# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> 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, 2015
OR

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

$$
\begin{aligned}
& \text { For the transition period from _ to } \\
& \text { Commission File Number 1-475 }
\end{aligned}
$$

## A. O. Smith Corporation

(Exact name of registrant as specified in its charter)

| Delaware <br> (State of Incorporation) | $39-0619790$ |
| :---: | :---: |
| 11270 West Park Place, Milwaukee, Wisconsin <br> (Address of Principal Executive Office) <br> (I.R.S. Employer Identification No.) | $53224-9508$ <br> (Zip Code) |
| Registrant's telephone number, including area code |  |

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

> Title of Each Class Class A Common Stock (par value $\$ 5.00$ per share) Common Stock (par value $\$ 1.00$ per share)


Name of Each Exchange on Name of Each Exchange
Which Registered Not listed

New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. $\boxtimes$ Yes $\square$ No
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section $15(\mathrm{~d})$ of the Act. $\square$ Yes $\mathbb{N}$
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. $\boxtimes$ Yes $\square$ 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). $\boxtimes$ YesNo

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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. 区Yes ® No

The aggregate market value of voting stock held by non-affiliates of the registrant was $\$ 41,422,906$ for Class A Common Stock and $\$ 5,322,129,940$ for Common Stock as of June 30, 2015.

## DOCUMENTS INCORPORATED BY REFERENCE

1. Portions of the company's definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year and, upon such filing, to be incorporated by reference in Part III).

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## PART 1

## ITEM 1 - BUSINESS

Our company is comprised of two reporting segments: North America and Rest of World. Our Rest of World segment is primarily comprised of China, Europe and India. Both segments manufacture and market comprehensive lines of residential and commercial gas, gas tankless and electric water heaters. Both segments primarily manufacture and market in their respective regions of the world. Our North America segment also manufactures and globally markets specialty commercial water heating equipment, condensing and non-condensing boilers and water systems tanks. Primarily for Asia, our Rest of World segment also manufactures and markets water treatment products. We also market in-home air purification products in China.

On August 22, 2011, we sold our Electrical Products business (EPC) to Regal Beloit Corporation (RBC) for approximately $\$ 760$ million in cash and approximately 2.83 million shares of RBC common stock valued at $\$ 140.6$ million as of that date. Due to the sale, EPC has been reflected as a discontinued operation in the accompanying financial information for all periods presented.

The following table summarizes our sales from continuing operations. This summary and all other information presented in this section should be read in conjunction with the Consolidated Financial Statements and Notes to Consolidated Financial Statements, which appear in Item 8 in this document.

|  | Years Ended December 31 (dollars in millions) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 | 2012 | 2011 |
| North America | $\overline{\$ 1,703.0}$ | \$1,621.7 | \$1,520.0 | $\overline{\$ 1,430.8}$ | \$1,289.5 |
| Rest of World | 866.1 | 768.3 | 668.0 | 542.5 | 455.6 |
| Inter-segment | (32.6) | (34.0) | (34.2) | (34.0) | (34.6) |
| Total Sales | $\underline{\text { 22,536.5 }}$ | \$2,356.0 | \$2,153.8 | \$1,939.3 | $\underline{\$ 1,710.5}$ |

## NORTH AMERICA

Sales in our North America segment increased 5.0 percent or $\$ 81.3$ million in 2015 compared with the prior year. The sales increase in 2015 was the result of price increases in the U.S. and Canada for residential and commercial water heaters and higher volumes of commercial water heaters and condensing commercial boilers in the U.S. Lower volumes of U.S. residential water heaters and lower water heater sales in Canada, primarily due to a decline in the value of the Canadian dollar of approximately thirteen percent versus the U.S. dollar, partially offset these favorable factors. Our Lochinvar brand, which we acquired in August 2011, incrementally added approximately $\$ 143$ million of sales in 2012 compared to 2011. Approximately 40 percent of Lochinvarbranded sales consist of residential and commercial water heaters while the remaining 60 percent of Lochinvar-branded sales consist primarily of boilers and related parts.

We serve residential and commercial end markets in North America with a broad range of products including:
Water heaters. Our residential and commercial water heaters come in sizes ranging from 2.5 gallon (point-of-use) models to 12,500 gallon products with varying efficiency ranges. We offer electric, natural gas, gas tankless and liquid propane models as well as solar tank units. Our North American residential water heater sales in 2015 were approximately $\$ 1.1$ billion or 62 percent of North America sales. Typical applications for our water heaters include residences, restaurants, hotels and motels, office buildings, laundries, car washes and small businesses.

Boilers. Our residential and commercial boilers range in size from 40,000 British Thermal Units (BTUs) to 5.0 million BTUs. Our commercial boilers are used primarily in space heating applications for hospitals, schools, hotels and other large commercial buildings.

Other. Our North America segment also manufactures expansion tanks, commercial solar water heating systems, swimming pool and spa heaters, and related products and parts.

A significant portion of the sales in our North America segment is derived from the replacement of existing products.
We are the largest manufacturer and marketer of water heaters in North America, and we have a leading share in both the residential and commercial markets. In the commercial market, we believe our comprehensive product line including boilers

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and our high-efficiency products give us a competitive advantage in this portion of the water heating industry. Our wholesale distribution channel includes more than 1,200 independent wholesale plumbing distributors with more than 4,400 selling locations serving residential and commercial end markets. We also sell our residential water heaters through the retail channel. In this channel, our customers include five of the seven largest national hardware and home center chains, including long-standing exclusive relationships with both Lowe's and Sears. Our boiler distribution channel is primarily comprised of manufacturer representative firms.

Our Lochinvar brand is one of the leading brands of residential and commercial boilers in the U.S.
Our energy efficient product offerings continue to be a sales driver for our business. Our Cyclone product family and our condensing boilers continue to be an option for commercial customers looking for high efficiency water and space heating with a short payback period through energy savings. We offer residential heat pump, condensing tank-type and tankless water heaters in North America, as well as other higher efficiency water heating solutions to round out our energy efficient product offerings.

We sell our water heating products in highly competitive markets. We compete in each of our targeted market segments based on product design, reliability, quality of products and services, advanced technologies, product performance, maintenance costs and price. Our principal water heating and boiler competitors in North America include Rheem, Bradford White, Rinnai, Aerco and Navien. Numerous other manufacturing companies also compete.

## REST OF WORLD

Sales in our Rest of World segment increased 12.7 percent, or $\$ 97.8$ million, in 2015 compared with the prior year. A 13.7 percent increase in sales in China to $\$ 789.2$ million was the primary source of the increase. Excluding the impact from the stronger U.S. dollar, China sales increased 16.1 percent in 2015.

We have operated in China for 20 years. In that time, we have been aggressively expanding our presence while building A. O. Smith brand recognition in the Chinese residential and commercial markets. The Chinese water heater market is predominantly comprised of electric wall-hung, solar and gas tankless water heaters. We believe we are one of the leading suppliers of water heaters to the residential market in China, with a broad product offering including electric, gas, gas tankless, heat pump and solar units as well as combi boilers. Primarily for Asia, we also manufacture and market water treatment products. We also market air purification products primarily for the residential market in China.

We sell water heaters in more than 8,000 retail outlets in China, of which over 2,000 exclusively sell our products. Our water treatment products and air purification products are sold in over 5,500 and 1,200 retail outlets in China, respectively. Our online sales continue to grow in China and in 2015 reached \$140 million.

In 2008, we established a sales office in India and began importing products specifically designed for India from our China operations. We began manufacturing water heaters in India in 2010. Our sales in India were $\$ 15.9$ million in 2015 compared with $\$ 15.1$ million in 2014.

Our primary competitor in China is Haier Appliances, a Chinese company, but we also compete with Midea in the electric water heater and water treatment markets and Rinnai and Noritz in the gas tankless and solar water heater markets. Additionally, we compete with numerous other Chinese private and stateowned water heater and water treatment companies in China. In India, we compete in the water heater and water treatment markets. We compete with Bajaj and MTS-Racold in the water heater market and Eureka Forbes and Kent in the water treatment market.

In addition, we sell water heaters in the European and Middle Eastern markets and water treatment products in Turkey, all of which combined comprised less than seven percent of total Rest of World sales in 2015.

## RAW MATERIALS

Raw materials for our manufacturing operations, primarily consisting of steel, are generally available in adequate quantities. A portion of our customers are contractually obligated to accept price changes based on fluctuations in steel prices. There has been volatility in steel costs over the last several years.

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## RESEARCH AND DEVELOPMENT

To improve our competitiveness by generating new products and processes, we conduct research and development at our Corporate Technology Center in Milwaukee, Wisconsin, at our Global Engineering Center in Nanjing, China, and at our operating locations. Our total expenditures for research and development in 2015, 2014 and 2013 were $\$ 73.7$ million, $\$ 67.9$ million and $\$ 57.8$ million, respectively.

## PATENTS AND TRADEMARKS

We own and use in our businesses various trademarks, trade names, patents, trade secrets and licenses. We do not believe that our business as a whole is materially dependent upon any such trademark, trade name, patent, trade secret or license. However, our trade name is important with respect to our products, particularly in China, India and the U.S.

## EMPLOYEES

We employed approximately 13,400 employees as of December 31, 2015, primarily non-union.

## BACKLOG

Due to the short-cycle nature of our businesses, none of our operations sustains significant backlogs.

## ENVIRONMENTAL LAWS

Our operations are governed by a variety of federal, foreign, state and local laws intended to protect the environment. Compliance with environmental laws has not had and is not expected to have a material effect upon the capital expenditures, earnings, or competitive position of our company. See Item 3.

## AVAILABLE INFORMATION

We maintain a website with the address www.aosmith.com. The information contained on our website is not included as a part of, or incorporated by reference into, this Annual Report on Form 10-K. Other than an investor's own internet access charges, we make available free of charge through our website our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports as soon as reasonably practical after we have electronically filed such material with, or furnished such material to, the Securities and Exchange Commission (SEC).

We are committed to sound corporate governance and have documented our corporate governance practices by adopting the A. O. Smith Corporate Governance Guidelines. The Corporate Governance Guidelines, Criteria for Selection of Directors, Financial Code of Ethics, the A. O. Smith Guiding Principles, as well as the charters for the Audit, Personnel and Compensation, Nominating and Governance and the Investment Policy Committees of the Board of Directors and other corporate governance materials, may be viewed on the company's website. Any waiver of or amendments to the Financial Code of Conduct or the A. O. Smith Guiding Principles also would be posted on this website; to date there have been none. Copies of these documents will be sent to stockholders free of charge upon written request of the corporate secretary at the address shown on the cover page of this Annual Report on Form 10-K.

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## ITEM 1A - RISK FACTORS

You should carefully consider the risk factors set forth below and all other information contained in this Annual Report on Form 10-K, including the documents incorporated by reference, before making an investment decision regarding our common stock. If any of the events contemplated by the following risks actually occurs, then our business, financial condition, or results of operations could be materially adversely affected. As a result, the trading price of our common stock could decline, and you may lose all or part of your investment. The risks and uncertainties below are not the only risks facing our company.

## - The effects of the global economic downturn could have a material adverse effect on our business

The global economy is still showing signs of stress, and could stall or reverse the course of any recovery. If this were to occur it could adversely affect consumer confidence and spending patterns which could result in decreased demand for the products we sell, a delay in purchases, increased price competition, or slower adoption of energy efficient water heaters and boilers which could negatively impact our profitability and cash flows. In addition, a deterioration in current economic conditions, including credit market conditions, could negatively impact our vendors and customers, which could result in an increase in bad debt expense, customer and vendor bankruptcies, interruption or delay in supply of materials, or increased material prices, which could negatively impact our ability to distribute, market and sell our products and our financial condition, results of operations and cash flows.

- A portion of our business could be affected by a slowdown in the transition of the Chinese economy to a consumer driven ecomony

Our sales growth in China has averaged approximately 19 percent per year over the past three years and we anticipate sales growth of approximately 15 percent in local currency in 2016. We continue to expand capacity for water heating and water treatment products in China to meet local demand. If a slowdown in the transition to a more consumer driven economy or the rate urbanization was to stall, it could adversely affect our financial condition, results of operations and cash flows.

## - Sales growth of our Lochinvar-branded products could stall resulting in lower than expected revenues and earnings

The compound annual growth rate of revenues of our Lochinvar-branded products has been approximately ten percent per year since our acquisition of Lochinvar, largely due to the transition in the boiler industry in the U.S. from lower efficiency, non-condensing boilers to higher efficiency, condensing boilers as well as new product introductions. In 2003, approximately five percent of the boilers sold in the U.S. were condensing boilers and by 2013, the percentage had grown to approximately 40 percent. Our Lochinvar brand is a leader in residential and commercial condensing boilers. We expect the transition to continue, which we believe would result in approximately ten percent sales growth in Lochinvar-branded products in 2016 and annually for the foreseeable future after 2016 in conjunction with new product introductions. If the transition to higher efficiency, condensing boilers stalls as a result of lower energy costs, another recession occurs, or our competitors' technologies surpass our technology, our growth rate could be lower than expected.

## - A material loss, cancellation, reduction, or delay in purchases by one or more of our largest customers could harm our business

Net sales to our five largest customers represented approximately 38 percent of our sales in 2015. We expect that our customer concentration will continue for the foreseeable future. Our concentration of sales to a relatively small number of customers makes our relationship with each of these customers important to our business. We cannot assure that we will be able to retain our largest customers. Some of our customers may shift their purchases to our competitors in the future. The loss of one or more of our largest customers, any material reduction or delay in sales to these customers, our inability to successfully develop relationships with additional customers, or our inability to execute on pricing actions could have a material adverse effect on our financial position, results of operations and cash flows.

- A portion of our business could be adversely affected by a decline in new residential and commercial construction or a decline in replacement related volume

The recovery in residential and commercial construction activity in North America remains fragile and construction could decline again after showing improvements in 2015. We believe that the majority of the market we serve is for replacement of existing products and replacement related volume growth was strong in 2013 and 2014 before declining in 2015. Changes in replacement volume and in the construction market could negatively affect us.

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- A failure in our implementation of a new enterprise resource planning system could disrupt our business

We depend on information technology to record and process customers' orders, manufacture and ship products in a timely manner, and maintain the financial accuracy of our business records. We are in the midst of implementing a global enterprise resource planning system that is core to our efforts to redesign and deploy new processes and migrate to a common information system across our plants over a period of several years. There is no certainty that this system will deliver the expected benefits. Implementation may impact our ability to process transactions accurately and efficiently, which could increase costs and thereby impact profitability or otherwise impact our business. In addition, the failure to either deliver the application on time, or anticipate the necessary readiness and training needs, could lead to business disruption and loss of customers and revenue and profit.

## - We increasingly sell our products and operate outside the U.S., which may present additional risks to our business

Approximately 40 percent of our net sales in 2015 were attributable to products sold outside of the U.S., primarily in China and Canada and to a lesser extent in Europe and India. Approximately 8,100 of our 13,400 employees as of December 31, 2015 were located in China. At December 31, 2015, approximately $\$ 458$ million of our cash and marketable securities balances were located in China. International operations generally are subject to various risks, including political, religious, and economic instability, local labor market conditions, the imposition of foreign tariffs and other trade restrictions, the impact of foreign government regulations, the effects of income taxes, governmental expropriation, the imposition or increases in withholding and other taxes on remittances and other payments by foreign subsidiaries, labor relations problems, the imposition of environmental or employment laws, or other restrictions by foreign governments and differences in business practices. Unfavorable changes in the political, regulatory, and business climate could have a material adverse effect on our financial condition, results of operations and cash flows or our ability to repatriate funds to the U.S. As of December 31, 2015, approximately $\$ 645$ million of cash, cash equivalents and marketable securities were held by our foreign subsidiaries. We would incur a cost to repatriate these funds to the U.S. and have recorded a liability of approximately $\$ 48$ million associated with the repatriation of a portion of those funds.

## - Because we participate in markets that are highly competitive, our revenues and earnings could decline as we respond to competition

We sell all of our products in highly competitive markets. We compete in each of our targeted markets based on product design, reliability, quality of products and services, advanced technologies, product performance, maintenance costs and price. Some of our competitors may have greater financial, marketing, manufacturing, research and development and distribution resources than we have, and some are increasingly expanding beyond their existing manufacturing or geographic footprints. Consumer purchasing behavior may shift to distribution channels, including e-commerce, which is a rapidly developing area. Development of a successful e-commerce strategy involves significant time, investment and resources. We cannot assure that our products and services will continue to compete successfully with those of our competitors or that we will be able to retain our customer base or improve or maintain our profit margins on sales to our customers, all of which could materially and adversely affect our financial condition, results of operations and cash flows.

## - Our international operations are subject to risks related to foreign currencies

We have significant operations outside of the U.S., primarily in China and Canada and to a lesser extent Europe and India, and therefore, hold assets, incur liabilities, earn revenues and pay expenses in a variety of currencies other than the U.S. dollar. The financial statements of our foreign subsidiaries are translated into U.S. dollars in our consolidated financial statements. As a result, we are subject to risks associated with operating in foreign countries, including fluctuations in currency exchange rates and interest rates, or hyperinflation in some foreign countries. Furthermore, typically our products are priced in foreign countries in local currencies. As a result, an increase in the value of the U.S. dollar relative to the local currencies of our foreign markets has had and would continue to have a negative effect on our profitability. In addition to currency translation risks, we incur a currency transaction risk whenever one of our subsidiaries enters into either a purchase or sale transaction using a currency different from the operating subsidiaries' functional currency. The majority of our foreign currency transaction risk is a result of our Canadian water heater operations. These risks may hurt our reported sales and profits in the future or negatively impact revenues and earnings translated from foreign currencies into U.S. dollars.

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- If we are unable to develop product innovations and improve our technology and expertise, we could lose customers or market share

Our success may depend on our ability to adapt to technological changes in the water heating, boiler and water treatment industries. If we are unable to timely develop and introduce new products, or enhance existing products, in response to changing market conditions or customer requirements or demands, our competitiveness could be materially and adversely affected. Our ability to develop and successfully market new products and to develop, acquire, and retain necessary intellectual property rights is essential to our continued success, but cannot reasonably be assured.

## - Changes in regulations or standards could adversely affect our business

Our products are subject to a wide variety of statutory, regulatory and industry standards and requirements related to, among other items, energy efficiency, environmental emissions, labeling and safety. While we believe our products are currently efficient, safe and environment-friendly, a significant change to regulatory requirements, whether federal, foreign, state or local, or to industry standards, could substantially increase manufacturing costs, impact the size and timing of demand for our products, or put us at a competitive disadvantage, any of which could harm our business and have a material adverse effect on our financial condition, results of operations and cash flow.

## - Our business may be adversely impacted by product defects

Product defects can occur through our own product development, design and manufacturing processes or through our reliance on third parties for component design and manufacturing activities. We may incur various expenses related to product defects, including product warranty costs, product liability and recall or retrofit costs. While we maintain a reserve for product warranty costs based on certain estimates and our knowledge of current events and actions, our actual warranty costs may exceed our reserve, resulting in current period expenses and a need to increase our reserves for warranty charges. In addition, product defects and recalls may diminish the reputation of our brand. Further, our inability to cure a product defect could result in the failure of a product line or the temporary or permanent withdrawal from a product or market. Any of these events may have a material adverse impact on our financial condition, results of operations and cash flows.

- Acquisitions have contributed to our financial results and we may not be able to identify or complete future acquisitions, which could adversely affect our future growth

Acquisitions we have made have positively impacted our results of operations. While we will continue to evaluate potential acquisitions and intend to use a significant portion of our available capital for future acquisitions, we may not be able to identify and successfully negotiate suitable acquisitions, obtain financing for future acquisitions on satisfactory terms, utilize cash flows from operations, obtain regulatory approval for certain acquisitions, or otherwise complete acquisitions in the future. If we complete any future acquisitions, then we may not be able to successfully integrate the acquired businesses or operate them profitably or accomplish our strategic objectives for those acquisitions. If we complete any future acquisitions in new geographies, our unfamiliarity with local regulations and market customs may impact our ability to operate them profitably or achieve our strategic objectives for those acquisitions. Our level of indebtedness may increase in the future if we finance acquisitions with debt, which would cause us to incur additional interest expense and could increase our vulnerability to general adverse economic and industry conditions and limit our ability to service our debt or obtain additional financing. The impact of future acquisitions may have a material adverse effect on our financial condition, results of operations and cash flows.

## - Our operations could be adversely impacted by material price volatility and supplier concentration

The market prices for certain raw materials we purchase, primarily steel, have been volatile. Significant increases in the cost of any of the key materials we purchase could increase our cost of doing business and ultimately could lead to lower operating earnings if we are not able to recover these cost increases through price increases to our customers. Historically, there has been a lag in our ability to recover increased material costs from customers, and that lag could negatively impact our profitability. In addition, in some cases we are dependent on a limited number of suppliers for some of the raw materials and components we require in the manufacture of our products. A significant disruption or termination of the supply from one of these suppliers could delay sales or increase costs which could result in a material adverse effect on our financial condition, results of operations and cash flows.

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- We are subject to regulation of our international operations that could adversely affect our business and results of operations

Due to our global operations, we are subject to many laws governing international relations, including those that prohibit improper payments to government officials and restrict where we can do business, what information or products we can supply to certain countries and what information we can provide to a non-U.S. government, including but not limited to the Foreign Corrupt Practices Act and the U.S. Export Administration Act. Violations of these laws may result in criminal penalties or sanctions that could have a material adverse effect on our financial condition, results of operations and cash flows.

## - Our results of operations may be negatively impacted by product liability lawsuits and claims

Our water heating and boiler products expose us to potential product liability risks that are inherent in the design, manufacture, sale and use of our products. While we currently maintain what we believe to be suitable product liability insurance, we cannot be certain that we will be able to maintain this insurance on acceptable terms, that this insurance will provide adequate protection against potential liabilities or that our insurance providers will be able to ultimately pay all insured losses. In addition, we self-insure a portion of product liability claims. A series of successful claims against us could materially and adversely affect our reputation and our financial condition, results of operations and cash flows.

## - Retention of key personnel is important to our business

Attracting and retaining talented employees is important to the continued success of our business. Failure to retain key personnel, particularly on the leadership team, would have a material effect on our business and our ability to execute our business strategies in a timely and effective manner.

- An inability to adequately maintain our information systems and their security, as well as to protect data and other confidential information, could adversely affect our business and reputation

In the ordinary course of business, we collect and store sensitive data and information, including our proprietary and regulated business information and that of our customers, suppliers and business partners, as well as personally identifiable information about our employees. Our information systems, like those of other companies, are susceptible to outages due to natural disasters, power loss, telecommunications failures, viruses, break-ins and similar events, or breaches of security. We continue to take steps to maintain and improve data security and address these risks and uncertainties by implementing security technologies, internal controls, network and data center resiliency and recovery processes. However, any operations failure or breach of security from increasingly sophisticated cyber threats could lead to the loss or disclosure of both our and our customers’ financial, product and other confidential information and could result in regulatory actions and have a material adverse effect on our business and reputation.

## - Our underfunded pension plans require future pension contributions which could limit our flexibility in managing our company

Due to the significant negative investment returns in 2008, flat returns in 2015 and falling interest rates in recent years, the projected benefit obligations of our defined benefit pension plans exceeded the fair value of the plan assets by approximately $\$ 134$ million at December 31, 2015. U.S. employees hired after January 1, 2010 have not participated in our defined benefit plan, and benefit accruals for the majority of current salaried and hourly employees ended on December 31, 2014. We are forecasting that we will not be required to make a contribution to the plan in 2016, and we do not plan to make any voluntary contributions. However, we cannot provide any assurance that contributions will not be required in the future. Among the key assumptions inherent in our actuarially calculated pension plan obligation and pension plan expense are the discount rate and the expected rate of return on plan assets. If interest rates and actual rates of return on invested plan assets were to decrease significantly, our pension plan obligations could increase materially. The size of future required pension contributions could result in us dedicating a substantial portion of our cash flows from operations to making the contributions which could negatively impact our flexibility in managing the company.

- We have significant goodwill and indefinite-lived intangible assets and an impairment of our goodwill or indefinite-lived intangible assets could cause a decline in our net worth

Our total assets include significant goodwill and indefinite-lived intangible assets. Our goodwill results from our acquisitions, representing the excess of the purchase prices we paid over the fair value of the net tangible and intangible assets we acquired.

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We assess whether there has been impairments in the value of our goodwill or indefinite-lived intangible assets during the fourth quarter of each calendar year or sooner if triggering events warrant. If future operating performance at our businesses does not meet expectations, we may be required to reflect non-cash charges to operating results for goodwill or indefinite-lived intangible asset impairments. The recognition of an impairment of a significant portion of goodwill or indefinite-lived intangible assets would negatively affect our results of operations and total capitalization, the effect of which could be material. A significant reduction in our stockholders' equity due to an impairment of goodwill or indefinite-lived intangible assets may affect our ability to maintain the debt-to-capital ratio required under our existing debt arrangements. We have identified the valuation of goodwill and indefinite-lived intangible assets as a critical accounting policy. See "Management’s Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting PoliciesGoodwill and Indefinite-lived Intangible Assets" included in Item 7 of this Annual Report on Form 10-K.

- Certain members of the founding family of our company and trusts for their benefit have the ability to influence all matters requiring stockholder approval

We have two classes of common equity: our Common Stock and our Class A Common Stock. The holders of Common Stock currently are entitled, as a class, to elect only one-third of our board of directors. The holders of Class A Common Stock are entitled, as a class, to elect the remaining directors. Certain members of the founding family of our company and trusts for their benefit (Smith Family) have entered into a voting trust agreement with respect to shares of our Class A Common Stock and shares of our Common Stock they own. As of December 31, 2015, these members of the Smith Family own approximately 61.0 percent of the total voting power of our outstanding shares of Class A Common Stock and Common Stock, taken together as a single class, and approximately 95.6 percent of the voting power of the outstanding shares of our Class A Common Stock, as a separate class. Due to the differences in the voting rights between shares of our Common Stock and shares of our Class A Common Stock, the Smith Family is in a position to control to a large extent the outcome of matters requiring a stockholder vote, including the adoption of amendments to our certificate of incorporation or bylaws or approval of transactions involving a change of control. This ownership position may increase if other members of the Smith Family enter into the voting trust agreement, and the voting power relating to this ownership position may increase if shares of our Class A Common Stock held by stockholders who are not parties to the voting trust agreement are converted into shares of our Common Stock. The voting trust agreement provides that, in the event one of the parties to the voting trust agreement wants to withdraw from the trust or transfer any of its shares of our Class A Common Stock, such shares of our Class A Common Stock are automatically exchanged for shares of our Common Stock held by the trust to the extent available in the trust. In addition, the trust will have the right to purchase the shares of our Class A Common Stock and our Common Stock proposed to be withdrawn or transferred from the trust. As a result, the Smith Family members that are parties to the voting trust agreement have the ability to maintain their collective voting rights in our company even if certain members of the Smith Family decide to transfer their shares.

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## ITEM 1B - UNRESOLVED STAFF COMMENTS

None.

## ITEM 2 - PROPERTIES

Properties utilized by us at December 31, 2015 were as follows:

## North America

In this segment we have 12 manufacturing plants located in five states and two non-U.S. countries, of which ten are owned directly by us or our subsidiaries and two are leased from outside parties. The terms of leases in effect at December 31, 2015 expire between 2016 and 2025.

## Rest of World

In this segment we have six manufacturing plants located in four non-U.S. countries, of which three are owned directly by us or our subsidiaries and three are leased from outside parties. Initial lease terms generally provide for minimum terms of one to six years and have one or more renewal options. The terms of leases in effect at December 31, 2015 expire between 2016 and 2020.

## Corporate and General

We consider our plants and other physical properties to be suitable, adequate, and of sufficient productive capacity to meet the requirements of our business. The manufacturing plants operate at varying levels of utilization depending on the type of operation and market conditions. The executive offices of the company, which are leased, are located in Milwaukee, Wisconsin.

## ITEM 3 - LEGAL PROCEEDINGS

We are involved in various unresolved legal actions, administrative proceedings and claims in the ordinary course of our business involving product liability, property damage, insurance coverage, exposure to asbestos and other substances, patents and environmental matters, including the disposal of hazardous waste. Although it is not possible to predict with certainty the outcome of these unresolved legal actions or the range of possible loss or recovery, we believe, based on past experience, adequate reserves and insurance availability, that these unresolved legal actions will not have a material effect on our financial position or results of operations. A more detailed discussion of certain of these matters appears in Note 14 of Notes to Consolidated Financial Statements.

## ITEM 4 - MINE SAFETY DISCLOSURES

Not applicable.

## EXECUTIVE OFFICERS OF THE COMPANY

Pursuant to General Instruction of $\mathrm{G}(3)$ of Form 10-K, the following is a list of the executive officers which is included as an unnumbered Item in Part I of this report in lieu of being included in our Proxy Statement for our 2016 Annual Meeting of Stockholders.

| Name (Age) | Positions Held | Period Position Was Held |
| :---: | :---: | :---: |
| Randall S. Bednar (63) | Senior Vice President - Chief Information Officer | 2007 to Present |
|  | Senior Vice President - Information Technology | 2006 |
|  | Vice President - Information Technology | 2001 to 2006 |
| Wilfridus M. Brouwer (57) | Senior Vice President - Asia Corporate Development | 2015 to Present |
|  | Senior Vice President | 2013 to 2014 |
|  | President - A. O. Smith Holdings (Barbados) SRL | 2013 to Present |
|  | Senior Vice President - Asia | 2009 to 2012 |
|  | President and General Manager - A. O. Smith (China) Investment Co., Ltd. | 2009 to 2012 |
| Paul R. Dana (53) | Senior Vice President - Global Manufacturing | 2016 to Present |
|  | Vice President - Global Manufacturing | 2015 |
|  | President - APCOM, a division of State Industries, Inc., a subsidiary of the Company | 2011 to Present |
|  | Vice President - Product Engineering | 2006 to 2010 |
|  | Plant Manager - Productos de Agua, S. de R.L. de C.V. | 1998 to 2005 |
| Wei Ding (53) | Senior Vice President | 2013 to Present |
|  | President - A. O. Smith (China) Investment Co., Ltd.; General Manager - A. O. Smith (China) Water Heater Co., Ltd. and A. O. Smith (Shanghai) Water Treatment Products Co. Ltd. | 2013 to Present |
|  | President and General Manager - A. O. Smith (China) Water Heater Co., Ltd. | 2013 |
|  | Senior Vice President - A. O. Smith Water Products Company | 2011 to 2012 |
|  | Vice President - China - A. O. Smith Water Products Company | 2006 to 2011 |
|  | General Manager - A. O. Smith (China) Water Heater Co., Ltd. | 1999 to 2012 |
| Robert J. Heideman (49) | Senior Vice President - Chief Technology Officer | 2013 to Present |
|  | Senior Vice President - Engineering \& Technology | 2011 to 2012 |
|  | Senior Vice President - Corporate Technology | 2010 to 2011 |
|  | Vice President - Corporate Technology | 2007 to 2010 |
|  | Director - Materials | 2005 to 2007 |
|  | Section Manager | 2002 to 2005 |

Name (Age)
John J. Kita (60)

Charles T. Lauber (53)

Mark A. Petrarca (52)

Ajita G. Rajendra (64)

James F. Stern (53)

William L. Vallett Jr. (56)

Positions Held
Executive Vice President and Chief Financial Officer
Senior Vice President, Corporate Finance and Controller
Vice President, Treasurer and Controller
Treasurer and Controller
Assistant Treasurer
Senior Vice President, Strategy and Corporate Development
Senior Vice President - Chief Financial Officer - A. O. Smith Water Products Company

Vice President - Global Finance - A. O. Smith Electrical Products Company
Vice President and Controller - A. O. Smith Electrical Products Company Director of Audit and Tax

Senior Vice President - Human Resources and Public Affairs
Vice President - Human Resources and Public Affairs
Vice President - Human Resources - A. O. Smith Water Products Company
Chairman, President and Chief Executive Officer
President and Chief Executive Officer
President and Chief Operating Officer 2011 to 2012
Executive Vice President 2006 to 2011
President - A. O. Smith Water Products Company 2005 to 2011
Senior Vice President 2005 to 2007
Executive Vice President, General Counsel and Secretary 2007 to Present
Partner - Foley \& Lardner LLP
Senior Vice President
Chief Executive Officer - Lochinvar, LLC
Chief Executive Officer - Lochinvar Corporation

2006 to 2012 2004 to 2006 2001 to 2004 1999 to 2001

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Name (Age)
Kevin J. Wheeler (56)

Positions Held
Period Position Was Held
Senior Vice President
President and General Manager - North America, India and Europe Water Heating
2013 to Present
2013 to Present
Senior Vice President and General Manager - North America, India and Europe - A.
O. Smith Water Products Company

2011 to 2012
Senior Vice President and General Manager - U.S. Retail - A. O. Smith Water Products Company

2007 to 2011
Vice President - International - A. O. Smith Water Products Company 2004 to 2007
Managing Director - A. O. Smith Water Products Company B.V.

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## PART II

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

On April 15, 2013, our Board of Directors declared a two-for-one stock split of our Class A Common Stock and Common Stock in the form of a 100 percent stock dividend to stockholders of record on April 30, 2013 and payable on May 15, 2013. All references in this Item 5 to numbers of A. O. Smith Corporation shares or price per share have been adjusted to reflect the split.
(a) Market Information. Our Common Stock is listed on the New York Stock Exchange under the symbol AOS. Our Class A Common Stock is not listed. Wells Fargo Shareowner Services, N.A., P.O. Box 64854, St. Paul, Minnesota, 55164-0854 serves as the registrar, stock transfer agent and the dividend reinvestment agent for our Common Stock and Class A Common Stock.

## Quarterly Common Stock Price Range

| 2015 | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| :---: | :---: | :---: | :---: | :---: |
| High | \$65.99 | \$74.40 | \$77.43 | \$81.15 |
| Low | 53.49 | 63.53 | 50.09 | 64.23 |
| 2014 | 1st Qtr. | 2nd Qtr. | 3 rd Qtr. | 4th Qtr. |
| High | \$53.98 | \$51.17 | \$50.91 | \$57.16 |
| Low | 44.56 | 44.14 | 46.36 | 44.60 |

(b) Holders. As of January 31, 2016, the approximate number of stockholders of record of Common Stock and Class A Common Stock were 680 and 200, respectively.
(c) Dividends. Dividends declared on the common stock are shown in Note 16 of Notes to Consolidated Financial Statements appearing elsewhere herein.
(d) Stock Repurchases. In 2013, our Board of Directors approved adding 2,000,000 shares of Common Stock to an existing discretionary share repurchase authority. In 2014, our board of directors authorized the purchase of an additional 3,500,000 shares of our Common Stock. In 2015, our Board of Directors authorized the purchase of an additional 2,000,000 shares of our Common Stock. Under the share repurchase program, our Common Stock may be purchased through a combination of Rule 10b5-1 automatic trading plan and discretionary purchases in accordance with applicable securities laws. The number of shares purchased and the timing of the purchase will depend on a number of factors, including share price, trading volume and general market conditions, as well as on working capital requirements, general business conditions and other factors, including alternative investment opportunities. The stock repurchase authorization remains effective until terminated by our Board of Directors which may occur at any time, subject to the parameters of any Rule 10b5-1 automatic trading plan that we may then have in effect. In 2015, we repurchased 1,908,237 shares at an average price of $\$ 67.14$ per share and at a total cost of $\$ 128.1$ million. As of December 31, 2015, there were 2,589,756 shares remaining on the existing repurchase authorization.

The following table sets forth the number of shares of common stock we repurchased during the fourth quarter of 2015:

|  |  |  | Total Number of | Maximum Number |
| :---: | :---: | :---: | :---: | :---: |
| Period | Total Number of Shares Purchased | Average Price Paid per Share | Shares Purchased as Part of Publicly Announced Plans or Programs | of Shares that may yet be Purchased Under the Plans or Programs |
| October 1 - October 31, 2015 | 192,320 | \$ 69.10 | 192,320 | 726,446 |
| November 1 - November 30, 2015 | 136,690 | 76.98 | 136,690 | 589,756 |
| December 1 - December 31, 2015 | - | - | - | 2,589,756 |

(e) Performance Graph. The following information in this Item 5 of this Annual Report on Form 10-K is not deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into such a filing.

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The graph below shows a five-year comparison of the cumulative shareholder return on our Common Stock with the cumulative total return of the Standard \& Poor's (S\&P) Mid Cap 400 Index and the Russell 1000 Index, both of which are published indices.

Comparison of Five-Year Cumulative Total Return
From December 31, 2010 to December 31, 2015
Assumes \$100 Invested with Reinvestment of Dividends


| Company/Index | $\begin{gathered} \begin{array}{c} \text { Base } \\ \text { Period } \end{array} \\ \underline{12 / 31 / 10} \\ \hline \end{gathered}$ | Indexed Returns |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 12/31/11 | 12/31/12 | 12/31/13 | 12/31/14 | 12/31/15 |
| A. O. Smith Corporation | 100.0 | 107.0 | 170.7 | 295.1 | 312.5 | 429.0 |
| S\&P Mid Cap 400 Index | 100.0 | 97.8 | 115.2 | 153.8 | 168.9 | 165.2 |
| Russell 1000 Index | 100.0 | 116.1 | 135.2 | 179.9 | 203.7 | 205.5 |

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## ITEM 6 - SELECTED FINANCIAL DATA

|  | Years ended December 31 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 (1) | 2012 | 2011(2)(3) |
| Net sales - continuing operations | \$2,536.5 | $\overline{\$ 2,356.0}$ | \$2,153.8 | \$1,939.3 | \$1,710.5 |
| Earnings (loss) |  |  |  |  |  |
| Continuing operations | 282.9 | 207.8 | 169.7 | 162.6 | 111.2 |
| Discontinued operations | - | - | - | (3.9) | 194.5 |
| Net earnings | \$ 282.9 | \$ 207.8 | \$ 169.7 | \$ 158.7 | \$ 305.7 |
| Basic earnings (loss) per share of common stock(1) |  |  |  |  |  |
| Continuing operations | \$ 3.19 | \$ 2.30 | \$ 1.84 | \$ 1.76 | \$ 1.20 |
| Discontinued operations | - | - | - | (0.04) | 2.11 |
| Net earnings | \$ 3.19 | \$ 2.30 | \$ 1.84 | \$ 1.72 | \$ 3.31 |
| Diluted earnings (loss) per share of common stock(1) |  |  |  |  |  |
| Continuing operations | \$ 3.16 | \$ 2.28 | \$ 1.83 | \$ 1.75 | \$ 1.19 |
| Discontinued operations | - | - | - | (0.04) | 2.09 |
| Net earnings | \$ 3.16 | \$ 2.28 | \$ 1.83 | \$ 1.71 | \$ 3.28 |
| Cash dividends per common share(1) | \$ 0.76 | \$ 0.60 | \$ 0.46 | \$ 0.36 | \$ 0.30 |
|  | December 31 |  |  |  |  |
|  | 2015 | 2014 | 2013 | 2012 | 2011 |
| Total assets | \$2,646.5 | \$2,515.3 | \$2,391.5 | \$2,278.8 | \$2,349.0 |
| Long-term debt(4) | 236.1 | 210.1 | 177.7 | 225.1 | 443.0 |
| Total stockholders' equity | 1,442.3 | 1,381.3 | 1,328.7 | 1,194.1 | 1,085.8 |

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

## OVERVIEW

Our company is comprised of two reporting segments: North America and Rest of World. Our Rest of World segment is primarily comprised of China, Europe and India. Both segments manufacture and market comprehensive lines of residential and commercial gas, gas tankless and electric water heaters. Both segments primarily manufacture and market in their respective region of the world. Our North America segment also manufactures and globally markets specialty commercial water heating equipment, condensing and non-condensing boilers and water systems tanks. Primarily for Asia, our Rest of World segment also manufactures and markets water treatment products. We also market in-home air purification products in China.

In 2015, our North America segment sales were $\$ 1,703.0$ million and our Rest of World segment sales were $\$ 866.1$ million. Sales of our products in China grew significantly in 2015, increasing 13.7 percent over 2014. Excluding the impact from the strengthening U.S. dollar, sales in China increased 16.1 percent in 2015. We expect sales in 2016 in China to grow at a rate of approximately 15 percent in local currency, as we believe overall water heater market growth, geographic expansion, market share gains, growth in water treatment products and air purification products and improved product mix will contribute to our growth. Price increases for residential and commercial water heaters and higher volumes of commercial water heaters and condensing commercial boilers contributed to 2015 sales increases in our North America segment. Partially offsetting these factors was a decline in residential water heater volumes in the U.S. The 13 percent decline in the value of the Canadian dollar against the U.S. dollar during 2015 also negatively impacted sales. We expect North America residential and commercial water heater industry unit to show modest growth in 2016. Lochinvar-branded products contributed $\$ 296.0$ million to our net sales in 2015, and we expect ten percent sales growth of Lochinvar-branded products in 2016, driven by the U.S. industry transition to higher efficiency products and our introduction of new products; particularly condensing boilers. Approximately 40 percent of Lochinvar-branded product sales consist of residential and commercial water heaters while the remaining 60 percent of Lochinvar-branded product sales consist primarily of boilers and related parts.

Our stated acquisition strategy includes a number of our water-related strategic initiatives. We will look to continue to grow our core residential and commercial water heating, boiler and water treatment businesses throughout the world. We will also continue to look for opportunities to add to our existing operations in the high growth regions of China and India demonstrated by our introduction of air purification products in China in 2015.

Consistent with our stated strategy to expand our core product offering, we acquired Lochinvar in 2011. Lochinvar, one of the leading manufacturers of residential and commercial boilers in the U.S., fit squarely within our stated strategic growth initiative to expand our core water heating business. In 2013, approximately 40 percent of boilers sold in the U.S. were condensing boilers, compared with five percent in 2003. Our Lochinvar brand is a leading brand of higher efficiency, condensing boilers. We expect the transition in the U.S. to higher efficiency boilers will continue into the foreseeable future.

## RESULTS OF OPERATIONS

Our sales in 2015 were a record $\$ 2,536.5$ million surpassing 2014 sales of $\$ 2,356.0$ million by 7.7 percent. Excluding the impact from the strengthening U.S. dollar against the Canadian and Chinese currencies, our sales grew over nine percent in 2015. The increase in sales was due to higher prices in North America, higher sales of Lochinvar-branded products and commercial water heaters in the U.S., as well as continued demand for our water heating and water treatment products in China. Sales in China grew 13.7 percent in 2015. Excluding the impact from the stronger U.S. dollar, China sales increased 16.1 percent in 2015. Our sales in 2014 were higher than 2013 sales of $\$ 2,153.8$ million by 9.4 percent. The increase in 2014 in sales was attributable to higher volumes of water heaters and boilers in the U.S. and higher sales of water heaters and water treatment products in China. Sales of water heaters and water treatment products in China grew 18.4 percent to $\$ 694.0$ million in 2014 compared to 2013.

Our gross profit margin in 2015 increased to 39.8 percent from 36.5 percent in 2014. The higher margin in 2015 was due to price increases in the U.S. and Canada, higher U.S. sales of commercial boilers and commercial water heaters which have higher margins, lower steel costs and a reduction in pensionrelated costs. Our gross profit margin in 2014 increased slightly from 35.9 percent in 2013, primarily due to higher volumes of water heaters and boilers in the U.S., partially offset by higher material costs in the U.S., as well as higher volumes of water heaters and water treatment products in the China.

Selling, general and administrative (SG\&A) expenses were $\$ 38.6$ million higher in 2015 than in 2014. The increase in SG\&A expenses in 2015 to $\$ 610.7$ million was primarily due to higher selling and engineering costs in support of increased volumes in China as well as higher costs associated with the 2015 launch of air purification products in China which more than offset

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lower pension costs in the U.S. SG\&A expenses were $\$ 47.6$ million higher in 2014 than in 2013 primarily due to higher selling and advertising costs in support of increased volumes in North America and China and approximately $\$ 9$ million of incremental enterprise resource planning system (ERP) implementation costs.

On March 28, 2013, our Board of Directors approved a plan to transfer residential water heater production from our Fergus, Ontario plant to our other North American facilities. The majority of our production was consolidated in the second quarter of 2013. As a result of the capacity rationalization, we incurred pre-tax restructuring and impairment expenses of $\$ 22.0$ million in 2013 related to employee severance costs, impairments of assets and equipment relocation costs. In addition, included in operating earnings in 2013 is a pre-tax gain of $\$ 11.0$ million resulting from a settlement with a former supplier related to previous overcharges and warranty costs.

Pension expense in 2015 was $\$ 0.1$ million compared to $\$ 28.6$ million in 2014 and $\$ 27.9$ million in 2013. The significant decrease in pension expense in 2015 compared to prior years was due to the sunset of our pension plan for the majority of our employees on December 31, 2014. In 2015, we began making additional Company contributions to a defined contribution plan in lieu of benefits earned in our pension plan.

Interest expense was $\$ 7.4$ million in 2015 compared to $\$ 5.7$ million in 2014. Interest expense in 2013 was also $\$ 5.7$ million. The higher interest expense in 2015 was primarily related to interest rates on term notes in the amount of $\$ 75$ million issued in January 2015 that were higher than the interest rate on the revolving credit facility that it replaced as well as higher overall debt levels related to share repurchases.

Other income was $\$ 10.8$ million in 2015 compared to $\$ 5.2$ million in 2014 and $\$ 3.8$ million in 2013. The increases in other income in 2015 and 2014 were primarily due to higher interest income compared to the preceding year.

Our effective tax rate was 29.7 percent in 2015, compared with 27.5 percent in 2014 and 28.2 percent in 2013. The higher effective tax rate in 2015 was primarily due to a change in geographic earnings mix as compared to the prior year.

## North America

Our North America segment sales were $\$ 1,703.0$ million in 2015 or $\$ 81.3$ million higher than sales of $\$ 1,621.7$ million in 2014. The sales increase in 2015 resulted from higher prices in the U.S. and Canada and higher volumes of commercial water heaters and condensing commercial boilers in the U.S., partially offset by lower residential volumes in the U.S. and an unfavorable currency impact in Canada. Sales in 2014 were $\$ 101.7$ million higher than sales of $\$ 1,520.0$ million in 2013. The sales increase in 2014 was primarily due to higher volumes of water heaters and boilers in the U.S., which were partially offset by lower water heaters sales in Canada, primarily due to a decline in the value of the Canadian dollar of approximately seven percent versus the U.S. dollar.

North America operating earnings were $\$ 339.9$ million in 2015 compared to operating earnings of $\$ 238.7$ million and $\$ 211.9$ million in 2014 and 2013, respectively. Operating margins were 20.0 percent, 14.7 percent and 13.9 percent in 2015, 2014 and 2013, respectively. The significantly higher operating earnings and operating margin in 2015 were primarily due to higher prices in the U.S. and Canada, higher sales of Lochinvar-branded products and commercial water heaters in the U.S., lower steel costs and lower pension costs which more than offset lower residential water heater volumes in the U.S. Higher operating earnings in 2014 compared to 2013 were primarily due to higher volumes in the U.S. which were partially offset by higher material costs and approximately $\$ 9$ million of incremental ERP implementation costs.

## Rest of World

Sales in our Rest of World segment in 2015 were $\$ 866.1$ million or $\$ 97.8$ million higher than sales of $\$ 768.3$ million in 2014. Sales in China increased approximately $\$ 95$ million due to higher demand for water heaters, approximately $\$ 35$ million of incremental sales of water treatment products and approximately $\$ 9$ million in sales of our newly launched in-home air purification products. Sales in China grew 13.7 percent in 2015. Excluding the impact from the stronger U.S. dollar, China sales increased 16.1 percent in 2015. Sales for our Rest of World segment in 2014 were $\$ 100.3$ million higher than sales of $\$ 668.0$ million in 2013 due to an 18.4 percent increase in sales in China, driven by increased demand for water heaters and water treatment products and a higher priced product mix that was partially offset by lower sales in India resulting from weakness in the housing market and the termination of a co-branding relationship with our largest distributor.

Rest of World operating earnings were $\$ 113.0$ million in 2015 compared to operating earnings of $\$ 106.7$ million and $\$ 88.0$ million in 2014 and 2013, respectively. Segment operating margins were 13.0 percent in 2015 as compared to 13.9 percent and 13.2 percent in 2014 and 2013, respectively. Higher operating earnings in 2015 were primarily due to higher sales in China and lower steel costs that were partially offset by lower sales of highly profitable commercial water heaters in China, increased SG\&A expenses and approximately $\$ 1.5$ million of higher losses in India as compared to 2014. China earnings were reduced by approximately $\$ 2.5$ million due to currency translation. Higher selling and engineering costs in China as well as higher

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SG\&A costs associated with the 2015 launch of air purification products were the primary drivers for the decreased operating margin in 2015 as compared to 2014. Higher operating earnings and margins in 2014 as compared to 2013 were due to higher sales of water heaters and water treatment products in China as well as a higher priced product mix as a result of product introductions with higher value features which was partially offset by larger losses in India. Losses in India were $\$ 7.5$ million in 2014, including approximately $\$ 1$ million of product development and advertising expenses in advance of our 2015 launch of water treatment products.

## LIQUIDITY AND CAPITAL RESOURCES

Our working capital was $\$ 802.1$ million at December 31, 2015 compared with $\$ 713.8$ million and $\$ 614.7$ million at December 31, 2014 and December 31, 2013, respectively. Cash generated in China and sales-related increases in accounts receivable and inventory levels explain the majority of the increase in both 2015 and 2014. As of December 31, 2015, essentially all of the $\$ 645.2$ million of cash, cash equivalents and marketable securities were held by our foreign subsidiaries. We would incur a cost to repatriate these funds to the U.S. and have an accrual of $\$ 47.9$ million for the repatriation of a portion of these funds.

Cash provided by operating activities during 2015 was $\$ 344.4$ million compared with $\$ 263.9$ million during 2014 and $\$ 279.6$ million during 2013. The improvement in cash flows in 2015 was primarily due to higher earnings from operations and lower outlays for working capital driven primarily by increases in accounts payable balances in China. Higher earnings in 2014 were more than offset by higher outlays for working capital. We expect cash provided by operating activities in 2016 to be approximately $\$ 320$ million.

Our capital expenditures were $\$ 72.7$ million in 2015, $\$ 86.1$ million in 2014 and $\$ 97.7$ million in 2013. Included in 2015 capital expenditures were approximately $\$ 16$ million related to our ERP implementation and approximately $\$ 19$ million related to capacity expansion in China and the U.S. to support growth. Included in 2014 capital expenditures was approximately $\$ 31$ million related to our ERP implementation. Included in 2013 capital expenditures was approximately $\$ 45$ million in China and India for the construction of a second water heater manufacturing plant in Nanjing, China and to continue the expansion of our manufacturing plant near Bangalore, India. Also included in 2013 capital expenditures was approximately $\$ 19$ million related to the ERP implementation. We project 2016 capital expenditures will be between $\$ 120$ and $\$ 130$ million and depreciation and amortization expense in 2016 will be approximately $\$ 70$ million. We expect capital spending in 2016 to include approximately $\$ 8$ million related to our ERP implementation and approximately $\$ 40$ million related to the initial phase of a new water treatment manufacturing facility in China as we will outgrow capacity in a leased facility in the next few years.

In December 2012, we completed a $\$ 400$ million multi-currency five year revolving credit facility with a group of eight banks. The facility has an accordion provision which allows it to be increased up to $\$ 500$ million if certain conditions (including lender approval) are satisfied. Borrowing rates under the facility are determined by our leverage ratio. The facility requires us to maintain two financial covenants, a leverage ratio test and an interest coverage test, and we were in compliance with the covenants as of December 31, 2015. The facility backs up commercial paper and credit line borrowings, and it expires on December 12, 2017. As a result of the long-term nature of this facility, the commercial paper and credit line borrowings, as well as drawings under the facility are classified as long-term debt.

At December 31, 2015, we had available borrowing capacity of $\$ 253.0$ million under this facility. We believe that the combination of cash, available borrowing capacity and operating cash flow will provide sufficient funds to finance our existing operations for the foreseeable future.

In January 2015, we issued $\$ 75$ million of fixed rate term notes to an insurance company. Principal payments commence in 2020 and the notes mature in 2030. The notes have an interest rate of 3.52 percent. We used proceeds of the notes to pay down borrowings under our revolving credit facility.

Our total debt increased to $\$ 249.0$ million at December 31, 2015 compared with $\$ 223.8$ million at December 31, 2014, as our cash flows generated in the U.S were more than offset by our share repurchase activity. As a result, our leverage, as measured by the ratio of total debt to total capitalization, was 14.7 percent at the end of 2015 compared with 13.9 percent at the end of 2014.

Our U.S. pension plan continues to meet all funding requirements under ERISA regulations. We were not required to make a contribution to our pension plan in 2015 and we did not make any voluntary contributions. We forecast that we will not be required to make a contribution to the plan in 2016 and we do not plan to make any voluntary contributions in 2016. For further information on our pension plans, see Note 11 of the Notes to Consolidated Financial Statements.

During 2015, our Board of Directors authorized the purchase of an additional 2,000,000 shares of our Common Stock. In 2015, we repurchased 1,908,237 shares at an average price of $\$ 67.14$ per share and a total cost of $\$ 128.1$ million. At December 31,

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2015, a total of 2,589,756 shares remained on the existing repurchase authorization. Depending on factors such as stock price, working capital requirements and alternative investment opportunities, we expect to spend approximately $\$ 150$ million on stock repurchase activity in 2016.

We have paid dividends for 76 consecutive years with payments increasing each of the last 24 years. We paid total dividends of $\$ 0.76$ per share in 2015 compared with $\$ 0.60$ per share in 2014. In January 2016, we increased our dividend by 26 percent and anticipate paying total dividends of $\$ 0.96$ per share in 2016.

## Aggregate Contractual Obligations

A summary of our contractual obligations as of December 31, 2015, is as follows:

| (dollars in millions) | Payments due by period |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{gathered} \text { Lest Than } \\ \hline 1 \text { year } \\ \hline \end{gathered}$ |  | $\begin{aligned} & \hline 1-2 \\ & \text { Years } \end{aligned}$ | $\begin{aligned} & 3-5 \\ & \text { Years } \end{aligned}$ | More than |  |
| Long-term debt | \$249.0 | \$ | 12.9 | \$161.1 | \$6.8 | S | 68.2 |
| Fixed rate interest | 25.6 |  | 3.8 | 6.0 | 5.0 |  | 10.8 |
| Operating leases | 39.5 |  | 19.7 | 8.1 | 4.5 |  | 7.2 |
| Purchase obligations | 98.0 |  | 97.2 | 0.8 | - |  | - |
| Pension and post-retirement obligations | 72.1 |  | 2.2 | 8.7 | 8.1 |  | 53.1 |
| Total | \$484.2 | \$ | 135.8 | \$184.7 | $\underline{\underline{\$ 24.4}}$ | \$ | 139.3 |

As of December 31, 2015, our liability for uncertain income tax positions was $\$ 2.6$ million. Due to the high degree of uncertainty regarding timing of potential future cash flows associated with these liabilities, we are unable to make a reasonably reliable estimate of the amount and period in which these liabilities might be paid.

We utilize blanket purchase orders to communicate expected annual requirements to many of our suppliers. Requirements under blanket purchase orders generally do not become committed until several weeks prior to our scheduled unit production. The purchase obligation amount presented above represents the value of commitments that we consider firm.

## Recent Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board (FASB) amended Accounting Standard Codification (ASC) 740, Income Taxes (issued under Accounting Standards No. (ASN) 2015-17). This amendment requires that deferred tax assets and liabilities be classified as noncurrent in the statement of financial position. The amendment is effective for periods beginning January 1, 2016 and allows for either prospective adoption or retrospective adoption. We expect the adoption of amended ASC 740 to impact the classification of deferred taxes on our consolidated balance sheet.

In April 2015, the FASB amended ASC 835-30, Interest - Imputation of Interest (issued under ASN 2015-03). This amendment to ASC $835-30$ requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs is not affected by this amendment. The amendment is effective for periods beginning January 1, 2016 and requires using a retrospective approach. We do not expect the adoption of amended ASC 835-30 to have a material impact on our consolidated balance sheet.

In May 2014, the FASB issued ASC 606-10, Revenue from Contracts with Customers (issued under ASN 2014-09). ASC 606-10 will replace all existing revenue recognition guidance when effective. In July 2015, the FASB approved a one year deferral of the effective date, with application permitted as of the original effective date, or periods beginning January 1, 2017. Either full retrospective adoption or modified retrospective adoption is allowed under ASC 60610. We are in the process of determining whether the adoption of ASC 606-10 will have an impact on our consolidated financial condition, results of operations or cash flows.

## Critical Accounting Policies

Our accounting policies are described in Note 1 of Notes to Consolidated Financial Statements. Also as disclosed in Note 1, the preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires the use of estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. Future events and their effects cannot be determined with absolute certainty. Therefore, the determination of estimates requires the exercise of judgment. Actual results inevitably will differ from those estimates, and such differences may be material to the financial statements.

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The most significant accounting estimates inherent in the preparation of our financial statements include estimates associated with the evaluation of the impairment of goodwill and indefinite-lived intangible assets, as well as significant estimates used in the determination of liabilities related to warranty activity, product liability and pensions. Various assumptions and other factors underlie the determination of these significant estimates. The process of determining significant estimates is fact-specific and takes into account factors such as historical experience and trends, and in some cases, actuarial techniques. We monitor these significant factors and adjustments are made as facts and circumstances dictate. Historically, actual results have not significantly deviated from those determined using the estimates described above.

## Goodwill and Indefinite-lived Intangible Assets

In conformity with U.S. GAAP, goodwill and indefinite-lived intangible assets are tested for impairment annually or more frequently if events or changes in circumstances indicate that the assets might be impaired. We perform impairment reviews for our reporting units using a fair-value method based on management's judgments and assumptions. The fair value represents the estimated amount at which a reporting unit could be bought or sold in a current transaction between willing parties on an arm's-length basis. The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill. We are subject to financial statement risk to the extent that goodwill and indefinite-lived intangible assets become impaired. Any impairment review is, by its nature, highly judgmental as estimates of future sales, earnings and cash flows are utilized to determine fair values. However, we believe that we conduct annual thorough and competent valuations of goodwill and indefinite-lived intangible assets and that there has been no impairment in goodwill or indefinite-lived assets in 2015.

## Product warranty

Our products carry warranties that generally range from one to ten years and are based on terms that are generally accepted in the market. We provide for the estimated cost of product warranty at the time of sale. The product warranty provision is estimated based upon warranty loss experience using actual historical failure rates and estimated costs of product replacement. The variables used in the calculation of the provision are reviewed on a periodic basis. At times, warranty issues may arise which are beyond the scope of our historical experience. We provide for any such warranty issues as they become known and estimable. While our warranty costs have historically been within calculated estimates, it is possible that future warranty costs could differ significantly from those estimates. The allocation of the warranty liability between current and long-term is based on the expected warranty liability to be paid in the next year as determined by historical product failure rates.

## Product liability

Due to the nature of our products, we are subject to product liability claims in the normal course of business. We maintain insurance to reduce our risk. Most insurance coverage includes self-insured retentions that vary by year. In 2015, we maintained a self-insured retention of $\$ 7.5$ million per occurrence with an aggregate insurance limit of $\$ 125.0$ million per occurrence.

We establish product liability reserves for our self-insured retention portion of any known outstanding matters based on the likelihood of loss and our ability to reasonably estimate such loss. There is inherent uncertainty as to the eventual resolution of unsettled matters due to the unpredictable nature of litigation. We make estimates based on available information and our best judgment after consultation with appropriate advisors and experts. We periodically revise estimates based upon changes to facts or circumstances. We also use an actuary to calculate reserves required for estimated incurred but not reported claims as well as to estimate the effect of adverse development of claims over time. At December 31, 2015, our reserve for product liability was $\$ 38.7$ million.

## Pensions

We have significant pension benefit costs that are developed from actuarial valuations. The valuations reflect key assumptions regarding, among other things, discount rates, expected return on plan assets, retirement ages, and years of service. Consideration is given to current market conditions, including changes in interest rates in making these assumptions. Our assumption for the expected return on plan assets was 7.75 percent in 2015 and 2014. The discount rate used to determine net periodic pension costs decreased to 4.05 percent in 2015 from 4.85 percent in 2014. For 2016, our expected return on plan assets is 7.50 percent and our discount rate is 4.40 percent.

In developing our expected return on plan assets, we evaluate our pension plan's current and target asset allocation, the expected long-term rates of return of equity and bond indices and the actual historical returns of our pension plan. Our plan's target allocation to equity managers is approximately 50 percent, with the remainder allocated primarily to bond managers and a small allocation to private equity managers and real estate managers. Our actual asset allocation as of December 31, 2015,

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was 47 percent to equity managers, 39 percent to bond managers, nine percent to real estate managers and five percent to private equity managers. We regularly review our actual asset allocation and periodically rebalance our investments to our targeted allocation when considered appropriate. Our pension plan's historical ten-year and 25 -year compounded annualized returns are 6.1 percent and 9.5 percent, respectively. We believe that with our target allocation and the expected long-term returns of equity and bond indices as well as our actual historical returns, our 7.50 percent expected return on plan assets for 2016 is reasonable.

The discount rate assumptions used to determine future pension obligations at December 31, 2015 and 2014 were based on the AonHewitt AA Only Above Median yield curve, which was designed by AonHewitt to provide a means for plan sponsors to value the liabilities of their postretirement benefit plans. The AA Only Above Median yield curve represents a series of annual discount rates from bonds with AA minimum average rating as rated by Moody's Investor Service, Standard \&Poor's and Fitch Ratings. We will continue to evaluate our actuarial assumptions at least annually, and we will adjust the assumptions as necessary.

As of December 31, 2015, we changed the method we used to estimate the service and interest components of net periodic pension benefit cost for our pension plan and post-retirement benefit plan. The change will result in an approximate $\$ 7$ million decrease in the service and interest components in 2016.

As a result, we estimate that we will recognize pension income of approximately $\$ 7$ million in 2016 compared to $\$ 0.1$ million of pension expense in 2015 . We estimate that costs associated with our replacement retirement plan in 2016 will be approximately $\$ 6$ million, consistent with 2015 . We made changes to our pension plan including closing the plan to new entrants effective January 1, 2010, and the sunset of our plan for the majority of our employees on December 31, 2014 which significantly decreased pension expense beginning in 2015. Lowering the expected return on plan assets by 25 basis points would increase our net pension expense for 2015 by approximately $\$ 1.8$ million. Lowering the discount rate by 25 basis points would decrease our 2015 net pension expense by approximately $\$ 0.3$ million.

## Outlook

Despite volatile conditions in China, we continue to expect strong, profitable sales growth in China in 2016 at the rate of approximately 15 percent in local currency terms. We continue to experience strong consumer demand for our water heating and water treatment products in China, and our new air purification products have been well received by Chinese consumers. In the U.S. we expect the transition from non-condensing, lower efficiency boilers to condensing, higher efficiency boilers to continue in 2016, which combined with new products, should allow sales growth of Lochinvar-branded products to continue at ten percent. We expect modest growth in commercial and residential water heater volumes in North America driven by modest assumptions for new construction and steady replacement demand. Other income is expected to be approximately $\$ 5$ million lower in 2016 as compared to 2015 primarily due to expected lower interest rates than last year on cash deposits in China. We anticipate ERP implementation related costs will be approximately $\$ 9$ million higher or approximately $\$ 25$ million in 2016 due to the increase in the number of scheduled go-live events in 2016 . We also expect our effective tax rate to be between 30.5 percent and 31 percent due to a change in geographic earnings mix.

Combining all these factors, we expect sales growth of between nine and ten percent in local currency terms and between seven and eight percent in U.S. dollars in 2016 and earnings to be in the range of $\$ 3.40$ to $\$ 3.55$ per share for 2016.

## OTHER MATTERS

## Environmental

Our operations are governed by a number of federal, foreign, state, local and environmental laws concerning the generation and management of hazardous materials, the discharge of pollutants into the environment and remediation of sites owned by the company or third parties. We have expended financial and managerial resources complying with such laws. Expenditures related to environmental matters were not material in 2015 and we do not expect them to be material in any single year. We have reserves associated with environmental obligations at various facilities and we believe these reserves are sufficient to cover reasonably anticipated remediation costs. Although we believe that our operations are substantially in compliance with such laws and maintain procedures designed to maintain compliance, there are no assurances that substantial additional costs for compliance will not be incurred in the future. However, since the same laws govern our competitors, we should not be placed at a competitive disadvantage.

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## Market Risk

We are exposed to various types of market risks, primarily currency. We monitor our risks in such areas on a continuous basis and generally enter into forward contracts to minimize such exposures for periods of less than one year. We do not engage in speculation in our derivatives strategies. Further discussion regarding derivative instruments is contained in Note 1 of Notes to Consolidated Financial Statements.

We enter into foreign currency forward contracts to minimize the effect of fluctuating foreign currencies. At December 31, 2015, we had net foreign currency contracts outstanding of $\$ 79.8$ million. Assuming a hypothetical ten percent movement in the respective currencies, the potential foreign exchange gain or loss associated with the change in rates would amount to $\$ 8.0$ million. Gains and losses from our forward contract activities will be offset by gains and losses in the underlying transactions being hedged.

Our earnings exposure related to movements in interest rates is primarily derived from outstanding floating-rate debt instruments that are determined by shortterm money market rates. At December 31, 2015, we had $\$ 147.0$ million in outstanding floating-rate debt with a weighted-average interest rate of 1.3 percent at year end. A hypothetical ten percent annual increase or decrease in the year-end average cost of our outstanding floating-rate debt would result in a change in annual pre-tax interest expense of approximately $\$ 0.2$ million.

## Forward-Looking Statements

This filing contains statements that the company believes are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements generally can be identified by the use of words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "forecast," "guidance" or words of similar meaning. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those anticipated as of the date of this filing. Important factors that could cause actual results to differ materially from these expectations include, among other things, the following: a further slowdown in the growth rate of the Chinese economy; potential weakening in the high efficiency boiler segment in the U.S.; significant volatility in raw material prices; inability to implement or maintain pricing actions; potential weakening in U.S. residential or commercial construction or instability in the Company's replacement markets; uncertain costs, savings and timeframes associated with the implementation of the new enterprises resources planning system; foreign currency fluctuations; the ability to execute our acquisition strategy; competitive pressures on the company's businesses and adverse general economic conditions and capital market deterioration. Forward-looking statements included in this filing are made only as of the date of this release, and the company is under no obligation to update these statements to reflect subsequent events or circumstances. All subsequent written and oral forward-looking statements attributed to the company, or persons acting on its behalf, are qualified entirely by these cautionary statements.

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

See "Market Risk" above.

# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM 

The Board of Directors and Stockholders
A. O. Smith Corporation

We have audited the accompanying consolidated balance sheets of A. O. Smith Corporation as of December 31, 2015 and 2014, and the related consolidated statements of earnings, comprehensive earnings, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2015. Our audits also included the financial statement schedule listed in the index at Item 15(a). These financial statements and schedule are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements and schedule 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of A. O. Smith Corporation at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), A. O. Smith Corporation's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 17, 2016 expressed an unqualified opinion thereon.

Ernst \& Young LLP
Milwaukee, Wisconsin
February 17, 2016

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## CONSOLIDATED BALANCE SHEETS

| December 31 (dollars in millions) |  |  |
| :---: | :---: | :---: |
|  | 2015 | 2014 |
| Assets |  |  |
| Current Assets |  |  |
| Cash and cash equivalents | \$ 323.6 | \$ 319.4 |
| Marketable securities | 321.6 | 222.5 |
| Receivables | 501.4 | 475.4 |
| Inventories | 222.9 | 208.3 |
| Deferred income taxes | 39.9 | 40.5 |
| Other current assets | 45.9 | 52.9 |
| Total Current Assets | 1,455.3 | 1,319.0 |
| Net property, plant and equipment | 442.7 | 427.7 |
| Goodwill | 420.9 | 428.8 |
| Other intangibles | 291.0 | 308.5 |
| Other assets | 36.6 | 31.3 |
| Total Assets | \$2,646.5 | \$2,515.3 |

## Liabilities <br> Current Liabilities

| Trade payables | $\$ 424.9$ | $\$ 393.8$ |
| :--- | ---: | ---: |
| Accrued payroll and benefits | 81.5 | 70.3 |
| Accrued liabilities | 90.2 | 85.1 |
| Product warranties | 43.7 |  |
| Long-term debt due within one year | 42.3 |  |
| Total Current Liabilities | 12.9 | 13.7 |
| Long-term debt | 653.2 | 605.2 |
| Deferred income taxes | 236.1 | 210.1 |
| Product warranties | 21.3 | 21.4 |
| Post-retirement benefit obligation | 95.6 | 93.9 |
| Pension liabilities | 6.2 | 9.6 |
| Other liabilities | 134.2 | 133.1 |
| Total Liabilities | 57.6 | 60.7 |

Commitments and contingencies


See accompanying notes which are an integral part of these statements.

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## CONSOLIDATED STATEMENT OF EARNINGS

Years ended December 31 (dollars in millions, except per share amounts)

|  | 2015 | 2014 | 2013 |
| :---: | :---: | :---: | :---: |
| Continuing Operations |  |  |  |
| Net sales | \$2,536.5 | \$2,356.0 | \$2,153.8 |
| Cost of products sold | 1,526.7 | 1,496.7 | 1,380.0 |
| Gross profit | 1,009.8 | 859.3 | 773.8 |
| Selling, general and administrative expenses | 610.7 | 572.1 | 524.5 |
| Restructuring, impairment and settlement expenses - net | - | - | 11.0 |
| Interest expense | 7.4 | 5.7 | 5.7 |
| Other income - net | (10.8) | (5.2) | (3.8) |
| Earnings before provision for income taxes | 402.5 | 286.7 | 236.4 |
| Provision for income taxes | 119.6 | 78.9 | 66.7 |
| Net Earnings | \$ 282.9 | \$ 207.8 | \$ 169.7 |
| Net Earnings Per Share of Common Stock | \$ 3.19 | \$ 2.30 | \$ 1.84 |
| Diluted Net Earnings Per Share of Common Stock | \$ 3.16 | \$ 2.28 | \$ 1.83 |

## CONSOLIDATED STATEMENT OF COMPREHENSIVE EARNINGS

|  | 2015 | 2014 | 2013 |
| :---: | :---: | :---: | :---: |
| Net Earnings | $\overline{\$ 282.9}$ | $\overline{\$ 207.8}$ | \$169.7 |
| Other comprehensive (loss) earnings |  |  |  |
| Foreign currency translation adjustments | (42.7) | (16.6) | 0. |
| Unrealized net gain (loss) on cash flow derivative instruments, less related income tax (provision) benefit of $\$(0.2)$ in 2015, $\$ 0.1$ in 2014 and $\$(0.2)$ in 2013 | 0.3 | (0.1) | 0.3 |
| Change in pension liability less related income tax provision of \$(0.5) in 2015, \$(1.0) in 2014 and \$(39.7) in 2013 | 1.0 | 3.8 | 60.7 |
| Comprehensive Earnings | \$241.5 | \$194.9 | \$231.1 |

See accompanying notes which are an integral part of these statements.

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## CONSOLIDATED STATEMENT OF CASH FLOWS

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 |
| Operating Activities |  |  |  |
| Net earnings | \$ 282.9 | \$ 207.8 | \$ 169.7 |
| Adjustments to reconcile earnings from continuing operations to cash provided by operating activities: |  |  |  |
| Depreciation and amortization | 63.0 | 59.8 | 59.7 |
| Pension expense | 0.1 | 28.6 | 27.9 |
| Stock based compensation expense | 8.8 | 10.8 | 10.5 |
| Loss on disposal of assets | 0.6 | 0.1 | 0.2 |
| Net changes in operating assets and liabilities, net of acquisitions: |  |  |  |
| Current assets and liabilities | 10.1 | (38.1) | 20.5 |
| Noncurrent assets and liabilities | (19.9) | (3.3) | (6.3) |
| Cash Provided by Operating Activities - continuing operations | 345.6 | 265.7 | 282.2 |
| Cash Used in Operating Activities - discontinued operations | (1.2) | (1.8) | (2.6) |
| Cash Provided by Operating Activities | 344.4 | 263.9 | 279.6 |
| Investing Activities |  |  |  |
| Acquisition of business | - | - | (4.0) |
| Investments in marketable securities | (428.8) | (321.9) | (132.7) |
| Proceeds from sale of marketable securities | 315.4 | 202.0 | 226.2 |
| Capital expenditures | (72.7) | (86.1) | (97.7) |
| Cash Used in Investing Activities | (186.1) | (206.0) | (8.2) |
| Financing Activities |  |  |  |
| Long-term term debt incurred (repaid) | 61.7 | (13.9) | (20.3) |
| Long-term debt (repaid) incurred | (33.6) | 48.1 | (31.2) |
| Common stock repurchases | (128.1) | (103.8) | (73.7) |
| Net proceeds from stock option activity | 13.7 | 4.8 | 10.2 |
| Dividends paid | (67.8) | (54.4) | (42.6) |
| Cash Used in Financing Activities | (154.1) | (119.2) | (157.6) |
| Net increase (decrease) in cash and cash equivalents | 4.2 | (61.3) | 113.8 |
| Cash and cash equivalents-beginning of year | 319.4 | 380.7 | 266.9 |
| Cash and Cash Equivalents-End of Year | \$ 323.6 | \$ 319.4 | \$ 380.7 |

See accompanying notes which are an integral part of these statements.

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## CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

| Years ended December 31 (dollars in milions) 20.45 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 |
| Class A Common Stock |  |  |  |
| Balance at the beginning of the year | \$ 66.1 | \$ 66.4 | \$ 66.5 |
| Conversion of Class A Common Stock | (0.2) | (0.3) | (0.1) |
| Balance at the end of the year | \$ 65.9 | \$ 66.1 | \$ 66.4 |
| Common Stock |  |  |  |
| Balance at the beginning of the year | \$ 82.1 | \$ 82.1 | \$ 82.1 |
| Conversion of Class A Common Stock | 0.1 | - | - |
| Balance at the end of the year | \$ 82.2 | \$ 82.1 | \$ 82.1 |
| Capital in Excess of Par Value |  |  |  |
| Balance at the beginning of the year | \$ 600.1 | \$ 589.7 | \$ 580.5 |
| Conversion of Class A Common Stock | 0.1 | 0.3 | 0.1 |
| Issuance of share units | (4.2) | (5.1) | (5.1) |
| Vesting of share units | (3.2) | (3.1) | (3.0) |
| Stock based compensation expense | 8.1 | 10.3 | 9.8 |
| Exercises of stock options | 1.1 | (0.3) | (3.0) |
| Tax benefit from exercises of stock options and vesting of share units | 10.4 | 2.4 | 4.8 |
| Stock incentives and directors' compensation | 5.0 | 5.9 | 5.6 |
| Balance at the end of the year | \$ 617.4 | \$ 600.1 | \$ 589.7 |
| Retained Earnings |  |  |  |
| Balance at the beginning of the year | \$1,135.5 | \$ 982.2 | \$ 855.1 |
| Net earnings | 282.9 | 207.8 | 169.7 |
| Cash dividends on stock | (67.7) | (54.5) | (42.6) |
| Balance at the end of the year | \$1,350.7 | \$1,135.5 | \$ 982.2 |
| Accumulated Other Comprehensive Loss |  |  |  |
| Balance at the beginning of the year | \$ (272.0) | \$ (259.1) | \$ (320.5) |
| Foreign currency translation adjustments | (42.7) | (16.6) | 0.4 |
| Unrealized net gain (loss) on cash flow derivative instruments, less related income tax (provision) benefit of $\$(0.2)$ in 2015, \$0.1 in 2014 and $\$(0.2)$ in 2013 | 0.3 | (0.1) | 0.3 |
| Change in pension liability less related income tax provision of \$(0.5) in 2015, \$(1.0) in 2014 and \$(39.7) in 2013 | 1.0 | 3.8 | 60.7 |
| Balance at the end of the year | \$ (313.4) | \$ (272.0) | \$ (259.1) |
| Treasury Stock |  |  |  |
| Balance at the beginning of the year | \$ (230.5) | \$ (132.6) | \$ (69.6) |
| Exercise of stock options, net of 209,377, 5,846 and 29,126 shares surrendered as proceeds and to pay taxes in 2015, 2014 and 2013, respectively | (5.2) | 2.6 | 7.5 |
| Stock incentives and directors' compensation | 0.1 | 0.2 | 0.2 |
| Shares repurchased | (128.1) | (103.8) | (73.7) |
| Vesting of share units | 3.2 | 3.1 | 3.0 |
| Balance at the end of the year | \$ (360.5) | \$ (230.5) | \$ (132.6) |
| Total Stockholders' Equity | \$1,442.3 | \$1,381.3 | \$1,328.7 |

See accompanying notes which are an integral part of these statements

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 1. Organization and Significant Accounting Policies

Organization. A. O. Smith Corporation (A. O. Smith or the Company) is comprised of two reporting segments: North America and Rest of World. The Rest of World segment is primarily comprised of China, Europe and India. Both segments manufacture and market comprehensive lines of residential and commercial gas, gas tankless and electric water heaters. Both segments primarily manufacture and market in their respective regions of the world. The North America segment also manufactures and globally markets specialty commercial water heating equipment, condensing and non-condensing boilers and water system tanks. Primarily for Asia, the Rest of World segment also manufactures and markets water treatment products. The Company also markets in-home air purification products in China.

Consolidation. The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries after elimination of intercompany transactions.

Except when otherwise indicated, amounts reflected in the financial statements or the notes thereto relate to the Company's continuing operations.
Use of estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States (U.S.) requires management to make estimates and assumptions that affect the amounts reported in the accompanying financial statements and notes. Actual results could differ from those estimates.

Fair value of financial instruments. The carrying amounts of cash, cash equivalents, marketable securities, receivables, floating rate debt and trade payables approximated fair value as of December 31, 2015 and 2014, due to the short maturities or frequent rate resets of these instruments. The fair value of term notes with insurance companies was approximately $\$ 104.4$ million as of December 31, 2015 compared with the carrying amount of $\$ 102.0$ million for the same date. The fair value of term notes with insurance companies was approximately $\$ 45.5$ million as of December 31, 2014 compared with the carrying amount of $\$ 43.3$ million for the same date. The fair value is estimated based on current rates offered for debt with similar maturities.

Foreign currency translation. For all subsidiaries outside the U.S., with the exception of its Mexican operation and its Dutch non-operating companies, the Company uses the local currency as the functional currency. For those operations using a functional currency other than the U.S. dollar, assets and liabilities are translated into U.S. dollars at year-end exchange rates, and revenues and expenses are translated at weighted-average exchange rates. The resulting translation adjustments are recorded as a separate component of stockholders' equity. The Mexican operation and the Dutch non-operating companies use the U.S. dollar as the functional currency. Gains and losses from foreign currency transactions are included in net earnings and were not significant in 2015, 2014 or 2013.

Cash and cash equivalents. The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

Marketable securities. The Company considers all highly liquid investments with maturities greater than 90 days when purchased to be marketable securities. At December 31, 2015, the Company's marketable securities consisted of bank time deposits with original maturities ranging from 180 days to 12 months and are primarily located at investment grade rated banks in China.

Inventory valuation. Inventories are carried at lower of cost or market. Cost is determined on the last-in, first-out (LIFO) method for a majority of the Company's domestic inventories, which comprise 66 percent and 63 percent of the Company's total inventory at December 31, 2015 and 2014, respectively. Inventories of foreign subsidiaries, the remaining domestic inventories and supplies are determined using the first-in, first-out (FIFO) method.

Property, plant and equipment. Property, plant and equipment are stated at cost. Depreciation is computed primarily by the straight-line method. The estimated service lives used to compute depreciation are generally 25 to 50 years for buildings, three to 20 years for equipment and three to 15 years for software. Maintenance and repair costs are expensed as incurred.

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## 1. Organization and Significant Accounting Policies (continued)

Goodwill and other intangibles. Goodwill and indefinite-lived intangible assets are not amortized but are reviewed for impairment on an annual basis. Separable intangible assets, primarily comprised of customer relationships, that are not deemed to have an indefinite life are amortized on a straight-line basis over their estimated useful lives which range from ten to 25 years.

Impairment of long-lived and amortizable intangible assets. Property, plant and equipment and intangible assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and carrying value of the asset or group of assets. Such analyses necessarily involve significant judgment.

Product warranties. The Company's products carry warranties that generally range from one to ten years and are based on terms that are consistent with the market. The Company records a liability for the expected cost of warranty-related claims at the time of sale. The allocation of the warranty liability between current and long-term is based on expected warranty claims to be paid in the next year as determined by historical product failure rates.

The following table presents the Company's product warranty liability activity in 2015 and 2014:

| Years ended December 31 (dollars in millions) | $\frac{2015}{\$ 136.2}$ | $\underline{\$ 136.6}$ |
| :--- | ---: | :---: |
| Balance at beginning of year | 62.8 | 6.2 |
| Expense | $\underline{(59.7)}$ | $\underline{(62.6)}$ |
| Claims settled | $\underline{\$ 139.3}$ | $\underline{\underline{\$ 136.2}}$ |

Derivative instruments. The Company utilizes certain derivative instruments to enhance its ability to manage currency as well as raw materials price risk. The Company does not enter into contracts for speculative purposes. The fair values of all derivatives are recorded in the consolidated balance sheets. The change in a derivative's fair value is recorded each period in current earnings or accumulated other comprehensive loss (AOCI), depending on whether the derivative is designated as part of a hedge transaction and if so, the type of hedge transaction. See Note 12, "Derivative Instruments" of the notes to consolidated financial statements for disclosure of the Company's derivative instruments and hedging activities.

Fair Value Measurements. Accounting Standard Codification (ASC) 820 Fair Value Measurements, among other things, defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring basis or nonrecurring basis. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, ASC 820 establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows: (Level 1) observable inputs such as quoted prices in active markets; (Level 2) inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Assets and liabilities measured at fair value are based on the market approach which are prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Assets measured at fair value on a recurring basis are as follows (dollars in millions):

| Fair Value Measurement Using | December 31, 2015 |  | December 31, 2014 |  |
| :---: | :---: | :---: | :---: | :---: |
| Quoted prices in active markets for identical assets (Level 1) | \$ | 323.9 | \$ | 224.1 |
| Significant other observable inputs (Level 2) |  | (0.3) |  | (0.2) |
| Total assets measured at fair value | \$ | 323.6 | \$ | 223.9 |

There were no changes in the valuation techniques used to measure fair values on a recurring basis.

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## 1. Organization and Significant Accounting Policies (continued)

Revenue recognition. The Company recognizes revenue upon transfer of title, which occurs upon shipment of the product to the customer except for certain export sales where transfer of title occurs when the product reaches the customer destination.

Contracts and customer purchase orders are used to determine the existence of a sales arrangement. Shipping documents are used to verify shipment. The Company assesses whether the selling price is fixed or determinable based upon the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. The Company assesses collectability based on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. The allowance for doubtful accounts was $\$ 6.0$ million and $\$ 3.7$ million at December 31, 2015 and 2014, respectively.

Reserves for customer returns for defective product are based on historical experience with similar types of sales. Accruals for rebates and incentives are based on pricing agreements and are tied to sales volume. Changes in such accruals may be required if future returns differ from historical experience or if actual sales volume differs from estimated sales volume. Rebates and incentives are recognized as a reduction of sales.

Shipping and handling costs billed to customers are included in net sales and the related costs are included in cost of products sold.
Advertising. The majority of advertising costs are charged to operations as incurred and amounted to $\$ 102.2$ million, $\$ 94.0$ million and $\$ 78.0$ million during 2015, 2014 and 2013, respectively. Included in total advertising costs are expenses associated with store displays for water heater and water treatment products in China that are amortized over 12 to 24 months which totaled $\$ 27.4$ million, $\$ 22.6$ million and $\$ 17.9$ million during 2015, 2014 and 2013, respectively.

Research and development. Research and development costs are charged to operations as incurred and amounted to $\$ 73.7$ million, $\$ 67.9$ million and $\$ 57.8$ million during 2015, 2014 and 2013, respectively.

Environmental costs. The Company accrues for costs associated with environmental obligations when such costs are probable and reasonably estimable. Costs of estimated future expenditures are not discounted to their present value. Recoveries of environmental costs from other parties are recorded as assets when their receipt is considered probable. The accruals are adjusted as facts and circumstances change.

Stock-based compensation. The Company follows ASC 718 Compensation - Stock Compensation. Compensation cost is recognized using the straight-line method over the vesting period of the award. ASC 718 also requires the benefits of tax deductions in excess of recognized compensation cost to be reported as a financing cash flow. Excess tax deductions of $\$ 10.4$ million, $\$ 2.4$ million and $\$ 4.8$ million were recognized as cash flows provided by financing activities in 2015, 2014 and 2013, respectively.

Income taxes. The provision for income taxes is computed using the asset and liability method, in accordance with ASC 740 Income Taxes, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those tax assets are expected to be realized or settled. The Company records a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon settlement.

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## 1. Organization and Significant Accounting Policies (continued)

Earnings per share of common stock. The Company is not required to use the two-class method of calculating earnings per share since its Class A Common Stock and Common Stock have equal dividend rights. The numerator for the calculation of basic and diluted earnings per share is net earnings. The following table sets forth the computation of basic and diluted weighted-average shares used in the earnings per share calculations:

| Denominator for basic earnings per share - weighted-average shares outstanding | $\underline{20,811,140}$ | $\frac{2014}{90,293,504}$ | $\underline{92,113,153}$ |
| :--- | :--- | :--- | :--- | :--- |
| Effect of dilutive stock options, restricted stock and share units | $\underline{693,450}$ | $\underline{693,477}$ | $\underline{669,517}$ |
| Denominator for diluted earnings per share | $\underline{89,504,590}$ | $\underline{90,986,981}$ | $\underline{\underline{92,787,670}}$ |

On April 15, 2013, the Company's stockholders approved a proposal to increase the Company's authorized shares of Common Stock and the Company's Board of Directors declared a two-for-one stock split of the Company's Class A Common Stock and Common Stock (including treasury shares) in the form of a 100 percent stock dividend to stockholders of record on April 30, 2013 and payable on May 15, 2013. All references in the financial statements and footnotes to the number of shares outstanding, price per share, per share amounts and stock based compensation data have been recast to reflect the split for all periods presented.

Reclassifications. Certain amounts from prior years have been reclassified to conform with current year presentation.

## Recent Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board (FASB) amended Accounting Standard Codification (ASC) 740, Income Taxes (issued under Accounting Standards No. (ASN) 2015-17). This amendment requires that deferred tax assets and liabilities be classified as noncurrent in the statement of financial position. The amendment is effective for periods beginning January 1, 2016 and allows for either prospective adoption or retrospective adoption. The Company expects the adoption of amended ASC 740 to impact the classification of deferred taxes on the Company's consolidated balance sheet.

In April 2015, the FASB amended ASC 835-30, Interest - Imputation of Interest (issued under ASN 2015-03). This amendment to ASC $835-30$ requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs is not affected by this amendment. The amendment is effective for periods beginning January 1, 2016 and requires using a retrospective approach. The Company does not expect the adoption of amended ASC 835-30 to have a material impact on the Company's consolidated balance sheet.

In May 2014, the FASB issued ASC 606-10, Revenue from Contracts with Customers (issued under ASN. 2014-09). ASC 606-10 will replace all existing revenue recognition guidance when effective. On July 9, 2015, the FASB approved a one year deferral of the effective date, with application permitted as of the original effective date, or periods beginning January 1, 2017. Either full retrospective adoption or modified retrospective adoption is allowed under ASC 606-10. The Company is in the process of determining whether the adoption of ASC 606-10 will have an impact on the Company's consolidated financial condition, results of operations or cash flows.

## 2. Acquisition

On February 14, 2013, the Company acquired 100 percent of the shares of MiM Isitma Sogutma Havalandirma ve Aritma Sistemleri San. Tic. A.S. (MiM), a privately-held Turkish water treatment company. The addition of MiM expanded the Company's product offerings and gave the Company access to Eastern Europe and the Black Sea region water treatment markets. MiM is included in the Rest of World segment.

The Company paid an aggregate cash purchase price of $\$ 4.0$ million, net of cash received of $\$ 1.9$ million. In addition, the Company assumed debt of $\$ 1.7$ million and recorded contingent consideration of $\$ 1.1$ million, the fair value of the contingent payment due to the former owners of MiM if certain targets are met for growth in sales, gross profits and operating profits through 2017.

The fair value of the purchase price resulted in an allocation to acquired intangible assets totaling $\$ 4.3$ million of which $\$ 2.4$ million was assigned to customer lists which are being amortized over ten years.

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## 2. Acquisition (continued)

MiM's results of operations have been included in the Company's financial statements from February 14, 2013, the date of acquisition. Revenues and pre-tax results associated with MiM included in results of operations for the year ended December 31, 2013 were not material to the Company's net sales or pre-tax earnings.

## 3. Restructuring, Impairment and Settlement Income

On March 28, 2013, the Company announced the move of manufacturing operations from its Fergus, Ontario facility to other North American facilities. In 2013, the Company recognized $\$ 22.0$ million of pre-tax restructuring and impairment expenses, comprised of impairment charges related to long-lived assets totaling $\$ 9.2$ million, severance costs of $\$ 7.5$ million, equipment relocation costs of $\$ 2.9$ million and inventory obsolescence costs totaling $\$ 2.4$ million, as well as a corresponding $\$ 5.6$ million income tax benefit related to the expenses related to this move. The majority of the consolidation of operations occurred in the second quarter of 2013.

On March 11, 2013, the Company entered into a settlement agreement with a former supplier of a North American subsidiary regarding previous overcharges and warranty costs. The terms of the settlement agreement resulted in an $\$ 11.0$ million cash payment to the Company, a pre-tax gain of $\$ 11.0$ million and $\$ 4.2$ million of income tax expense.

The restructuring, impairment and settlement income activities are included in the Company's North America segment.

## 4. Statement of Cash Flows

Supplemental cash flow information is as follows:

| Years ended December 31 (dollars in millions) | 2015 | 2014 | 2013 |
| :---: | :---: | :---: | :---: |
| Net change in current assets and liabilities, net of acquisitions: |  |  |  |
| Receivables | \$(25.9) | \$(16.8) | \$(32.3) |
| Inventories | (14.7) | (14.9) | (28.5) |
| Other current assets | (4.6) | (7.7) | (7.5) |
| Trade payables | 31.0 | 6.9 | 58.0 |
| Accrued liabilities, including payroll and benefits | 12.5 | 2.1 | 29.4 |
| Income taxes payable | 11.8 | (7.7) | 1.4 |
|  | \$ 10.1 | \$(38.1) | \$ 20.5 |

5. Inventories

| December 31 (dollars in millions) | $\frac{2015}{}$ | $\frac{2014}{}$ |
| :--- | ---: | ---: |
| Finished products | 85.7 | $\$ 100.2$ |
| Work in process | $\underline{13.4}$ | 10.7 |
| Raw materials | $\underline{238.6}$ | $\frac{121.3}{232.2}$ |
| Inventories, at FIFO cost | $\underline{(15.8)}$ | $\underline{(23.9)}$ |
| LIFO reserve | $\underline{\$ 222.9}$ | $\underline{\underline{\$ 208.3}}$ |

The Company recognized after-tax LIFO expense (income) of $\$ 1.1$ million, $\$(0.1)$ million and $\$ 0.1$ million in 2015, 2014 and 2013, respectively.

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## 6. Property, Plant and Equipment

| December 31 (dollars in millions) | $\underline{2015}$ | $\frac{2014}{}$ |
| :--- | ---: | ---: |
| Land | $\$ 10.8$ | $\$ 11.2$ |
| Buildings | 237.9 | 230.6 |
| Equipment | 530.9 | 504.5 |
| Software | $\underline{87.2}$ | $\underline{69.6}$ |
| Less accumulated depreciation and amortization | $\underline{864.8}$ | 815.9 |
|  | $\underline{\underline{\$ 442.7}}$ | $\underline{388.2}$ |

## 7. Goodwill and Other Intangible Assets

Changes in the carrying amount of goodwill during the years ended December 31, 2015 and 2014 consisted of the following:

| (dollars in millions) | North America |  | Rest of World |  |
| :--- | :---: | ---: | :---: | ---: |

The carrying amount of other intangible assets consisted of the following:

| December 31 (dollars in millions) | 215 |  |  |  | 2014 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross Carrying Amount | Accumulated Amortization |  | Net | Gross Carrying Amount | Accumulated Amortization |  | Net |
| Amortizable intangible assets |  |  |  |  |  |  |  |  |
| Patents | \$ 6.6 | \$ | (5.3) | \$ 1.3 | \$ 6.7 | \$ | (5.0) | \$ 1.7 |
| Customer lists | 231.6 |  | (83.1) | 148.5 | 232.3 |  | (69.2) | 163.1 |
| Total amortizable intangible assets | 238.2 |  | (88.4) | 149.8 | 239.0 |  | (74.2) | 164.8 |
| Indefinite-lived intangible assets |  |  |  |  |  |  |  |  |
| Trade names | 141.2 |  | - | 141.2 | 143.7 |  | - | 143.7 |
| Total intangible assets | \$379.4 | \$ | (88.4) | $\underline{\underline{\$ 291.0}}$ | $\stackrel{\text { \$382.7 }}{\underline{\text { a }}}$ | \$ | (74.2) | $\underline{\underline{\$ 308.5}}$ |

Amortization expenses of other intangible assets of $\$ 14.2$ million, $\$ 14.3$ million, and $\$ 14.4$ million were recorded in 2015, 2014 and 2013, respectively. In the future, excluding the impact of any future acquisitions, the Company expects amortization expense of approximately $\$ 14.3$ million annually and the intangible assets will be amortized over a weighted average period of 14 years.

The Company concluded that no goodwill impairment existed at the time of the annual impairment tests which were performed in the fourth quarters of 2015, 2014 and 2013. No impairments of other intangible assets were recorded in 2015, 2014 and 2013.

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## 8. Debt and Lease Commitments

| December 31 (dollars in millions) | 2015 | 2014 |
| :---: | :---: | :---: |
| Bank credit lines, average year-end interest rates of 1.3\% for 2015 and 2.7\% for 2014 | \$ 10.2 |  |
| Revolving credit agreement borrowings, average year-end interest rates of $1.5 \%$ for 2015 and 1.3\% for 2014 | 80.0 | 130.0 |
| Commercial paper, average year-end interest rates of 1.1\% for 2015 and 2014 | 56.8 | 42.5 |
| Term notes with insurance companies, expiring through 2030, average year-end interest rates of $3.9 \%$ for 2015 and $6.1 \%$ for 2014 | 89.0 | 22.6 |
| Canadian term notes with insurance companies, expiring through 2018, average year-end interest rates of 5.3\% for 2015 and 2014 | 13.0 | 20.7 |
|  | 249.0 | 223.8 |
| Less long-term debt due within one year | 12.9 | 13.7 |
| Long-term debt | \$236.1 | $\underline{\underline{\$ 210.1}}$ |

On January 15, 2015, the Company issued $\$ 75$ million in term notes to an insurance company. Principal payments commence in 2020 and the notes mature in 2030. The notes have an interest rate of 3.52 percent. The proceeds of the notes were used to pay down borrowings under the Company's revolving credit facility.

The Company has a $\$ 400$ million multi-year multi-currency revolving credit agreement with a group of eight banks, which expires on December 12, 2017. The facility has an accordion provision which allows it to be increased up to $\$ 500$ million if certain conditions (including lender approval) are satisfied. Borrowings under the Company's bank credit lines and commercial paper borrowings are supported by the revolving credit agreement. As a result of the long-term nature of this facility, the commercial paper and credit line borrowings are classified as long-term debt at December 31, 2015 and 2014. At its option, the Company either maintains cash balances or pays fees for bank credit and services.

Scheduled maturities of long-term debt within each of the five years subsequent to December 31, 2015 are as follows:

| Years ending December 31 (dollars in millions) | $\frac{\text { Amount }}{}$ |
| :--- | ---: |
| 2016 | 12.9 |
| 2017 | 154.0 |
| 2018 | 7.1 |
| 2019 | - |
| 2020 | 6.8 |

Future minimum payments under non-cancelable operating leases relating mostly to office, manufacturing and warehouse facilities total $\$ 39.5$ million and are due as follows:

| Years ending December 31 (dollars in millions) |  |
| :--- | ---: |
| 2016 | $\$ 19.7$ |
| 2017 | 4.3 |
| 2018 | 3.8 |
| 2019 | 2.7 |
| 2020 | 1.8 |
| Thereafter | 7.2 |

Rent expense, including payments under operating leases, was $\$ 28.8$ million, $\$ 24.3$ million and $\$ 20.7$ million in 2015, 2014 and 2013, respectively.
Interest paid by the Company was $\$ 6.4$ million, $\$ 5.8$ million and $\$ 5.9$ million in 2015, 2014 and 2013, respectively. The Company capitalized interest expense of $\$ 0.2$ million and $\$ 0.4$ million in 2015 and 2014, respectively.

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## 9. Stockholders' Equity

The Company's authorized capital consists of three million shares of Preferred Stock $\$ 1$ par value, 14 million shares of Class A Common Stock $\$ 5$ par value, and 120 million shares of Common Stock $\$ 1$ par value. The Common Stock has equal dividend rights with Class A Common Stock and is entitled, as a class, to elect one-third of the Board of Directors and has 1/10th vote per share on all other matters. Class A Common Stock is convertible to Common Stock on a one for one basis.

There were 135,088 shares during 2015, 272,184 shares during 2014 and 85 ,792 shares during 2013, of Class A Common Stock converted into Common Stock. Regular dividends paid on the A. O. Smith Corporation Class A Common Stock and Common Stock amounted to $\$ 0.76, \$ 0.60$ and $\$ 0.46$ per share in 2015, 2014 and 2013, respectively.

In 2013, the Company's Board of Directors approved adding 2,000,000 shares of Common Stock to an existing discretionary share repurchase authority. In 2014, the Company's Board of Directors authorized the purchase of an additional 3,500,000 shares of the Company's Common Stock. In 2015, the Company's Board of Directors authorized the purchase of an additional 2,000,000 shares of the Company's Common Stock. Under the share repurchase program, the Company's Common Stock may be purchased through a combination of a Rule 10b5-1 automatic trading plan and discretionary purchases in accordance with applicable securities laws. The number of shares purchased and the timing of the purchase will depend on a number of factors, including share price, trading volume and general market conditions, as well as on working capital requirements, general business conditions and other factors, including alternative investment opportunities. The share repurchase authorization remains effective until terminated by the Board of Directors which may occur at any time, subject to the parameters of any Rule 10b5-1 automatic trading plan that the Company may then have in effect. In 2015, the Company purchased $1,908,237$ shares at a total cost of $\$ 128.1$ million. As of December 31, 2015, there were $2,589,756$ shares remaining on the existing repurchase authorization. In 2014, the Company purchased $2,154,783$ shares at a cost of $\$ 103.8$ million. In 2013, the Company purchased $1,771,066$ shares at a cost of $\$ 73.7$ million.

At December 31, 2015, a total of 65,190 and $7,340,173$ shares of Class A Common Stock and Common Stock, respectively, were held as treasury stock. At December 31, 2014, a total of 65,190 and $5,889,073$ shares of Class A Common Stock and Common Stock, respectively, were held as treasury stock.

Accumulated other comprehensive loss is as follows:

| December 31 (dollars in millions) | $\frac{2015}{}$ | $\frac{2014}{\$(39.4)}$ |
| :--- | :---: | :---: |
| Cumulative foreign currency translation adjustments | 3.3 |  |
| Unrealized net gain on cash flow derivative instruments less related income tax provision of |  |  |
| $\$(0.8)$ in 2015 and $\$(0.5)$ in 2014 | $\underline{1.2}$ | 0.9 |
| Pension liability less related income tax benefit of \$177.7 in 2015 and \$178.2 in 2014 | $\underline{(275.2)}$ | $\underline{(276.2)}$ |
|  | $\underline{\$(272.0)}$ |  |

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## 9. Stockholders' Equity (continued)

Changes to accumulated other comprehensive loss by component are as follows:

|  | Year ended December 31, |  |
| :---: | :---: | :---: |
|  | 2015 | $\underline{2014}$ |
| Cumulative foreign currency translation |  |  |
| Balance at beginning of period | \$ 3.3 | \$ 19.9 |
| Other comprehensive loss before reclassifications | (42.7) | (16.6) |
| Balance at end of period | (39.4) | 3.3 |
| Unrealized net gain on cash flow derivatives |  |  |
| Balance at beginning of period | 0.9 | 1.0 |
| Other comprehensive earnings before reclassifications | 3.7 | 2.0 |
| Realized gains on derivatives reclassified to cost of products sold (net of tax provision of $\$ 2.3$ and $\$ 1.3$ in 2015 and 2014, respectively)(1) | (3.4) | (2.1) |
| Balance at end of period | 1.2 | 0.9 |
| Pension liability |  |  |
| Balance at beginning of period | (276.2) | (280.0) |
| Other comprehensive loss before reclassifications | (9.6) | (17.0) |
| Amounts reclassified from accumulated other comprehensive loss (1) | 10.6 | 20.8 |
| Balance at end of period | (275.2) | (276.2) |
| Total accumulated other comprehensive loss, end of period | $\stackrel{\text { \$(313.4) }}{ }$ | $\stackrel{\text { \$(272.0) }}{ }$ |
| (1) Amounts reclassified from accumulated other comprehensive loss: |  |  |
| Realized gains on derivatives reclassified to cost of products sold | (5.7) | (3.4) |
| Tax provision | 2.3 | 1.3 |
| Reclassification net of tax | \$ (3.4) | \$ (2.1) |
| Amortization of pension items: |  |  |
| Actuarial losses | \$ 19.0(2) | \$ 34.8(2) |
| Prior year service cost | (1.4) ${ }^{(2)}$ | (1.0) ${ }^{(2)}$ |
|  | 17.6 | 33.8 |
| Tax benefit | (7.0) | (13.0) |
| Reclassification net of tax | \$ 10.6 | \$ 20.8 |

(2) These accumulated other comprehensive loss components are included in the computation of net periodic benefit cost. See Note 11 - Pensions and Other Post-retirement Benefits for additional details

## 10. Stock Based Compensation

The Company adopted the A. O. Smith Combined Incentive Compensation Plan (the "Plan") effective January 1, 2007. The Plan was reapproved on April 16, 2012. The Plan is a continuation of the A. O. Smith Combined Executive Incentive Compensation Plan which was originally approved by shareholders in 2002. The number of shares available for granting of options or share units at December 31, 2015, was 1,994,172. Upon stock option exercise or share unit vesting, shares are issued from treasury stock.

Total stock based compensation expense recognized in 2015, 2014 and 2013 was $\$ 8.8$ million, $\$ 10.8$ million and $\$ 10.5$ million, respectively.

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## 10. Stock Based Compensation (continued)

## Stock options

The stock options granted in 2015, 2014 and 2013 have three year pro rata vesting from the dates of grant. Stock options are issued at exercise prices equal to the fair value of Common Stock on the date of grant. For active employees, all options granted in 2015, 2014 and 2013 expire ten years after date of grant. Stock option compensation recognized in 2015, 2014 and 2013 was $\$ 4.0$ million, $\$ 4.9$ million and $\$ 4.5$ million, respectively. Included in the stock option expense recognized in 2015, 2014 and 2013 is expense associated with the accelerated vesting of stock option awards for certain employees who either are retirement eligible or become retirement eligible during the vesting period.

Changes in option shares, all of which are Common Stock, were as follows:

|  | Weighted-Avg. Per Share Exercise Price |  | Years Ended December 31 |  |  | (dollars in millions) Aggregate Intrinsic Value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2015 | 2014 | 2013 |  |  |
| Outstanding at beginning of year | \$ | 27.50 | 1,577,003 | 1,440,623 | 1,530,734 |  |  |
| Granted |  |  |  |  |  |  |  |
| 2015-\$61.53 per share |  |  | 242,495 |  |  |  |  |
| 2014-\$46.47 to \$50.67 per share |  |  |  | 298,750 |  |  |  |
| 2013-\$34.92 to \$52.93 per share |  |  |  |  | 361,700 |  |  |
| Exercised |  |  |  |  |  |  |  |
| 2015-\$9.50 to \$46.47 per share |  |  | $(489,104)$ |  |  | \$ | 10.2 |
| 2014-\$8.20 to \$34.92 per share |  |  |  | $(158,251)$ |  |  | 2.6 |
| 2013-\$8.20 to \$22.99 per share |  |  |  |  | $(446,746)$ |  | 6.0 |
| Forfeited |  |  |  |  |  |  |  |
| 2015-\$22.99 to \$61.53 per share |  |  | $(3,615)$ |  |  |  |  |
| 2014-\$34.92 to \$46.47 per share |  |  |  | $(4,119)$ |  |  |  |
| 2013-\$22.99 to \$34.92 per share |  |  |  |  | $(5,065)$ |  |  |
| Outstanding at end of year |  |  |  |  |  |  |  |
| (2015-\$9.50 to \$61.53 per share) |  | 36.05 | 1,326,779 | 1,577,003 | 1,440,623 |  |  |
| Exercisable at end of year |  | 25.58 | 772,093 | 932,639 | 740,919 |  |  |

The aggregate intrinsic value for the outstanding and exercisable options as of December 31, 2015 is $\$ 53.8$ million and $\$ 39.4$ million, respectively. The average remaining contractual life for outstanding and exercisable options is eight years and seven years, respectively.

The following table summarizes weighted-average information by range of exercise prices for stock options outstanding and exercisable at December 31, 2015:

| Range of Exercise Prices | Options Outstanding at December 31, 2015 | Weighted- <br> Average <br> Exercise <br> Price |  | Options <br> Exercisable at December 31, 2015 | Weighted- <br> Exercise <br> Price |  | Weighted- <br> Average <br> Remaining Contractual <br> Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$9.50 to \$22.08 | 309,701 | \$ | 14.17 | 309,701 | \$ | 14.17 | 5 years |
| \$22.99 to \$34.92 | 476,795 |  | 30.81 | 362,126 |  | 29.51 | 8 years |
| \$36.27 to \$61.53 | 540,283 |  | 53.23 | 100,266 |  | 46.60 | 9 years |
|  | 1,326,779 |  |  | 772,093 |  |  |  |

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## 10. Stock Based Compensation (continued)

The weighted-average fair value per option at the date of grant during 2015, 2014 and 2013, using the Black-Scholes option-pricing model, was $\$ 17.17$, $\$ 16.55$ and $\$ 12.57$, respectively. Assumptions were as follows:

|  |  | 2015 | $\frac{2014}{6.0}$ |
| :--- | :--- | :--- | :--- |
| Expected life (years) | $\frac{5.9}{2013}$ |  |  |
| Risk-free interest rate | $2.0 \%$ | $2.7 \%$ | $2.0 \%$ |
| Dividend yield | $1.0 \%$ | $1.1 \%$ | $1.1 \%$ |
| Expected volatility | $29.3 \%$ | $36.6 \%$ | $38.4 \%$ |

The expected life is based on historical exercise behavior and the projected exercises of unexercised stock options. The risk free interest rate is based on the U.S. Treasury yield curve in effect on the date of grant for the respective expected life of the option. The expected dividend yield is based on the expected annual dividends divided by the grant date market value of the Company's Common Stock. The expected volatility is based on the historical volatility of the Company's Common Stock.

## Stock Appreciations Rights (SARs)

Certain non-U.S.-based employees are granted SARs. Each SAR award grants the employee the right to receive cash equal to the excess of the share price of the Common Stock on the date that a participant exercises such right over the grant date price of the stock. SARs granted in the year ended December 31, 2015 have three year pro rata vesting from the date of grant. SARs are issued at exercise prices equal to the fair value of Common Stock on the date of grant and expire ten years from the date of grant. Compensation expense for SARs is remeasured at each reporting period based on the estimated fair value on the date of grant using the Black-Scholes option-pricing model, using assumptions similar to stock option awards. SARs are subsequently remeasured at each interim reporting period based on a revised Black-Scholes value. In 2015, the Company granted 13,115 cash-settled SARs and no SARs were exercisable. Stock based compensation expense attributable to SARS was minimal in 2015.

## Restricted stock and share units

Participants may also be awarded shares of restricted stock or share units under the Plan. The Company granted 76,096, 110,691 and 144,696 share units under the plan in 2015, 2014 and 2013, respectively.

The share units were valued at $\$ 4.7$ million, $\$ 5.1$ million and $\$ 5.0$ million at the date of issuance in 2015, 2014 and 2013, respectively, and will be recognized as compensation expense ratably over the three-year vesting period; however, included in share based compensation is expense associated with the accelerated vesting of share unit awards for certain employees who either are retirement eligible or become retirement eligible during the vesting period. Compensation expense of $\$ 4.8$ million, $\$ 5.9$ million and $\$ 6.0$ million was recognized in 2015, 2014 and 2013, respectively. Certain non-U.S.-based employees receive the cash value of vested shares at the vesting date in lieu of shares.

A summary of share unit activity under the plan is as follows:

|  |  | Number of Units | Weighted-Average <br> Grant Date Value |
| :--- | ---: | ---: | ---: |
| Outstanding at January 1, 2015 | 416,289 | $\$$ | 33.06 |
| Granted | 76,096 | 61.58 |  |
| Vested | $(161,448)$ | 23.47 |  |
| Forfeited/cancelled | $(1,675)$ | 45.00 |  |
| Outstanding at December 31, 2015 | $\underline{329,262}$ | 44.30 |  |

Total compensation expense for share units not yet recognized is $\$ 2.4$ million at December 31, 2015. The weighted average period over which the expense is expected to be recognized is 15 months.

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## 11. Pension and Other Post-retirement Benefits

The Company provides retirement benefits for all U.S. employees including benefits for employees of previously owned businesses which were earned up to the date of sale. The Company also has two foreign pension plans, neither of which is material to the Company's financial position.

The Company has a defined contribution plan which matches 100 percent of the first one percent of contributions made by participating employees and matches 50 percent of the next five percent of employee contributions. The Company also has defined contribution plans for certain hourly employees which provide for matching Company contributions.

The Company also has a defined benefit plan for salaried employees and its non-union hourly workforce. In 2009, the Company announced U.S. employees hired after January 1, 2010, would not participate in the defined benefit plan, and benefit accruals for the majority of current salaried and hourly employees sunset on December 31, 2014. Beginning in 2015, an additional Company contribution is being made to the defined contribution plan in lieu of benefits earned in a defined benefit plan. The Company also has defined benefit and contribution plans for certain union hourly employees.

The Company has unfunded defined-benefit post-retirement plans covering certain hourly and salaried employees that provide medical and life insurance benefits from retirement to age 65 . Certain hourly employees retiring after January 1, 1996, are subject to a maximum annual benefit and salaried employees hired after December 31, 1993, are not eligible for post-retirement medical benefits.

The Company amended its pension plan in 2014 to offer a one-time opportunity to pay pension benefits to former employees in a lump sum. These amendments did not have a significant impact on the plan. Former employees eligible for the voluntary lump sum payment option are generally those who are vested participants of the pension plan who terminated employment prior to January 1, 2014 and who have not yet started receiving monthly payments of their pension benefits. Eligible participants had until October 31, 2014 to make their election. For the approximately 2,700 former employees who made the election, the Company made payments of approximately $\$ 50$ million in December 2014 and funded the payments from existing pension plan assets. The Company did not incur any non-cash charges related to settling this liability as the payments did not exceed settlement thresholds.

As of December 31, 2015, the Company changed the method used to estimate the service and interest components of net periodic benefit cost for its pension plan and its postretirement benefit plan. This change compared to the previous method will result in a decrease in the service and interest components for pension cost in 2016. Historically, the Company estimated the service and interest cost components utilizing a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period. The Company has elected to utilize an approach that discounts the individual expected cash flows underlying the service cost and interest cost using the applicable spot rates derived from the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. This change was made to provide a more precise measurement of service and interest costs by improving the correlation between the projected benefit cash flows to the corresponding spot yield curve rates.

This change does not affect the measurement of the total benefit obligations but will reduce the service and interest cost for the pension plan. The Company has accounted for this change as a change in accounting estimate that is inseparable from a change in accounting principle and accordingly has accounted for it prospectively beginning January 1, 2016.

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## 11. Pension and Other Post-retirement Benefits (continued)

## Obligations and Funded Status

## Pension and Post-Retirement Disclosure Information under ASC 715

The following tables present the changes in benefit obligations, plan assets and funded status for domestic pension and post-retirement plans and the components of net periodic benefit costs.

| Years ended December 31 (dollars in millions) | Pension Benefits |  | Post-retirement Benefits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2015 |  | 2014 |
| Accumulated benefit obligation (ABO) at December 31 | \$889.4 | \$ 948.4 | N/A |  | N/A |
| Change in projected benefit obligations (PBO) |  |  |  |  |  |
| PBO at beginning of year | \$(956.7) | \$(937.0) | \$ (10.4) | \$ | (10.9) |
| Service cost | (1.9) | (7.9) | (0.1) |  | (0.1) |
| Interest cost | (37.6) | (44.7) | (0.3) |  | (0.5) |
| Participant contributions | - | - | (0.2) |  | (0.2) |
| Plan amendments | (2.5) | - | 3.7 |  | - |
| Actuarial gain (loss) including assumption changes | 45.6 | (83.2) | - |  | - |
| Benefits paid | 60.2 | 116.1 | 0.7 |  | 1.3 |
| PBO at end of year | $\underline{\text { \$(892.9) }}$ | $\underline{\underline{\text { (956.7 ) }}}$ | \$ (6.6) | \$ | (10.4) |
| Change in fair value of plan assets |  |  |  |  |  |
| Plan assets at beginning of year | \$ 823.9 | \$ 822.3 | \$ - | \$ | - |
| Actual return on plan assets | (5.3) | 110.1 | - |  | - |
| Contribution by the company | 0.5 | 7.6 | 0.5 |  | 1.1 |
| Participant contributions | - | - | 0.2 |  | 0.2 |
| Benefits paid | (60.1) | (116.1) | (0.7) |  | (1.3) |
| Plan assets at end of year | \$ 759.0 | \$823.9 | \$ - | \$ | - |
| Funded status | \$(133.9) | \$(132.8) | \$ (6.6) | \$ | (10.4) |
| Amount recognized in the balance sheet |  |  |  |  |  |
| Current liabilities | \$ (1.8) | \$ (0.5) | \$ (0.4) | \$ | (0.8) |
| Non-current liabilities | (132.1) | (132.3) | (6.2) |  | (9.6) |
| Net pension liability at end of year | \$(133.9)* | $\underline{\underline{\text { (132.8) }}}{ }^{*}$ | \$ (6.6) | \$ | (10.4) |
| Amounts recognized in accumulated other comprehensive loss before tax |  |  |  |  |  |
| Net actuarial loss (gain) | \$ 461.3 | \$ 463.2 | \$ (2.4) | \$ | (2.6) |
| Prior service cost | (2.6) | (6.1) | (3.3) |  | - |
| Total recognized in accumulated other comprehensive loss | \$ 458.7 | \$ 457.1 | \$ (5.7) | \$ | (2.6) |

* In addition, the Company has a liability for a foreign pension plan of \$0.3 million at December 31, 2015 and 2014.


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## 11. Pension and Other Post-retirement Benefits (continued)

| Years ended December 31 (dollars in millions) | Pension Benefits |  |  | Post-retirement Benefits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 | $\underline{2015}$ | $\underline{2014}$ | $\underline{2013}$ |
| Net periodic benefit cost |  |  |  |  |  |  |
| Service cost | \$ 1.9 | \$ 7.9 | \$ 9.0 | \$ 0.1 | \$ 0.1 | \$ 0.1 |
| Interest cost | 37.6 | 44.7 | 39.5 | 0.3 | 0.5 | 0.5 |
| Expected return on plan assets | (57.5) | (60.3) | (61.7) | - | - | - |
| Amortization of unrecognized: |  |  |  |  |  |  |
| Net actuarial loss (gain) | 19.1 | 35.1 | 42.0 | (0.1) | (0.4) | (0.3) |
| Prior service cost | (1.0) | (1.0) | (0.9) | (0.4) | - | - |
| Curtailment and other one-time charges | - | 2.2 | - | - | - | - |
| Defined-benefit plan cost | 0.1 | 28.6 | 27.9 | \$(0.1) | \$0.2 | \$0.3 |
| Various U.S. defined contribution plans cost | 10.8 | 6.1 | 5.4 |  |  |  |
|  | \$10.9 | \$ 34.7 | \$ 33.3 |  |  |  |


| Other changes in plan assets and projected benefit obligation recognized in other |
| :--- |
| comprehensive loss |

Net actuarial loss (gain)

The estimated net actuarial loss and prior service cost for the pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost during 2016 are $\$ 16.7$ million and $\$(1.1)$ million, respectively. The estimated net actuarial loss and prior year service cost for the postretirement benefit plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost during 2016 are $\$ 0.2$ million and $\$(0.4)$ million, respectively. As permitted under ASC 715, the amortization of any prior service cost was previously determined using a straight-line amortization of the cost over the average remaining service period of employees expected to receive benefits under the plan. Beginning in 2015 the amortization occurs over the average remaining life expectancy of participants expected to receive benefits under the plan as permitted under ASC 715 .

The 2015 and 2014 after tax adjustments for additional minimum pension liability resulted in other comprehensive gain of $\$ 1.0$ million and $\$ 1.6$ million, respectively.

Actuarial assumptions used to determine benefit obligations at December 31 are as follows:

|  | Pension Benefits |  | Post-retirement Benefits |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2015 | 2014 |
| Discount rate | 4.40\% | 4.05\% | 4.55\% | 4.00\% |
| Average salary increases | 4.00\% | 4.00\% | 4.00\% | 4.00\% |

Actuarial assumptions used to determine net periodic benefit cost for the year ended December 31 are as follows:

| Years ended December 31 | Pension Benefits |  |  | Post-retirement Benefits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 | 2015 | 2014 | 2013 |
| Discount rate | 4.05\% | 4.85\% | 4.05\% | 4.00\% | 4.70\% | 4.05\% |
| Expected long-term return on plan assets | 7.75\% | 7.75\% | 8.00\% | n/a | n/a | n/a |
| Rate of compensation increase | 4.00\% | 4.00\% | 4.00\% | 4.00\% | 4.00\% | 4.00\% |

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## 11. Pension and Other Post-retirement Benefits (continued)

## Assumptions

In developing the expected long-term rate of return on plan assets assumption, the Company evaluated its pension plan's target and actual asset allocation and expected long-term rates of return of equity and bond indices. The Company also considered its pension plan's historical ten-year and 25 -year compounded annualized returns of 6.1 percent and 9.5 percent, respectively.

## Assumed health care cost trend rates

Assumed health care cost trend rates as of December 31 are as follows:

|  | $\frac{2015}{}$ | $\frac{2014}{}$ |
| :--- | :---: | :---: |
|  | $6.75 \%$ | $7.25 \%$ |
| Health care cost trend rate assumed for next year | $5.00 \%$ | $5.00 \%$ |
| Year that the rate reaches the ultimate trend rate | 2021 | 2021 |

A one-percentage-point change in the assumed health care cost trend rates would not result in a material impact on the Company's consolidated financial statements.

## Plan Assets

The Company's pension plan weighted asset allocations as of December 31 by asset category are as follows:

| Asset Category | 2015 | 2014 |
| :---: | :---: | :---: |
| Equity securities | 47\% | 50\% |
| Debt securities | 39 | 37 |
| Real estate | 9 | 8 |
| Private equity | 5 | 4 |
| Other | - | 1 |
|  | 100\% | 100\% |

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## 11. Pension and Other Post-retirement Benefits (continued)

The following tables present the fair value measurement of the Company's plan assets as of December 31, 2015 and 2014 (dollars in millions):

| Asset Category | Total | December 31, 2015 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quoted Prices in Active Markets for Identical Contracts(Level 1)$\qquad$ |  | Significant Other Observable Inputs$\qquad$ |  | Significant Nonobservable Inputs (Level 3) |  |
| Short-term investments | \$ 13.8 | \$ | 1.4 | \$ | - | \$ | 12.4 |
| Equity securities |  |  |  |  |  |  |  |
| Common stocks | 238.6 |  | 238.6 |  | - |  | - |
| Commingled equity funds | 109.6 |  | - |  | 109.6 |  | - |
| Fixed income securities |  |  |  |  |  |  |  |
| U.S. treasury securities | 114.3 |  | 114.3 |  | - |  | - |
| Other fixed income securities | 91.6 |  | - |  | 91.6 |  | - |
| Commingled fixed income funds | 84.1 |  | - |  | 84.1 |  | - |
| Other types of investments |  |  |  |  |  |  |  |
| Real estate funds | 70.9 |  | - |  | - |  | 70.9 |
| Private equity | 34.3 |  | - |  | - |  | 34.3 |
| Total fair value of plan asset investments | \$757.2 | \$ | 354.3 | \$ | 285.3 | \$ | 117.6 |
| Non-investment plan assets | 1.8 |  |  |  |  |  |  |
| Total plan assets | \$759.0 |  |  |  |  |  |  |
|  |  |  |  |  | 31, 2014 |  |  |
| Asset Category | Total |  | ices in ontracts 1) |  | nt Other <br> 2) |  | $\begin{aligned} & \text { nt Non- } \\ & \text { le Inputs } \\ & \text { el 3) } \\ & \text { el } \end{aligned}$ |
| Short-term investments | \$ 23.1 | \$ | 2.4 | \$ | - | \$ | 20.7 |
| Equity securities |  |  |  |  |  |  |  |
| Common stocks | 264.4 |  | 264.4 |  | - |  | - |
| Commingled equity funds | 134.7 |  | - |  | 134.7 |  | - |
| Fixed income securities |  |  |  |  |  |  |  |
| U.S. treasury securities | 122.9 |  | 122.9 |  | - |  | - |
| Other fixed income securities | 93.2 |  | - |  | 93.2 |  | - |
| Commingled fixed income funds | 83.8 |  | - |  | 83.8 |  | - |
| Other types of investments |  |  |  |  |  |  |  |
| Real estate funds | 64.1 |  | - |  | - |  | 64.1 |
| Private equity | 34.8 |  | - |  | - |  | 34.8 |
| Total fair value of plan asset investments | \$821.0 | \$ | 389.7 | \$ | 311.7 | \$ | 119.6 |
| Non-investment plan assets | 2.9 |  |  |  |  |  |  |
| Total plan assets | \$823.9 |  |  |  |  |  |  |

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## 11. Pension and Other Post-retirement Benefits (continued)

The following table presents a reconciliation of the fair value measurements using significant unobservable inputs (Level 3) as of December 31, 2015 and 2014 (dollars in millions):

|  | Short term investments |  | $\begin{gathered} \text { Other fixed } \\ \text { income } \\ \text { securities } \end{gathered}$ |  | $\begin{aligned} & \text { Real } \\ & \text { estate } \\ & \text { funds } \end{aligned}$ | Private equity | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at December 31, 2013 | \$ | 14.0 | \$ | 0.3 | \$57.2 | \$37.7 | \$109.2 |
| Actual return (loss) on plan assets: |  |  |  |  |  |  |  |
| Relating to assets still held at the reporting date |  | - |  | - | 6.2 | 1.6 | 7.8 |
| Relating to assets sold during the period |  | - |  | (0.3) | - | 3.4 | 3.1 |
| Purchases, sales and settlements |  | 6.7 |  | - | 0.7 | (7.9) | (0.5) |
| Balance at December 31, 2014 |  | 20.7 |  | - | 64.1 | 34.8 | 119.6 |
| Actual return (loss) on plan assets: |  |  |  |  |  |  |  |
| Relating to assets still held at the reporting date |  | - |  | - | 6.8 | (0.1) | 6.7 |
| Relating to assets sold during the period |  | - |  | - | - | 7.8 | 7.8 |
| Purchases, sales and settlements |  | (8.3) |  | - | - | (8.2) | (16.5) |
| Balance at December 31, 2015 | \$ | 12.4 | \$ | - | $\underline{\underline{\$ 70.9}}$ | \$34.3 | \$117.6 |

The Company's investment policies employ an approach whereby a diversified blend of equity and bond investments is used to maximize the long-term return of plan assets for a prudent level of risk. Equity investments are diversified across domestic and non-domestic stocks, as well as growth, value, and small to large capitalizations. Bond investments include corporate and government issues, with short-, mid- and long-term maturities, with a focus on investment grade when purchased. The Company's target allocation to equity managers is between 45 to 55 percent with the remainder allocated primarily to bonds and a small allocation to real estate, private equity managers and cash. Investment and market risks are measured and monitored on an ongoing basis through regular investment portfolio reviews, annual liability measurements and periodic asset/liability studies.

The Company's actual asset allocations are in line with target allocations. The Company regularly reviews its actual asset allocation and periodically rebalances its investments to the targeted allocation when considered appropriate.

There was no Company stock included in plan assets at December 31, 2015.

## Cash Flows

The Company was not required to and did not make any contributions in 2015 and is not required to make a contribution in 2016.

## Estimated Future Payments

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

| Years ending December 31 (dollars in millions) |  | Post-retirement <br> Benefits |  |
| :--- | :--- | ---: | ---: |
| 2016 | $\frac{\text { Pension Benefits }}{}$ | 61.4 | $\$$ |
| 2017 | 60.0 | 0.4 |  |
| 2018 | 66.7 | 0.4 |  |
| 2019 | 59.7 | 0.4 |  |
| 2020 | 65.5 | 0.4 |  |
| $2021-2025$ | 286.2 | 0.4 |  |

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## 12. Derivative instruments

ASC 815 Derivatives and Hedging, as amended, requires that all derivative instruments be recorded on the balance sheet at fair value and establishes criteria for designation and effectiveness of the hedging relationships. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as a part of a hedging relationship and, further, on the type of hedging relationship. For those derivative instruments that are designated and qualify as hedging instruments, the Company must designate the hedging instrument, based upon the exposure hedged, as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation.

The Company designates that all of its hedging instruments are cash flow hedges. For derivative instruments that are designated and qualify as a cash flow hedge (i.e., hedging the exposure to variability in expected future cash flows that is attributable to a particular risk), the effective portion of the gain or loss on the derivative instrument is reported as a component of other comprehensive loss, net of tax, and is reclassified into earnings in the same line item associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings. The amount by which the cumulative change in the value of the hedge more than offsets the cumulative change in the value of the hedged item (i.e., the ineffective portion) is recorded in earnings, net of tax, in the period the ineffectiveness occurs.

The Company utilizes certain derivative instruments to enhance its ability to manage currency exposure as well as raw materials price risk. Derivative instruments are entered into for periods consistent with the related underlying exposures and do not constitute positions independent of those exposures. The Company does not enter into contracts for speculative purposes. The contracts are executed with major financial institutions with no credit loss anticipated for failure of the counterparties to perform.

## Foreign Currency Forward Contracts

The Company is exposed to foreign currency exchange risk as a result of transactions in currencies other than the functional currency of certain subsidiaries. The Company utilizes foreign currency forward purchase and sale contracts to manage the volatility associated with foreign currency purchases, sales and certain intercompany transactions in the normal course of business. Principal currencies for which the Company utilizes foreign currency forward contracts include the British pound, Canadian dollar, Euro and Mexican peso.

Gains and losses on these instruments are recorded in accumulated other comprehensive loss, net of tax, until the underlying transaction is recorded in earnings. When the hedged item is realized, gains or losses are reclassified from accumulated other comprehensive loss to the statement of earnings. The assessment of effectiveness for forward contracts is based on changes in the forward rates. These hedges have been determined to be effective.

The amounts in accumulated other comprehensive loss for cash flow hedges will be reclassified into earnings no later than December 31, 2016.

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## 12. Derivative instruments (continued)

The following table summarizes, by currency, the contractual amounts of the Company's foreign currency forward contracts:

| December 31 (dollars in millions) | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Buy | Sell | Buy | Sell |
| British pound | \$- | \$ 0.9 | \$- | \$ 0.9 |
| Canadian dollar | - | 43.2 | - | 90.3 |
| Euro | 21.3 | 1.7 | 32.1 | 1.0 |
| Mexican peso | 12.7 | - | 17.3 | - |
| Total | \$34.0 | \$45.8 | \$49.4 | \$92.2 |

## Commodity Futures Contracts

In addition to entering into supply arrangements in the normal course of business, the Company also enters into futures contracts to fix the cost of certain raw material purchases, principally copper, with the objective of minimizing changes in cost due to market price fluctuations. The hedging strategy for achieving this objective is to purchase commodities futures contracts on the open market of the London Metals Exchange (LME) or over the counter contracts based on the LME.

The minimal after-tax loss of the effective portion of the contracts as of December 31, 2015 was recorded in accumulated other comprehensive loss and will be reclassified into cost of products sold in the periods in which the underlying transactions are recorded in earnings. The effective portion of the contracts will be reclassified within one year. Commodity hedges outstanding at December 31, 2015 total approximately 1.7 million pounds of copper.

The impact of derivative contracts on the Company's financial statements is as follows:
Fair value of derivative instruments designated as hedging instruments under ASC 815:

|  |  | Fair Value |  |
| :---: | :---: | :---: | :---: |
| December 31 (dollars in millions) | Balance Sheet Location | 2015 | 2014 |
| Foreign currency contracts | Other current assets | \$ 3.6 | \$ 4.6 |
|  | Accrued liabilities | (1.3) | (3.0) |
| Commodities contracts | Accrued liabilities | (0.3) | (0.2) |
| Total derivatives designated as hedging instruments |  | \$ 2.0 | \$ 1.4 |

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## 12. Derivative instruments (continued)

The effect of derivative instruments on the statement of earnings is as follows.
Year ended December 31 (dollars in millions)

| Derivatives in ASC 815 cash flow hedging relationships | Amount of gain (loss) recognized in other comprehensive loss on derivative(effective portion) |  | Location of gain (loss) reclassified from accumulated other comprehensive loss into earnings (effective portion) (effective portion) | Amount of gain (loss) reclassified from accumulated other comprehensive loss into earnings (effective portion) |  |  | Location of gainrecognized in earnings onderivative (ineffective portion) | Amount of gain recognized in earnings on a (ineffective portion) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underline{2015}$ | 2014 |  | 2015 |  | 014 |  | $\underline{2015}$ | $\underline{2014}$ |
| Foreign currency contracts | \$ 6.9 | \$ 3.6 | Cost of products sold | \$ 6.2 | \$ | 3.6 | N/A | \$- | \$- |
| Commodities contracts | (0.7) | (0.2) | Cost of products sold | (0.5) |  | (0.2) | Cost of products sold | - | - |
|  | \$ 6.2 | \$ 3.4 |  | \$ 5.7 | \$ |  |  | \$- | \$- |

## 3. Income Taxes

The components of the provision (benefit) for income taxes consisted of the following:

| Years ended December 31 (dollars in millions) | 2015 | 2014 | $\underline{2013}$ |
| :---: | :---: | :---: | :---: |
| Current: |  |  |  |
| Federal | \$ 82.9 | \$48.7 | \$53.9 |
| State | 13.9 | 10.4 | 9.6 |
| International | 23.6 | 22.4 | 19.1 |
| Deferred: |  |  |  |
| Federal | (4.2) | (5.2) | (8.4) |
| State | 2.2 | (0.2) | (0.5) |
| International | 1.2 | 2.8 | (7.0) |
|  | \$119.6 | $\underline{\text { \$78.9 }}$ | \$66.7 |

The provision for income taxes differs from the U.S. federal statutory rate due to the following items:

| Years ended December 31 | $\frac{2015}{35.0}$ | $\frac{2014}{35.0} \%$ | $\frac{2013}{35.0 \%}$ |
| :--- | :---: | :---: | :---: |
| Provision at U.S. federal statutory rate | 2.6 | 2.3 | 2.5 |
| State income and franchise taxes, net of federal benefit | $(6.8)$ | $(8.2)$ | $(8.1)$ |
| International income tax rate differential - China | 0.2 | 0.4 | 0.7 |
| International income tax rate differential - other | $(1.3)$ | $(2.1)$ | $(1.9)$ |
| U.S. manufacturing credit | $(0.3)$ | $(0.4)$ | $(0.8)$ |
| Research tax credits | $\underline{0.3}$ | 0.5 | $\underline{0.8}$ |
| Other | $\underline{29.7} \%$ | $\underline{27.5} \%$ | $\underline{28.2} \%$ |

Components of earnings before income taxes were as follows:

| Years ended December 31 (dollars in millions) | $\underline{2015}$ | $\underline{2014}$ |  |
| :--- | ---: | ---: | ---: |
| U.S. | $\$ 255.7$ | $\underline{\$ 150.6}$ | $\underline{\$ 151.9}$ |
| International | $\underline{146.8}$ | $\underline{136.1}$ | $\underline{84.5}$ |
|  | $\underline{\underline{\$ 402.5}}$ | $\underline{\underline{\$ 286.7}}$ | $\underline{\$ 236.4}$ |

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## 13. Income Taxes (continued)

Total income taxes paid by the Company amounted to $\$ 97.5$ million, $\$ 88.9$ million, and $\$ 70.2$ million in 2015, 2014 and 2013, respectively.
As of December 31, 2015, the Company has $\$ 47.9$ million accrued for its estimate of the tax costs due upon repatriation of undistributed foreign earnings it considers to be not permanently reinvested. At December 31, 2015, the Company had undistributed foreign earnings of $\$ 875.9$ million, of which $\$ 691.9$ million are considered permanently reinvested. No U.S. income tax provision or foreign withholding tax provisions have been made on foreign earnings that remain permanently reinvested. The Company considers permanently reinvested earnings outside the U.S. on the basis of estimates that future domestic cash generation will be sufficient to meet future domestic cash needs and its specific plans for reinvestment of foreign subsidiary earnings. In addition, no provision or benefit for U.S. income taxes has been made on foreign currency translation gains or losses. As of December 31, 2015, $\$ 645.2$ million of cash and cash equivalents and marketable securities were held by our foreign subsidiaries.

The tax effects of temporary differences of assets and liabilities between income tax and financial reporting are as follows:

| December 31 (dollars in millions) | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Assets | Liabilities | Assets | Liabilities |
| Employee benefits | \$ 75.0 | \$ | \$ 77.0 | \$ |
| Product liability and warranties | 66.8 | - | 65.8 | - |
| Inventories | - | 4.4 | - | 4.2 |
| Accounts receivable | 13.0 | - | 11.7 | - |
| Property, plant and equipment | - | 36.9 | - | 39.4 |
| Intangibles | - | 54.3 | - | 52.1 |
| Environmental liabilities | 2.7 | - | 3.1 | - |
| Undistributed foreign earnings | - | 47.9 | - | 50.7 |
| Tax loss and credit carryovers | 14.6 | - | 14.9 | - |
| All other | 3.4 | - | 4.7 | - |
| Valuation allowance | (11.0) | - | (9.8) | - |
|  | \$164.5 | \$ 143.5 | \$167.4 | \$ 146.4 |
| Net asset | \$ 21.0 |  | \$ 21.0 |  |

These deferred tax assets and liabilities are classified in the balance sheet as current or long-term based on the balance sheet classification of the related assets and liabilities as follows:

| December 31 (dollars in millions) | $\underline{2015}$ | $\frac{2014}{}$ |
| :--- | ---: | ---: |
| Current deferred income tax assets | 29.9 | $\$ 40.5$ |
| Long-term deferred income tax assets | $\underline{12.9}$ |  |
| Long-term deferred income tax liabilities | $\underline{\$ 21.0}$ | $\underline{(21.4)}$ |
| Net asset | $\underline{\underline{(21.0}}$ |  |

The Company believes it is more likely than not that it will realize the current and long-term deferred tax assets through the reduction of future taxable income. Significant factors the Company considered in determining the probability of the realization of the deferred tax assets include historical operating results and expected future earnings.

A reconciliation of the beginning and ending amounts of tax loss carryovers, credit carryovers and valuation allowances is as follows:

| mber 31 | Net Operating Losses and Tax Credits |  |  |  | Valuation Allowances |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 |  | 2014 |  |  | 015 |  | 014 |
| Beginning balance | \$ | 14.9 | \$ | 17.7 |  |  | \$ | 9.6 |
| Additions |  | 1.4 |  | 0.6 |  | 1.4 |  | 1.0 |
| Reductions |  | (1.7) |  | (3.4) |  | (0.2) |  | (0.8) |
| Ending balance | \$ | 14.6 | \$ | 14.9 |  | 11.0 | \$ |  |

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## 13. Income Taxes (continued)

The Company has foreign net operating loss carryovers that expire in 2016 through 2023, a foreign tax credit carryover that expires in 2021, and state and local net operating loss carryovers that expire between 2016 and 2032.

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

| (Dollars in millions) | $\underline{2015}$ | $\underline{2014}$ |
| :--- | ---: | :---: |
| Balance al January 1 | 1.2 | $\$ 1.3$ |
| Additions for tax positions of prior years | - |  |
| Reductions for tax positions of prior years | $\underline{\$ 2.6}$ | $\underline{(0.1)}$ |
| Balance at December 31 | $\underline{\underline{(1.2}}$ |  |

The amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate is $\$ 0.5$ million. The Company recognizes potential interest and penalties related to unrecognized tax benefits as a component of income tax expense. At December 31, 2015 there was an immaterial amount of interest and penalties accrued. It is anticipated there will be no decrease in the total amount of unrecognized tax benefits in 2016. The Company's U.S. federal income tax returns for 2014 and 2015 are subject to audit. The Company is subject to state and local income tax audits for tax years 2000-2015. The Company is subject to non-U.S. income tax examinations for years 2007-2015.

## 14. Commitments and Contingencies

The Company is a potentially responsible party in judicial and administrative proceedings seeking to clean up sites which have been environmentally impacted. In each case the Company has established reserves, insurance proceeds and/or a potential recovery from third parties. The Company believes any environmental claims will not have a material effect on its financial position or results of operations.

The Company is subject to various claims and pending lawsuits for product liability and other matters arising out of the conduct of the Company's business. With respect to product liability claims, the Company has self-insured a portion of its product liability loss exposure for many years. The Company has established reserves and has insurance coverage which it believes are adequate to cover incurred claims. For the years ended December 31, 2015 and 2014, the Company had $\$ 125$ million of product liability insurance for individual losses in excess of $\$ 7.5$ million. The Company periodically reevaluates its exposure on claims and lawsuits and makes adjustments to its reserves as appropriate. The Company believes, based on current knowledge, consultation with counsel, adequate reserves and insurance coverage that the outcome of such claims and lawsuits will not have a material adverse effect on the Company's financial position, results of operations or cash flows.

## 15. Operations by Segment

The Company is comprised of two reporting segments: North America and Rest of World. The Rest of World segment is primarily comprised of China, Europe and India. Both segments manufacture and market comprehensive lines of residential and commercial gas, gas tankless and electric water heaters. Both segments primarily manufacture and market in their respective regions of the world. The North America segment also manufactures and globally markets specialty commercial water heating equipment, condensing and non-condensing boilers and water system tanks. Primarily for Asia, the Rest of World segment also manufactures and markets water treatment products. The Company also markets in-home air purification products in China.

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## 15. Operations by Segment (continued)

The accounting policies of the reportable segments are the same as those described in the "Summary of Significant Accounting Policies" outlined in Note 1. Operating earnings, defined by the Company as earnings before interest, taxes, general corporate and corporate research and development expenses, were used to measure the performance of the segments.

|  | Net Sales |  |  | Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years ended December 31 (dollars in millions) | 2015 | 2014 | 2013 | 2015 | 2014 | 2013 |
| North America | \$1,703.0 | \$1,621.7 | \$1,520.0 | \$ 339.9 | \$238.7 | \$211.9 |
| Rest of World | 866.1 | 768.3 | 668.0 | 113.0 | 106.7 | 88.0 |
| Inter-segment | (32.6) | (34.0) | (34.2) | - | (0.1) | - |
| Total segments - sales, operating earnings | \$2,536.5 | \$2,356.0 | \$2,153.8 | \$ 452.9 | \$345.3 | \$299.9 |
| Corporate expenses |  |  |  | (43.0) | (52.9) | (57.8) |
| Interest expense |  |  |  | (7.4) | (5.7) | (5.7) |
| Earnings before income taxes |  |  |  | 402.5 | 286.7 | 236.4 |
| Provision for income taxes |  |  |  | (119.6) | (78.9) | (66.7) |
| Earnings from continuing operations |  |  |  | \$ 282.9 | \$207.8 | \$169.7 |

In 2015, sales to the North America segment's two largest customers were $\$ 301.7$ million and $\$ 287.0$ million which represented 12 percent and 11 percent of the Company's net sales, respectively. In 2014, sales to the North America segment's two largest customers were $\$ 296.5$ million and $\$ 237.2$ million which represented 13 percent and ten percent of the Company's net sales, respectively. In 2013, sales to the North America segment's two largest customers were $\$ 310.3$ million and $\$ 240.6$ million which represented 14 percent and 11 percent of the Company's net sales, respectively.

## Assets, depreciation and capital expenditures by segment

| (dollars in millions) | Total Assets <br> (December 31) |  |  | Depreciation and Amortization (Years Ended December 31) |  |  | Capital Expenditures (Years Ended December 31) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2013 | 2015 | 2014 | 2013 | 2015 | 2014 | 2013 |
| North America | $\overline{\text { \$1,381.1 }}$ | \$1,358.5 | $\overline{\$ 1,298.6}$ | \$41.9 | \$37.8 | \$40.5 | \$43.5 | \$59.4 | \$38.0 |
| Rest of World | 544.2 | 523.8 | 525.2 | 19.8 | 20.0 | 16.8 | 28.4 | 26.5 | 59.0 |
| Corporate | 721.2 | 633.0 | 567.7 | 1.3 | 2.0 | 2.4 | 0.8 | 0.2 | 0.7 |
| Total | \$2,646.5 | $\underline{\underline{\$ 2,515.3}}$ | $\underline{\text { \$2,391.5 }}$ | \$63.0 | $\underline{\underline{\$ 59.8}}$ | \$59.7 | $\underline{\underline{\$ 72.7}}$ | \$86.1 | $\underline{\underline{\$ 97.7}}$ |

The majority of corporate assets consist of cash, cash equivalents, marketable securities and deferred income taxes.

## Net sales and long-lived assets by geographic location

The following data by geographic area includes net sales based on product shipment destination and long-lived assets based on physical location. Long-lived assets include net property, plant and equipment and other long-term assets.

| (dollars in millions) | Long-lived Assets (December 31) |  |  |  | $\begin{gathered} \text { Net Sales } \\ \text { (Years Ended December 31) } \\ \hline \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | $\underline{2014}$ | 2013 |  | 2015 | 2014 | 2013 |
| United States | \$275.2 | \$262.1 | \$238.6 | United States | \$1,531.4 | \$1,447.9 | \$1,335.4 |
| China | 145.2 | 131.9 | 134.9 | China | 787.1 | 691.8 | 581.0 |
| Canada | 2.7 | 3.6 | 4.7 | Canada | 129.9 | 128.8 | 142.5 |
| Other Foreign | 55.2 | 58.3 | 46.4 | Other Foreign | 88.1 | 87.5 | 94.9 |
| Total | \$478.3 | \$455.9 | \$424.6 | Total | \$2,536.5 | $\underline{\$ 2,356.0}$ | $\underline{\underline{\$ 2,153.8}}$ |

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## 16. Quarterly Results of Operations (Unaudited)

| doliars in milions | 1st Quarter |  | 2nd Quarter |  | 3rd Quarter |  | 4th Quarter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 | 2015 | 2014 |
| Net sales | \$618.5 | \$552.2 | \$653.5 | \$595.4 | \$625.1 | \$581.6 | \$639.4 | \$626.8 |
| Gross profit | 229.2 | 195.9 | 262.4 | 216.2 | 255.6 | 215.3 | 262.6 | 231.9 |
| Net earnings | 58.4 | 46.7 | 71.1 | 57.3 | 73.6 | 50.6 | 79.8 | 53.2 |
| Basic earnings per share | 0.65 | 0.51 | 0.80 | 0.63 | 0.83 | 0.56 | 0.91 | 0.59 |
| Diluted earnings per share | 0.65 | 0.51 | 0.79 | 0.63 | 0.82 | 0.56 | 0.90 | 0.59 |
| Common dividends declared | 0.19 | 0.15 | 0.19 | 0.15 | 0.19 | 0.15 | 0.19 | 0.15 |

Net earnings per share are computed separately for each period, and therefore, the sum of such quarterly per share amounts may differ from the total for the year.

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

## None.

## ITEM 9A - CONTROLS AND PROCEDURES

## Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) under the Securities Exchange Act of 1934, as amended ("the Exchange Act") as of the end of the period covered by this report. Based on such evaluations, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period our disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by us in the reports that we file or submit under the Exchange Act, and that information is accumulated and communicated to the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely discussions regarding required disclosure.

## Management Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our internal control over financial reporting based on the Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation, our management has concluded that, as of December 31, 2015, our internal control over financial reporting was effective.

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 risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Ernst \& Young LLP, an independent registered public accounting firm, has audited our consolidated financial statements and the effectiveness of internal controls over financial reporting as of December 31, 2015 as stated in their report which is included herein.

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## Changes in Internal Control Over Financial Reporting

In 2015, we continued the implementation of a new global enterprise resource planning system. This multi-year initiative is being conducted in phases and includes modifications to the design and operation of controls over financial reporting. We are testing internal controls over financial reporting for design effectiveness prior to the implementation of each phase, and we have monitoring controls in place over the implementation of these changes

Except as described above, there have been no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities and Exchange Act) during the year ended December 31, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## ITEM 9B - OTHER INFORMATION

None

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## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
A. O. Smith Corporation

We have audited A. O. Smith Corporation's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control -Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). A. O. Smith Corporation's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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, A. O. Smith Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of A. O. Smith Corporation as of December 31, 2015 and 2014, and the related consolidated statements of earnings, comprehensive earnings, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2015, and our report dated February 17, 2016 expressed an unqualified opinion thereon.

Ernst \& Young LLP

Milwaukee, Wisconsin
February 17, 2016

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## PART III

## ITEM 10 - DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information included under the headings "Election of Directors" and "Board Committees" in our definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) is incorporated herein by reference. The information required regarding Executive Officers of the company is included in Part I of this Annual Report on Form 10-K under the caption "Executive Officers of the Company."

We have a separately designated Audit Committee on which Gene C. Wulf, Gloster B. Current, Jr., Mark D. Smith and Idelle K. Wolf serve, with Mr. Wulf, as Chairperson. All members are independent under applicable SEC and New York Stock Exchange rules; the Board of Directors of the company has concluded that Ms. Wolf and Mr. Wulf are "audit committee financial experts" in accordance with SEC rules.

We have adopted a Financial Code of Ethics applicable to our principal executive officer, principal financial officer and principal accounting officer. As a best practice, this code has been executed by all other company officers and key financial and accounting personnel as well. In addition, we have adopted a general code of business conduct for our directors, officers and all employees, which is known as the A. O. Smith Guiding Principles. The Financial Code of Ethics, the A. O. Smith Guiding Principles and other company corporate governance matters are available on our website at www.aosmith.com. We are not including the information contained on our website as a part of or incorporating it by reference into, this Form 10-K. We intend to disclose on this website any amendments to, or waivers from, the Financial Code of Ethics or the A. O. Smith Guiding Principles that are required to be disclosed pursuant to SEC rules. There have been no waivers of the Financial Code of Ethics or the A. O. Smith Guiding Principles. Stockholders may obtain copies of any of these corporate governance documents free of charge by writing to the Corporate Secretary at the address on the cover page of this Form 10-K.

The information included under the heading "Compliance with Section 16(a) of the Securities Exchange Act" in our definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) is incorporated herein by reference.

## ITEM 11 - EXECUTIVE COMPENSATION

The information included under the headings "Executive Compensation," "Director Compensation," "Report of the Personnel and Compensation Committee" and "Compensation Committee Interlocks and Insider Participation" in the company's definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) is incorporated herein by reference.

## ITEM 12 - SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information included under the headings "Principal Stockholders" and "Security Ownership of Directors and Management" in our definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) is incorporated herein by reference.

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## Equity Compensation Plan Information

The following table provides information about our equity compensation plans as of December 31, 2015.

| Plan Category | Number of securities to be issued upon the exercise of outstanding options, warrants and rights | Weighted-average exercise price of outstanding options, warrants and rights |  | Number of securities remaining available for future issuance under equity compensation plans (excluding the first column) |
| :---: | :---: | :---: | :---: | :---: |
| Equity compensation plans approved by security holders | 1,817,959(1) | \$ | 36.05(2) | 1,994,172 ${ }^{(3)}$ |
| Equity compensation plans not approved by security holders | - |  | - | - |
| Total | $\underline{ }$ 1,817,959 | \$ | 36.05 | $\underline{\text { 1,994,172 }}$ |

(1) Consists of $1,326,779$ shares subject to stock options, 329,262 shares subject to employee share units and 161,918 shares subject to director share units.
(2) Represents the weighted average exercise price of outstanding options and does not take into account outstanding share units.
(3) Represents securities remaining available for issuance under the A. O. Smith Combined Incentive Compensation Plan. If any awards lapse, expire, terminate or are cancelled without issuance of shares, or shares are forfeited under any award, then such shares will become available for issuance under the A. O. Smith Combined Incentive Compensation Plan, hereby increasing the number of securities remaining available.

## ITEM 13 - CERTAIN RELATIONSHIPS, RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information included under the headings "Director Independence and Financial Literacy", "Compensation Committee Interlocks and Insider Participation" and "Procedure for Review of Related Party Transactions" in our definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) is incorporated herein by reference.

## ITEM 14 - PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information included under the heading "Report of the Audit Committee" in our definitive Proxy Statement for the 2016 Annual Meeting of Stockholders (to be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year) required by this Item 14 is incorporated herein by reference.

## PART IV

## ITEM 15 - EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report on Form 10-K:

1. Financial Statements of the Company

| The following consolidated financial statements of A. O. Smith Corporation are included in Item 8: | Form 10-K <br> Page Number |
| :--- | ---: |
| Consolidated Balance Sheets at December 31, 2015 and 2014 | 26 |
| For each of the three years in the period ended December 31, 2015: | 27 |
| - Consolidated Statement of Earnings | 27 |
| - Consolidated Statement of Comprehensive Earnings | 28 |
| - Consolidated Statement of Cash Flows | 29 |
| - Consolidated Statement of Stockholders' Equity | $20-53$ |

2. Financial Statement Schedules

Schedule II - Valuation and Qualifying Accounts
Schedules not included have been omitted because they are not applicable.
3. Exhibits - see the Index to Exhibits on pages 60-61 of this report. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this report on Form 10-K are listed as Exhibits 10 (a) through $10(\mathrm{~m})$ in the Index to Exhibits.

Pursuant to the requirements of Rule 14a-3(b)(10) of the Securities Exchange Act of 1934, as amended, we will, upon request and upon payment of a reasonable fee not to exceed the rate at which such copies are available from the Securities and Exchange Commission, furnish copies to our security holders of any exhibits listed in the Index to Exhibits.

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## SIGNATURES

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

Date: February 17, 2016

## A. O. SMITH CORPORATION

By: $\qquad$
/s/ Ajita G. Rajendra
Executive Chairman of the Board of Directors

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below as of February 17, 2016 by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name and Title
AJITA G. RAJENDRA
Chairman of the Board, President and Chief Executive Officer

JOHN J. KITA
Executive Vice President and Chief Financial Officer

DANIEL L. KEMPKEN
Vice President and Controller
RONALD D. BROWN
Director
GLOSTER B. CURRENT, Jr.
Director
WILLIAM P. GREUBEL
Director
PAUL W. JONES
Director

MATHIAS F. SANDOVAL
Director
BRUCE M. SMITH
Director

MARK D. SMITH
Director
IDELLE K. WOLF
Director
GENE C. WULF
Director

Signature


## INDEX TO EXHIBITS

Exhibit
Number
(3)(i)
(3)(ii)

Amended and Restated Certificate of Incorporation of A. O. Smith Corporation as amended through April 15, 2013, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2013.

By-laws of A. O. Smith Corporation as amended April 11, 2006, incorporated by reference to Exhibit 3 to the quarterly report on Form 10-Q for the quarter ended June 30, 2006.
(a) Amended and Restated Certificate of Incorporation of A. O. Smith Corporation as amended through April 15, 2013, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2013.
(b) Amended and Restated Credit Agreement, dated as of December 12, 2012, among A. O. Smith Corporation, A. O Smith Enterprises Ltd., A. O. Smith International Holdings B.V., and the financial institutions and agents party thereto, incorporated by reference to the current report on Form 8-K dated December 12, 2012.
(c) The corporation has instruments that define the rights of holders of long-term debt that are not being filed with this Registration Statement in reliance upon Item 601(b)(4)(iii) of Regulation S-K. The Registrant agrees to furnish to the Securities and Exchange Commission, upon request, copies of these instruments.

Material Contracts
(a) A. O. Smith Combined Incentive Compensation Plan, incorporated by reference as Exhibit A to the Proxy Statement filed on March 5, 2012 for the 2012 Annual Meeting of Stockholders.
(b) A. O. Smith Corporation Executive Life Insurance Plan, as amended January 1, 2009, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2008.
(c) A. O. Smith Nonqualified Deferred Compensation Plan, adopted December 1, 2008, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2008.
(d) A. O. Smith Corporation Executive Supplemental Pension Plan, as amended January 1, 2009, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2008.
(e) A. O. Smith Corporation Executive Incentive Compensation Award Agreement, incorporated by reference to the Form S-8 Registration Statement filed by the corporation on July 30, 2007 (Reg. No. 333-144950).
(f) A. O. Smith Corporation Executive Incentive Compensation Award Agreement, incorporated by reference to the quarterly report on Form 10-Q for the quarter ended March 31, 2012.
(g) Offer Letter to Paul W. Jones, dated December 9, 2003, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2007.
(h) Offer Letter to Ajita G. Rajendra, dated September 20, 2004, incorporated by reference to the annual report on Form 10-K for the fiscal year ended December 31, 2007.
(i) Amendment to Offer Letter to Ajita G. Rajendra dated December 10, 2015.
(j) Summary of Directors' Compensation incorporated by reference to the quarterly report on Form 10-Q for the quarter ended June 30, 2015.
(k) A. O. Smith Corporation Senior Leadership Severance Plan, incorporated by Reference to the quarterly report for Form 10-Q for the quarter ended June 30, 2009.
(l) Form of A. O. Smith Corporation Special Retention Award Agreement, incorporated by reference to the quarterly report on Form 10-Q for the quarter ended March 31, 2011.
(m) Stockholder Agreement dated as of December 9, 2008, between A. O. Smith Corporation and each Smith Investment Company stockholder who becomes a signatory thereto, incorporated by reference to the current report on Form 8-K dated December 9, 2008.

Subsidiaries.
Consent of Independent Registered Public Accounting Firm.
Certification by the Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act, dated February 17, 2016.
Certification by the Executive Vice-President and Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act, dated February 17, 2016.

Written Statement of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350.
Written Statement of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350.
The following materials from A. O. Smith Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2015 are filed herewith, formatted in XBRL (Extensive Business Reporting Language): (i) the Consolidated Balance Sheets as of December 31, 2015 and 2014, (ii) the Consolidated Statement of Earnings for the three years ended December 31, 2015, (iii) the Consolidated Statement of Comprehensive Earnings for the three years ended December 31, 2015, (iv) the Consolidated Statement of Cash Flows for the three years ended December 31, 2015, (v) the Consolidated Statement of Stockholders’ Equity for the three years ended December 31, 2015 and (vi) the Notes to Consolidated Financial Statements.

## A. O. SMITH CORPORATION

## SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(Dollars in millions)
Years ended December 31, 2015, 2014 and 2013

| Description | Balance at Beginning of Year |  | Charged to Costs and Expenses |  | Deductions |  | Balance at End of Year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015: |  |  |  |  |  |  |  |  |
| Valuation allowance for trade and notes receivable | \$ | 3.7 | \$ | 2.6 | \$ | (0.3) | \$ | 6.0 |
| Valuation allowance for deferred tax assets |  | 9.8 |  | 1.4 |  | (0.2) |  | 11.0 |
| 2014: |  |  |  |  |  |  |  |  |
| Valuation allowance for trade and notes receivable |  | 2.8 |  | 1.4 |  | (0.5) |  | 3.7 |
| Valuation allowance for deferred tax assets |  | 9.6 |  | 1.0 |  | (0.8) |  | 9.8 |
| 2013: |  |  |  |  |  |  |  |  |
| Valuation allowance for trade and notes receivable |  | 4.2 |  | 0.2 |  | (1.6) |  | 2.8 |
| Valuation allowance for deferred tax assets |  | 7.4 |  | 2.2 |  | - |  | 9.6 |

P.O. Box 245008

Milwaukee, WI 53224
Direct Dial Number: (414) 359-4100
Facsimile Number: (414) 359-4143
E-Mail Address: mpetrarca@aosmith.com

Mr. Ajita G. Rajendra
Chairman, President and Chief Executive Officer
A. O. Smith Corporation

11270 West Park Place, Suite 170
P. O. Box 245008

Milwaukee, WI 53224

## Re: Amendment to Offer Letter

Dear Ajita:
This letter confirms our agreement to further amend your offer dated September 20, 2004 ("Offer Letter") with respect to your pension supplement. To clarify certain issues with respect to the pension supplement described in the Offer Letter, the following replaces item 4, Pension Supplement, in the Offer Letter and in the subsequent amendment dated February 25, 2009:
4. Pension Supplement. You are entitled to a $\$ 85,000$ annual pension supplement ("Pension Supplement") as described in this paragraph 4 upon completion of ten (10) years of service with A. O. Smith (the "Corporation"). Payment of the Pension Supplement will commence upon your separation from service from the Corporation and its affiliates. The supplement will be paid semi-monthly in the amount of $\$ 3,541.67$. The term "separation from service" has the meaning given in Internal Revenue Code Section 409A and the regulations thereunder ("Section 409A").

The Pension Supplement will be due and payable on the 15th and last day of each month, starting with the month immediately following your separation from service. If, however, you are a "specified employee" within the meaning of Section 409A at the time of your separation from service, then your Pension Supplement payments will be delayed for six (6) months following your separation from service. If that occurs, then the first Pension Supplement payment due will equal $\$ 46,041.67$ (constituting 6 and $1 / 2$ months of payments) and will be paid on the fifteenth day of the seven month following your separation from service. After such date, subsequent Pension Supplement payments shall resume on the regular monthly payment schedule. The final Pension Supplement payment shall be due and payable for the month in which you die. Starting with the month after your death, no further Pension Supplement payments shall be made.

You should be aware of two important tax consequences related to the Pension Supplement. First, the present value of the Pension Supplement is treated as wages for Federal Insurance Contributions Act (FICA) tax purposes when it is vested and when the present value of the Pension Supplement is reasonably ascertainable, in accordance with the FICA regulations. We expect the present value of the Pension Supplement to be treated as taxable wages for FICA purposes in the year in which you separate from service. As permitted by Section 409A, the Corporation may direct that a portion of your vested Pension Supplement payments be accelerated and paid in a lump sum at the time the FICA tax is due in an amount equal to the FICA tax withholding amount, plus an amount equal to the income tax withholding obligations due on that accelerated payment. If that occurs, then the accelerated portion needed to cover the FICA tax amount (and income tax withholding obligations thereon) will be deemed taken from the earliest payments due. Second, the Pension Supplement payments are treated as wages for income tax withholding purposes. As such, the payments will be reported on a Form W-2 (even after you retire) and will be subject to federal and, if applicable, state income tax withholding. Accordingly, the payments actually distributed to you will be reduced by the applicable income tax withholding amounts.

If you have any questions about this matter, please feel free to contact me.

Very Truly Yours,<br>/s/ Mark A. Petrarca<br>Senior Vice President-Human Resources \& Public Affairs

## AGREED:

/s/ Ajita G. Rajendra
Date: December 10, 2015

SUBSIDIARIES: The following lists all subsidiaries and affiliates of A. O. Smith Corporation.
Name of Subsidiary
AOS Holding Company
A. O. Smith International CorporationFlame Guard Water Heaters, Inc.Jurisdiction in Which
A. O. Smith (Hong Kong) Limited
A. O. Smith India Water Products Private Limited

Products de Agua, S. de R.L. de C.V.
A.O. Smith Electrical Products B.V.
A.O. Smith Holdings II B.V.
A.O. Smith Holdings III B.V.
A.O. Smith International Holdings B.V.
A.O. Smith Products v.o.f.
A.O. Smith Water Products Company B.V.

AO Smith Su Teknolojileri Anonim Sirketi
A. O. Smith Water FZE

Lochinvar Limited

India
Mexico
The Netherlands The Netherlands The Netherlands The Netherlands The Netherlands The Netherlands

Turkey
United Arab Emirates
United Kingdom

## Exhibit 23

## CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 333-92329, 333-92428, 333-144950 and 333-170436) pertaining to the A. O. Smith Corporation Long-Term Executive Incentive Compensation Plan, the A. O. Smith Combined Executive Incentive Compensation Plan and the A. O. Smith Combined Incentive Compensation Plan and in the related prospectuses of our reports dated February 17, 2016, with respect to the consolidated financial statements and schedule of A. O. Smith Corporation, and the effectiveness of internal control over financial reporting of A. O. Smith Corporation, included in this Annual Report (Form 10-K) for the year ended December 31, 2015.

## Exhibit 31.1

## CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Ajita G. Rajendra, certify that:

1. I have reviewed this annual report on Form 10-K of A. O. Smith Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
d) Disclosed in this report any changes in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 17, 2016
/s/ Ajita G. Rajendra
Ajita G. Rajendra
President and Chief Executive Officer

## Exhibit 31.2

## CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, John J. Kita, certify that;

1. I have reviewed this annual report on Form 10-K of A. O. Smith Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
d) Disclosed in this report any changes in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 17, 2016
/s/ John J. Kita
John J. Kita
Executive Vice President and Chief Financial Officer

## Exhibit 32.1

In connection with the Annual Report of A. O. Smith Corporation (the "Company") on Form 10-K for the fiscal year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"). I, Ajita G. Rajendra, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. $\S 1350$, as adopted pursuant to $\S 906$ of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:
(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 17, 2016
/s/ Ajita G. Rajendra
Ajita G. Rajendra
President and Chief Executive Officer
This certification accompanies this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

## Exhibit 32.2

In connection with the Annual Report of A. O. Smith Corporation (the "Company") on Form 10-K for the fiscal year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"). I, John J. Kita, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. $\S 1350$, as adopted pursuant to $\S 906$ of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:
(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 17, 2016
/s/ John J. Kita
John J. Kita
Executive Vice President and Chief Financial Officer
This certification accompanies this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.


[^0]:    (1) In April 2013, we declared a 100 percent stock dividend to holders of Common Stock and Class A Common Stock which is not included in cash dividends. Basic and diluted earnings per share are calculated using the weighted average shares outstanding which were restated for all periods presented to reflect the stock dividend.
    (2) In August 2011, we sold EPC which is reflected as a discontinued operation for all periods presented.
    (3) In August 2011, we acquired Lochinvar.
    (4) Excludes the current portion of long-term debt.

