LENNOX INTERNATIONAL INC
Form 10-K
February 21, 2017

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, 2016

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 [ ]

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, 2016, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately $4.8 billion based on the closing price of the registrant's common stock on the New York Stock Exchange. As of February 9, 2017, there were 42,982,367 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's 2017 Definitive Proxy Statement to be filed with the Securities and Exchange Commission in connection with the registrant's 2017 Annual Meeting of Stockholders to be held on May 18, 2017 are incorporated by reference into Part III of this report.

LENNOX INTERNATIONAL INC.
FORM 10-K
For the Fiscal Year Ended December 31, 2016

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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 2016 by segment. Segment financial data for 2016, 2015 and 2014, including financial information about foreign and domestic operations, is included in Note 18 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	2016 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	$ 2,000.8
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	917.9
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	722.9
		Total	$ 3,641.6

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 209 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 400 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 70 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, Brazil and China. In Australia and New Zealand, we are the leading wholesale distribution business serving the HVACR industry with more than 60 locations serving our customers, which also includes the sale of refrigerant. 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.

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 and acquisitions 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 five 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.

Geographic Expansion. We are growing our business by extending our successful business model and product knowledge into additional domestic and international markets.

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.

Over the years, the “Lennox” brand has become inextricably linked with “Dave Lennox,” a highly recognizable advertising icon in the heating and cooling industry. We utilize the “Dave Lennox” image in mass media advertising, as well as in numerous locally produced dealer advertisements, open houses and trade events.

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 and 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 equity interests in joint ventures that manufacture compressors. These joint ventures 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 thermostats and control systems. 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

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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).

Employees

As of December 31, 2016, we employed approximately 10,600 employees. Approximately 5,100 of these employees were salaried and 5,500 were hourly. The number of hourly workers we employ may vary in order to match our labor needs during periods of fluctuating demand. Approximately 2,400 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, the Energy Policy and Conservation Act, 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, 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 effectiveness 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. 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 10 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, 2016:

Name	Age	Position
Todd M. Bluedorn	53	Chairman of the Board and Chief Executive Officer
Joseph W. Reitmeier	52	Executive Vice President and Chief Financial Officer
Douglas L. Young	54	Executive Vice President and President and Chief Operating Officer, LII Residential Heating & Cooling
Terry L. Johnston	59	Executive Vice President and President and Chief Operating Officer, LII North America Commercial Heating & Cooling
David W. Moon	55	Executive Vice President and President and Chief Operating Officer, LII Worldwide Refrigeration
Prakash Bedapudi	50	Executive Vice President and Chief Technology Officer
Daniel M. Sessa	52	Executive Vice President and Chief Human Resources Officer
John D. Torres	58	Executive Vice President, Chief Legal Officer and Secretary
Roy A. Rumbough, Jr.	61	Vice President, Controller and Chief Accounting Officer

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 (effective March 1, 2017), 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 and 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 and 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 on 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 and 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, coatings, sealants and adhesives and specialty chemicals segments. He holds a bachelor of science in marketing from the University of Arkansas.

David W. Moon was appointed Executive Vice President and President and Chief Operating Officer of LII's Worldwide Refrigeration business in August 2006. He had previously served as Vice President and General Manager of Worldwide Refrigeration, Americas Operations since 2002. Prior to serving in that position, he served as Managing Director in Australia beginning in 1999, where his responsibilities included heat transfer manufacturing and distribution, refrigeration wholesaling and manufacturing and HVAC manufacturing and distribution in Australia and New Zealand. Mr. Moon originally joined LII in 1998 as Operations Director, Asia Pacific. Prior to that time, Mr. Moon held various management positions at Allied Signal, Inc., Case Corporation, and Tenneco Inc. in the United States, Hong Kong, Taiwan and Germany. He holds a bachelor of science in civil engineering and an MBA from Texas A&M University. Mr. Moon serves on the Board of Directors of American Woodmark Corporation, a kitchen and bath cabinet manufacturer.

Prakash Bedapudi was appointed Executive Vice President and 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 and 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 and 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.

Roy A. Rumbough, Jr. was appointed Vice President, Controller and Chief Accounting Officer in July 2006. He had previously served as Vice President, Corporate Controller of Maytag Corporation, a position he held since 2002. From 1998 to 2002, he served as Vice President, Controller of Blodgett Corporation, a portfolio of food service equipment companies and former affiliate of Maytag. Mr. Rumbough's career at Maytag spanned 17 years and included internal audit, financial planning and analysis, and business unit controller roles. Prior to his career at Maytag, he worked for Deloitte and Touche, LLP. He holds a bachelor of arts in accounting from North Carolina State University and an MBA from the Kellogg School of Management, Northwestern University.

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 occur, 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 for 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.

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 being discussed by the new U.S. administration. 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 18.5% of our net sales in 2016.

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, 2017, approximately 23% 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, 2016, we had goodwill of $195.1 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, 2016 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	1,300	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
Columbus, OH	Residential Heating & Cooling	Distribution	279	Leased
McDonough, GA	Residential Heating & Cooling	Distribution	254	Leased
Concord, NC	Residential Heating & Cooling	Distribution	123	Leased
Harahan, LA	Residential Heating & Cooling	Distribution	83	Leased
Denver, CO	Residential Heating & Cooling	Distribution	50	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	241	Leased
Middletown, PA	Residential & Commercial Heating & Cooling	Distribution	166	Leased
Lenexa, KS	Residential & Commercial Heating & Cooling	Distribution	115	Leased
Calgary, Canada	Residential & Commercial Heating & Cooling	Distribution	110	Leased
Orlando, FL	Residential & Commercial Heating & Cooling	Distribution	85	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			
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	570	Owned & Leased
Columbus, GA	Refrigeration	Manufacturing, Warehousing & Offices	523	Owned & Leased
Milperra, Australia	Refrigeration	Distribution & Business Unit Headquarters	416	Owned
Stone Mountain, GA	Refrigeration	Manufacturing & Business Unit Headquarters	139	Owned
Midland, GA	Refrigeration	Warehousing & Offices	138	Leased
Mt. Wellington, New Zealand	Refrigeration	Distribution & Offices	110	Owned
San Jose dos Campos, Brazil	Refrigeration	Manufacturing, Warehousing & Offices	98	Owned
Wuxi, China	Refrigeration	Manufacturing	89	Owned & Leased
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 10 in the Notes to the Consolidated Financial Statements.

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 alleged payment was purportedly made to release a shipment of goods being held by Russian customs officials due to inaccurate paperwork. The value of the shipment was approximately €62,000 (approximately US $68,500). The allegations are related to our subsidiary in Russia, which had 2016 annual sales of approximately US $4 million. The scope of the investigation was later expanded to include our operations in Poland because our operations in Russia and Poland used the same third-party logistics provider. To date, the investigation has not resulted in any evidence of other potentially improper payments. However, the investigation has raised questions regarding possible irregularities with respect to possible non-compliance with customs documents and procedures related to these operations. The investigation is ongoing. We continue to fully cooperate with the SEC and the DOJ regarding this matter. We do not anticipate any material adverse effect on our business or financial condition as a result of this matter.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Price for Common Stock

Our common stock is listed for trading on the New York Stock Exchange under the symbol “LII.” The high and low sales prices for our common stock for each quarterly period during 2016 and 2015 were as follows:

	Price Range per Common Share			
	2016		2015	
	High	Low	High	Low
First Quarter	$136.32	$105.65	$111.15	$92.94
Second Quarter	143.19	131.90	118.43	104.94

Third Quarter	164.02	141.90	126.85	106.81
Fourth Quarter	164.57	140.97	138.57	109.87

Dividends

During 2016 and 2015, we declared quarterly cash dividends as set forth below:

	Dividends per Common Share	
	2016	2015
First Quarter	$0.36	$0.30
Second Quarter	0.43	0.36
Third Quarter	0.43	0.36
Fourth Quarter	0.43	0.36
Fiscal Year	$1.65	$1.38

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 9, 2017, approximately 702 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, 2011, 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 billion towards the repurchase of shares of our common stock (collectively referred to as the "Share Repurchase Plans"), including an additional $550 million share repurchase that was authorized in 2016. The Share Repurchase Plans authorize open market repurchase transactions and do not have an expiration date. As of December 31, 2016, $646 million of shares may yet be repurchased under the Share Repurchase Plans.

In the fourth quarter of 2016, 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) [3]
October 1 through October 31 [2]	163,558	$ 155.81	163,501	396.0
November 1 through November 30	3,804	146.46	—	396.0
December 1 through December 31	40,671	157.02	—	646.0
	208,033		163,501	

[1] Includes the surrender to LII of 44,532 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] Includes final settlement of shares repurchased in Accelerated Share Repurchase Plan (ASR) executed in the third quarter of 2016.
[3] After $200 million payment for Accelerated Share Repurchase Plan (ASR) executed in February 2016 and $100 million payment for ASR executed in August 2016. Final settlement of the February ASR occurred in the third quarter and the final settlement of the August ASR occurred in fourth quarter. The February and August ASRs were offered pursuant to a previously announced repurchase plan.

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Item 6. Selected Financial Data

The following table presents selected financial data for each of the five years ended December 31, 2016 to 2012 (in millions, except per share data):

	For the Years Ended December 31,				
	2016	2015	2014	2013	2012
Statements of Operations Data:					
Net Sales	$3,641.6	$3,467.4	$3,367.4	$3,199.1	$2,949.4
Operating Income	429.4	305.4	334.7	289.0	219.1
Income From Continuing Operations	278.6	187.2	208.1	179.9	135.0
Net Income	277.8	186.6	205.8	171.8	90.0
Basic Earnings Per Share From Continuing Operations	6.41	4.17	4.35	3.61	2.66
Diluted Earnings Per Share From Continuing Operations	6.34	4.11	4.28	3.55	2.63
Cash Dividends Declared Per Share	1.65	1.38	1.14	0.92	0.76
Other Data:					
Capital Expenditures [1]	$84.3	$69.9	$88.4	$78.3	$50.2
Research and Development Expenses [1]	64.6	62.3	60.7	53.7	49.5
Balance Sheet Data at Period End:					
Total Assets	$1,760.3	$1,677.4	$1,764.3	$1,626.7	$1,691.9
Total Debt	868.2	741.1	925.6	400.4	386.6
Stockholders' Equity	38.0	101.6	9.0	485.7	498.3

[1] Amounts exclude capital expenditures and research and development expenses related to discontinued operations.

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 18 in the Notes to the Consolidated Financial Statements.

We sell our products and services through a combination of direct sales, distributors and company-owned parts and supplies 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, commodity 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.

Financial Highlights

- Net sales increased $174.2 million, or 5%, to $3,642 million in 2016 from $3,467 million in 2015.
- Operational income from continuing operations in 2016 was $429 million compared to $305 million in 2015. The increase was primarily due to increased sales and reductions in our commodities and material costs in 2016 as well as the goodwill and asset impairment charges in 2015.
- Net income in 2016 increased to $278 million from $187 million in 2015.
- Diluted earnings per share from continuing operations were $6.34 per share in 2016 compared to $4.11 per share in 2015, including non-cash impairment charges in our refrigerated display case business in 2015.
- We generated $355 million of cash flow from operating activities in 2016 compared to $331 million in 2015.
- In 2016, we returned $69 million through dividend payments.

Overview of Results

The Residential Heating & Cooling segment led our overall financial performance in 2016, with a 7.2% increase in net sales and a $70 million increase in segment profit compared to 2015. This segment's results benefited from industry growth in the replacement and new construction markets as well as market share gains. Our Commercial

Heating & Cooling segment also performed well in 2016 with a 3.5% increase in net sales and a $19 million increase in segment profit compared to 2015. This segment's results benefited from market growth in North America and material cost savings. Sales in our Refrigeration segment were up 1.3% and segment profit increased $16 million compared to 2015. This segment's results benefited from industry growth and market share gains.

On a consolidated basis, our gross profit margins increased to 29.6% in 2016 due primarily to favorable price and material cost savings across our business. These improvements were partially offset by unfavorable foreign exchange rates, unfavorable mix, and continued investment in distribution expansion in our Residential Heating & Cooling segment.

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,					
	2016		2015		2014	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Net sales	$3,641.6	100.0 %	$3,467.4	100.0 %	$3,367.4	100.0 %
Cost of goods sold	2,565.1	70.4 %	2,520.0	72.7 %	2,464.1	73.2 %
Gross profit	1,076.5	29.6 %	947.4	27.3 %	903.3	26.8 %
Selling, general and administrative expenses	621.0	17.1 %	580.5	16.7 %	573.7	17.0 %
Losses and other expenses, net	11.3	0.3 %	21.7	0.6 %	6.8	0.2 %
Restructuring charges	1.8	— %	3.2	0.1 %	1.9	0.1 %
Goodwill impairment	—	— %	5.5	0.2 %	—	— %
Impairment of assets	—	— %	44.5	1.3 %	—	— %
Pension settlement	31.4	0.9 %	—	— %	—	— %
Income from equity method investments	(18.4)	(0.5)%	(13.4)	(0.4)%	(13.8)	(0.4)%
Operating income	$429.4	11.8 %	$305.4	8.8 %	$334.7	9.9 %
Loss from discontinued operations	(0.8)	— %	(0.6)	— %	(2.3)	(0.1)%
Net income	$277.8	7.6 %	$186.6	5.4 %	$205.8	6.1 %

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

	For the Years Ended December 31,					
	2016		2015		2014	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Net Sales by Geographic Market:						
U.S.	$2,966.8	81.5 %	$2,793.4	80.6 %	$2,576.4	76.5 %
Canada	218.8	6.0	217.7	6.3	236.3	7.0
International	456.0	12.5	456.3	13.1	554.7	16.5
Total net sales	$3,641.6	100.0%	$3,467.4	100.0%	$3,367.4	100.0%

Year Ended December 31, 2016 Compared to Year Ended December 31, 2015 - Consolidated Results

Net Sales

Net sales increased 5% in 2016 compared to 2015, with sales volume up approximately 5%. The increase in volume was driven by all our business segments. The effects of both changes in foreign currency exchange rates and the effects of price and mix were neutral to net sales.

Gross Profit

Gross profit margins for 2016 increased 230 basis points ("bps") to 29.6% compared to 27.3% in 2015. Lower material costs increased our profit margin by 260 bps, increased factory productivity increased our profit margin by 30 bps, and other items contributed 10 bps. Offsetting these increases were decreases of 20 bps from unfavorable mix, 20 bps from unfavorable foreign currency adjustments, 20 bps for investments in distribution and other growth initiatives, and increased product warranty costs decreased our profit margin by 10 bps.

Selling, General and Administrative Expenses

SG&A expenses increased by $41 million in 2016 compared to 2015. As a percentage of net sales, SG&A expenses increased 40 bps from 16.7% to 17.1% in the same periods. The dollar increase in SG&A expenses was principally due to increased incentive compensation and general wage inflation.

Losses and Other Expenses, Net

Losses and other expenses, net for 2016 and 2015 included the following (in millions):

	For the Years Ended December 31,	
	2016	2015
Realized losses on settled futures contracts	$1.1	$1.9
Foreign currency exchange losses	2.2	3.6
Losses on disposal of fixed assets	0.5	0.6
Net change in unrealized (gains) losses on unsettled futures contracts	(3.6)	0.6
Asbestos-related litigation	6.3	3.0
Acquisition expenses	0.4	1.0
Special legal contingency charge	1.9	7.4
Environmental liabilities	1.9	1.0
Contractor tax payments	0.6	2.6
Other items, net	—	—
Losses and other expenses, net	$11.3	$21.7

The decrease in realized losses on settled futures contracts in 2016 was attributable to changes in commodity prices relative to our settled futures contract prices, as commodity prices have increased in 2016 relative to 2015. Additionally, the change in unrealized gains and losses on unsettled futures contracts was primarily due to higher commodity prices relative to the unsettled futures contract prices creating unrealized gains on unsettled future contracts. For more information on our derivatives, see Note 8 in the Notes to the Consolidated Financial Statements.

Foreign currency exchange losses decreased in 2016 primarily due to stabilization in foreign exchange rates in our primary markets. The special legal contingency charges primarily decreased as we settled an attempted class action lawsuit in 2015. The asbestos-related litigation relates to known and estimated future asbestos matters and the increase is a result of higher estimated future claims and decreasing insurance reserves related to these claims. 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 10 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 $2 million in 2016 compared to $3 million in 2015. The charges in 2016 and 2015 were primarily for projects to realign resources and enhance distribution capabilities in our Refrigeration segment. For more information on our restructuring activities, see Note 16 in the Notes to the Consolidated Financial Statements.

Goodwill

We performed a qualitative impairment analysis and noted no indicators of goodwill impairment through December 31, 2016. However in 2015 based on the results of the quantitative impairment test, we recorded goodwill impairment of $5.5 million related to our refrigerated display case business. Refer to Note 4 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 2016. During the fourth quarter of 2015 we completed a strategic review of our refrigerated display case business. As a result, we performed an impairment analysis using a market approach and determined that intangible and certain long-lived assets relating to that business were impaired and we recorded a charge of $45 million in "Asset Impairment" in the Consolidated Statement of Operations.

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, as part of our ongoing strategy to de-risk our pension plan obligations, we completed a one-time, lump sum pension buyout in the fourth quarter of 2016 for certain vested participants. As a result of the pension buy-out, we recorded a pension settlement charge of $31 million in the fourth quarter.

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 increased to $18 million in 2016 compared to $13 million in 2015 due to increases in earnings from our joint ventures.

Interest Expense, net

Net interest expense of $27 million in 2016 increased from $24 million in 2015 primarily due to an increase in our average borrowings.

Income Taxes

The income tax provision was $124 million in 2016 compared to $95 million in 2015, and the effective tax rate was 30.8% in 2016 compared to 33.8% in 2015. Our effective tax rate declined in 2016 due to the benefit from a repatriation of earnings recognized in the second quarter. We expect our effective tax rate to be approximately 32% in future years due to sustainable benefits from reorganization of our international subsidiaries that will enable us to utilize foreign tax credits and other benefits.

Loss from Discontinued Operations

The $1 million of pre-tax losses incurred in 2016 primarily relates to changes in retained product liabilities and general liabilities for the Service Experts business sold in 2013 and the Hearth business sold in 2012. In 2015, there were $1 million of pre-tax losses incurred primarily related to changes in retained product liabilities and general liabilities for Service Experts and Hearth.

Year Ended December 31, 2016 Compared to Year Ended December 31, 2015 - Results by Segment

Residential Heating & Cooling

The following table presents our Residential Heating & Cooling segment's net sales and profit for 2016 and 2015 (dollars in millions):

	For the Years Ended December 31,			
	2016	2015	Difference	% Change
Net sales	$2,000.8	$1,866.9	$ 133.9	7.2 %
Profit	$348.8	$278.4	$ 70.4	25.3 %
% of net sales	17.4 %	14.9 %		

Residential Heating & Cooling net sales increased 7% in 2016 compared to 2015. Sales volume increased net sales by 6% due to industry growth and market share gains and the benefits of favorable price and mix contributed 1%.

Segment profit in 2016 increased $70 million due to $51 million in lower commodities and material costs, $33 million from higher sales volume and $12 million from favorable factory productivity which includes the addition of a second factory in Mexico, and $5 million in other product costs. Partially offsetting these increases was $6 million from unfavorable price and mix combined, $4 million of unfavorable foreign currency exchange rates, $11 million in distribution investments, and $10 million of SG&A expenses to support wage inflation and investments in information technology and research and development.

Commercial Heating & Cooling

The following table presents our Commercial Heating & Cooling segment's net sales and profit for 2016 and 2015 (dollars in millions):

	For the Years Ended December 31,			
	2016	2015	Difference	% Change
Net sales	$917.9	$887.2	$ 30.7	3.5 %
Profit	$149.3	$130.4	$ 18.9	14.5 %
% of net sales	16.3 %	14.7 %		

Commercial Heating & Cooling net sales increased 3% in 2016 compared to 2015. Sales volume increased net sales by 3%, price and mix increased net sales by 1% and changes in foreign currency exchange rates unfavorably impacted net sales by 1%.

Segment profit in 2016 increased $19 million compared to 2015. The benefits of $9 million from incremental volume, $18 million from lower commodities and material costs, $4 million from combined price and mix and $1 million from lower freight expenses were partially offset by $6 million in other product costs and unfavorable factory productivity, $6 million of higher SG&A expenses, and $1 million for investments in infrastructure for our North American Service business.

Refrigeration

The following table presents our Refrigeration segment's net sales and profit for 2016 and 2015 (dollars in millions):

	For the Years Ended December 31,			
	2016	2015	Difference	% Change
Net sales	$722.9	$713.3	$ 9.6	1.3 %
Profit	$68.9	$52.9	$ 16.0	30.2 %
% of net sales	9.5 %	7.4 %		

Refrigeration net sales increased 1% in 2016 compared to 2015 primarily due to 3% volume growth which was partially offset by a 1% impact from unfavorable foreign exchange rates and a 1% impact from mix and price reductions.

Segment profit in 2016 compared to 2015 increased $16 million compared to 2015 primarily due to $7 million from increased sales volume, $21 million in lower commodities and material costs, $6 million from lower depreciation and amortization due to the impairment of our refrigerated display case business recorded in 2015. Partially offsetting these increases were $8 million from unfavorable price and mix combined, $8 million from higher SG&A expenses, $1 million from other product costs, and $1 million from changes in foreign currency exchange rates.

Corporate and Other

Corporate and other expenses increased $13 million in 2016 as compared to 2015 due primarily to higher incentive compensation, general wage inflation, and consulting fees. Partially offsetting these increases were decreases in health care costs.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014 - Consolidated Results

Net Sales

Net sales increased 3% in 2015 compared to 2014, with sales volume up approximately 6% and price and mix up approximately 1%. The increase in volume was driven by our Residential Heating & Cooling, Commercial Heating & Cooling and Refrigeration segments. The benefit of price and mix was a combination of price increases across all segments and favorable product mix predominantly in our Residential Heating & Cooling segment. Partially offsetting these increases was a 4% decrease from foreign currency exchange rates.

Gross Profit

Gross profit margins for 2015 increased 50 basis points ("bps") to 27.3% compared to 26.8% in 2014. Lower material costs increased our profit margin by 200 bps, increased factory productivity increased our profit margin by 20 bps and reduced product warranty costs increased our profit margin by 10 bps. Offsetting these increases were decreases of 70 bps from unfavorable mix, 50 bps from unfavorable foreign currency adjustments, 20 bps from lower refrigerant pricing on our Australia wholesale business when compared to the prior year, 30 bps for investments in distribution and other growth initiatives, and 10 bps from one-time inventory write down costs.

Selling, General and Administrative Expenses

SG&A expenses increased by $7 million in 2015 compared to 2014. As a percentage of net sales, SG&A expenses decreased 30 bps from 17.0% to 16.7% in the same periods. The dollar increase in SG&A expenses was principally due to increased incentive compensation, general wage inflation, and health care costs.

Losses and Other Expenses, Net

Losses and other expenses, net for 2015 and 2014 included the following (in millions):

	For the Years Ended December 31,	
	2015	2014
Realized losses on settled futures contracts	$1.9	$0.8
Foreign currency exchange losses	3.6	1.6
(Gain) loss on disposal of fixed assets	0.6	(0.3)
Net change in unrealized losses (gains) on unsettled futures contracts	0.6	0.6
Asbestos charge	3.0	0.9
Acquisition expenses	1.0	—
Special legal contingency charge	7.4	0.9
Environmental liabilities	1.0	2.0
Contractor tax payments	2.6	—
Other items, net	—	0.3
Losses and other expenses, net	$21.7	$6.8

The increase in realized losses on settled futures contracts in 2015 was attributable to decreases in commodity prices relative to our settled futures contract prices. Additionally, the change in unrealized losses on unsettled futures contracts was primarily due to lower commodity prices relative to the unsettled futures contract prices. For more information on our derivatives, see Note 8 in the Notes to the Consolidated Financial Statements.

Foreign currency exchange losses increased in 2015 primarily due to the Canadian dollar exchange rates. The special legal contingency charges primarily increased for our estimate of costs expected to be incurred for an attempted class action lawsuit. 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 10 in the Notes to the Consolidated Financial Statements for more information on litigation, including the asbestos charges, and the environmental liabilities.

Restructuring Charges

Restructuring charges were $3 million in 2015 compared to $2 million in 2014. The charges in 2015 and 2014 charges were primarily for projects to realign resources and enhance distribution capabilities in our Refrigeration segment. For more information on our restructuring activities, see Note 16 in the Notes to the Consolidated Financial Statements.

Goodwill

During the fourth quarter we completed a strategic review of our North American supermarket display cases and systems business. As a result, we performed a quantitative impairment analysis for this business unit using the market approach. Based on the results of the quantitative impairment test, we recorded goodwill impairment of $5.5 million. No other indicators of goodwill impairment were identified through December 31, 2015. Also, we did not record any goodwill impairments related to continuing operations in 2014. Refer to Note 4 in the Notes to the Consolidated Financial Statements for more information on goodwill.

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 decreased to $13 million in 2015 compared to $14 million in 2014 due to decreases in earnings from our joint ventures.

Asset Impairment

During the fourth quarter we completed a strategic review of our North American supermarket display cases and systems business. As a result, we performed an impairment analysis using a market approach and determined that intangible and certain long-lived assets relating to our North American supermarket business were impaired and we recorded a charge of $45 million in "Asset Impairment" in the Consolidated Statement of Operations. We did not have any impairments of intangible assets related to continuing operations in 2014.

Interest Expense, net

Net interest expense of $24 million in 2015 increased from $17 million in 2014 primarily due to an increase in our average borrowings.

Income Taxes

The income tax provision was $95 million in 2015 compared to $110 million in 2014, and the effective tax rate was 33.8% in 2015 compared to 34.5% in 2014. Our effective tax rates differ from the statutory federal rate of 35% for certain items, including tax credits, state and local taxes, non-deductible expenses, foreign taxes at rates other than 35% and other permanent tax differences.

Loss from Discontinued Operations

The Loss from discontinued operations related to the Service Experts business sold in March 2013 and the Hearth business sold in April 2012. The $1 million of pre-tax losses incurred in 2015 primarily relate to changes in retained product liabilities and general liabilities for Service Experts and Hearth. In 2014, there were $4 million of pre-tax losses incurred primarily related to changes in retained product liabilities and general liabilities for Service Experts and Hearth.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014 - Results by Segment

Residential Heating & Cooling

The following table presents our Residential Heating & Cooling segment's net sales and profit for 2015 and 2014 (dollars in millions):

	For the Years Ended December 31,			
	2015	2014	Difference	% Change
Net sales	$1,866.9	$1,736.5	$ 130.4	7.5 %
Profit	$278.4	$235.8	$ 42.6	18.1 %
% of net sales	14.9 %	13.6 %		

Residential Heating & Cooling net sales increased 8% in 2015 compared to 2014 driven by strong volume increases and favorable price and mix. Sales volume increases contributed 7% and were attributable to industry growth in new construction and replacement markets and market share gains. Benefits of price increases and favorable product mix contributed 2%. Changes in foreign currency exchange rates unfavorably impacted net sales by 1%.

Segment profit in 2015 increased $43 million due to $39 million from material cost savings, $29 million from higher sales volume, and $10 million from favorable price and mix. Partially offsetting these increases were $12 million of unfavorable foreign exchange rates, $10 million in higher distribution expenses related to continued investment in distribution expansion, $10 million of SG&A inflation, and $3 million due to lower factory absorption and higher warranty expenses.

Commercial Heating & Cooling

The following table presents our Commercial Heating & Cooling segment's net sales and profit for 2015 and 2014 (dollars in millions):

	For the Years Ended December 31,			
	2015	2014	Difference	% Change
Net sales	$887.2	$878.5	$ 8.7	1.0 %
Profit	$130.4	$124.0	$ 6.4	5.2 %
% of net sales	14.7 %	14.1 %		

Commercial Heating & Cooling net sales increased 1% in 2015 compared to 2014 driven by higher volume. Net sales increased by 6% due to higher volume while changes in foreign currency exchange rates unfavorably impacted net sales by 5%.

Segment profit in 2015 increased $6 million compared to 2014. The benefits of $15 million from incremental volume, $14 million from lower material costs and $2 million from higher prices were partially offset by $9 million in unfavorable mix, $4 million for information technology and distribution investments and start-up costs to enter the VRF market, $6 million for unfavorable foreign exchange rates, $5 million of higher SG&A expenses and $1 million from increases in other product costs.

Refrigeration

The following table presents our Refrigeration segment's net sales and profit for 2015 and 2014 (dollars in millions):

	For the Years Ended December 31,			
	2015	2014	Difference	% Change
Net sales	$713.3	$752.4	$ (39.1)	(5.2)%
Profit	$52.9	$55.4	$ (2.5)	(4.5)%
% of net sales	7.4 %	7.4 %		

Refrigeration net sales declined 5% in 2015 compared to 2014 primarily due to an 8% impact from unfavorable foreign exchange rates and a 2% impact from the Australian carbon levy repeal that was effective July 1, 2014. These decreases were partially offset by 4% volume growth, led by our North American supermarket businesses, and price and mix combined contributed 1%.

Segment profit in 2015 compared to 2014 decreased $3 million compared to 2014 primarily due to $14 million from unfavorable mix, predominantly in the North American supermarket business, $9 million lower profitability in our Australia refrigerant business, $1 million of costs related to investments for future growth, $5 million from unfavorable foreign currency exchange rates, and $3 million for higher SG&A expenses. Partially offsetting these decreases were $14 million from material cost savings, $2 million from higher sales volume, and $13 million from improved factory productivity and lower warranty and other product costs.

Corporate and Other

Corporate and other expenses increased $10 million in 2015 to $84 million from $74 million in 2014 due primarily to higher incentive compensation, general wage inflation, health care costs and currency losses.

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 and other expenses, net in the accompanying Consolidated Statements of Operations. See Note 8 of the Notes to Consolidated Financial Statements for more information on our derivatives and Note 18 of the Notes to the Consolidated Financial Statements for more information on our segments and for a reconciliation of segment profit to income from continuing operations before income taxes.

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, 2016, 2015 and 2014 (in millions):

	2016	2015	2014
Net cash provided by operating activities	$354.5	$331.2	$184.8
Net cash used in investing activities	(84.1)	(69.8)	(87.3)
Net cash used in financing activities	(255.2)	(248.7)	(89.5)

Net Cash Provided by Operating Activities - Net cash provided by operating activities increased $23 million to $355 million in 2016 compared to $331 million in 2015. This increase was primarily attributable to the increase in net income, partially offset by pension contributions.

Net Cash Used in Investing Activities - Capital expenditures were $84 million, $70 million and $88 million in 2016, 2015 and 2014, respectively. Capital expenditures in 2016 were primarily related to an expansion of manufacturing capacity in our Residential Heating & Cooling and Commercial Heating & Cooling segments, investments in our research and test facilities and other investments in systems and software to support the overall enterprise.

Net Cash Used in Financing Activities - Net cash used in financing activities increased to $255 million in 2016 from $249 million in 2015 primarily due to debt repayments and increased dividend payments and increased share repurchases, partially offset by an increase in net borrowings. Net borrowings increased in 2016 as we issued $350.0 million of senior unsecured notes in November 2016 through a public offering that was partially used to pay down existing debt. We also used $300.0 million in 2016 to purchase 2.2 million shares of stock under our share repurchase plans.

Debt Position

The following table details our lines of credit and financing arrangements as of December 31, 2016 (in millions):

	Outstanding Borrowings
Short-term debt:	
Foreign Obligations	$ 2.4
Asset Securitization Program (1)	50.0
Total short-term debt	$ 52.4
Current maturities of long-term debt:	
Capital lease obligations	0.8
Domestic credit facility (2)	—
Senior unsecured notes	200.0
Debt issuance costs	(0.7)
Total current maturities of long-term debt	$ 200.1
Long-term debt:	
Capital lease obligations	15.0
Domestic credit facility (2)	256.0
Senior unsecured notes	350.0
Debt issuance costs	(5.3)
Total long-term debt	615.7
Total debt	$ 868.2

(1) The maximum securitization amount ranges from $200.0 million to $325.0 million, depending on the period, after consideration of the July 5, 2016 amendment. The maximum capacity of the 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 $609.6 million after being reduced by the outstanding borrowings and $4.4 million in outstanding standby letters of credit. We also had $38.3 million in outstanding standby letters of credit outside of the domestic credit facility as of December 31, 2016.

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, 2016, 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 95.8% at December 31, 2016 compared to 88.9% at December 31, 2015. The increase in the ratio in 2016 is primarily due to the increase in our net borrowings. 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 $50 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 of $50 million as of December 31, 2016 was $32 million of cash held in foreign locations. 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. If we were to repatriate foreign earnings, we would be required to accrue and to pay taxes in the United States, less foreign tax credits, for the amounts that were repatriated. However, an additional benefit of the tax reorganization discussed previously is our ability to repatriate cash generated in prior periods in a tax efficient manner. We repatriated $42 million in cash from foreign subsidiaries and made a discretionary contribution of $50 million to our qualified pension plans in the third quarter of 2016.

No contributions are required to be made to our U.S. defined benefit plans in 2017. We made $53.9 million in total contributions to pension plans in 2016.

On May 11, 2016, our Board of Directors approved a 20% increase in our quarterly dividend on common stock from $0.36 to $0.43 per share effective with the May 2016 dividend payment. Dividend payments were $69 million in 2016 compared to $59 million in 2015, 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. In 2016, we returned $300.0 million to our investors through share repurchases. An additional $646 million of repurchases are still available under the programs.

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 Net 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 Net 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 of at least $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 of at least $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, the Lake Park Renewal (as described below), 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, 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 domestic 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, 2016, 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 were in compliance with those covenants as of December 31, 2016.

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 oustanding letters of credit totaling $14.3 million to fund a potential repurchase of the IDBs in the event investors exercised their right to tender the IDBs to the Trustee. As of December 31, 2016 and 2015, we had a long-term capital lease obligation of $14.3 million related to these transactions.

Refer to Note 10 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 $58 million, $54 million, and $51 million in 2016, 2015, and 2014, respectively. Refer to Notes 10 and 22 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, 2016 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]	$874.2	$253.2	$63.3	$196.0	$361.7
Estimated interest payments on debt obligations	96.4	20.9	28.5	25.6	21.4
Operating leases	158.8	48.3	65.6	26.7	18.2
Uncertain tax positions [2]	2.3	2.3	—	—	—
Purchase obligations [3]	35.4	35.4	—	—	—
Total contractual obligations	$1,167.1	$360.1	$157.4	$248.3	$401.3

(1) Contractual obligations related to capital leases are included as part of long-term debt.
(2) The liability for uncertain tax positions includes interest and penalties.
(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 10 and 11 of the Notes to the Consolidated Financial Statements. See Note 12 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, 2016 and 2015, the measurement dates.

See Note 19 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)	35.4
Carrying amount and fair value of net liability	$11.5
Change in fair value from 10% change in forward prices	$8.5

Refer to Note 8 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 $2.0 million and $2.1 million for the years ended December 31, 2016 and 2015, 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, 2016 and 2015, 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 2016, 2015 and 2014, net sales from outside the U.S. represented 18.5%, 19.4% and 23.5% , respectively, of our total net sales. For the years ended December 31, 2016 and 2015, 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 $4.0 million and $2.5 million impact to net income for the years ended December 31, 2016 and 2015, 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 8 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;
- Self-insurance expense;
- Pension benefits;
- Derivative accounting; and
- Goodwill and intangible assets.

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 10 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, 2016 represent the best estimate of the future payments to be made on reported and unreported losses. See Note 10 in the Notes to the Consolidated Financial Statements for additional information on our self-insurance expense and liabilities.

Pension Benefits

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. Our defined contribution plans generally include both company and employee contributions based on predetermined percentages of compensation earned by the employee. We also have several active defined benefit plans that provide benefits based on years of service. In the years ended December 31, 2016 and December 31, 2015, we contributed $53.9 million and $3.9 million to our pension plans, respectively.

We make several assumptions to calculate our liability and the expense for these benefit plans, including the discount rate and expected return on assets. We used an assumed discount rate of 4.17% for pension benefits of our U.S.-based plans as of December 31, 2016. Our discount rates were selected using the yield curve for high-quality corporate bonds, which is dependent upon risk-free interest rates and current credit market conditions. In 2016 and 2015, we utilized an assumed long-term rate of return on assets of 7.50% in both years. These are long-term estimates of equity values and are not dependent on short-term variations of the equity markets. Differences between actual experience and our assumptions are quantified as actuarial gains and losses. These actuarial gains and losses do not immediately impact our earnings as they are deferred in accumulated other comprehensive income (“AOCI”) and are amortized into net periodic benefit cost over the estimated service period. During 2015, we adopted the new mortality tables, MP-2015, from the Society of Actuaries, which reflects increasing life expectancies in the United States. In 2016, we adopted the additional revisions to the mortality tables included in MP-2016.

The assumed long-term rate of return on assets and the discount rate have significant effects on the amounts reported for our defined benefit plans. A 25 bps decrease in the long-term rate of return on assets or discount rate would have the following effects (in millions):

	25 Basis Point Decrease in Long-Term Rate of Return	25 Basis Point Decrease in Discount Rate
Increase to net periodic benefit cost for U.S. pension plans	$ 0.6	$ 1.1
Increase to the pension benefit obligations for U.S. pension plans	n/a	11.1

Should actual results differ from our estimates and assumptions, revisions to the benefit plan liabilities and the related expenses would be required. Refer to Note 12 in the Notes to the Consolidated Financial Statements for more information on our pension benefits.

Derivative Accounting

We use futures contracts and fixed forward contracts to mitigate our exposure to volatility in metal commodity prices in the ordinary course of business. Fluctuations in metal commodity prices impact the value of the derivative instruments that we hold. When metal commodity prices rise, the fair value of our futures contracts increases and conversely, when commodity prices fall, the fair value of our futures contracts decreases. We are required to prepare and maintain contemporaneous documentation for futures contracts that are formally designated as cash flow hedges. Our failure to comply with the strict documentation requirements could result in the de-designation of cash flow hedges, which may significantly impact our consolidated financial statements. Refer to "Market Risk" above and to Note 8 in the Notes to the Consolidated Financial Statements for more information on our derivatives.

Goodwill and Intangible Assets

Goodwill is calculated as the excess of cost over fair value of assets from acquired businesses. Goodwill is not amortized, but is reviewed for impairment annually in the fourth quarter and whenever events or changes in circumstances indicate the asset may be impaired. We assign goodwill to the reporting units that benefit from the synergies of our acquisitions. If we reorganize our management structure, the related goodwill is allocated to the affected reporting units based upon the relative fair values of those reporting units. Assets and liabilities, including deferred income taxes, are generally directly assigned to the reporting units. However, certain assets and liabilities, including intellectual property assets, information technology assets and pension, self-insurance and environmental liabilities, are centrally managed and are not allocated to the segments in the normal course of our financial reporting process, and therefore must be assigned to the reporting units based upon appropriate methods. Reporting units that we test are generally equivalent to our business segments, or in some cases one level below. Components that are determined to be reporting units are aggregated when those reporting units share similar economic characteristics. We review our reporting unit structure each year as part of our annual goodwill impairment testing.

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.

For those reporting units which require the two-step quantitative goodwill impairment test, we estimate reporting unit fair values using the discounted cash flow approach or the 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. If the market approach is used, it is based on objective evidence of market values. Refer to Note 4 of the Notes to the Consolidated Financial Statements for further details.

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.

We also 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.

Refer to Note 4 of the Notes to the Consolidated Financial Statements for more information on our goodwill and intangible assets.

Recent Accounting Pronouncements

On May 28, 2014, the Financial Accounting Standard Board ("FASB") issued ASU No. 2014-09, Revenue from Contracts with Customers, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard is effective for us on January 1,

2018. Early application is not permitted. We substantially completed our evaluation of the effect that ASU 2014-09 will have on our Consolidated Financial Statements and related disclosures. We do not expect the ASU to have a material impact on the amount and timing of revenue recognition. We will adopt the new standard using the modified retrospective approach.

In November 2015, the FASB issued ASU No. 2015-17, Balance Sheet Classification of Deferred Taxes (Topic 740) that simplifies the presentation of deferred taxes by requiring deferred tax assets and liabilities be classified as noncurrent on the balance sheet. ASU 2015-17 is effective for public companies for annual reporting periods beginning after December 15, 2016, and interim periods within those fiscal years. We adopted this standard retrospectively as of December 31, 2015.

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. It will be critical to identify leases embedded in a contract to avoid misstating the lessee’s balance sheet. 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. We have not yet selected a transition method nor have we determined the effect of the standard on our ongoing financial reporting. As a result of the new standard, all of our leases greater than one year in duration will be recognized on our Consolidated Balance Sheets as both operating lease liabilities and right-of-use assets upon adoption of the standard.

On March 30, 2016, the FASB issued ASU No. 2016-09, Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The ASU includes multiple provisions intended to simplify various aspects of the accounting for share-based payments. Excess tax benefits for share-based payments will be recorded as a reduction of income taxes and reflected in operating cash flows upon the adoption of this ASU. Excess tax benefits are currently recorded in equity and as financing activity under the current rules. This guidance is effective for annual and interim reporting periods of public entities beginning after December 15, 2016 and is expected to have a favorable impact on earnings in 2016.

In August 2016, the FASB issued 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 is not expected to have a material impact on our consolidated financial statements.

On October 24, 2016, the FASB issued ASU 2016-16, Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory. The new ASU eliminates the existing exception from recognition of the tax consequences of intercompany sales of assets other than inventory. Under the new standard, when an asset (other than inventory) is sold from one consolidated entity to another, the tax consequences to the seller will be recognized currently as a component of the current tax provision. The new guidance will be effective for public business entities in fiscal years beginning after December 15, 2017, including interim periods within those years. Early adoption is permitted in fiscal years beginning after December 15, 2016. We plan to early adopt this standard in 2017. In accordance with the ASU, our previously deferred tax costs and unrecognized deferred tax assets related to intra-entity asset transfers will need be recognized at the date of transition through a cumulative effect adjustment to opening retained earnings upon adoption of the standard.

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, 2016, 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, 2016, 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, 2016, a copy of which is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Lennox International Inc.:

We have audited the accompanying consolidated balance sheets of Lennox International Inc. and subsidiaries (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016. In connection with our audits of the consolidated financial statements, we have audited Schedule II - Valuation and Qualifying Accounts and Reserves (the Schedule). We also have audited the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). 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 these consolidated financial statements and the Schedule and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. 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.

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.

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, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Additionally, Schedule II - Valuation and Qualifying Accounts and Reserves, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal

Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ KPMG LLP

Dallas, Texas
February 21, 2017

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

	As of December 31,	
	2016	2015
ASSETS		
Current assets:		
Cash and cash equivalents	$50.2	$38.9
Accounts and notes receivable, net of allowances of $6.7 and $6.3 in 2016 and 2015, respectively	469.8	422.8
Inventories, net	418.5	418.8
Other assets	67.4	57.7
Total current assets	1,005.9	938.2
Property, plant and equipment, net of accumulated depreciation of $717.2 and $682.9 in 2016 and 2015, respectively	361.4	339.6
Goodwill	195.1	195.1
Deferred income taxes	136.7	145.7
Other assets, net	61.2	58.8
Total assets	$1,760.3	$1,677.4
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Short-term debt	$52.4	$204.1
Current maturities of long-term debt	200.1	31.0
Accounts payable	361.2	320.1
Accrued expenses	265.9	242.6
Income taxes payable	9.0	26.0
Total current liabilities	888.6	823.8
Long-term debt	615.7	506.0
Post-retirement benefits, other than pensions	2.8	4.1
Pensions	87.5	120.8
Other liabilities	127.7	121.1
Total liabilities	1,722.3	1,575.8
Commitments and contingencies		
Stockholders' 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	1,046.2	1,002.4
Retained earnings	1,353.0	1,146.7
Accumulated other comprehensive loss	(195.1)	(204.7)
Treasury stock, at cost, 44,195,250 shares and 42,491,910 shares for 2016 and 2015, respectively	(2,167.4)	(1,844.1)
Noncontrolling interests	0.4	0.4
Total stockholders' equity	38.0	101.6
Total liabilities and stockholders' equity	$1,760.3	$1,677.4

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

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LENNOX INTERNATIONAL INC. AND SUBSIDIARIES

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

	For the Years Ended December 31,		
	2016	2015	2014
Net sales	$3,641.6	$3,467.4	$3,367.4
Cost of goods sold	2,565.1	2,520.0	2,464.1
Gross profit	1,076.5	947.4	903.3
Operating expenses:			
Selling, general and administrative expenses	621.0	580.5	573.7
Losses and other expenses, net	11.3	21.7	6.8
Restructuring charges	1.8	3.2	1.9
Goodwill impairment	—	5.5	—
Asset impairment	—	44.5	—
Pension settlement	31.4	—	—
Income from equity method investments	(18.4)	(13.4)	(13.8)
Operating income	429.4	305.4	334.7
Interest expense, net	27.0	23.6	17.2
Other income, net	(0.3)	(0.8)	(0.1)
Income from continuing operations before income taxes	402.7	282.6	317.6
Provision for income taxes	124.1	95.4	109.5
Income from continuing operations	278.6	187.2	208.1
Discontinued operations:			
Loss from discontinued operations before income taxes	(1.3)	(1.0)	(3.7)
Benefit from income taxes	(0.5)	(0.4)	(1.4)
Loss from discontinued operations	(0.8)	(0.6)	(2.3)
Net income	$277.8	$186.6	$205.8
Earnings per share – Basic:			
Income from continuing operations	$6.41	$4.17	$4.35
Loss from discontinued operations	(0.02)	(0.01)	(0.05)
Net income	$6.39	$4.16	$4.30
Earnings per share – Diluted:			
Income from continuing operations	$6.34	$4.11	$4.28
Loss from discontinued operations	(0.02)	(0.02)	(0.05)
Net income	$6.32	$4.09	$4.23
Average shares outstanding:			
Basic	43.4	44.9	47.9
Diluted	44.0	45.6	48.6
Cash dividends declared per share	$1.65	$1.38	$1.14

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 INCOME
(In millions)

	For the Years Ended December 31,		
	2016	2015	2014
Net income	277.8	186.6	205.8
Other comprehensive income (loss):			
Foreign currency translation adjustments	(11.6)	(58.7)	(45.7)
Net change in pension and post-retirement benefit liabilities	10.4	5.7	(75.9)
Change in fair value of available-for-sale marketable equity securities	(2.1)	1.2	0.7
Net change in fair value of cash flow hedges	9.8	(18.4)	(12.1)
Reclassification of pension and post-retirement benefit losses into earnings	6.3	9.7	6.9
Reclassification of cash flow hedge losses into earnings	12.3	12.5	5.7
Other comprehensive income (loss) before taxes	$25.1	$(48.0)	$(120.4)
Tax (expense) benefit	(15.5)	(3.2)	28.0