notes to the Consolidated Financial Statements for disclosure of recent accounting pronouncements and the potential impact on our financial statements and disclosures.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The information required by this item is included under the caption "Market Risk" in Item 7 above.

Item 8. Financial Statements and Supplementary Data

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. As defined by the Securities and Exchange Commission, internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles.

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.

Management, including our Chief Executive Officer and Chief Financial Officer, has undertaken an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) by the Committee of Sponsoring Organizations of the Treadway Commission. Management's assessment included an evaluation of the design of the Company's internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on this assessment, management concluded that as of December 31, 2018, the Company's internal control over financial reporting was effective.

KPMG LLP, the independent registered public accounting firm that audited the Company's consolidated financial statements, has issued an audit report including an opinion on the effectiveness of our internal control over financial reporting as of December 31, 2018, a copy of which is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
Lennox International Inc.:

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

We have audited the accompanying consolidated balance sheets of Lennox International Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive (loss) income, stockholders' (deficit) equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes and Schedule II - Valuation and Qualifying Accounts and Reserves (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, in 2018 the Company adopted Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606), as amended.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are

being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

We have served as the Company’s auditor since 2002.
Dallas, Texas
February 19, 2019

LENNOX INTERNATIONAL INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In millions, except shares and par values)

	As of December 31,	
	2018	2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$46.3	$68.2
Accounts and notes receivable, net of allowances of $6.3 and $5.9 in 2018 and 2017, respectively	472.7	506.5
Inventories, net	509.8	484.2
Other assets	60.6	78.4
Total current assets	1,089.4	1,137.3
Property, plant and equipment, net of accumulated depreciation of $778.5 and $774.2 in 2018 and 2017, respectively	408.3	397.8
Goodwill	186.6	200.5
Deferred income taxes	67.0	94.4
Other assets, net	65.9	61.5
Total assets	$1,817.2	$1,891.5
LIABILITIES AND STOCKHOLDERS’ (DEFICIT) EQUITY		
Current Liabilities:		
Short-term debt	$—	$0.9
Current maturities of long-term debt	300.8	32.6
Accounts payable	433.3	348.6
Accrued expenses	272.3	270.3
Income taxes payable	2.1	2.1
Total current liabilities	1,008.5	654.5
Long-term debt	740.5	970.5
Pensions	82.8	84.5
Other liabilities	135.0	131.9
Total liabilities	1,966.8	1,841.4
Commitments and contingencies		
Stockholders' (deficit) equity:		
Preferred stock, $.01 par value, 25,000,000 shares authorized, no shares issued or outstanding	—	—
Common stock, $.01 par value, 200,000,000 shares authorized, 87,170,197 shares issued	0.9	0.9
Additional paid-in capital	1,078.8	1,061.5
Retained earnings	1,855.0	1,575.9
Accumulated other comprehensive loss	(188.8)	(157.4)
Treasury stock, at cost, shares 47,312,248 and 45,361,145 shares for 2018 and 2017, respectively	(2,895.5)	(2,430.8)
Total stockholders' (deficit) equity	(149.6)	50.1
Total liabilities and stockholders' (deficit) equity	$1,817.2	$1,891.5

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

LENNOX INTERNATIONAL INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except per share data)

	For the Years Ended December 31,		
	2018	2017	2016
Net sales	$3,883.9	$3,839.6	$3,641.6
Cost of goods sold	2,772.7	2,714.4	2,565.1
Gross profit	1,111.2	1,125.2	1,076.5
Operating expenses:			
Selling, general and administrative expenses	608.2	637.7	621.0
Losses (gains) and other expenses, net	13.4	7.1	11.3
Restructuring charges	3.0	3.2	1.8
Pension settlement	0.4	—	31.4
Loss (gain), net on sale of businesses and related property	27.0	1.1	—
Insurance proceeds for lost profits	(27.4)	—	—
Gain from insurance recoveries, net of losses incurred	(10.9)	—	—
Income from equity method investments	(12.0)	(18.4)	(18.4)
Operating income	509.5	494.5	429.4
Interest expense, net	38.3	30.6	27.0
Other expense (income), net	3.3	(0.1)	(0.3)
Income from continuing operations before income taxes	467.9	464.0	402.7
Provision for income taxes	107.6	156.9	124.1
Income from continuing operations	360.3	307.1	278.6
Discontinued operations:			
Income (loss) from discontinued operations before income taxes	0.8	(2.2)	(1.3)
Income tax expense (benefit)	2.1	(0.8)	(0.5)
Loss from discontinued operations	(1.3)	(1.4)	(0.8)
Net income	$359.0	$305.7	$277.8
Earnings per share – Basic:			
Income from continuing operations	$8.87	$7.28	$6.41
Loss from discontinued operations	(0.03)	(0.03)	(0.02)
Net income	$8.84	$7.25	$6.39
Earnings per share – Diluted:			
Income from continuing operations	$8.77	$7.17	$6.34
Loss from discontinued operations	(0.03)	(0.03)	(0.02)
Net income	$8.74	$7.14	$6.32
Weighted Average Number of Shares Outstanding - Basic	40.6	42.2	43.4
Weighted Average Number of Shares Outstanding - Diluted	41.1	42.8	44.0
Cash dividends declared per share	$2.43	$1.96	$1.65

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

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LENNOX INTERNATIONAL INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(In millions)

	For the Years Ended December 31,		
	2018	2017	2016
Net income	359.0	305.7	277.8
Other comprehensive income (loss):			
Foreign currency translation adjustments	(16.9)	33.9	(11.6)
Reclassification of foreign currency translation adjustments into earnings	27.9	—	—
Net change in pension and post-retirement benefit liabilities	(13.8)	(5.3)	10.4
Change in fair value of available-for-sale marketable equity securities	(1.8)	(0.5)	(2.1)
Net change in fair value of cash flow hedges	(13.6)	16.1	9.8
Reclassification of pension and post-retirement benefit losses into earnings	9.3	7.3	6.3
Reclassification of cash flow hedge losses into earnings	(6.1)	(13.7)	12.3
Other comprehensive (loss) income before taxes	$(15.0)	$37.8	$25.1
Tax expense	(16.4)	(0.1)	(15.5)
Other comprehensive (loss) income, net of tax	(31.4)	37.7	9.6
Comprehensive income	$327.6	$343.4	$287.4

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

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LENNOX INTERNATIONAL INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' (DEFICIT) EQUITY
For the Years Ended December 31, 2018, 2017 and 2016
(In millions, except per share data)

	Common Stock Issued	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock at Cost Shares	Treasury Stock at Cost Amount	Non-controlling Interests	Total Stockholders' (Deficit) Equity
Balance as of December 31, 2015	0.9	1,002.4	1,146.7	(204.7)	42.5	(1,844.1)	0.4	101.6
Net income	—	—	277.8	—	—	—	—	277.8
Dividends, $1.65 per share	—	—	(71.5)	—	—	—	—	(71.5)
Foreign currency translation adjustments	—	—	—	(11.6)	—	—	—	(11.6)
Pension and post-retirement liability changes, net of tax benefit of $7.4	—	—	—	9.3	—	—	—	9.3
Change in fair value of available-for-sale marketable equity securities	—	—	—	(2.1)	—	—	—	(2.1)
Stock-based compensation expense	—	31.7	—	—	—	—	—	31.7
Change in cash flow hedges, net of tax benefit of $8.0	—	—	—	14.0	—	—	—	14.0
Treasury shares reissued for common stock	—	(7.3)	—	—	(0.7)	10.0	—	2.7
Additional investment in subsidiary	—	—	—	—	—	—	—	—
Treasury stock purchases	—	—	—	—	2.4	(333.3)	—	(333.3)
Tax benefits of stock-based compensation	—	19.4	—	—	—	—	—	19.4
Balance as of December 31, 2016	0.9	1,046.2	1,353.0	(195.1)	44.2	(2,167.4)	0.4	38.0
Net income	—	—	305.7	—	—	—	—	305.7
Dividends, $1.96 per share	—	—	(82.8)	—	—	—	—	(82.8)
Foreign currency translation adjustments	—	—	—	33.9	—	—	—	33.9
Pension and post-retirement liability changes, net of tax benefit of $0.5	—	—	—	2.5	—	—	—	2.5
Change in fair value of available-for-sale marketable equity securities	—	—	—	(0.5)	—	—	—	(0.5)
Stock-based compensation expense	—	24.9	—	—	—	—	—	24.9
Change in cash flow hedges, net of tax expense of $0.6	—	—	—	1.8	—	—	—	1.8
Treasury shares reissued for common stock	—	(9.6)	—	—	(0.4)	12.7	—	3.1

Additional investment in subsidiary	—	—	—	—	—	—	(0.4)	(0.4)
Treasury stock purchases	—	—	—	—	1.6	(276.1)	—	(276.1)
Balance as of December 31, 2017	0.9	1,061.5	1,575.9	(157.4)	45.4	(2,430.8)	—	50.1
Cumulative effect adjustment upon adoption of new accounting standard (ASU 2016-16), (ASU 2018-02) and (ASC 606)	—	—	16.5	(22.7)	—	—	—	(6.2)
Net income	—	—	359.0	—	—	—	—	359.0
Dividends, $2.43 per share	—	—	(98.2)	—	—	—	—	(98.2)
Foreign currency translation adjustments	—	—	—	11.0	—	—	—	11.0
Pension and post-retirement liability changes, net of tax benefit of $1.6	—	—	—	(2.8)	—	—	—	(2.8)
Sale of marketable equity securities	—	—	1.8	(1.8)	—	—	—	—
Stock-based compensation expense	—	26.3	—	—	—	—	—	26.3
Change in cash flow hedges, net of tax benefit of $4.7	—	—	—	(15.1)	—	—	—	(15.1)
Treasury shares reissued for common stock	—	(9.0)	—	—	(0.4)	12.4	—	3.4
Treasury stock purchases	—	—	—	—	2.3	(477.1)	—	(477.1)
Balance as of December 31, 2018	$ 0.9	$ 1,078.8	$ 1,855.0	$ (188.8)	47.3	$ (2,895.5)	$ —	$ (149.6)

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

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LENNOX INTERNATIONAL INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Years Ended December 31, 2018, 2017 and 2016
(In millions)

	2018		2017		2016	
Cash flows from operating activities:						
Net income	$ 359.0		$ 305.7		$ 277.8	
Adjustments to reconcile net income to net cash provided by operating activities:						
Gain on sale of real estate	(23.8	)	—		—	
Impairment/loss on the sale of Australia business	13.3		—		—	
Impairment/loss on the sale of South America business	37.5		—		—	
Gain from insurance recoveries, net of losses incurred	(10.9	)	—		—	
Income from equity method investments	(12.0	)	(18.4	)	(18.4	)
Dividends from affiliates	9.6		14.7		14.9	
Restructuring expenses, net of cash paid	1.3		0.8		(0.8	)
Provision for bad debts	4.7		3.9		2.4	
Unrealized losses (gains), net on derivative contracts	1.3		(2.0	)	(0.7	)
Stock-based compensation expense	26.3		24.9		31.7	
Depreciation and amortization	66.0		64.6		58.1	
Deferred income taxes	25.2		43.3		(4.0	)
Pension expense	8.8		5.3		37.7	
Pension contributions	(20.6	)	(3.5	)	(53.9	)
Other items, net	5.1		1.3		0.9	
Changes in assets and liabilities, net of effects of						

acquisitions and divestitures:			
Accounts and notes receivable	(9.9)	(28.4)	(50.6)
Inventories	(84.2)	(56.4)	0.3
Other current assets	(0.2)	(6.1)	0.1
Accounts payable	102.2	(18.5)	40.1
Accrued expenses	5.9	0.3	36.2
Income taxes payable and receivable	(5.5)	(6.7)	(0.1)
Other, net	(3.6)	0.3	2.2
Net cash provided by operating activities	495.5	325.1	373.9
Cash flows from investing activities:			
Proceeds from the disposal of property, plant and equipment	0.1	0.2	0.2
Purchases of property, plant and equipment	(95.2)	(98.3)	(84.3)
Net proceeds from sale of businesses and related property	114.7	—	—
Insurance recoveries received for property damage incurred from natural disaster	10.9	—	—
Net cash provided by (used in) investing activities	30.5	(98.1)	(84.1)
Cash flows from financing activities:			
Short-term borrowings, net	—	(1.5)	(2.4)
Asset securitization borrowings	155.0	315.0	145.0
Asset securitization payments	(163.0)	(89.0)	(295.0)
Long-term debt borrowings	—	—	350.0
Long-term debt payments	(33.0)	(200.9)	(58.8)
Borrowings from credit facility	2,435.9	2,376.5	2,336.5
Payments on credit facility	(2,365.0)	(2,265.5)	(2,346.0)
Payments of deferred financing costs	—	(0.2)	(4.2)
Proceeds from employee stock	3.3	3.1	2.6

purchases			
Repurchases of common stock	(450.2)	(250.0)	(300.0)
Repurchases of common stock to satisfy employee withholding tax obligations	(26.9)	(26.1)	(33.3)
Cash dividends paid	(93.9)	(79.7)	(69.0)
Net cash used in financing activities	(537.8)	(218.3)	(274.6)
Increase in cash and cash equivalents	(11.8)	8.7	15.2
Effect of exchange rates on cash and cash equivalents	(10.1)	9.3	(3.9)
Cash and cash equivalents, beginning of year	68.2	50.2	38.9
Cash and cash equivalents, end of year	$ 46.3	$ 68.2	$ 50.2
Supplementary disclosures of cash flow information:			
Cash paid during the year for:			
Interest, net	$ 38.7	$ 32.4	$ 26.3
Income taxes (net of refunds)	$ 90.0	$ 119.3	$ 127.4
Insurance recoveries received	$ 124.3	$ —	$ —

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

LENNOX INTERNATIONAL INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
1. Nature of Operations:

Lennox International Inc., a Delaware corporation, through its subsidiaries (referred to herein as "we," "our," "us," "LII," or the "Company"), is a leading global provider of climate control solutions. We design, manufacture, market and service a broad range of products for the heating, ventilation, air conditioning and refrigeration ("HVACR") markets and sell our products and services through a combination of direct sales, distributors and company-owned parts and supplies stores. We operate in three reportable business segments: Residential Heating & Cooling, Commercial Heating & Cooling, and Refrigeration. See Note 20 for financial information regarding our reportable segments.

2. Summary of Significant Accounting Policies:

Principles of Consolidation

The consolidated financial statements include the accounts of Lennox International Inc. and our majority-owned subsidiaries. All intercompany transactions, profits and balances have been eliminated.

Cash and Cash Equivalents

We consider all highly liquid temporary investments with original maturity dates of three months or less to be cash equivalents. Cash and cash equivalents consisted primarily of bank deposits.

Accounts and Notes Receivable

Accounts and notes receivable are shown in the accompanying Consolidated Balance Sheets, net of allowance for doubtful accounts. The allowance for doubtful accounts is generally established during the period in which receivables are recognized and is based on the age of the receivables and management's judgment on our ability to collect. Management considers the historical trends of write-offs and recoveries of previously written-off accounts, the financial strength of customers and projected economic and market conditions. We determine the delinquency status of receivables predominantly based on contractual terms and we write-off uncollectible receivables after management's review of our ability to collect, as noted above. We have no significant concentrations of credit risk within our accounts and notes receivable.

Inventories

Inventory costs include material, labor, depreciation and plant overhead. Inventories of $343.5 million and $291.0 million as of December 31, 2018 and 2017, respectively, were valued at the lower of cost or net realizable value using the last-in, first-out ("LIFO") cost method. The remainder of inventory is valued at the lower of cost or net realizable value with cost determined primarily using either the first-in, first-out ("FIFO") or average cost methods.

We elected to use the LIFO cost method for our domestic manufacturing companies in 1974 and continued to elect the LIFO cost method for new operations through the late 1980s. The types of inventory costs that use LIFO include raw materials, purchased components, work-in-process, repair parts and finished goods. Since the late 1990s, we have adopted the FIFO cost method for all new domestic manufacturing operations (primarily acquisitions). Our operating entities with a previous LIFO election continue to use the LIFO cost method. We use the FIFO cost method for our foreign-based manufacturing facilities. See Note 4 for more information on our inventories.

Property, Plant and Equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation. Expenditures that increase the utility or extend the useful lives of fixed assets are capitalized while expenditures for maintenance and repairs are charged to expense as incurred.

Depreciation is computed using the straight-line method over the following estimated useful lives:

Buildings and improvements:	
Buildings and improvements	2 to 33 years
Leasehold improvements	1 to 39 years
Machinery and equipment:	
Computer hardware	3 to 5 years
Computer software	3 to 10 years
Factory machinery and equipment	1 to 15 years
Research and development equipment	3 to 10 years
Vehicles	2 to 8 years

We periodically review long-lived assets for impairment as events or changes in circumstances indicate that the carrying amount of such assets might not be recoverable. To assess recoverability, we compare the estimated expected future undiscounted cash flows identified with each long-lived asset or related asset group to the carrying amount of such assets. If the expected future cash flows do not exceed the carrying value of the asset or assets being reviewed, an impairment loss is recognized based on the excess of the carrying amount of the impaired assets over their fair value. See Note 6 for additional information on our property, plant and equipment.

Goodwill

Goodwill represents the excess of cost over fair value of assets from acquired businesses. Goodwill is not amortized, but is reviewed for impairment annually and whenever events or changes in circumstances indicate the asset may be impaired (See Note 5 for additional information on our goodwill). The annual goodwill impairment test was performed during the fourth quarter of 2018.

The provisions of the accounting standard for goodwill allow us to first assess qualitative factors to determine whether it is necessary to perform a two-step quantitative goodwill impairment test. As part of our qualitative assessment, we monitor economic, legal, regulatory and other factors, industry trends, our market capitalization, recent and forecasted financial performance of our reporting units and the timing and nature of our restructuring activities for LII as a whole and for each reporting unit.

If a quantitative goodwill impairment test is determined to be necessary, we estimate reporting unit fair values using a combination of the discounted cash flow approach and a market approach. The discounted cash flows used to estimate fair value are based on assumptions regarding each reporting unit’s estimated projected future cash flows and the estimated weighted-average cost of capital that a market participant would use in evaluating the reporting unit in a purchase transaction. The estimated weighted-average cost of capital is based on the risk-free interest rate and other factors such as equity risk premiums and the ratio of total debt to equity capital. In performing these impairment tests, we take steps to ensure that appropriate and reasonable cash flow projections and assumptions are used. We reconcile our estimated enterprise value to our market capitalization and determine the reasonableness of the cost of capital used by comparing to market data. We also perform sensitivity analyses on the key assumptions used, such as the weighted-average cost of capital and terminal growth rates. The market approach is based on objective evidence of market values.

Intangible Assets

We amortize intangible assets and other assets with finite lives over their respective estimated useful lives to their estimated residual values, as follows:

Asset	Useful Life

Deferred financing costs	Effective interest method
Customer relationships	Straight-line method up to 12 years
Patents and others	Straight-line method up to 20 years

We periodically review intangible assets with estimable useful lives for impairment as events or changes in circumstances indicate that the carrying amount of such assets might not be recoverable. We assess recoverability by comparing the estimated expected undiscounted future cash flows identified with each intangible asset or related asset group to the carrying amount of such assets. If the expected future cash flows do not exceed the carrying value of the asset or assets being reviewed, an impairment loss is recognized based on the excess of the carrying amount of the impaired assets over their fair value. In assessing the fair value of these intangible assets, we must make assumptions that a market participant would make regarding estimated future cash flows and other factors to determine the fair value of the respective assets. If these estimates or the related assumptions change, we may be required to record impairment charges for these assets in the future.

We review our indefinite-lived intangible assets for impairment annually in the fourth quarter and whenever events or changes in circumstances indicate the asset may be impaired. The provisions of the accounting standard for indefinite-lived intangible assets allow us to first assess qualitative factors to determine whether it is necessary to perform a two-step quantitative impairment test. As part of our qualitative assessment, we monitor economic, legal, regulatory and other factors, industry trends, recent and forecasted financial performance of our reporting units and the timing and nature of our restructuring activities for LII as a whole and as they relate to the fair value of the assets.

Product Warranties

For some of our heating, ventilation and air conditioning (“HVAC”) products, we provide warranty terms ranging from one to 20 years to customers for certain components such as compressors or heat exchangers. For select products, we also provide limited lifetime warranties. A liability for estimated warranty expense is recorded on the date that revenue is recognized. Our estimates of future warranty costs are determined by product line. The number of units we expect to repair or replace is determined by applying an estimated failure rate, which is generally based on historical experience, to the number of units that were sold and are still under warranty. The estimated units to be repaired under warranty are multiplied by the average cost to repair or replace such products to determine the estimated future warranty cost. We do not discount product warranty liabilities as the amounts are not fixed and the timing of future cash payments is neither fixed nor reliably determinable. We also provide for specifically-identified warranty obligations. Estimated future warranty costs are subject to adjustment depending on changes in actual failure rate and cost experience. Subsequent costs incurred for warranty claims serve to reduce the accrued product warranty liability. See Note 11 for more information on our estimated future warranty costs.

Pensions and Post-retirement Benefits

We provide pension and post-retirement medical benefits to eligible domestic and foreign employees and we recognize pension and post-retirement benefit costs over the estimated service life or average life expectancy of those employees. We also recognize the funded status of our benefit plans, as measured at year-end by the difference between plan assets at fair value and the benefit obligation, in the Consolidated Balance Sheets. Changes in the funded status are recognized in the year in which the changes occur through accumulated other comprehensive loss (“AOCL”). Actuarial gains or losses are amortized into net period benefit cost over the estimated service life of covered employees or average life expectancy of participants depending on the plan.

The benefit plan assets and liabilities reflect assumptions about the long-range performance of our benefit plans. Should actual results differ from management’s estimates, revisions to the benefit plan assets and liabilities would be required. See Note 13 for information regarding those estimates and additional disclosures on pension and post-retirement medical benefits.

Self-Insurance

Self-insurance expense and liabilities were actuarially determined based primarily on our historical claims information, industry factors and trends. The self-insurance liabilities as of December 31, 2018 represent the best estimate of the future payments to be made on reported and unreported losses for 2018 and prior years. The amounts and timing of payments for claims reserved may vary depending on various factors, including the development and ultimate settlement of reported and unreported claims. To the extent actuarial assumptions change and claims experience rates differ from historical rates, our liabilities may change. See Note 11 for additional information on our self-insured risks and liabilities.

Derivatives

We use futures contracts, forward contracts and fixed forward contracts to mitigate our exposure to volatility in metal commodity prices and foreign exchange rates. We hedge only exposures in the ordinary course of business and do not hold or trade derivatives for profit. All derivatives are recognized in the Consolidated Balance Sheets at fair value and the classification of each derivative instrument is based upon whether the maturity of the instrument is less than or greater than 12 months. See Note 9 for more information on our derivatives.

Income Taxes

We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. 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 of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. Unrecognized tax benefits are accounted for as required by the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 740. See Note 10 for more information related to income taxes.

Revenue Recognition

Our revenue recognition practices for the sale of goods depend upon the shipping terms for each transaction. Shipping terms are primarily FOB Shipping Point and, therefore, revenue is recognized for these transactions when products are shipped to customers and title and control passes. Certain customers in our smaller operations, primarily outside of North America, have shipping terms where risks and rewards of ownership do not transfer until the product is delivered to the customer. For these transactions, revenue is recognized on the date that the product is received and accepted by such customers. We experience returns for miscellaneous reasons and record a reserve for these returns at the time we recognize revenue based on historical experience. Our historical rates of return are insignificant as a percentage of sales. We also recognize revenue net of sales taxes. We have elected to recognize the revenue and cost for freight and shipping when control over the sale of goods passes to our customers. See Note 3 for more information on our revenue recognition practices.

Cost of Goods Sold

The principal elements of cost of goods sold are components, raw materials, factory overhead, labor, estimated costs of warranty expense and freight and distribution costs.

Selling, General and Administrative Expenses

SG&A expenses include payroll and benefit costs, advertising, commissions, research and development, information technology costs, and other selling, general and administrative related costs such as insurance, travel, non-production depreciation and rent.

Stock-Based Compensation

We recognize compensation expense for stock-based arrangements over the required employee service periods. We measure stock-based compensation costs based on the estimated grant-date fair value of the stock-based awards that are expected to ultimately vest and we adjust expected vesting rates to actual rates as additional information becomes known. For stock-based arrangements with performance conditions, we periodically adjust performance achievement rates based on our best estimates of those rates at the end of the performance period. See Note 15 for more information.

Translation of Foreign Currencies

All assets and liabilities of foreign subsidiaries and joint ventures are translated into U.S. dollars using rates of exchange in effect at the balance sheet date. Revenue and expenses are translated at weighted average exchange rates during the year. Unrealized translation gains and losses are included in AOCL in the accompanying Consolidated Balance Sheets. Transaction gains and losses are included in Losses (gains) and other expenses, net in the accompanying Consolidated Statements of Operations.

Use of Estimates

The preparation of financial statements requires us to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenue and expenses. Such estimates include the valuation of accounts receivable, inventories, goodwill, intangible assets and other long-lived assets, contingencies, product warranties, guarantee obligations, indemnifications, and assumptions used in the calculation of income taxes, pension and post-retirement medical benefits, and stock-based compensation among others. These estimates and assumptions are based on our best estimates and judgment.

We evaluate these estimates and assumptions on an ongoing basis using historical experience and other factors, including the current economic environment. We believe these estimates and assumptions to be reasonable under the circumstances and will adjust such estimates and assumptions when facts and circumstances dictate. Volatile equity, foreign currency and commodity markets and uncertain future economic conditions combine to increase the uncertainty inherent in such estimates and assumptions. Future events and their effects cannot be determined with precision and actual results could differ significantly from these estimates.

Changes in these estimates resulting from continuing changes in the economic environment will be reflected in the financial statements in future periods.

Reclassifications

Certain amounts have been reclassified from the prior year presentation to conform to the current year presentation.

Recently Adopted Accounting Guidance

In August 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-15, Classification of Certain Cash Receipts and Cash Payments. The amendments in this ASU clarify the classification for eight different types of activities, including debt prepayment and extinguishment costs, proceeds from insurance claims and distributions from equity method investees. For public business entities, the standard is effective for financial statements issued for fiscal years beginning after December 15, 2017. This standard did not have a material impact on our consolidated financial statements.

We also adopted other new accounting standards during the first quarter of 2018. The impact of these additional standards are discussed in their respective Notes to the Consolidated Financial Statements.

Recent Accounting Pronouncements

On February 25, 2016, the FASB issued ASU No. 2016-02, Leases (ASC 842). Lessees will need to recognize almost all leases on their balance sheet as a right-of-use asset and a lease liability. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Classification will be based on criteria that are largely similar to those applied in current lease accounting, but without explicit bright lines. ASU 2016-02 is effective for public companies for annual reporting periods beginning after December 15, 2018, and interim periods within those fiscal years. As a result of the new standard, all of our leases greater than one year in duration will be recognized in our Consolidated Balance Sheets as both operating lease liabilities and right-of-use assets upon adoption of the standard. We will adopt the standard using the prospective approach. We have completed a qualitative and quantitative assessment of our lease portfolio and are in the process of finalizing the testing of our new lease accounting system and implementing new processes and controls to account for our leases in accordance with the new standard. Upon adoption, we expect to record right-of-use assets and operating lease liabilities between $130 million and $160 million in our Consolidated Balance Sheet.

3. Revenue Recognition:

On January 1, 2018, we adopted the new accounting standard ASC 606, Revenue from Contracts with Customers and all the related amendments ("the new revenue standard") and applied it to all contracts using the modified retrospective method. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of retained earnings. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. We expect the impact of the adoption of the new standard to be immaterial to our net income on an ongoing basis.

The cumulative effect of the changes made to our consolidated January 1, 2018 balance sheet for the adoption of the new revenue standard was as follows (in millions):

BALANCE SHEET	Balance at December 31, 2017	Adjustments Due to ASC 606	Balance at January 1, 2018

ASSETS			
Accounts and notes receivable, net	$ 506.5	$ 8.3	$ 514.8
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY			
Accounts payable	348.6	9.3	357.9
Retained earnings	1,575.9	(1.0)	1,574.9

In accordance with the new revenue standard requirements, the disclosure of the impact of adoption on our Consolidated Balance Sheet and Consolidated Statement of Operations was as follows (in millions):

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	December 31, 2018		
	As Reported	Balances Without Adoption of ASC 606	Effect of Change Higher/(Lower)
BALANCE SHEET			
ASSETS			
Accounts and notes receivable, net	$472.7	$ 465.9	$ 6.8
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY			
Accounts payable	433.3	424.9	8.4
Retained earnings	1,855.0	1,856.6	(1.6)

	For the Year Ended December 31, 2018		
	As Reported	Activity Without Adoption of ASC 606	Effect of Change Higher/(Lower)
STATEMENT OF OPERATIONS			
Net sales	$3,883.9	$3,884.1	$ (0.2)
Net income	359.0	359.1	(0.1)

The following table disaggregates our revenue by business segment by geography which provides information as to the major sources of revenue. See Note 20 for additional description of our reportable business segments and the products and services being sold in each segment.

	For the Year Ended December 31, 2018			
Primary Geographic Markets	Residential Heating & Cooling	Commercial Heating & Cooling	Refrigeration	Consolidated
United States	$2,066.7	$ 806.0	$ 403.2	$ 3,275.9
Canada	158.3	92.1	4.4	254.8
International	—	145.4	207.8	353.2
Total	$2,225.0	1,043.5	615.4	3,883.9

Our revenue recognition practices for the sale of goods depend upon the shipping terms for each transaction. Shipping terms are primarily FOB Shipping Point and, therefore, revenue is recognized for these transactions when products are shipped to customers and title and control passes. Certain customers in our smaller operations, primarily outside of North America, have shipping terms where risks and rewards of ownership do not transfer until the product is delivered to the customer. For these transactions, revenue is recognized on the date that the product is received and accepted by such customers. We experience returns for miscellaneous reasons and record a reserve for these returns at the time we recognize revenue based on historical experience. Our historical rates of return are insignificant as a percentage of sales. We also recognize revenue net of sales taxes. We have elected to recognize the revenue and cost for freight and shipping when control over the sale of goods passes to our customers.

For our businesses that provide services, revenue is recognized at the time services are completed. Our Commercial Heating & Cooling segment also provides sales, installation, maintenance and repair services under fixed-price contracts. Revenue for services is recognized as the services are performed under the contract based on the relative fair value of the services provided. We allocate a portion of the revenue for extended labor warranty obligations and recognize the revenue over the term of the extended warranty. See Note 11 for more information on product warranties.

Residential Heating & Cooling - We manufacture and market a broad range of furnaces, air conditioners, heat pumps, packaged heating and cooling systems, equipment and accessories to improve indoor air quality, comfort control products, replacement parts and supplies and related products for both the residential replacement and new construction markets in North America. These products are sold under various brand names and are sold either through direct sales to a network of independent installing dealers, including through our network of Lennox PartsPlus stores or to independent distributors. For the segment, for the year ended December 31, 2018, direct sales represent approximately $1,698.7 million of revenues and sales to independent distributors represent approximately $526.3 million of revenues. Given the nature of our business, customer product orders are fulfilled at a point in time and not over a period of time.

Commercial Heating & Cooling - In North America, we manufacture and sell unitary heating and cooling equipment used in light commercial applications, such as low-rise office buildings, restaurants, retail centers, churches and schools. These products are distributed primarily through commercial contractors and directly to national account customers in the planned replacement, emergency replacement and new construction markets. Revenue for the products sold is recognized at a point in time when control transfers to the customer, which is generally at time of shipment. Lennox National Account Service provides installation, service and preventive maintenance for commercial HVAC national account customers in the United States and Canada. Revenue related to service contracts is recognized as the services are performed under the contract based on the relative fair value of the services provided. In Europe, we manufacture and sell unitary products and applied systems. For the segment, for the year ended December 31, 2018, equipment sales represent approximately $917.1 million of revenues while $126.4 million of our revenue is generated from our service business.

Refrigeration - We manufacture and market equipment for the global commercial refrigeration markets under the Heatcraft Worldwide Refrigeration name. Our products are used in the food retail, food service, cold storage as well as non-food refrigeration markets. We sell these products to distributors, installing contractors, engineering design firms, original equipment manufacturers and end-users. Revenue for the products sold is $605.2 million for the year ended December 31, 2018 and is recognized at a point in time when control transfers to the customer, which is generally at time of shipment. The remaining segment revenue relates to service revenues related to start-up and commissioning activities.

Variable Consideration - We engage in cooperative advertising, customer rebate, and other miscellaneous programs that result in payments or credits being issued to our customers. We record these customer discounts and incentives as a reduction of sales when the sales are recorded. For certain cooperative advertising programs, we also receive an identifiable benefit (goods or services) in exchange for the consideration given, and, accordingly, record a ratable portion of the expenditure to SG&A expenses. All other advertising, promotions and marketing costs are expensed as incurred.

Other Judgments and Assumptions - We apply the practical expedient in ASC 606-10-50-14 and do not disclose information about remaining performance obligations that have original expected durations of one year or less. Applying the practical expedient in ASC 340-40-25-4, we recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less. These costs are included in SG&A expenses. ASC 606-10-32-18 allows us to not adjust the amount of consideration to be received in a contract for any significant financing component if we expect to receive payment within twelve months of transfer of control of goods or services. We have elected this expedient as we expect all consideration to be received in one year or less at contract inception. We have also elected not to provide the remaining performance obligations disclosures related to service contracts in accordance with the practical expedient in ASC 606-10-55-18. We recognize revenue in the amount to which the entity has a right to invoice and have adopted this election to not provide the remaining performance obligations related to service contracts.

Contract Assets - We do not have material amounts of contract assets since revenue is recognized as control of goods is transferred or as services are performed. There are a small number of installation services that may occur over a period of time, but that period of time is generally very short in duration and right of payment does not exist until the installation is completed. Any contract assets that may arise are recorded in Other assets in our Consolidated Balance Sheet.

Contract Liabilities - Our contract liabilities consist of advance payments and deferred revenue. Our contract liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. We classify advance payments and deferred revenue as current or noncurrent based on the timing of when we expect to recognize revenue. Generally all contract liabilities are expected to be recognized within one year and are included in Accounts payable in our Consolidated Balance Sheet. The noncurrent portion of deferred revenue is included in Other liabilities in our Consolidated Balance Sheet.

Net contract assets (liabilities) consisted of the following:

	December 31, 2018	December 31, 2017	$ Change	% Change
Contract assets	$ 2.5	$ 2.1	$ 0.4	19.0 %
Contract liabilities - current	(13.0)	(7.3)	(5.7)	78.1 %
Contract liabilities - noncurrent	(5.9)	(5.5)	(0.4)	7.3 %
Total	$ (16.4)	$ (10.7)	$ (5.7)	

For the year ended December 31, 2018, we recognized revenue of $4.8 million related to our contract liabilities at January 1, 2018. Impairment losses recognized in our receivables and contract assets were de minimis in fiscal 2018.

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4. Inventories:

The components of inventories are as follows (in millions):

	As of December 31,	
	2018	2017
Finished goods	$330.5	$331.9
Work in process	10.0	5.5
Raw materials and parts	229.1	199.2
Total	569.6	536.6
Excess of current cost over last-in, first-out cost	(59.8)	(52.4)
Total inventories, net	$509.8	$484.2

The Company recorded no pre-tax loss in 2018 or in 2017 and pre-tax loss of $0.2 million in 2016 from LIFO inventory liquidations. Reserve balances, primarily related to obsolete and slow-moving inventories, were $16.5 million and $20.1 million at December 31, 2018 and December 31, 2017, respectively.

5. Goodwill:

Goodwill

The changes in the carrying amount of goodwill in 2018 and 2017, in total and by segment, are summarized in the table below (in millions):

Segment:	Balance at December 31, 2016 (1)	Changes in foreign currency translation rates	Balance at December 31, 2017	Write-off due to divested businesses	Changes in foreign currency translation rates	Balance at December 31, 2018
Residential Heating & Cooling	$ 26.1	$ —	$ 26.1	$ —	$ —	$ 26.1
Commercial Heating & Cooling	60.1	2.1	62.2	—	(0.8)	61.4
Refrigeration	108.9	3.3	112.2	(11.5)	(1.6)	99.1
	$ 195.1	$ 5.4	$ 200.5	$ (11.5)	$ (2.4)	$ 186.6

(1) The goodwill balances in the table above are presented net of accumulated impairment charges of $21.2 million, all of which relate to impairments in periods prior to 2016.

We reviewed our reporting unit structure as part of our annual goodwill impairment testing. We identified several components one level below our operating segments which were determined to be reporting units. We then performed our analysis to determine the proper aggregation of our reporting units, which considered similar economic and other characteristics, including product types, gross profits, production processes, customer types, distribution processes, and regulatory environments. Our analysis incorporated qualitative and quantitative measures to evaluate economic similarity and concluded that our reporting units continue to be equivalent to our operating segments except for our North America supermarket display cases and systems business which is a separate reporting unit within the Refrigeration segment.

A qualitative review of impairment indicators was performed in 2018 for the Residential Heating & Cooling, the Commercial Heating & Cooling, and the Refrigeration segments and we determined that it was not more likely than not that the fair values of our reporting units, individually or collectively, were less than their carrying values. Accordingly, a quantitative impairment analysis was not performed for these segments. In the current year, we wrote off $11.5 million of goodwill as a part of the completed sales of our Australia, Asia and South America businesses (discussed further in Note 17 of the Notes to the Consolidated Financial Statements). We did not record any goodwill impairments related to continuing operations in 2017 and 2016.

6. Property, Plant and Equipment:

Components of Property, plant and equipment, net were as follows (in millions):

	As of December 31,	
	2018	2017
Land	$25.5	$35.7
Buildings and improvements	210.9	234.4
Machinery and equipment	838.6	804.4
Capital leases	49.9	27.5
Construction in progress and equipment not yet in service	61.9	70.0
Total	1,186.8	1,172.0
Less accumulated depreciation	(778.5)	(774.2)
Property, plant and equipment, net	$408.3	$397.8

We wrote off $4 million of property, plant and equipment related at our Marshalltown facility that was damaged by the tornado in 2018. Refer to Note 11 in the Notes to the Consolidated Financial Statements for more information on the damage to our Marshalltown facility. No impairment charges were recorded in 2017 or 2016.

7. Joint Ventures and Other Equity Investments:

We participate in two joint ventures, the largest located in the U.S. and the other in Mexico, that are engaged in the manufacture and sale of compressors, unit coolers and condensing units. We exert significant influence over these affiliates based upon our respective 25% and 50% ownerships, but do not control them due to venture partner participation. Accordingly, these joint ventures have been accounted for under the equity method and their financial position and results of operations are not consolidated.

The combined balance of equity method investments included in Other assets, net totaled (in millions):

	As of December 31,	
	2018	2017
Equity method investments	$36.6	$33.3

We purchase compressors from our U.S. joint venture for use in certain of our products. The amounts of purchases included in Cost of goods sold in the Consolidated Statements of Operations were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Purchases of compressors from joint venture	$103.1	$106.4	$97.7

8. Accrued Expenses:

The significant components of Accrued expenses are presented below (in millions):

	As of December 31,	
	2018	2017
Accrued rebates and promotions	$70.8	$70.3
Accrued compensation and benefits	69.0	80.7
Accrued warranties	37.9	34.8
Accrued sales, use, property and VAT taxes	20.7	21.6
Deferred income	13.0	7.3
Derivative contracts	10.2	1.4
Accrued asbestos reserves	9.7	8.5
Self insurance reserves	6.0	7.3
Other	35.0	38.4
Total Accrued expenses	$272.3	$270.3

9. Derivatives:

Objectives and Strategies for Using Derivative Instruments

Commodity Price Risk. We utilize a cash flow hedging program to mitigate our exposure to volatility in the prices of metal commodities used in our production processes. Our hedging program includes the use of futures contracts to lock in prices, and as a result, we are subject to derivative losses should the metal commodity prices decrease and gains should the prices increase. We utilize a dollar cost averaging strategy so that a higher percentage of commodity price exposures are hedged near-term with lower percentages hedged at future dates. This strategy allows for protection against near-term price volatility while allowing us to adjust to market price movements over time.

Interest Rate Risk. A portion of our debt bears interest at variable interest rates, and as a result, we are subject to variability in the cash paid for interest. To mitigate a portion of that risk, we may choose to engage in an interest rate swap hedging strategy to eliminate the variability of interest payment cash flows. We are not currently hedged against interest rate risk.

Foreign Currency Risk. Foreign currency exchange rate movements create a degree of risk by affecting the U.S. dollar value of assets and liabilities arising in foreign currencies. We seek to mitigate the impact of currency exchange rate movements on certain short-term transactions by periodically entering into foreign currency forward contracts.

In August 2017, the FASB issued ASU 2017-12, Derivatives and Hedging (Topic 815), Targeted Improvements to Accounting for Hedging Activities. ASU 2017-12 intends to simplify the application of hedge accounting guidance and better align an entity’s risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The amendments expand and refine hedge accounting for both nonfinancial and financial risk components and align the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. We early adopted ASU No. 2017-12 during the first quarter of 2018. The adoption of ASU No. 2017-12 did not have a material impact on our consolidated results of operations, cash flows, and statement of financial position. With the early adoption of ASU No. 2017-12 we began entering into commodity futures contracts designated as cash flow hedges related to aluminum purchases.

Cash Flow Hedges

We have commodity futures contracts and foreign exchange forward contracts designated as cash flows hedges that are scheduled to mature through May 2020 and January 2020, respectively. Unrealized gains or losses from our cash flow hedges are included in AOCL and are expected to be reclassified into earnings within the next 18 months based on the prices of the commodities and foreign currencies at the settlement dates.

We recorded the following amounts related to our cash flow hedges in AOCL (in millions):

	As of December 31,	
	2018	2017
Unrealized losses (gains) on unsettled contracts	$8.4	$(11.3)
Income tax (benefit) expense	(2.2)	3.9
Losses (Gains) included in AOCL, net of tax (1)	$6.2	$(7.4)

[1] Assuming commodity and foreign currency prices remain constant, we expect to reclassify $6.2 million of derivative losses into earnings within the next 12 months.

10. Income Taxes:

Our Provision for income taxes from continuing operations consisted of the following (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Current:			
Federal	$59.5	$86.1	$106.0
State	17.8	12.5	14.5
Foreign	4.6	15.0	9.7
Total current	81.9	113.6	130.2
Deferred:			
Federal	23.2	43.8	(4.5)
State	1.0	0.9	(1.2)
Foreign	1.5	(1.4)	(0.4)
Total deferred	25.7	43.3	(6.1)
Total provision for income taxes	$107.6	$156.9	$124.1

Income from continuing operations before income taxes was comprised of the following (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Domestic	$428.7	$402.5	$374.8
Foreign	39.2	61.5	27.9
Total	$467.9	$464.0	$402.7

The difference between the income tax provision from continuing operations computed at the statutory federal income tax rate and the financial statement Provision for income taxes is summarized as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Provision at the U.S. statutory rate of 21% (35% for 2017, 2016)	$98.3	$162.4	$141.0
Increase (reduction) in tax expense resulting from:			
State income tax, net of federal income tax benefit	15.5	9.2	12.8
Domestic manufacturing deduction	—	(9.6)	(9.2)
Tax credits, net of unrecognized tax benefits	(2.5)	(8.6)	(27.9)
Change in unrecognized tax benefits	0.4	(0.1)	(0.3)
Change in valuation allowance	5.0	6.4	(4.3)
Foreign taxes at rates other than U.S. statutory rate	(3.2)	(9.0)	(1.3)
Deemed inclusions	3.9	0.3	16.9
Change in rates from the Tax Act & other law changes	1.9	31.8	(0.6)
Excess tax benefits from stock-based compensation	(10.5)	(23.6)	—
Miscellaneous other	(1.2)	(2.3)	(3.0)
Total provision for income taxes	$107.6	$156.9	$124.1

The SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”), which provided guidance on the provisional accounting for the tax effects of the Tax Act in fiscal 2017. Our accounting for the following elements of the Tax Act was completed in fiscal 2018.

- The Tax Act reduced the corporate tax rate to 21 percent, effective January 1, 2018. For our net federal deferred tax assets (“DTA”), we recorded a provisional decrease of $32.1 million, with a corresponding net adjustment to deferred income tax expense of $32.1 million for the year ended December 31, 2017. This adjustment was based on a reasonable estimate of the impact of the reduction in the corporate tax rate on our DTA’s as of December 22, 2017. Due to the Tax Act, several applications for changes in accounting method were filed with the IRS to accelerate deductions into the 2017 U.S. federal income tax return. Primarily on the basis of finalized calculations for accounting method changes that were completed during the reporting period, we recognized a deferred income tax benefit of $4.5 million for the year ended December 31, 2018.

- The Deemed Repatriation Transition Tax (Transition Tax) is a tax on previously untaxed accumulated and current earnings and profits “(E&P)” of certain of our foreign subsidiaries. To assess the amount of the Transition Tax, we must determine, in addition to other factors, the amount of post-1986 E&P of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. We were able to make a reasonable estimate of the Transition Tax and determined that we would not have a Transition Tax obligation for the year ended December 31, 2017. However, on the basis of revised E&P computations that were completed during the reporting period, we recognized an additional measurement-period adjustment of $2.8 million of Transition Tax obligation for federal and state taxes. The Transition Tax has now been determined to be complete.

- For the year ended December 31, 2017, we were able to reasonably assess whether our valuation allowance analyses were affected by various aspects of the Tax Act (e.g., deemed repatriation of deferred foreign income, global intangible low-taxed income (“GILTI”) inclusions, new categories of foreign tax credits (“FTCs”), and share-based compensation) and recorded provisional amounts related to certain portions of the Tax Act. Due to the limitation on the utilization of future foreign tax credits, we recorded a provisional valuation allowance against our FTC carryforwards of $4.3 million. On the basis of finalized calculations that were completed during the reporting period and 2018 divestiture activity, it is now expected that the foreign tax credits will be realized and no valuation allowance is needed. For the year ended December 31, 2018, the FTC carryforward valuation allowance is zero.

- Based on the intent to fully expense all qualifying depreciable asset expenditures allowed under the Tax Act, we recorded a provisional benefit of $4.1 million for the year ended December 31, 2017. This resulted in a decrease of approximately $1.4 million to our current income tax payable and a corresponding increase in our deferred tax liabilities (“DTLs”) of approximately $0.9 million (after considering the effects of the reduction in income tax rates). On the basis of finalized

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computations that were completed during the reporting period, we recognized an additional measurement-period adjustment of $0.1 million decrease in our DTL.

The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, the new global intangible low-taxed income (“GILTI”) tax rules. Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the “period cost method”) or (2) factoring such amounts into a company’s measurement of its deferred taxes (the “deferred method”). For the year ended December 31, 2017, we were not able to reasonably estimate the effect of the new GILTI tax rules on future U.S. inclusions in taxable income as the expected future impact of this provision of the Tax Act depends on our current structure and business. Therefore, we did not make any adjustments related to potential GILTI tax in our financial statements and did not make a policy decision regarding whether to record deferred taxes on GILTI. Based, in part, on the analysis completed during the recording period of our global income and whether we expect to have future U.S. inclusions in taxable income related to GILTI, we have chosen to treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current period expense when incurred (the “period cost method”).

During the year ended December 31, 2017, the effect of the tax rate change for items originally recognized in other comprehensive income was properly recorded in tax expense from continuing operations. This resulted in stranded tax effects in accumulated other comprehensive income at December 31, 2017. On February 14, 2018, the FASB issued ASU No. 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which permits companies to reclassify stranded tax effects caused by 2017 tax reform between accumulated other comprehensive loss (“AOCL”) and retained earnings. We elected to adopt ASU 2018-02 to reclassify the income tax effects of the 2017 Act from AOCL to retained earnings for the period ending March 31, 2018. Accordingly, we recorded a $22.7 million increase to opening retained earnings in the period ending March 31, 2018 to reclassify the effect of the change in the U.S. federal corporate income tax rate, including the reduction in the federal benefit associated with state taxes, on the gross deferred tax amounts and related valuation allowances at the date of enactment of the Tax Cuts and Jobs Act related to items remaining in AOCL.

On October 24, 2016, the FASB issued ASU No. 2016-16, Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory, which requires companies to recognize the income tax effects of intercompany sales and transfers of assets other than inventory in the period in which the transfer occurs. Prior to ASU 2016-16, companies were required to defer the income tax effects of intercompany transfers of assets until the asset had been sold to an outside party or otherwise recognized. The new guidance is effective for public business entities for annual periods beginning after December 15, 2017 and interim periods within those annual periods. The guidance requires companies to apply a modified retrospective approach with a cumulative catch-up adjustment to opening retained earnings in the period of adoption. Accordingly, we recorded a $5.1 million decrease to opening retained earnings in the period ending March 31, 2018.

Deferred income taxes reflect the tax consequences on future years of temporary differences between the tax basis of assets and liabilities and their financial reporting basis and depending on the classification of the asset or liability generating the deferred tax. The deferred tax provision for the periods shown represents the effect of changes in the amounts of temporary differences during those periods.

Deferred tax assets (liabilities) were comprised of the following (in millions):

	As of December 31,	
	2018	2017
Gross deferred tax assets:		
Warranties	$27.8	$27.3
Loss carryforwards (foreign, U.S. and state)	23.1	21.0
Post-retirement and pension benefits	21.3	23.3
Inventory reserves	9.3	7.5
Receivables allowance	3.4	3.5
Compensation liabilities	7.9	11.1
Insurance liabilities	2.9	5.1
Legal reserves	7.4	7.6
Tax credits, net of federal effect	11.0	21.3
Other	8.1	8.2
Total deferred tax assets	122.2	135.9
Valuation allowance	(25.4)	(24.9)
Total deferred tax assets, net of valuation allowance	96.8	111.0
Gross deferred tax liabilities:		
Depreciation	(22.1)	(5.9)
Intangibles	(5.4)	(4.9)
Other	(2.3)	(5.8)
Total deferred tax liabilities	(29.8)	(16.6)
Net deferred tax assets	$67.0	$94.4

As of December 31, 2018 and 2017, we had $0.6 million and $0.8 million in tax-effected state net operating loss carryforwards, respectively, and $12.6 million and $19.8 million in tax-effected foreign net operating loss carryforwards, respectively. The state and foreign net operating loss carryforwards began expiring in 2014. The deferred tax asset valuation allowance relates primarily to the operating loss carryforwards in European tax jurisdictions. In addition, we have $9.0 million of valuation allowance related to federal capital loss carryforwards that will expire in 2023. The remainder of the valuation allowance relates to state tax credits.

In assessing whether a deferred tax asset will be realized, we consider whether it is more likely than not that some portion or all of the deferred tax asset will not be realized. We consider the reversal of existing taxable temporary differences, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, we believe it is more likely than not we will realize the benefits of these deductible differences, net of the existing valuation allowances, as of December 31, 2018.

No provision was made for income taxes which may become payable upon distribution of our foreign subsidiaries' earnings. These earnings were approximately $27.1 million as of December 31, 2018. An actual repatriation in the future from our non-U.S. subsidiaries could still be subject to foreign withholding taxes and U.S. state taxes.

We are currently under examination for our U.S. federal income taxes for 2018 and 2017 and are subject to examination by numerous other taxing authorities in the U.S. and foreign jurisdictions. We are generally no longer subject to U.S., state and local or non-U.S. income tax examinations by taxing authorities for years before 2011.

11. Commitments and Contingencies:

Leases

We lease certain real and personal property under non-cancelable operating leases. Some of our lease agreements contain rent

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escalation clauses (including index-based escalations), rent holidays, capital improvement funding or other lease concessions. We recognize our minimum rental expense on a straight-line basis. We amortize this expense over the term of the lease beginning with the date of initial possession, which is the date we enter the leased space and begin to make improvements in preparation for its intended use.

Future annual minimum lease payments and capital lease commitments as of December 31, 2018 were as follows (in millions):

	Operating Leases	Capital Leases
2019	$ 47.4	$ 6.6
2020	38.4	5.4
2021	27.2	3.8
2022	17.9	2.1
2023	12.7	0.9
Thereafter	16.1	12.8
Total minimum lease payments	$ 159.7	$ 31.6
Less amount representing interest		2.1
Present value of minimum payments		$ 29.5

On March 22, 2013, we entered into an agreement with a financial institution to renew the lease of our corporate headquarters in Richardson, Texas for a term of approximately six years through March 1, 2019 (the "Lake Park Renewal"). The leased property consists of an office building of approximately 192,000 square feet, land and related improvements. During the lease term, the Lake Park Renewal requires us to pay base rent in quarterly installments, payable in arrears. At the end of the lease term, we must do one of the following: (i) purchase the property for $41.2 million; (ii) vacate the property and return it in good condition; (iii) arrange for the sale of the leased property to a third party; or (iv) renew the lease under mutually agreeable terms. If we elect to sell the property to a third party and the sales proceeds are less than the lease balance, we must pay any such deficit to the financial institution. Any such deficit payment cannot exceed 86% of the lease balance. The Lake Park Renewal is classified as an operating lease and its future annual minimum lease payments are included in the table above. We are in the process of finalizing the renewal of our lease that expires on March 1, 2019 and expect the terms and conditions to be similar to the existing lease.

Our obligations under the Lake Park Renewal are secured by a pledge of our interest in the leased property. The Lake Park Renewal contains customary lease covenants and events of default as well as events of default if (i) indebtedness of $75 million or more is not paid when due, (ii) there is a change of control or (iii) we fail to comply with certain covenants incorporated from our existing credit facility agreement. We believe we were in compliance with these financial covenants as of December 31, 2018.

Environmental

Environmental laws and regulations in the locations we operate can potentially impose obligations to remediate hazardous substances at our properties, properties formerly owned or operated by us, and facilities to which we have sent or send waste for treatment or disposal. We are aware of contamination at some facilities; however, we do not believe that any future remediation related to those facilities will be material to our results of operations. Total environmental accruals are included Accrued expenses and Other liabilities on the accompanying Consolidated Balance Sheets.

Future environmental costs are estimates and may be subject to change due to changes in environmental remediation regulations, technology or site-specific requirements.

Product Warranties and Product Related Contingencies

We incur the risk of liability for claims related to the installation and service of heating and air conditioning products, and we maintain liabilities for those claims that we self-insure. We are involved in various claims and lawsuits related to our products. Our product liability insurance policies have limits that, if exceeded, may result in substantial costs that could have an adverse effect on our results of operations. In addition, warranty claims and certain product liability claims are not covered by our product liability insurance.

Total product warranty liabilities related to continuing operations are included in the following captions on the accompanying Consolidated Balance Sheets (in millions):

	As of December 31,	
	2018	2017
Accrued expenses	$37.9	$34.8
Other liabilities	73.7	75.1
Total product warranty liabilities	$111.6	$109.9

The changes in product warranty liabilities related to continuing operations for the years ended December 31, 2018 and 2017 were as follows (in millions):

Total warranty liability as of December 31, 2016	$101.1
Payments made in 2017	(28.8)
Changes resulting from issuance of new warranties	41.1
Changes in estimates associated with pre-existing liabilities	(4.8)
Changes in foreign currency translation rates and other	1.3
Total warranty liability as of December 31, 2017	$109.9
Payments made in 2018	(31.6)
Changes resulting from issuance of new warranties	36.8
Changes in estimates associated with pre-existing liabilities	(1.5)
Changes in foreign currency translation rates and other	(0.8)
Warranty liability from divestitures	(1.2)
Total warranty liability as of December 31, 2018	$111.6

We have incurred, and will likely continue to incur, product costs not covered by insurance or our suppliers' warranties, which are not included in the table above. Also, to satisfy our customers and protect our brands, we have repaired or replaced installed products experiencing quality-related issues, and will likely continue such repairs and replacements.

Self-Insurance

We use a combination of third-party insurance and self-insurance plans to provide protection against claims relating to workers' compensation/employers' liability, general liability, product liability, auto liability, auto physical damage and other exposures. We use large deductible insurance plans, written through third-party insurance providers, for workers' compensation/employers' liability, general liability, product liability and auto liability. We also carry umbrella or excess liability insurance for all third-party and self-insurance plans, except for directors' and officers' liability, property damage and certain other insurance programs. For directors' and officers' liability, property damage and certain other exposures, we use third-party insurance plans that may include per occurrence and annual aggregate limits. We believe the deductibles and liability limits for all of our insurance policies are appropriate for our business and are adequate for companies of our size in our industry.

We maintain safety and manufacturing programs that are designed to remove risk, improve the effectiveness of our business processes and reduce the likelihood and significance of our various retained and insured risks. In recent years, our actual claims experience has collectively trended favorably and, as a result, both self-insurance expense and the related liability have decreased.

Total self-insurance liabilities were included in the following captions on the accompanying Consolidated Balance Sheets (in millions):

	As of December 31, 2018	2017
Accrued expenses	$6.0	$7.3
Other liabilities	19.5	21.6
Total self-insurance liabilities	$25.5	$28.9

Litigation

We are involved in a number of claims and lawsuits incident to the operation of our businesses. Insurance coverages are maintained and estimated costs are recorded for such claims and lawsuits, including costs to settle claims and lawsuits, based on experience involving similar matters and specific facts known.

Some of these claims and lawsuits allege personal injury or health problems resulting from exposure to asbestos that was integrated into certain of our products. We have never manufactured asbestos and have not incorporated asbestos-containing components into our products for several decades. A substantial majority of asbestos-related claims have been covered by insurance or other forms of indemnity or have been dismissed without payment. The remainder of our closed cases have been resolved for amounts that are not material, individually or in the aggregate. Our defense costs for asbestos-related claims are generally covered by insurance; however, our insurance coverage for settlements and judgments for asbestos-related claims vary depending on several factors, and are subject to policy limits, so we may have greater financial exposure for future settlements and judgments. We currently estimate our probable liability for known cases is $9.7 million and it is recorded in Accrued expenses in the Consolidated Balance Sheet. We currently estimate future asbestos-related litigation cases to be between $19.3 million and $34.6 million before consideration of probable insurance recoveries with all amounts in that range equally likely. We have accrued $19.3 million in Other liabilities in the Consolidated Balance Sheet at December 31, 2018. For the years ended December 31, 2018, 2017 and 2016, we recorded expense of $4.0 million, $3.5 million and $6.3 million, respectively, net of probable insurance recoveries, for known and future asbestos-related litigation and is recorded in Losses (gains) and other expenses, net in the Consolidated Statements of Operations.

In October 2016, we self-reported to the Securities and Exchange Commission (“SEC”) and the Department of Justice (“DOJ”) an alleged payment in the amount of 30,000 rubles (approximately US $475) to a Russian customs broker or official. Under the oversight of our Audit Committee, we initiated an investigation into this matter with the assistance of external legal counsel and external forensic accountants.The scope of the investigation was later expanded to include our operations in Poland and Ukraine. The investigation raised questions regarding possible irregularities with respect to non-compliance with customs documents and procedures related to these operations. We concluded our investigation and communicated our findings to the SEC and the DOJ. The DOJ has declined to prosecute this matter and we continue to fully cooperate with the SEC regarding this matter.

It is management’s opinion that none of these claims or lawsuits or any threatened litigation will have a material adverse effect, individually or in the aggregate, on our financial condition, results of operations or cash flows. Claims and lawsuits, however, involve uncertainties and it is possible that their eventual outcome could adversely affect our results of operations in a future period.

Marshalltown Tornado and Recovery

On July 19, 2018 our manufacturing facility in Marshalltown, Iowa was severely damaged by a tornado. Insurance covers the repair or replacement of our assets that suffered damage or loss, and we are working closely with our insurance carriers and claims adjusters to ascertain the full amount of insurance recoveries due to us as a result of the damage and loss we incurred. Our insurance policies also provide business interruption coverage, including lost profits, and reimbursement for other expenses and costs that have been incurred relating to the damages and losses suffered. These costs and insurance recoveries are shown in Gain from insurance recoveries, net of losses incurred and Insurance proceeds for lost profits in the Consolidated Statements of Operations.

The following table summarizes the gain from insurance recoveries, net of losses incurred:

(Amounts in millions)	For the Year Ended December 31, 2018
Insurance recoveries received	$ 124.3
Less losses and expenses incurred:	
Site clean-up and remediation	50.9
Factory inefficiencies due to lower productivity	7.4
Write-off of property, plant and equipment	4.2
Write-off of inventory	5.8
Other	17.7
Total losses and expenses	$ 86.0
Gain from insurance recoveries	$ 38.3
Presentation in the Consolidated Statements of Operations:	
Gain from insurance recoveries, net of losses incurred	$ 10.9
Insurance proceeds for lost profits	$ 27.4

12. Lines of Credit and Financing Arrangements:

The following tables summarize our outstanding debt obligations and the classification in the accompanying Consolidated Balance Sheets (in millions):

	As of December 31,	
	2018	2017
Short-Term Debt:		
Foreign obligations	$—	$0.9
Total short-term debt	$—	$0.9
Current maturities of long-term debt:		
Asset Securitization Program	$268.0	$—
Capital lease obligations	3.5	3.2
Domestic credit facility	30.0	30.0
Debt issuance costs	(0.7)	(0.6)
Total current maturities of long-term debt	$300.8	$32.6
Long-Term Debt:		
Asset Securitization Program	$—	$276.0
Capital lease obligations	15.7	11.9
Domestic credit facility	378.0	337.0
Senior unsecured notes	350.0	350.0
Debt issuance costs	(3.2)	(4.4)
Total long-term debt	$740.5	$970.5
Total debt	$1,041.3	$1,004.0

As of December 31, 2018, the aggregate amounts of required principal payments on total debt were as follows (in millions):

2019	$301.5
2020	32.6
2021	349.3
2022	0.1
2023	350.0
Thereafter	11.7

Short-Term Debt

Foreign Obligations

Through several of our foreign subsidiaries, we have facilities available to assist in financing seasonal borrowing needs for our foreign locations. We had $0.0 million and $0.9 million of foreign obligations as of December 31, 2018 and 2017, respectively, that were primarily borrowings under non-committed facilities. Proceeds from these facilities were $40.3 million, $30.4 million and $28.4 million during the years ended December 31, 2018, 2017 and 2016, respectively. Repayments on the facilities were $41.2 million, $31.9 million and $30.8 million during the years ended December 31, 2018, 2017 and 2016, respectively.

Asset Securitization Program

Under the Asset Securitization Program (“ASP”), we are eligible to sell beneficial interests in a portion of our trade accounts receivable to a financial institution for cash. The ASP contains a provision whereby we retain the right to repurchase all of the outstanding beneficial interests transferred. As a result of the repurchase right, the transfer of the receivables under the ASP is not accounted for as a sale. Accordingly, the cash received from the transfer of the beneficial interests in our trade accounts receivable is reflected as secured borrowings in the accompanying Consolidated Balance Sheets and proceeds received are included in Cash flows from financing activities in the accompanying Consolidated Statements of Cash Flows. Our continued involvement with the transferred assets includes servicing, collection and administration of the transferred beneficial interests. The accounts receivable securitized under the ASP are high-quality domestic customer accounts that have not aged significantly. The receivables represented by the retained interest that we service are exposed to the risk of loss for any uncollectible amounts in the pool of receivables transferred under the ASP. The ASP will expire in November 2019 and we intend to renew the ASP prior to the expiration.

The ASP provides for a maximum securitization amount ranging from $225.0 million to $380.0 million, depending on the period. The maximum capacity under the ASP is the lesser of the maximum securitization amount or 100% of the net pool balance less allowances, as defined by the ASP. Eligibility for securitization is limited based on the amount and quality of the qualifying accounts receivable and is calculated monthly. The eligible amounts available and beneficial interests sold were as follows (in millions):

	As of December 31,	
	2018	2017
Eligible amount available under the ASP on qualified accounts receivable	$290.0	$290.0
Less: Beneficial interest transferred	(268.0)	(276.0)
Remaining amount available	$22.0	$14.0

We pay certain discount fees to use the ASP and to have the facility available to us. These fees relate to both the used and unused portions of the securitization. The used fee is based on the beneficial interest sold and calculated on either the average LIBOR rate or floating commercial paper rate determined by the purchaser of the beneficial interest, plus a program fee of 0.70%. The average rates as of December 31, 2018 and 2017 were 3.27% and 2.60%, respectively. The unused fee is based on 101% of the maximum available amount less the beneficial interest transferred and is calculated at a 0.35% fixed rate throughout the term of the agreement. We recorded these fees in Interest expense, net in the accompanying Consolidated Statements of Operations.

The ASP contains certain restrictive covenants relating to the quality of our accounts receivable and cross-default provisions with our Sixth Amended and Restated Credit Facility Agreement (“Domestic Credit Facility”), senior unsecured notes and any other indebtedness we may have over $75.0 million. The administrative agent under the ASP is also a participant in our Domestic Credit Facility. The participating financial institutions have investment grade credit ratings. As of December 31, 2018, we believe we were in compliance with all covenant requirements.

Long-Term Debt

Domestic Credit Facility

On August 30, 2016, we replaced an earlier credit facility with the Domestic Credit Facility, which consists of a $650.0 million unsecured revolving credit facility and a $250.0 million unsecured term loan and matures in August 2021 (the “Maturity Date”). Under our Domestic Credit Facility, we had outstanding borrowings of $408.0 million, of which $190.0 million was the term loan balance, as well as $2.5 million committed to standby letters of credit as of December 31, 2018. Subject to covenant limitations, $429.5 million was available for future borrowings at that date.

The unsecured term loan also matures on the Maturity Date and requires quarterly principal repayments of $7.5 million beginning in March 2017. The revolving credit facility includes uncommitted subfacilities for swingline loans of up to $65.0 million and letters of credit up to $100.0 million. Additionally, at our request and subject to certain conditions, the commitments under the Domestic Credit Facility may be increased by a maximum of $350.0 million provided existing or new lenders agree to provide such additional commitments. In January 2019, we increased the maximum revolving credit commitments by $350.0 million as permitted under the Domestic Credit Facility bringing the total maximum revolving credit commitments to $1.0 billion.

Our weighted average borrowing rate on the facility was as follows:

	As of December 31,	
	2018	2017
Weighted average borrowing rate	3.74%	2.76%

Our Domestic Credit Facility is guaranteed by certain of our subsidiaries and contains financial covenants relating to leverage and interest coverage. Other covenants contained in the Domestic Credit Facility restrict, among other things, certain mergers, asset dispositions, guarantees, debt, liens, and affiliate transactions. The financial covenants require us to maintain a defined Consolidated Indebtedness to Adjusted EBITDA Ratio and a Cash Flow (defined as EBITDA minus capital expenditures) to Interest Expense Ratio. The required ratios under our Domestic Credit Facility are detailed below:

Consolidated Indebtedness to Adjusted EBITDA Ratio no greater than	3.5 : 1.0
Cash Flow to Interest Expense Ratio no less than	3.0 : 1.0

Our Domestic Credit Facility contains customary events of default. These events of default include nonpayment of principal or interest, breach of covenants or other restrictions or requirements, default on certain other indebtedness or receivables securitizations (cross default), and bankruptcy. A cross default under our Domestic Credit Facility could occur if:

- We fail to pay any principal or interest when due on any other indebtedness or receivables securitization exceeding $75.0 million; or
- We are in default in the performance of, or compliance with any term of any other indebtedness or receivables securitization in an aggregate principal amount exceeding $75.0 million or any other condition exists which would give the holders the right to declare such indebtedness due and payable prior to its stated maturity.

Each of our major debt agreements contains provisions by which a default under one agreement causes a default in the others (a “cross default”). If a cross default under the Domestic Credit Facility, our senior unsecured notes, our lease of our corporate headquarters in Richardson, Texas (recorded as an operating lease), or our ASP were to occur, it could have a wider impact on our liquidity than might otherwise occur from a default of a single debt instrument or lease commitment.

If any event of default occurs and is continuing, the administrative agent, or lenders with a majority of the aggregate commitments may require the administrative agent to, terminate our right to borrow under our Domestic Credit Facility and accelerate amounts due under our Domestic Credit Facility (except for a bankruptcy event of default, in which case such amounts will automatically become due and payable and the lenders’ commitments will automatically terminate). As of December 31, 2018, we believe we were in compliance with all covenant requirements.

Senior Unsecured Notes

We issued $350.0 million of senior unsecured notes in November 2016 (the “Notes”) which will mature on November 15, 2023 with interest being paid on May 15 and November 15 at 3.00% per annum semiannually. The Notes are guaranteed, on a senior unsecured basis, by each of our subsidiaries that guarantee indebtedness under our Domestic Credit Facility. The indenture governing the Notes contains covenants that, among other things, limit our ability and the ability of the subsidiary guarantors to: create or incur certain liens; enter into certain sale and leaseback transactions; and enter into certain mergers, consolidations and transfers of substantially all of our assets. The indenture also contains a cross default provision which is triggered if we default on other debt of at least $75 million in principal which is then accelerated, and such acceleration is not rescinded within 30 days of the notice date. As of December 31, 2018, we believe we were in compliance with all covenant requirements.

13. Employee Benefit Plans:

Over the past several years, we have frozen many of our defined benefit pension and profit sharing plans and replaced them with defined contribution plans. We have a liability for the benefits earned under these inactive plans prior to the date the benefits were frozen. We also have several active defined benefit plans that provide benefits based on years of service. Our defined contribution plans generally include both company and employee contributions which are based on predetermined percentages of compensation earned by the employee.

In addition to freezing the benefits of our defined benefit pension plans, we have also eliminated nearly all of our post-retirement medical benefits. In 2012, we amended the post-retirement benefit plan to shift pre-65 medical coverage for the employees of our largest manufacturing plant so that by 2016, retirees would pay 100% of the cost of post-retirement medical coverage. This change resulted in a significant reduction in the projected benefit obligation for post-retirement medical benefits in 2012.

Effective for fiscal year 2016, we adopted the full yield curve approach for estimating the service cost and interest cost components of expense for plans that use a yield curve to determine the discount rate. The new method applies the specific spot rates along the yield curve used in the most recent measurement of the benefit obligation, resulting in a more precise estimate of expense. The impact for fiscal year 2016 was a decrease in expense of approximately $3.2 million.

In 2016, we offered certain former employees with vested pension benefits a lump sum payout in an effort to reduce our long-term pension obligations. As a result, for 2016, the net periodic benefit cost for our pension plans included a non-cash settlement charge of $31.4 million and the projected benefit obligation decreased by $50.6 million. We did not have similar funding of pension buyout activity in 2018 and 2017.

On March 10, 2017, the FASB issued ASU 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. ASU 2017-07 changes the income statement presentation of defined benefit plan expense by requiring separation between operating expense (service cost component) and non-operating expense (all other components, including interest cost, amortization of prior service cost, curtailments and settlements, etc.). The operating expense component is reported with similar compensation costs while the non-operating components are reported in Other expense (income), net in the Statement of Operations. In addition, only the service cost component is eligible for capitalization as part of an asset such as inventory or property, plant and equipment. We elected the practical expedient to use the prior year's disclosure as a basis for the retroactive adoption of the ASU. The ASU did not have a material impact on our financial results.

Defined Contribution Plans

We recorded the following contributions to the defined contribution plans (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Contributions to defined contribution plans	$18.8	$18.1	$16.3

Pension and Post-retirement Benefit Plans

The following tables set forth amounts recognized in our financial statements and the plans' funded status for our pension and post-retirement benefit plans (dollars in millions):

	Pension Benefits	
	2018	2017
Accumulated benefit obligation	$368.0	$401.5
Changes in projected benefit obligation:		
Benefit obligation at beginning of year	$405.5	$381.6
Service cost	5.3	5.0
Interest cost	12.3	12.6
Other	0.3	—
Actuarial (gain) loss	(26.4)	22.1
Effect of exchange rates	(2.7)	4.3
Settlements and curtailments	(1.3)	(1.3)
Benefits paid	(21.1)	(18.8)
Benefit obligation at end of year	$371.9	$405.5
Changes in plan assets:		
Fair value of plan assets at beginning of year	$318.6	$292.5
Actual (loss) gain return on plan assets	(23.3)	39.8
Employer contribution	20.6	3.5
Effect of exchange rates	(2.5)	2.9
Plan settlements	(1.3)	(1.3)
Benefits paid	(21.1)	(18.8)
Fair value of plan assets at end of year	291.0	318.6
Funded status / net amount recognized	$(80.9)	$(86.9)
Net amount recognized consists of:		
Non-current assets	$3.3	$1.6
Current liability	(1.4)	(4.0)
Non-current liability	(82.8)	(84.5)
Net amount recognized	$(80.9)	$(86.9)

	For the Years Ended December 31,	
	2018	2017
Pension plans with a benefit obligation in excess of plan assets:		
Projected benefit obligation	$357.2	$394.4
Accumulated benefit obligation	353.4	390.4
Fair value of plan assets	275.0	305.9

Our U.S.-based pension plans comprised approximately 89% of the projected benefit obligation and 88% of plan assets as of December 31, 2018.

	Pension Benefits		
	2018	2017	2016
Components of net periodic benefit cost as of December 31:			
Service cost	$5.3	$5.0	$4.4
Interest cost	12.3	12.6	15.3
Expected return on plan assets	(18.8)	(21.3)	(21.5)
Amortization of prior service cost	0.1	0.2	0.3
Recognized actuarial loss	9.2	8.1	7.6
Settlements and curtailments[1]	0.7	0.7	31.6
Net periodic benefit cost	$8.8	$5.3	$37.7

[1] The Consolidated Statements of Operations includes $31.4 million related to pension settlement charges that represent the lump-sum payments made in the fourth quarter of 2016.

The following table sets forth amounts recognized in AOCL and Other comprehensive income (loss) in our financial statements for 2018 and 2017 (in millions):

	Pension Benefits	
	2018	2017
Amounts recognized in AOCL:		
Prior service costs	$(0.9)	$(0.8)
Actuarial loss	(199.4)	(194.6)
Subtotal	(200.3)	(195.4)
Deferred taxes	49.5	71.2
Net amount recognized	$(150.8)	$(124.2)
Changes recognized in other comprehensive income (loss):		
Current year prior service costs	0.3	0.1
Current year actuarial (gain) loss	15.7	3.7
Effect of exchange rates	(1.1)	1.7
Amortization of prior service (costs) credits	(0.1)	(0.2)
Amortization of actuarial loss	(9.9)	(8.8)
Total recognized in other comprehensive income (loss)	$4.9	$(3.5)
Total recognized in net periodic benefit cost and other comprehensive income (loss)	$13.7	$1.8

The estimated prior service (costs) credits and actuarial losses that will be amortized from AOCL in 2019 are $(0.1) million and $(7.9) million, respectively, for pension benefits.

The following tables set forth the weighted-average assumptions used to determine Benefit obligations and Net periodic benefit cost for the U.S.-based plans in 2018 and 2017:

	Pension Benefits	
	2018	2017
Weighted-average assumptions used to determine benefit obligations as of December 31:		
Discount rate	4.32%	3.66%
Rate of compensation increase	4.23%	4.23%

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	Pension Benefits		
	2018	2017	2016
Weighted-average assumptions used to determine net periodic benefit cost for the years ended December 31:			
Discount rate - service cost	3.48%	3.96%	4.30%
Discount rate - interest cost	3.22%	3.51%	3.76%
Expected long-term return on plan assets	6.50%	7.50%	7.50%
Rate of compensation increase	4.23%	4.23%	4.23%

The following tables set forth the weighted-average assumptions used to determine Benefit obligations and Net periodic benefit cost for the non-U.S.-based plans in 2018 and 2017:

	Pension Benefits	
	2018	2017
Weighted-average assumptions used to determine benefit obligations as of December 31:		
Discount rate	2.93%	2.58%
Rate of compensation increase	3.77%	3.63%

	Pension Benefits		
	2018	2017	2016
Weighted-average assumptions used to determine net periodic benefit cost for the years ended December 31:			
Discount rate - service cost	1.32%	1.34%	2.04%
Discount rate - interest cost	2.67%	2.75%	3.45%
Expected long-term return on plan assets	4.19%	4.40%	4.87%
Rate of compensation increase	3.62%	3.78%	3.70%

To develop the expected long-term rate of return on assets assumption for the U.S. plans, we considered the historical returns for each asset category, as well as the target asset allocation of the pension portfolio and the effect of periodic balancing. These results were adjusted for the payment of reasonable expenses of the plan from plan assets. This resulted in the selection of the 6.50% long-term rate of return on assets assumption. A similar process was followed for the non-U.S.-based plans.

To select a discount rate for the purpose of valuing the plan obligations for the U.S. plans, we performed an analysis in which the projected cash flows from defined benefit and retiree healthcare plans was matched with a yield curve based on the appropriate universe of high-quality corporate bonds that were available. We used the results of the yield curve analysis to select the discount rate for each plan. The analysis was completed separately for each U.S. pension and OPEB plan. A similar process was followed for the non-U.S.-based plans with sufficient corporate bond information. In other countries, the discount rate was selected based on the approximate duration of plan obligations.

Assumed health care cost trend rates have an effect on the amounts reported for our healthcare plan. The following table sets forth the healthcare trend rate assumptions used:

	2018		2017	
Assumed health care cost trend rates as of December 31:				
Health care cost trend rate assumed for next year	6.50	%	6.50	%

Rate to which the cost rate is assumed to decline (the ultimate trend rate)	5.00	%	5.00	%
Year that the rate reaches the ultimate trend rate	2022		2021	

Expected future benefit payments are shown in the table below (in millions):

	For the Years Ended December 31,					
	2019	2020	2021	2022	2023	2024-2028
Pension benefits	$19.3	$19.9	$25.8	$20.7	$23.5	$ 147.1

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Pension Plan Assets

We believe asset returns can be optimized at an acceptable level of risk by adequately diversifying the plan assets between equity and fixed income. In the second quarter of 2018, we changed the targeted allocations for our plan assets. The targeted allocation for fixed income and cash investments was changed to 60%, and the targeted allocation for equity investments was changed to 40%. Our targeted exposure to International equity including emerging markets was changed to 15.0% of total assets and our exposure to domestic equity was changed to 25.0%. Our U.S. pension plan represents 87%, our Canadian pension plan 6%, and our United Kingdom ("U.K.") pension plan 7% of the total fair value of our plan assets as of December 31, 2018.

Our U.S. pension plans' weighted-average asset allocations as of December 31, 2018 and 2017, by asset category, are as follows:

	Plan Assets as of December 31,	
Asset Category:	2018	2017
U.S. equity	24.6 %	12.5 %
International equity	15.5 %	15.1 %
Fixed income	57.2 %	71.1 %
Money market/cash	2.7 %	1.3 %
Total	100.0%	100.0%

U.S. pension plan assets are invested according to the following targets:

Asset Category:	Target
U.S. equity	25.0%
International equity	15.0%
Fixed income	60.0%

Our Canadian pension plans were invested approximately 75% in Canadian bonds and 25% in international equities. Our U.K. pension plan was invested in a broad mix of assets consisting of U.K. and international equities, and U.K. fixed income securities, including corporate and government bonds.

The fair values of our pension plan assets, by asset category, are as follows (in millions):

	Fair Value Measurements as of December 31, 2018			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Asset Category:				
Cash and cash equivalents	$7.2	$ —	$ —	$7.2
Commingled pools / Collective Trusts:				
U.S. equity [1]	—	62.7	—	62.7
International equity [2]	—	39.5	—	39.5
Fixed income [3]	—	146.2	—	146.2
Balanced pension trust: [4]				
International equity	—	4.0	—	4.0
Fixed income	—	12.0	—	12.0
Pension fund:				
International equity [5]	—	2.7	—	2.7
Fixed income [6]	—	8.9	—	8.9
Blend [7]	—	7.8	—	7.8
Total	$7.2	$ 283.8	$ —	$291.0

	Fair Value Measurements as of December 31, 2017			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Asset Category:				
Cash and cash equivalents	$3.9	$ —	$ —	$3.9
Commingled pools / Collective Trusts:				
U.S. equity [1]	—	34.7	—	34.7
International equity [2]	—	42.2	—	42.2
Fixed income [3]	—	197.9	—	197.9
Balanced pension trust: [4]				
International equity	—	4.6	—	4.6
Fixed income	—	13.6	—	13.6

Pension fund:				
International equity [5]	—	3.3	—	3.3
Fixed income [6]	—	5.9	—	5.9
Blend [7]	—	12.5	—	12.5
Total	$3.9	$ 314.7	$ —	$318.6

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Additional information about assets measured at Net Asset Value ("NAV") per share (in millions):

	As of December 31, 2018		
	Fair Value	Redemption Frequency (if currently eligible)	Redemption Notice Period
Asset Category:			
Commingled pools / Collective Trusts:			
U.S. equity [1]	$62.7	Daily	5 days
International equity [2]	39.5	Daily	5 days
Fixed income [3]	146.2	Daily	5-15 days
Balanced pension trust: [4]			
International equity	4.0	Daily	3-5 days
Fixed income	12.0	Daily	3-5 days
Pension fund:			
International equity [5]	2.7	Daily	1-3 days
Fixed income [6]	8.9	Daily	1-3 days
Blend [7]	7.8	Daily	1-3 days
Total	$283.8		

	As of December 31, 2017		
	Fair Value	Redemption Frequency (if currently eligible)	Redemption Notice Period
Asset Category:			
Commingled pools / Collective Trusts:			
U.S. equity [1]	$34.7	Daily	5 days
International equity [2]	42.2	Daily	5 days
Fixed income [3]	197.9	Daily	5-15 days
Balanced pension trust: [4]			
International equity	4.6	Daily	3-5 days
Fixed income	13.6	Daily	3-5 days
Pension fund:			
International equity [5]	3.3	Daily	1-3 days
Fixed income [6]	5.9	Daily	1-7 days
Blend [7]	12.5	Daily	1-3 days
Total	$314.7		

(1) This category includes investments primarily in U.S. equity securities that include large, mid and small capitalization companies.
(2) This category includes investments primarily in international equity securities that include large, mid and small capitalization companies in large developed markets as well as emerging markets equities.
(3) This category includes investments in U.S. investment grade and high yield fixed income securities, international fixed income securities and emerging markets fixed income securities.
(4) The investment objectives of the plan are to provide long-term capital growth and income by investing primarily in a well-diversified, balanced portfolio of Canadian common stocks, bonds and money market securities. The plan also holds a portion of its assets in international equities, a portion of which may be invested in U.S. securities.
(5) This category includes investments in international equity securities, a portion of which may be invested in U.S. securities and aims to provide returns consistent with the markets in which it invests and provide broad exposure to countries around the world.
(6) This category includes investments in U.K. government index-linked securities (index-linked gilts) that have maturity periods of 5 years or longer with a derivatives overlay and investment grade corporate bonds denominated in sterling.
(7) This category includes investments in pooled funds where the fund manager has discretion for the asset allocation and can invest in a wide range of international and US asset classes including equity, credit markets, sovereign debt and alternative assets (including derivative-based strategies).

The majority of our commingled pool/collective trusts, mutual funds, balanced pension trusts and pension funds are managed by professional investment advisors. The NAVs per share are furnished in monthly and/or quarterly statements received from the investment advisors and reflect valuations based upon their pricing policies. We assessed the fair value classification of these investments as Level 2 for commingled pool/collective trusts, balanced pension trusts and pension funds based on an examination of their pricing policies and the related controls and procedures. The fair values we report are based on the pool, trust or fund’s NAV per share. The NAVs per share are calculated periodically (daily or no less than one time per month) as the aggregate value of each pool or trust’s underlying assets divided by the number of units owned. See Note 21 for information about our fair value hierarchies and valuation techniques.

14. Comprehensive Income:

The following table provides information on items not reclassified in their entirety from AOCL to Net Income in the accompanying Consolidated Statements of Operations (in millions):

AOCL Component	For the Years Ended December 31, 2018	2017	Affected Line Item(s) in the Consolidated Statements of Operations
Gains/(Losses) on cash flow hedges:			
Commodity derivative contracts	$6.1	$13.7	Cost of goods sold
Income tax benefit	(1.4)	(5.0)	Provision for income taxes
Net of tax	$4.7	$8.7	
Defined Benefit Plan Items:			
Pension and Post-Retirement Benefits costs	$(9.3)	$(7.3)	Cost of goods sold; Selling, general and administrative expenses
Income tax benefit	2.3	2.8	Provision for income taxes

Net of tax	$(7.0)	$(4.5)	
Foreign currency translation adjustments:			
Foreign currency adjustments upon sale of business	(27.9)	—	Loss (gain), net on sale of businesses and related property
Net of tax	(27.9)	—	
Total reclassifications from AOCL	$(30.2)	$4.2	

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The following tables provide information on changes in AOCL, by component (net of tax), for the years ended December 31, 2018 and 2017 (in millions):

	Gains (Losses) on Cash Flow Hedges	Unrealized Gains (Losses) on Available-for-Sale Securities	Defined Benefit Plan Items	Foreign Currency Translation Adjustments	Total AOCL
Balance as of December 31, 2017	$ 7.4	$ 1.8	$(127.5)	$ (39.1)	$(157.4)
Other comprehensive loss before reclassifications	(8.9)	(1.8)	(34.0)	(16.9)	(61.6)
Amounts reclassified from AOCL	(4.7)	—	7.0	27.9	30.2
Net other comprehensive (loss) income	(13.6)	(1.8)	(27.0)	11.0	(31.4)
Balance as of December 31, 2018	$ (6.2)	$ —	$(154.5)	$ (28.1)	$(188.8)

	Gains (Losses) on Cash Flow Hedges	Unrealized Gains (Losses) on Available-for-Sale Securities	Defined Benefit Plan Items	Foreign Currency Translation Adjustments	Total AOCL
Balance as of December 31, 2016	$ 5.6	$ 2.3	$(130.0)	$ (73.0)	$(195.1)
Other comprehensive (loss) income before reclassifications	10.5	(0.5)	(2.0)	33.9	41.9
Amounts reclassified from AOCI	(8.7)	—	4.5	—	(4.2)
Net other comprehensive (loss) income	1.8	(0.5)	2.5	33.9	37.7
Balance as of December 31, 2017	$ 7.4	$ 1.8	$(127.5)	$ (39.1)	$(157.4)

15. Stock-Based Compensation:

Stock-based compensation expense related to continuing operations was included in Selling, general and administrative expenses in the accompanying Consolidated Statements of Operations as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Compensation expense[1]	$26.3	$24.9	$31.7

[1] Stock-based compensation expense was recorded in our Corporate and other business segment.

Incentive Plan

Under the Lennox International Inc. 2010 Incentive Plan, as amended and restated (the “2010 Incentive Plan”), we are authorized to issue awards for 24.3 million shares of common stock. The 2010 Incentive Plan provides for various long-term incentive awards, including performance share units, restricted stock units and stock appreciation rights. A description of these long-term incentive awards and related activity within each award category is provided below.

As of December 31, 2018, awards for 9.9 million shares of common stock had been granted, net of cancellations and repurchases, and there were 3.5 million shares available for future issuance.

Performance Share Units

Performance share units are granted to certain employees at the discretion of the Board of Directors with a three-year performance period beginning January 1st of each year. Upon meeting the performance and vesting criteria, performance share units are converted to an equal number of shares of our common stock. Performance share units vest if, at the end of the three-year performance period, at least the threshold performance level has been attained. To the extent that the payout level attained is less than 100%, the difference between 100% and the units earned and distributed will be forfeited. Eligible participants may also earn additional units of our common stock, which would increase the potential payout up to 200% of the units granted, depending on LII's performance over the three-year performance period.

Performance share units are classified as equity awards. Compensation expense is recognized on an earnings curve over the period and is based on the expected number of units to be earned and the fair value of the stock at the date of grant. The fair value of units is calculated as the average of the high and low market price of the stock on the date of grant discounted by the expected dividend rate over the service period. The number of units expected to be earned will be adjusted in future periods as necessary to reflect changes in the estimated number of award to be issued and, upon vesting, the actual number of units awarded. Our practice is to issue new shares of common stock or utilize treasury stock to satisfy performance share unit distributions.

The following table provides information on our performance share units:

	For the Years Ended December 31,		
	2018	2017	2016
Compensation expense for performance share units (in millions)	$12.3	$12.2	$18.1
Weighted-average fair value of grants, per share	$204.64	$197.54	$150.21
Payout ratio for shares paid	173.2 %	185.9 %	200.0 %

A summary of the status of our undistributed performance share units as of December 31, 2018, and changes during the year then ended, is presented below (in millions, except per share data):

	Shares	Weighted-Average Grant Date Fair Value per Share
Undistributed performance share units as of December 31, 2017	0.3	$ 123.80
Granted	0.1	204.64
Distributed	(0.2)	88.26
Undistributed performance share units as of December 31, 2018 (1)	0.2	$ 160.69

(1) Undistributed performance share units include approximately 0.2 million units with a weighted-average grant date fair value of $182.06 per share that had not yet vested and 0.1 million units that have vested but were not yet distributed.

As of December 31, 2018, we had $21.3 million of total unrecognized compensation cost related to non-vested performance share units that is expected to be recognized over a weighted-average period of 2.2 years. Our estimated forfeiture rate for these performance share units was 12.4% as of December 31, 2018.

The total fair value of performance share units distributed and the resulting tax deductions to realized tax benefits were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Fair value of performance share units distributed	$21.1	$64.3	$39.4
Realized tax benefits from tax deductions	$5.3	$24.5	$15.0

Restricted Stock Units

Restricted stock units are issued to attract and retain key employees. Generally, at the end of a three-year retention period, the units will vest and be distributed in shares of our common stock to the participant. Our practice is to issue new shares of common stock or utilize treasury stock to satisfy restricted stock unit vestings. Restricted stock units are classified as equity awards. The fair value of units granted is the average of the high and low market price of the stock on the date of grant discounted by the expected dividend rate over the service period. Units are amortized to compensation expense ratably over the service period.

The following table provides information on our restricted stock units (in millions, except per share data):

	For the Years Ended December 31,		
	2018	2017	2016
Compensation expense for restricted stock units	$9.2	$8.3	$9.0
Weighted-average fair value of grants, per share	$204.64	$197.54	$150.14

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A summary of our non-vested restricted stock units as of December 31, 2018 and changes during the year then ended is presented below (in millions, except per share data):

	Shares	Weighted-Average Grant Date Fair Value per Share
Non-vested restricted stock units as of December 31, 2017	0.2	$ 156.16
Granted	0.1	204.64
Vested	(0.1)	125.46
Forfeited	—	—
Non-vested restricted stock units as of December 31, 2018 [1]	0.2	$ 182.84

[1] As of December 31, 2018, we had $19.5 million of total unrecognized compensation cost related to non-vested restricted stock units that is expected to be recognized over a weighted-average period of 2.3 years. Our estimated forfeiture rate for restricted stock units was 16.0% as of December 31, 2018.

The total fair value of restricted stock units vested and the resulting tax deductions to realized tax benefits were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Fair value of restricted stock units vested	$9.7	$19.0	$17.0
Realized tax benefits from tax deductions	2.4	7.2	6.5

Stock Appreciation Rights

Stock appreciation rights are issued to certain key employees. Each recipient is given the “right” to receive compensation, paid in shares of our common stock, equal to the future appreciation of our common stock price. Stock appreciation rights generally vest in one-third increments beginning on the first anniversary date after the grant date and expire after seven years. Our practice is to issue new shares of common stock or utilize treasury stock to satisfy the exercise of stock appreciation rights.

The following table provides information on our stock appreciation rights (in millions, except per share data):

	For the Years Ended December 31,		
	2018	2017	2016
Compensation expense for stock appreciation rights	$4.8	$ 4.4	$ 4.6
Weighted-average fair value of grants, per share	35.57	32.32	22.93

Compensation expense for stock appreciation rights is based on the fair value on the date of grant, estimated using the Black-Scholes-Merton valuation model, and is recognized over the service period. We used historical stock price data to estimate the expected volatility. We determined that the recipients of stock appreciation rights can be combined into one employee group that has similar historical exercise behavior and we used our historical pattern of award exercises to estimate the expected life of the awards for the employee group. The risk-free interest rate was based on the zero-coupon U.S. Treasury yield curve with a maturity equal to the expected life of the awards at the time of grant.

The fair value of the stock appreciation rights granted in 2018, 2017 and 2016 were estimated on the date of grant using the following assumptions:

	2018	2017	2016
Expected dividend yield	1.76 %	1.47 %	1.62 %
Risk-free interest rate	2.71 %	2.02 %	1.66 %
Expected volatility	20.60%	19.97%	19.60%
Expected life (in years)	3.93	3.95	3.99

A summary of our stock appreciation rights as of December 31, 2018, and changes during the year then ended, is presented below (in millions, except per share data):

	Shares [(1)]	Weighted-Average Exercise Price per Share
Outstanding stock appreciation rights as of December 31, 2017	1.1	$ 121.63
Granted	0.2	214.63
Exercised	(0.3)	74.51
Forfeited	—	—
Outstanding stock appreciation rights as of December 31, 2018	0.9	$ 148.98
Exercisable stock appreciation rights as of December 31, 2018	0.6	$ 120.52

(1) Share amounts are rounded but the balance of undistributed performance share units as of December 31, 2018 accurately reflects actual units undistributed.

The following table summarizes information about stock appreciation rights outstanding as of December 31, 2018 (in millions, except per share data and years):

	Stock Appreciation Rights Outstanding			Stock Appreciation Rights Exercisable		
Range of Exercise Prices	Shares	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value	Shares	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
$51.11 to $92.64	0.3	2.22	$ 37.8	0.3	2.22	$ 37.8
$124.97 to $156.94	0.3	4.58	$ 24.1	0.3	4.48	$ 20.2
$205.53 to $214.63	0.3	6.46	$ 3.0	0.1	6.00	$ 0.8

As of December 31, 2018, we had $9.7 million of unrecognized compensation cost related to non-vested stock appreciation rights that is expected to be recognized over a weighted-average period of 2.3 years. Our estimated forfeiture rate for stock appreciation rights was 12.9% as of December 31, 2018.

The total intrinsic value of stock appreciation rights exercised and the resulting tax deductions to realize tax benefits were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Intrinsic value of stock appreciation rights exercised	$35.9	$25.1	$36.9
Realized tax benefits from tax deductions	$8.9	$9.6	$14.1

Employee Stock Purchase Plan

Under the 2012 Employee Stock Purchase Plan (“ESPP”), all employees who meet certain service requirements are eligible to purchase our common stock through payroll deductions at the end of three month offering periods. The purchase price for such shares is 95% of the fair market value of the stock on the last day of the offering period. A maximum of 2.5 million shares is authorized for purchase until the ESPP plan termination date of May 10, 2022, unless terminated earlier at the discretion of the Board of Directors. Employees purchased approximately 15,000 shares under the ESPP during the year ended December 31, 2018. Approximately 2.4 million shares remain available for purchase under the ESPP as of December 31, 2018.

16. Stock Repurchases:

Our Board of Directors has authorized a total of $2.5 billion to repurchase of shares of our common stock (collectively referred to as the “Share Repurchase Plans”), including a $500 million share repurchase authorization in March 2018. The Share Repurchase Plans authorize open market repurchase transactions and do not have a stated expiration date. As of December 31, 2018, $446.0 million may be used to repurchase shares under the Share Repurchase Plans.

On February 8, 2018, the Company entered into a Fixed Dollar Accelerated Share Repurchase Transaction (the “ASR Agreement”) with MUFG Securities EMEA plc (“MUFG”), to effect an accelerated stock buyback of our common stock. Under the ASR Agreement, on February 8, 2018, we paid MUFG an initial purchase price of $150.0 million, and MUFG delivered to us common stock, representing approximately 85% of the shares expected to be purchased under the ASR Agreement. The ASR was completed in April of 2018 and MUFG delivered additional shares for a total of 0.7 million shares of common stock repurchased as part of this ASR Agreement.

We repurchased 1.0 million shares for $200.2 million in open market transactions during the second quarter of 2018 and 0.5 million shares for $100.0 million in open market transactions during the fourth quarter of 2018.

We also repurchased 0.1 million shares for $26.9 million and 0.1 million shares for $26.1 million for the years ended December 31, 2018 and 2017, respectively, from employees who surrendered their shares to satisfy minimum tax withholding obligation upon the vesting of stock-based compensation awards.

17. Divestitures:

Australia and Asia Divestiture

During the first quarter of 2018, we obtained Board of Directors’ approval and signed an agreement with Beijer Ref AB, a Stockholm Stock Exchange-listed company, for the sale of our Australia and Asia business except for the Milperra property. The Milperra property was sold to another purchaser during the second quarter of 2018. We completed the sale to Beijer Ref AB in the second quarter of 2018 with the final post-completion adjustment being recorded in the third quarter of 2018. The following table summarizes the net loss recognized in connection with this divestiture:

(Amounts in millions)	For the Year Ended December 31, 2018
Cash received from the buyer	$ 82.9
Net assets sold [1]	(87.2)
AOCL reclassification adjustments, primarily foreign currency translation	(3.2)
Direct costs to sell	(5.8)
Loss on sale of business	$ (13.3)

[1] Includes $10.3 million of net assets that were written down during the quarter ended March 31, 2018 based on the expected proceeds from the sale, net of selling costs for the sale for our Australia and Asia business.

The Milperra property was sold during the quarter ended June 30, 2018. We received net cash proceeds of $37.2 million net of direct costs to sell of $1.5 million. The net gain recognized in connection with this sale was $23.8 million.

South America Divestiture

During the second quarter of 2018, we obtained Board of Directors’ approval and signed an agreement with Elgin SA, a private Brazilian company, for the sale of our South America business. The sale was subject to Brazilian antitrust approval. We obtained antitrust approval and completed the sale to Elgin SA in the third quarter of 2018. The following table summarizes the net loss recognized in connection with this divestiture:
(Amounts in millions)

	For the Year Ended December 31, 2018
Cash received from the buyer	$ 4.2
Net assets sold [2]	(14.1)
AOCL reclassification adjustments, primarily foreign currency translation	(24.7)
Direct costs to sell	(2.9)
Loss on sale of business	$ (37.5)

[2] Includes $1.2 million of net assets that were written down during the quarter ended June 30, 2018 based on the expected proceeds from the sale, net of selling costs for the sale for our South America business.

The total Loss (gain), net on sale of businesses and related property in our Consolidated Statements of Operations of $27.0 million is comprised of the $13.3 million loss on the sale of our Australia and Asia business, the $23.8 million gain on the sale of our Milperra property, and the $37.5 million loss on the sale of our South America business.

18. Restructuring Charges:

We record restructuring charges associated with management-approved restructuring plans to reorganize or to remove duplicative headcount and infrastructure within our businesses. Restructuring charges include severance costs to eliminate a specified number of employees, infrastructure charges to vacate facilities and consolidate operations, contract cancellation costs and other related activities. The timing of associated cash payments is dependent upon the type of restructuring charge and can extend over a multi-year period. Restructuring charges are not included in our calculation of segment profit (loss), as more fully explained in Note 20.

Restructuring Activities in 2018

Information regarding the restructuring charges for all ongoing activities are presented in the table below (in millions):

	Incurred in 2018	Incurred to Date	Total Expected to be Incurred
Severance and related expense	$ 1.7	$ 13.0	$ 13.8
Asset write-offs and accelerated depreciation	—	3.2	3.2
Lease termination	0.7	0.9	0.9
Other	0.6	4.7	4.7
Total	$ 3.0	$ 21.8	$ 22.6

While restructuring charges are excluded from our calculation of segment profit (loss), the table below presents the restructuring charges associated with each segment (in millions):

	Incurred in 2018	Incurred to Date	Total Expected to be Incurred
Residential Heating & Cooling	$ 0.6	$ 2.0	$ 2.0
Commercial Heating & Cooling	1.1	3.1	3.1
Refrigeration	1.3	14.4	15.2
Corporate & Other	—	2.3	2.3
Total	$ 3.0	$ 21.8	$ 22.6

Restructuring accruals are included in Accrued expenses in the accompanying Consolidated Balance Sheets.

19. Earnings Per Share:

Basic earnings per share are computed by dividing net income by the weighted-average number of common shares outstanding during the period. Diluted earnings per share are computed by dividing net income by the sum of the weighted-average number of shares and the number of equivalent shares assumed outstanding, if dilutive, under our stock-based compensation plans.

The computations of basic and diluted earnings per share for Income from continuing operations were as follows (in millions, except per share data):

	For the Years Ended December 31,		
	2018	2017	2016
Net income	$359.0	$305.7	$277.8
Add: Loss from discontinued operations	1.3	1.4	0.8
Income from continuing operations	$360.3	$307.1	$278.6
Weighted-average shares outstanding – basic	40.6	42.2	43.4
Add: Potential effect of diluted securities attributable to stock-based payments	0.5	0.6	0.6
Weighted-average shares outstanding – diluted	41.1	42.8	44.0
Earnings per share - Basic:			
Income from continuing operations	$8.87	$7.28	$6.41
Loss from discontinued operations	(0.03)	(0.03)	(0.02)
Net income	$8.84	$7.25	$6.39
Earnings per share - Diluted:			
Income from continuing operations	$8.77	$7.17	$6.34
Loss from discontinued operations	(0.03)	(0.03)	(0.02)
Net income	$8.74	$7.14	$6.32

An insignificant number of stock appreciation rights were outstanding but not included in the diluted earnings per share calculation because the assumed exercise of such rights would have been anti-dilutive.

20. Reportable Business Segments:

Description of Segments

We operate in three reportable business segments of the heating, ventilation, air conditioning and refrigeration (“HVACR”) industry. Our segments are organized primarily by the nature of the products and services we provide. The following table describes each segment:

Segment	Products or Services	Markets Served	Geographic Areas
Residential Heating & Cooling	Furnaces, air conditioners, heat pumps, packaged heating and cooling systems, indoor air quality equipment, comfort control products, replacement parts and supplies	Residential Replacement; Residential New Construction	United States Canada
Commercial Heating & Cooling	Unitary heating and air conditioning equipment, applied systems, controls, installation and service of commercial heating and cooling equipment, variable	Light Commercial	United States Canada

	refrigerant flow commercial products		Europe
Refrigeration	Condensing units, unit coolers, fluid coolers, air-cooled condensers, air handlers, process chillers, controls, compressorized racks, supermarket display cases and systems	Light Commercial; Food Preservation; Non-Food/Industrial	United States Canada Europe Asia Pacific* South America* Central America

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*Our businesses in Australia, Asia and South America were sold in the second and third quarters of 2018, respectively. Refer to Note 17 for details regarding the divestiture of the businesses.

Segment Data

We use segment profit or loss as the primary measure of profitability to evaluate operating performance and to allocate capital resources. We define segment profit or loss as a segment's income or loss from continuing operations before income taxes included in the accompanying Consolidated Statements of Operations, excluding certain items. The reconciliation below details the items excluded.

Our corporate costs include those costs related to corporate functions such as legal, internal audit, treasury, human resources, tax compliance and senior executive staff. Corporate costs also include the long-term, share-based incentive awards provided to employees throughout our business. We recorded these share-based awards as Corporate costs because they are determined at the discretion of the Board of Directors and based on the historical practice of doing so for internal reporting purposes.

Any intercompany sales and associated profit (and any other intercompany items) are eliminated from segment results. There were no significant intercompany eliminations included in the results presented in the table below.

Net sales and segment profit (loss) by segment, along with a reconciliation of segment profit (loss) to Operating income, are shown below (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Net Sales [1]			
Residential Heating & Cooling	$2,225.0	$2,140.4	$2,000.8
Commercial Heating & Cooling	1,043.5	973.8	917.9
Refrigeration	615.4	725.4	722.9
	$3,883.9	$3,839.6	$3,641.6
Segment profit (loss) [2]			
Residential Heating & Cooling	$399.4	$373.9	$348.8
Commercial Heating & Cooling	159.5	157.3	149.3
Refrigeration	66.1	72.6	68.9
Corporate and other	(84.4)	(89.2)	(97.4)
Total segment profit	540.6	514.6	469.6
Reconciliation to Operating income:			
Special inventory write down	0.2	—	—
Special product quality adjustments	—	5.4	(0.4)
Loss (gain), net on sale of businesses and related property	27.0	1.1	—
Gain from insurance recoveries, net of losses incurred	(10.9)	—	—
Pension settlement	0.4	—	31.4
Items in (Gains) Losses and other expenses, net that are excluded from segment profit (loss) [2]	11.4	10.4	7.4
Restructuring charges	3.0	3.2	1.8
Operating income	$509.5	$494.5	$429.4

[1] On a consolidated basis, no revenue from transactions with a single customer were 10% or greater of our consolidated net sales for any of the periods presented.

(2) We define segment profit (loss) as a segment's operating income included in the accompanying Consolidated Statements of Operations, excluding:

- The following items in Losses (gains) and other expenses, net:
  - Net change in unrealized losses (gains) on unsettled futures contracts,
  - Special legal contingency charges,
  - Asbestos-related litigation,
  - Environmental liabilities,
  - Contractor tax payments,

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Other items, net,
- Special inventory write down,
- Loss (gain), net on sale of businesses and related property,
- Gain from insurance recoveries, net of losses incurred
- Special product quality adjustment,
- Pension settlement, and,
- Restructuring charges.

Total assets by segment are shown below (in millions):

	As of December 31,		
	2018	2017	2016
Total Assets:			
Residential Heating & Cooling	$837.4	$771.3	$673.4
Commercial Heating & Cooling	457.2	443.9	385.8
Refrigeration	355.2	506.9	442.8
Corporate and other	167.4	169.4	258.3
Total assets	$1,817.2	$1,891.5	$1,760.3

The assets in the Corporate and other segment primarily consist of cash, short-term investments and deferred tax assets. Assets recorded in the operating segments represent those assets directly associated with those segments.

Total capital expenditures by segment are shown below (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Capital Expenditures:			
Residential Heating & Cooling	$45.2	$38.9	$36.7
Commercial Heating & Cooling	14.0	18.5	11.5
Refrigeration	7.8	8.0	12.1
Corporate and other	28.2	32.9	24.0
Total capital expenditures (1)	$95.2	$98.3	$84.3

(1) Includes amounts recorded under capital leases. There were no significant new capital leases in 2018, 2017 or 2016.

Depreciation and amortization expenses by segment are shown below (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Depreciation and Amortization:			
Residential Heating & Cooling	$26.6	$24.9	$21.0
Commercial Heating & Cooling	10.4	10.1	9.8
Refrigeration	7.1	9.9	9.7
Corporate and other	21.9	19.7	17.6
Total depreciation and amortization	$66.0	$64.6	$58.1

The equity method investments are shown below (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Income from Equity Method Investments:			
Refrigeration	$2.1	$3.9	$4.0
Residential	8.5	11.7	11.5
Commercial	1.4	2.8	2.9
Total income from equity method investments	$12.0	$18.4	$18.4

Geographic Information

Net sales for each major geographic area in which we operate are shown below (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Net Sales to External Customers by Point of Shipment:			
United States	$3,275.9	$3,128.7	$2,966.8
Canada	254.8	237.8	218.8
International	353.2	473.1	456.0
Total net sales to external customers	$3,883.9	$3,839.6	$3,641.6

Property, plant and equipment, net for each major geographic area in which we operate, based on the domicile of our operations, are shown below (in millions):

	As of December 31,		
	2018	2017	2016
Property, Plant and Equipment, net:			
United States	$293.3	$257.6	$237.6
Mexico	86.7	79.8	69.4
Canada	1.7	1.7	1.4
International	26.6	58.7	53.0
Total Property, plant and equipment, net	$408.3	$397.8	$361.4

21. Fair Value Measurements:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date and requires consideration of our creditworthiness when valuing certain liabilities. Our framework for measuring fair value is based on the following three-level hierarchy for fair value measurements:

Level 1 - Quoted prices for identical instruments in active markets at the measurement date.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets at the measurement date and for the anticipated term of the instrument.

Level 3 - Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

Where available, the fair values were based upon quoted prices in active markets. However, if quoted prices were not available, then the fair values were based upon quoted prices for similar assets or liabilities or independently sourced market parameters, such as credit default swap spreads, yield curves, reported trades, broker/dealer quotes, interest rates and benchmark securities. For assets and liabilities without observable market activity, if any, the fair values were based upon discounted cash flow methodologies incorporating assumptions that, in our judgment, reflect the assumptions a marketplace participant would use. Valuation adjustments to reflect either party's creditworthiness and ability to pay were incorporated into our valuations, where appropriate, as of December 31, 2018 and 2017, the measurement dates. The methodologies used to determine the fair value of our financial assets and liabilities as of December 31, 2018 were the same as those used as of December 31, 2017.

Fair values are estimates and are not necessarily indicative of amounts for which we could settle such instruments currently nor indicative of our intent or ability to dispose of or liquidate them.

Assets and Liabilities Carried at Fair Value on a Recurring Basis

Derivatives

Derivatives, classified as Level 2, were primarily valued using estimated future cash flows based on observed prices from exchange-traded derivatives. We also considered the counterparty's creditworthiness, or our own creditworthiness, as appropriate. Adjustments were recorded to reflect the risk of credit default, but they were insignificant to the overall value of the derivatives. Refer to Note 9 for more information related to our derivative instruments.

Marketable Equity Securities

The following table presents the fair values of an investment in marketable equity securities, related to publicly traded stock of a non-U.S. company, recorded in Other assets, net in the accompanying Consolidated Balance Sheets (in millions).This investment was sold as part of the divestiture of our Australia and Asia business. Refer to Note 17 for details regarding divestiture of the business.

	As of December 31,	
	2018	2017
Quoted Prices in Active Markets for Identical Assets (Level 1):		
Investment in marketable equity securities	$ —	$ 4.1

Other Fair Value Disclosures

The carrying amounts of Cash and cash equivalents, Accounts and notes receivable, net, Accounts payable, Other current liabilities, and Short-term debt approximate fair value due to the short maturities of these instruments. The carrying amount of our Domestic Credit Facility in Long-term debt also approximates fair value due to its variable-rate characteristics.

The fair value of our senior unsecured notes in Long-term debt was based on the amount of future cash flows using current market rates for debt instruments of similar maturities and credit risk. The following table presents the fair value for our senior unsecured notes in Long-term debt (in millions):

	As of December 31,

	2018	2017
Quoted Prices in Active Markets for Similar Instruments (Level 2):		
Senior unsecured notes	$302.9	$308.1

22. Selected Quarterly Financial Information (unaudited):

The following tables provide information on Net sales, Gross profit, Net income, Earnings per share and Cash dividends declared per share by quarter (in millions, except per share data):

	Net Sales [1]		Gross Profit [1]		Net Income [1]	
	2018	2017	2018	2017	2018	2017
First Quarter	$834.8	$793.4	$223.2	$210.9	$37.9	$43.5
Second Quarter	1,175.4	1,102.1	361.6	340.8	137.6	115.5
Third Quarter	1,030.2	1,052.3	301.9	313.7	108.0	103.5
Fourth Quarter	843.6	891.8	224.5	259.8	75.6	43.1

	Basic Earnings per Share [2]		Diluted Earnings per Share [2]		Cash Dividends per Common Share	
	2018	2017	2018	2017	2018	2017
First Quarter	$0.91	$1.02	$0.90	$1.00	$0.51	$0.43
Second Quarter	3.38	2.73	3.35	2.69	0.64	0.51
Third Quarter	2.68	2.47	2.65	2.44	0.64	0.51
Fourth Quarter	1.89	1.03	1.87	1.02	0.64	0.51

(1) The sum of the quarterly results for each of the four quarters may not equal the full year results due to rounding.

(2) EPS for each quarter is computed using the weighted-average number of shares outstanding during that quarter, while EPS for the fiscal year is computed using the weighted-average number of shares outstanding during the year. Thus, the sum of the EPS for each of the four quarters may not equal the EPS for the fiscal year.

Summary of 2018 Quarterly Results

The following unusual or infrequent pre-tax items were included in the 2018 quarterly results:

1st Quarter. During the first quarter of 2018, we obtained board approval and signed an agreement with Beijer Ref AB, a Stockholm Stock Exchange-listed company, for the sale of our Australia and Asia business.

2nd Quarter. We completed the sale to Beijer Ref AB of our Australia and Asia business and sold our Milperra property. We obtained board approval and signed an agreement with Elgin SA, a private Brazilian company, for the sale of our South America business. Refer to Note 17 for details regarding the divestiture.

3rd Quarter. We completed the sale to Elgin SA of our South America business. Our manufacturing facility in Marshalltown, Iowa was severely damaged by a tornado. Refer to Note 17 for details regarding the divestiture and Note 11 for details related to the tornado damage.

4th Quarter. We recorded gains from insurance recoveries related to our Marshalltown facility, refer to Note 11 for further details.

Summary of 2017 Quarterly Results

The following unusual or infrequent pre-tax items were included in the 2017 quarterly results:

1st Quarter. No significant unusual or infrequent items.

2nd Quarter. No significant unusual or infrequent items.

3rd Quarter. No significant unusual or infrequent items.

4th Quarter. As a result of recent tax legislation, we recorded a one-time charge of $31.8 million in the fourth quarter to revalue our deferred tax assets and liabilities.

23. Losses (Gains) and Other Expenses, net:

Losses (gains) and other expenses, net in our Consolidated Statements of Operations were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Realized (gains) losses on settled futures contracts	$(0.4)	$(1.7)	$1.1
Foreign currency exchange losses (gains)	1.7	(1.8)	2.2
Losses on disposal of fixed assets	0.7	0.2	0.5
Net change in unrealized losses (gains) on unsettled futures contracts	1.5	0.9	(3.6)
Asbestos-related litigation	4.0	3.5	6.3
Special legal contingency charges	1.9	3.7	1.9
Environmental liabilities	2.2	2.2	1.9
Contractor tax payments	—	0.1	0.6
Other items, net	1.8	—	0.4
Losses (gains) and other expenses, net	$13.4	$7.1	$11.3

24. Supplemental Information:

Below is information about expenses included in our Consolidated Statements of Operations (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Research and development	$72.2	$73.6	$64.6
Advertising, promotions and marketing [(1)]	42.5	45.0	41.0
Cooperative advertising expenditures [(2)]	16.8	18.6	14.7
Rent expense	58.5	57.7	57.9

[(1)] Cooperative advertising expenditures were not included in these amounts.
[(2)] Cooperative advertising expenditures were included in Selling, general and administrative expenses in the Consolidated Statements of Operations.

Interest Expense, net

The components of Interest expense, net in our Consolidated Statements of Operations were as follows (in millions):

	For the Years Ended December 31,		
	2018	2017	2016
Interest expense, net of capitalized interest	$39.1	$32.1	$28.1
Interest income	0.8	1.5	1.1
Interest expense, net	$38.3	$30.6	$27.0

25. Condensed Consolidating Financial Statements:

The Company's senior unsecured notes are unconditionally guaranteed by certain of the Company's subsidiaries (the "Guarantor
Subsidiaries") and are not secured by our other subsidiaries (the "Non-Guarantor Subsidiaries"). The Guarantor Subsidiaries are 100% owned, all guarantees are full and unconditional, and all guarantees are joint and several. As a result of the guarantee arrangements, we are required to present condensed consolidating financial statements.

The condensed consolidating financial statements reflect the investments in subsidiaries of the Company using the equity method of accounting. The principal elimination entries eliminate investments in subsidiaries and intercompany balances and transactions.

Condensed consolidating financial statements of the Company, its Guarantor Subsidiaries and Non-Guarantor Subsidiaries as of December 31, 2018 and December 31, 2017 and for the years ended December 31, 2018, 2017 and 2016 are shown on the following pages.

Condensed Consolidating Balance Sheets
As of December 31, 2018
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current Assets:					
Cash and cash equivalents	$1.8	$ 15.4	$ 29.1	$ —	$ 46.3
Accounts and notes receivable, net	—	44.3	428.4	—	472.7
Inventories, net	—	411.4	103.9	(5.5)	509.8
Other assets	3.3	36.2	54.7	(33.6)	60.6
Total current assets	5.1	507.3	616.1	(39.1)	1,089.4
Property, plant and equipment, net	—	293.3	118.6	(3.6)	408.3
Goodwill	—	166.1	20.5	—	186.6
Investment in subsidiaries	1,311.9	357.8	(0.5)	(1,669.2)	—
Deferred income taxes	1.4	54.4	23.4	(12.2)	67.0
Other assets, net	1.5	48.1	17.8	(1.5)	65.9
Intercompany (payables) receivables, net	(715.5)	675.8	142.6	(102.9)	—
Total assets	$604.4	$ 2,102.8	$ 938.5	$ (1,828.5)	$ 1,817.2
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY					
Current liabilities:					
Short-term debt	$—	$ —	$ —	$ —	$ —
Current maturities of long-term debt	29.4	2.8	268.6	—	300.8
Accounts payable	25.5	295.7	112.1	—	433.3
Accrued expenses	12.1	213.8	46.4	—	272.3
Income taxes payable	(38.5)	40.6	50.8	(50.8)	2.1
Total current liabilities	28.5	552.9	477.9	(50.8)	1,008.5
Long-term debt	724.9	15.0	0.6	—	740.5
Pensions	—	75.1	7.7	—	82.8
Other liabilities	0.6	126.4	8.0	—	135.0
Total liabilities	754.0	769.4	494.2	(50.8)	1,966.8
Commitments and contingencies					
Total stockholders' (deficit) equity	(149.6)	1,333.4	444.3	(1,777.7)	(149.6)
Total liabilities and stockholders' (deficit) equity	$604.4	$ 2,102.8	$ 938.5	$ (1,828.5)	$ 1,817.2

Condensed Consolidating Balance Sheets
As of December 31, 2017
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current Assets:					
Cash and cash equivalents	$1.6	$ 28.0	$ 38.6	$—	$ 68.2
Accounts and notes receivable, net	—	35.3	471.2	—	506.5
Inventories, net	—	355.7	131.9	(3.4)	484.2
Other assets	16.2	23.1	67.5	(28.4)	78.4
Total current assets	17.8	442.1	709.2	(31.8)	1,137.3
Property, plant and equipment, net	—	257.6	144.4	(4.2)	397.8
Goodwill	—	134.9	65.6	—	200.5
Investment in subsidiaries	1,257.7	365.8	(0.6)	(1,622.9)	—
Deferred income taxes	3.9	69.1	33.6	(12.2)	94.4
Other assets, net	2.1	41.3	19.6	(1.5)	61.5
Intercompany (payables) receivables, net	(559.3)	554.7	107.4	(102.8)	—
Total assets	$722.2	$ 1,865.5	$ 1,079.2	$ (1,775.4)	$ 1,891.5
LIABILITIES AND STOCKHOLDERS’ EQUITY (DEFICIT)					
Current liabilities:					
Short-term debt	$—	$ —	$ 0.9	$—	$ 0.9
Current maturities of long-term debt	29.4	2.9	0.3	—	32.6
Accounts payable	21.3	228.0	99.3	—	348.6
Accrued expenses	3.1	209.4	57.8	—	270.3
Income taxes payable	(64.5)	56.5	60.9	(50.8)	2.1
Total current liabilities	(10.7)	496.8	219.2	(50.8)	654.5
Long-term debt	682.8	11.7	276.0	—	970.5
Pensions	—	74.7	9.8	—	84.5
Other liabilities	—	123.2	8.7	—	131.9
Total liabilities	672.1	706.4	513.7	(50.8)	1,841.4
Commitments and contingencies					
Total stockholders’ equity (deficit)	50.1	1,159.1	565.5	(1,724.6)	50.1
Total liabilities and stockholders’ equity (deficit)	$722.2	$ 1,865.5	$ 1,079.2	$ (1,775.4)	$ 1,891.5

Condensed Consolidating Statements of Operations and Comprehensive Income
For the Year Ended December 31, 2018
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net Sales	$—	$ 3,473.2	$ 1,129.6	$ (718.9)	$ 3,883.9
Cost of goods sold	—	2,500.6	988.7	(716.6)	2,772.7
Gross profit	—	972.6	140.9	(2.3)	1,111.2
Operating expenses:					
Selling, general and administrative expenses	—	555.3	53.6	(0.7)	608.2
Losses (gains) and other expenses, net	2.0	5.4	6.3	(0.3)	13.4
Restructuring charges	—	1.1	1.9	—	3.0
Pension settlement	—	—	0.4	—	0.4
Loss (gain), net on sale of businesses and related property	—	40.3	(13.3)	—	27.0
Insurance proceeds for lost profits	—	(27.4)	—	—	(27.4)
Gain from insurance recoveries, net of losses incurred	—	(10.9)	—	—	(10.9)
Income from equity method investments	(367.4)	(70.3)	(9.9)	435.6	(12.0)
Operating income	365.4	479.1	101.9	(436.9)	509.5
Interest expense, net	9.0	18.5	10.8	—	38.3
Other expense (income), net	—	1.5	1.8	—	3.3
Income from continuing operations before income taxes	356.4	459.1	89.3	(436.9)	467.9
Provision for income taxes	(2.6)	92.1	18.0	0.1	107.6
Income from continuing operations	359.0	367.0	71.3	(437.0)	360.3
Loss from discontinued operations	—	—	(1.3)	—	(1.3)
Net income	$359.0	$ 367.0	$ 70.0	$ (437.0)	$ 359.0
Other comprehensive (loss) income	$(15.4)	$ (15.3)	$ (0.7)	$ —	$ (31.4)
Comprehensive Income	$343.6	$ 351.7	$ 69.3	$ (437.0)	$ 327.6

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Condensed Consolidating Statements of Operations and Comprehensive Income
For the Year Ended December 31, 2017
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	$—	$ 3,295.8	$ 1,144.2	$ (600.4)	$ 3,839.6
Cost of goods sold	—	2,359.6	953.6	(598.8)	2,714.4
Gross profit	—	936.2	190.6	(1.6)	1,125.2
Operating expenses:					
Selling, general and administrative expenses	—	553.6	85.0	(0.9)	637.7
Losses (gains) and other expenses, net	2.0	3.3	1.9	(0.1)	7.1
Restructuring charges	—	2.1	1.1	—	3.2
Loss (gain), net on sale of businesses and related property	—	1.1	—	—	1.1
(Income) loss from equity method investments	(324.3)	(74.9)	(14.5)	395.3	(18.4)
Operational income	322.3	451.0	117.1	(395.9)	494.5
Interest expense, net	26.9	(2.7)	6.4	—	30.6
Other income, net	—	—	(0.1)	—	(0.1)
Income from continuing operations before income taxes	295.4	453.7	110.8	(395.9)	464.0
Provision for income taxes	(10.3)	136.2	31.2	(0.2)	156.9
Income from continuing operations	305.7	317.5	79.6	(395.7)	307.1
Loss from discontinued operations	—	—	(1.4)	—	(1.4)
Net income	$ 305.7	$ 317.5	$ 78.2	$ (395.7)	$ 305.7
Other comprehensive income	$ 1.7	$ 5.5	$ 30.5	$ —	$ 37.7
Comprehensive income	$ 307.4	$ 323.0	$ 108.7	$ (395.7)	$ 343.4

Condensed Consolidating Statements of Operations and Comprehensive Income
For the Year Ended December 31, 2016
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net Sales	$—	$ 3,117.6	$ 728.0	$ (204.0)	$ 3,641.6
Cost of goods sold	—	2,203.8	564.5	(203.2)	2,565.1
Gross profit	—	913.8	163.5	(0.8)	1,076.5
Operating expenses:					
Selling, general and administrative expenses	—	524.3	96.7	—	621.0
(Gains) losses and other expenses, net	(3.3)	9.7	5.1	(0.2)	11.3
Restructuring charges	—	1.9	(0.1)	—	1.8
Pension settlement	—	30.5	0.9	—	31.4
(Income) loss from equity method investments	(292.4)	(40.7)	(14.4)	329.1	(18.4)
Operational income	295.7	388.1	75.3	(329.7)	429.4
Interest expense, net	24.4	(2.2)	4.8	—	27.0
Other income, net	—	—	(0.3)	—	(0.3)
Income from continuing operations before income taxes	271.3	390.3	70.8	(329.7)	402.7
Provision for income taxes	(6.5)	108.2	22.6	(0.2)	124.1
Income from continuing operations	277.8	282.1	48.2	(329.5)	278.6
Loss from discontinued operations	—	—	(0.8)	—	(0.8)
Net income	$277.8	$ 282.1	$ 47.4	$ (329.5)	$ 277.8
Other comprehensive income (loss)	$14.0	$ 8.5	$ (14.2)	$ 1.3	$ 9.6
Comprehensive Income	$291.8	$ 290.6	$ 33.2	$ (328.2)	$ 287.4

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Condensed Consolidating Statements of Cash Flows
For the Year Ended December 31, 2018
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:	$ 53.7	$ 477.9	$ (36.1)	$ —	$ 495.5
Cash flows from investing activities:					
Proceeds from the disposal of property, plant and equipment	—	—	0.1	—	0.1
Purchases of property, plant and equipment	—	(76.0)	(19.2)	—	(95.2)
Net proceeds from sale of businesses and related property	—	2.7	112.0	—	114.7
Insurance recoveries received for property damage incurred from natural disaster	—	10.9	—	—	10.9
Net cash used in investing activities	—	(62.4)	92.9	—	30.5
Cash flows from financing activities:					
Short-term borrowings, net	—	—	—	—	—
Asset securitization borrowings	—	—	155.0	—	155.0
Asset securitization payments	—	—	(163.0)	—	(163.0)
Long-term debt payments	(30.0)	(2.9)	(0.1)	—	(33.0)
Borrowings from credit facility	2,435.9	—	—	—	2,435.9
Payments on credit facility	(2,365.0)	—	—	—	(2,365.0)
Proceeds from employee stock purchases	3.3	—	—	—	3.3
Repurchases of common stock to satisfy employee withholding tax obligations	(26.9)	—	—	—	(26.9)
Repurchases of common stock	(450.2)	—	—	—	(450.2)
Intercompany debt	(14.5)	83.3	(68.8)	—	—
Intercompany financing activity	487.8	(508.5)	20.7	—	—
Cash dividends paid	(93.9)	—	—	—	(93.9)
Net cash provided by (used in) financing activities	(53.5)	(428.1)	(56.2)	—	(537.8)
Increase (decrease) in cash and cash equivalents	0.2	(12.6)	0.6	—	(11.8)
Effect of exchange rates on cash and cash equivalents	—	—	(10.1)	—	(10.1)
Cash and cash equivalents, beginning of year	1.6	28.0	38.6	—	68.2
Cash and cash equivalents, end of year	$ 1.8	$ 15.4	$ 29.1	$ —	$ 46.3

Condensed Consolidating Statements of Cash Flows
For the Year Ended December 31, 2017
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:	$467.4	$ 31.1	$ (173.4)	$ —	$ 325.1
Cash flows from investing activities:					
Proceeds from the disposal of property, plant and equipment	—	0.1	0.1	—	0.2
Purchases of property, plant and equipment	—	(70.7)	(27.6)	—	(98.3)
Net cash used in investing activities	—	(70.6)	(27.5)	—	(98.1)
Cash flows from financing activities:					
Short-term borrowings, net	—	—	(1.5)	—	(1.5)
Asset securitization borrowings	—	—	315.0	—	315.0
Asset securitization payments	—	—	(89.0)	—	(89.0)
Borrowings from credit facility	2,376.5	—	—	—	2,376.5
Long-term debt payments	(200.0)	(0.3)	(0.6)	—	(200.9)
Payments on credit facility	(2,265.5)	—	—	—	(2,265.5)
Payments of deferred financing costs	—	—	(0.2)	—	(0.2)
Proceeds from employee stock purchases	3.1	—	—	—	3.1
Repurchases of common stock to satisfy employee withholding tax obligations	(26.1)	—	—	—	(26.1)
Repurchases of common stock	(250.0)	—	—	—	(250.0)
Intercompany debt	56.4	(34.9)	(21.5)	—	—
Intercompany financing activity	(81.7)	85.6	(3.9)	—	—
Cash dividends paid	(79.7)	—	—	—	(79.7)
Net cash provided by (used in) financing activities	(467.0)	50.4	198.3	—	(218.3)
Increase (decrease) in cash and cash equivalents	0.4	10.9	(2.6)	—	8.7
Effect of exchange rates on cash and cash equivalents	—	—	9.3	—	9.3
Cash and cash equivalents, beginning of year	1.2	17.1	31.9	—	50.2
Cash and cash equivalents, end of year	$1.6	$ 28.0	$ 38.6	$ —	$ 68.2

Condensed Consolidating Statements of Cash Flows
For the Year Ended December 31, 2016
(In millions)

(Amounts in millions)	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:	$ 17.8	$ 218.5	$ 137.6	$ —	$ 373.9
Cash flows from investing activities:					
Proceeds from the disposal of property, plant and equipment	—	—	0.2	—	0.2
Purchases of property, plant and equipment	—	(71.5)	(12.8)	—	(84.3)
Net cash used in investing activities	—	(71.5)	(12.6)	—	(84.1)
Cash flows from financing activities:					
Short-term borrowings, net	—	—	(2.4)	—	(2.4)
Asset securitization borrowings	—	—	145.0	—	145.0
Asset securitization payments	—	—	(295.0)	—	(295.0)
Long-term debt borrowings	350.0	—	—	—	350.0
Borrowings from credit facility	2,336.5	—	—	—	2,336.5
Long-term debt payments	(57.5)	(0.9)	(0.4)	—	(58.8)
Payments on credit facility	(2,346.0)	—	—	—	(2,346.0)
Payments of deferred financing costs	(4.2)	—	—	—	(4.2)
Proceeds from employee stock purchases	2.6	—	—	—	2.6
Repurchases of common stock to satisfy employee withholding tax obligations	(33.3)	—	—	—	(33.3)
Repurchases of common stock	(300.0)	—	—	—	(300.0)
Intercompany debt	30.0	(65.8)	35.8	—	—
Intercompany financing activity	73.8	(71.0)	(2.8)	—	—
Cash dividends paid	(69.0)	—	—	—	(69.0)
Net cash provided by (used in) financing activities	(17.1)	(137.7)	(119.8)	—	(274.6)
Increase (decrease) in cash and cash equivalents	0.7	9.3	5.2	—	15.2
Effect of exchange rates on cash and cash equivalents	—	—	(3.9)	—	(3.9)
Cash and cash equivalents, beginning of year	0.5	7.8	30.6	—	38.9
Cash and cash equivalents, end of year	$ 1.2	$ 17.1	$ 31.9	$ —	$ 50.2

26. Subsequent Event:

For 2019, we plan to shift financial reporting of our European Commercial HVAC business from our Commercial Heating & Cooling segment to our Refrigeration segment as we will manage both our commercial HVAC and refrigeration operations in Europe together.

In 2019, we plan to divest our Kysor Warren business within our Refrigeration segment and are currently targeting to close the sale in the first quarter of 2019.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

As required by Rule 13a-15 under the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our current management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2018, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

See "Management's Report on Internal Control Over Financial Reporting" included in Item 8 "Financial Statements and Supplementary Data."

Attestation Report of the Independent Registered Public Accounting Firm

See "Report of Independent Registered Public Accounting Firm" included in Item 8 "Financial Statements and Supplementary Data."

Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2018, we implemented new controls as part of our efforts to adopt ASU 2016-02. We are implementing new controls related to monitoring the adoption process, implementing a new IT system to capture, calculate, and account for leases, and gather the necessary data to properly account for leases under ASC 842. There were no other changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Incorporated herein by reference from the Company's definitive proxy statement, which will be filed no later than 120 days after December 31, 2018. Also, refer to Part I, Item 1 "Business - Executive Officers of the Company" of this Annual Report on Form 10-K, which identifies our executive officers and is incorporated herein by reference.

Item 11. Executive Compensation

Incorporated herein by reference from the Company's definitive proxy statement, which will be filed no later than 120 days after December 31, 2018.

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

Incorporated herein by reference from the Company's definitive proxy statement, which will be filed no later than 120 days after December 31, 2018. Also, refer to Note 15 in the Notes to the Consolidated Financial Statements for additional information about our equity compensation plans.

Item 13. Certain Relationships and Related Transactions and Director Independence

Incorporated herein by reference from the Company's definitive proxy statement, which will be filed no later than 120 days after December 31, 2018.

Item 14. Principal Accounting Fees and Services

Incorporated herein by reference from the Company's definitive proxy statement, which will be filed no later than 120 days after December 31, 2018.

PART IV

Item 15. Exhibits and Financial Statement Schedules

Financial Statements

The following financial statements are included in Part II, Item 8 of the Annual Report on Form 10-K:

- Report of Independent Registered Public Accounting Firm
- Consolidated Balance Sheets as of December 31, 2018 and 2017
- Consolidated Statements of Operations for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Stockholders' (Deficit) Equity for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements for the Years Ended December 31, 2018, 2017 and 2016

Financial Statement Schedules

The financial statement schedule included in this Annual Report on Form 10-K is Schedule II - Valuation and Qualifying Accounts and Reserves for the Years Ended December 31, 2018, 2017 and 2016 (see Schedule II immediately following the signature page of this Annual Report on Form 10-K).

Financial statement schedules not included in this Annual Report on Form 10-K have been omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or Notes thereto.

Exhibits

A list of the exhibits required to be filed or furnished as part of this Annual Report on Form 10-K is set forth in the Index to Exhibits, which immediately precedes such exhibits, and is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements 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.
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LENNOX INTERNATIONAL INC.

By: /s/ Todd M. Bluedorn
Todd M. Bluedorn
Chief Executive Officer
February 19, 2019

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

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SIGNATURE	TITLE	DATE
/s/ TODD M. BLUEDORN Todd M. Bluedorn	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	February 19, 2019
/s/ JOSEPH W. REITMEIER Joseph W. Reitmeier	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 19, 2019
/s/ CHRIS A. KOSEL Chris A. Kosel	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)	February 19, 2019
/s/ TODD J. TESKE Todd J. Teske	Lead Director	February 19, 2019
/s/ JANET K. COOPER Janet K. Cooper	Director	February 19, 2019
/s/ JOHN E. MAJOR John E. Major	Director	February 19, 2019
/s/ JOHN W. NORRIS, III John W. Norris, III	Director	February 19, 2019
/s/ KAREN H. QUINTOS Karen. H. Quintos	Director	February 19, 2019
/s/ KIM K.W. RUCKER Kim K.W. Rucker	Director	February 19, 2019
/s/ MAX H. MITCHELL Max H. Mitchell	Director	February 19, 2019
/s/ PAUL W. SCHMIDT Paul W. Schmidt	Director	February 19, 2019
/s/ GREGORY T. SWIENTON Gregory T. Swienton	Director	February 19, 2019

LENNOX INTERNATIONAL INC.

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
For the Years Ended December 31, 2018, 2017 and 2016
(In millions)

	Balance at beginning of year	Additions charged to cost and expenses	Write-offs	Recoveries	Other	Balance at end of year
2016						
Allowance for doubtful accounts	$ 6.3	$ 2.4	$ (2.7)	$ 0.9	$(0.2)	$ 6.7
2017						
Allowance for doubtful accounts	$ 6.7	$ 3.9	$ (5.6)	$ 0.9	$—	$ 5.9
2018						
Allowance for doubtful accounts	$ 5.9	$ 4.8	$ (3.7)	$ 0.6	$(1.3)	$ 6.3

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INDEX TO EXHIBITS

3.1	Restated Certificate of Incorporation of Lennox International Inc. (“LII”) (filed as Exhibit 3.1 to LII’s Registration Statement on Form S-1 (Registration Statement No. 333-75725) filed on April 6, 1999 and incorporated herein by reference).
3.2	Amended and Restated Bylaws of LII (filed as Exhibit 3.1 to LII’s Current Report on Form 8-K filed on December 16, 2013 and incorporated herein by reference).
4.1	Specimen Stock Certificate for the Common Stock, par value $.01 per share, of LII (filed as Exhibit 4.1 to LII’s Amendment to Registration Statement on Form S-1/A (Registration No. 333-75725) filed on June 16, 1999 and incorporated herein by reference).
4.2	Indenture, dated as of May 3, 2010, between LII and U.S. Bank National Association, as trustee (filed as Exhibit 4.3 to LII’s Post-Effective Amendment No. 1 to Registration Statement on S-3 (Registration No. 333-155796) filed on May 3, 2010, and incorporated herein by reference).
4.3	Form of Supplemental Indenture among LII, the guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.11 to LII’s Post-Effective Amendment No. 1 to Registration Statement on S-3 (Registration No. 333-155796) filed on May 3, 2010, and incorporated herein by reference).
4.4	Sixth Supplemental Indenture, dated as of November 3, 2016, among LII, each other existing Guarantor under the Indenture, dated as of May 3, 2010, as subsequently supplemented, and US Bank National Association, as trustee (filed as Exhibit 4.2 to LII’s Current Report on Form 8-K filed on November 3, 2016, and incorporated by reference).
4.5	Seventh Supplemental Indenture, dated as of January 23, 2019, among LII Mexico Holdings Ltd., Lennox International Inc., each other existing Guarantor under the Indenture, dated as of May 3, 2010, as subsequently supplemented, and US Bank National Association, as trustee (filed herewith).
4.6	Form of 3.000% Notes due 2023 (filed as Exhibit A in Exhibit 4.2 to LII’s Current Report on Form 8-K filed on November 3, 2016, and incorporated by reference).
10.1	Sixth Amended and Restated Credit Facility Agreement dated as of August 30, 2016, among Lennox International Inc., a Delaware corporation, the Lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on September 2, 2016 and incorporated herein by reference)
10.2	First Amendment to Sixth Amended and Restated Credit Facility Agreement dated as of October 20, 2016, among Lennox International Inc., a Delaware corporation, the Lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (filed as Exhibit 10.1 to LII's Quarterly Report on Form 10-Q filed on October 24, 2017, and incorporated herein by reference).
10.3	Second Amendment To Sixth Amended and Restated Credit Facility Agreement dated March 16, 2018, among Lennox International Inc., the lenders a party thereto, and J.P.Morgan Chase Bank, N.A., as Administrative Agent (filed as Exhibit 10.2 to LII’s Quarterly Report on Form 10-Q filed on April 23, 2018, and incorporated by reference).
10.4	Third Amendment (Incremental Amendment) to Sixth Amended and Restated Credit Facility Agreement dated as of January 22, 2019, among Lennox International Inc., a Delaware corporation, the lenders from time to time party thereto, and J.P.Morgan Chase Bank, N.A., as Administrative Agent (filed as Exhibit 10.1 to LII’s Current Report on Form 8-K filed on January 25, 2019, and incorporated by reference).
10.5	Form of Sixth Amended and Restated Subsidiary Guarantee Agreement for the Sixth Amended and Restated Credit Facility dated as of August 30, 2016 signed by Allied Air Enterprises LLC, Advanced Distributor Products LLC, Heatcraft Inc., Heatcraft Refrigeration Products LLC, Lennox Global Ltd., Lennox Industries Inc., LGL Australia (US) Inc., Lennox National Account Services LLC and LGL Europe Holding Co. (filed as Exhibit C in Exhibit 10.1 to LII's Current Report on Form 8-K filed on September 2, 2016 and incorporated herein by

	reference).
10.6	Amendment No. 2 to Amended and Restated Receivables Purchase Agreement, effective as of November 15, 2013, among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as a Purchaser, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank, and the BTMU Purchaser Agent, and PNC Bank, National Association as a Liquidity Bank and the PNC Purchaser Agent (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on November 19, 2013 and incorporated herein by reference).

10.7	Omnibus Amendment No. 3 to the Amended and Restated Receivables Purchase agreement, effective as of November 21, 2014 among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as a Purchaser, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank, and the BTMU Purchaser Agent, and PNC Bank, National Association, as a Liquidity Bank and the PNC Purchaser Agent (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on November 24, 2014 and incorporated herein by reference).
10.8	Amendment to the Amended and Restated Receivables Purchase Agreement, effective as of December 15, 2014, among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, with Victory Receivables Corporation, as Purchaser, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank and the BTMU purchaser agent, and PNC Bank, National Association, as a Liquidity Bank and the PNC purchaser agent (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on December 18, 2014 and incorporated herein by reference).
10.9	Amendment No. 4 to Amended and Restated Receivables Purchase Agreement among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as Purchaser, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank and a Purchaser Agent, and PNC Bank, National Association, as a Liquidity Bank and a Purchaser Agent, effective as of November 13, 2015 (filed as Exhibit 10.1 to LII’s Current Report on Form 8-K filed on November 18, 2015 and incorporated herein by reference).
10.10	Amendment No. 5 to Amended and Restated Receivables Purchase Agreement among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as Purchaser and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank and a Purchaser Agent, (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on July 6, 2016 and incorporated herein by reference).
10.11	Amendment No. 6 to Amended and Restated Receivables Purchase Agreement among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as Purchaser and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank and a Purchaser Agent, (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on November 16, 2017 and incorporated herein by reference).
10.12	Amendment No. 7 to Amended and Restated Receivables Purchase Agreement among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as Purchaser and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as Administrative Agent, a Liquidity Bank and a Purchaser Agent (filed as Exhibit 10.1 to LII’s Quarterly Report on Form 10-Q filed on April 23, 2018, and incorporated by reference).
10.13	Amendment No. 8 to Amended and Restated Receivables Purchase Agreement among LPAC Corp., as the Seller, Lennox Industries Inc., as the Master Servicer, Victory Receivables Corporation, as Purchaser and MUFG Bank, Ltd., as Administrative Agent, BTMU Liquidity Bank, Wells Fargo Bank, National Association, a Liquidity Bank and PNC Bank, N National Association, a Purchaser Agent (filed as Exhibit 10.1 to LII’s Quarterly Report on Form 10-Q filed on October 22, 2018, and incorporated by reference).
10.14	Amended and Restated Lease Agreement, dated as of March 22, 2013, by and between BTMU Capital Leasing & Finance, Inc., as lessor, and Lennox International Inc., as lessee (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on March 25, 2013 and incorporated herein by reference).
10.15	Amended and Restated Participation Agreement, dated as of March 22, 2013, by and among Lennox International Inc., as lessee and BTMU Capital Leasing & Finance, Inc., as lessor (filed as Exhibit 10.2 to LII's Current Report on Form 8-K filed on March 25, 2013 and incorporated herein by reference).
10.16	Amended and Restated Memorandum of Lease, Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of March 22, 2013, by and among Lennox International Inc., BTMU Capital Leasing and Finance, Inc. and David Parnell, as Deed of Trust Trustee, for the benefit of BTMU Capital Leasing & Finance, Inc. (filed as Exhibit 10.3 to LII's Current Report on Form 8-K filed on March 25, 2013 and incorporated herein by reference).

10.17*	Lennox International Inc. 2010 Incentive Plan, as amended and restated (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on May 19, 2010 and incorporated herein by reference).
10.18*	Form of Long-Term Incentive Award Agreement for U.S. Employees - Vice President and Above (for use under the 2010 Incentive Plan) (filed herewith).
10.19*	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors (for use under the 2010 Incentive Plan) (filed herewith).
10.20*	Short-Term Incentive Program for Lennox International Inc. and its Subsidiaries (filed herewith).
10.21*	Lennox International Inc. Profit Sharing Restoration Plan, as amended and restated as of January 1, 2009 (filed as Exhibit 10.3 to LII's Current Report on Form 8-K filed on December 17, 2008 and incorporated herein by reference).
10.22*	Lennox International Inc. Supplemental Retirement Plan, as amended and restated as of January 1, 2009 (filed as Exhibit 10.2 to LII's Current Report on Form 8-K filed on December 17, 2008 and incorporated herein by reference).

10.23*	Amendment Number One to the Lennox International Inc. Supplemental Retirement Plan, as amended and restated as of January 1, 2009, dated December 28, 2018 (filed herewith).
10.24*	Lennox International Inc. Supplemental Restoration Retirement Plan, effective as of January 1, 2019, dated December 28, 2018 (filed herewith).
10.25*	Form of Indemnification Agreement entered into between LII and certain executive officers and directors of LII (filed as Exhibit 10.15 to LII's Registration Statement on Form S-1 (Registration No. 333-75725) filed on April 6, 1999 and incorporated herein by reference).
10.26*	Form of Employment Agreement entered into between LII and certain executive officers of LII (filed as Exhibit 10.30 to LII's Annual Report on Form 10-K filed on February 27, 2007 and incorporated herein by reference).
10.27*	Form of Amendment to Employment Agreement entered into between LII and certain executive officers of LII (filed as Exhibit 10.2 to LII's Current Report on Form 8-K filed on December 12, 2007 and incorporated herein by reference).
10.28*	Form of Change of Control Agreement entered into between LII and certain executive officers of LII (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on July 17, 2012 and incorporated herein by reference).
10.29*	Form of Change of Control Employment Agreement entered into between LII and certain executive officers of LII (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on December 17, 2008 and incorporated herein by reference).
10.30*	Lennox International Inc. Directors' Retirement Plan (as Amended and Restated as of January 1, 2010) (filed as Exhibit 10.1 to LII's Current Report on Form 8-K filed on December 16, 2009 and incorporated herein by reference).
21.1	Subsidiaries of LII (filed herewith).
23.1	Consent of KPMG LLP (filed herewith).
31.1	Certification of the principal executive officer (filed herewith).
31.2	Certification of the principal financial officer (filed herewith).
32.1	Certification of the principal executive officer and the principal financial officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).

Exhibit No. (101).INS XBRL Instance Document
Exhibit No. (101).SCH XBRL Taxonomy Extension Schema Document
Exhibit No. (101).CAL XBRL Taxonomy Extension Calculation Linkbase Document
Exhibit No. (101).LAB XBRL Taxonomy Extension Label Linkbase Document
Exhibit No. (101).PRE XBRL Taxonomy Extension Presentation Linkbase Document
Exhibit No. (101).DEF XBRL Taxonomy Extension Definition Linkbase Document

*Management contract or compensatory plan or arrangement.