QUAKER CHEMICAL CORP
Form 10-K
February 25, 2016

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-K**

**[X] 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**

**For the transition period from to**

**Commission file number 001-12019**

**QUAKER CHEMICAL CORPORATION**

**(Exact name of Registrant as specified in its charter)**

| | |
|---|---|
| **A Pennsylvania Corporation** | **No. 23-0993790** |
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |

**One Quaker Park, 901 E. Hector Street,**

| | |
|---|---|
| **Conshohocken, Pennsylvania** | **19428-2380** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**Registrant's telephone number, including area code: (610) 832-4000**

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

| **Title of each class** | **Name of each Exchange on which registered** |
|---|---|
| **Common Stock, $1.00 par value** | **New York Stock Exchange** |

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

None

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

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

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

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes x No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 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.

x

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

| | |
|---|---|
| Large accelerated filer x | Accelerated filer |
| Non-accelerated filer | Smaller reporting company |
| (Do not check if smaller reporting company) | |

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

State the aggregate market value of voting and non-voting common equity held by non-affiliates of the Registrant. (The aggregate market value is computed by reference to the last reported sale on the New York Stock Exchange on June 30, 2015): $1,170,356,128

Indicate the number of shares outstanding of each of the Registrant's classes of common stock as of the latest practicable date: 13,207,137 shares of Common Stock, $1.00 Par Value, as of January 31, 2016.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Registrant's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on May 4, 2016 are incorporated by reference into Part III.

**PART I**

As used in this Report, the terms “Quaker,” the “Company,” “we” and “our” refer to Quaker Chemical Corporation, its subsidiaries, and associated companies, unless the context otherwise requires.

**Item 1.** ***Business.***

*General Description*

Quaker develops, produces, and markets a broad range of formulated chemical specialty products and offers chemical management services (“CMS”) for various heavy industrial and manufacturing applications in a global portfolio throughout its four regions: the North America region, the Europe, Middle East and Africa (“EMEA”) region, the Asia/Pacific region and the South America region. The principal products and services in Quaker’s global portfolio include: (i) rolling lubricants (used by manufacturers of steel in the hot and cold rolling of steel and by manufacturers of aluminum in the hot rolling of aluminum); (ii) corrosion preventives (used by steel and metalworking customers to protect metal during manufacture, storage, and shipment); (iii) metal finishing compounds (used to prepare metal surfaces for special treatments such as galvanizing and tin plating and to prepare metal for further processing); (iv) machining and grinding compounds (used by metalworking customers in cutting, shaping, and grinding metal parts which require special treatment to enable them to tolerate the manufacturing process, achieve closer tolerance, and improve tool life); (v) forming compounds (used to facilitate the drawing and extrusion of metal products); (vi) bio-lubricants (mainly used in machinery in the forestry and construction industries); (vii) hydraulic fluids (used by steel, metalworking, and other customers to operate hydraulic equipment); (viii) chemical milling maskants for the aerospace industry; (ix) temporary and permanent coatings for metal and concrete products; (x) construction products, such as flexible sealants and protective coatings, for various applications; (xi) specialty greases; (xii) die casting lubricants; and (xiii) programs to provide CMS. Individual product lines representing more than 10% of consolidated revenues for any of the past three years are as follows:

| | **2015** | **2014** | **2013** |
|---|---|---|---|
| Rolling lubricants | 18.6% | 20.1% | 20.7% |
| Machining and grinding compounds | 15.3% | 16.3% | 17.7% |
| Hydraulic fluids | 12.6% | 13.0% | 12.9% |
| Corrosion preventives | 12.0% | 12.5% | 12.5% |

A substantial portion of Quaker’s sales worldwide are made directly through its own employees and its CMS programs with the balance being handled through distributors and agents. Quaker employees visit the plants of customers regularly, actually work on site, and, through training and experience, identify production needs which can be resolved or alleviated either by adapting Quaker’s existing products or by applying new formulations developed in Quaker’s laboratories. Quaker relies less on the use of advertising, and more heavily upon its reputation in the markets which it serves. Generally, separate manufacturing facilities of a single customer are served by different personnel.

As part of the Company’s CMS, certain third-party product sales to customers are managed by the Company. Where the Company acts as principal, revenues are recognized on a gross reporting basis at the selling price negotiated with its customers. Where the Company acts as an agent, such revenue is recorded using the net reporting method as service revenues at the amount of the administrative fee earned by the Company for ordering the goods. Third-party products transferred under arrangements resulting in net reporting revenue totaled $48.6 million, $46.8 million and $41.6 million for 2015, 2014 and 2013, respectively.

The Company recognizes revenue in accordance with the terms of the underlying agreements, when title and risk of loss have been transferred, when collectability is reasonably assured, and when pricing is fixed or determinable. This generally occurs for product sales when products are shipped to customers; for consignment-type arrangements, upon usage by the customer; and for services, when they are performed. Related to other income generation, Quaker receives license fees and royalties and includes them in other income when the amounts are recognized in accordance with their agreed-upon terms, when performance obligations are satisfied, when the amount is fixed or determinable, and when collectability is reasonably assured.

During 2015, the Company expanded its business through the July 2015 acquisition of Verkol S.A. ("Verkol") for approximately $26.0 million, net of cash acquired and a post-closing adjustment settled in January 2016. Verkol is a leading specialty grease and other lubricants manufacturer based in northern Spain. Verkol is a market leader with world-class grease manufacturing capabilities and state-of-the-art research and development facilities, selling products into industrial end markets with a particular strength serving the steel industry. Also, Verkol brings a unique technology in continuous casting products that will provide the Company with cross-selling opportunities to its global steel customer base.

*Competition*

The chemical specialty industry comprises a number of companies of similar size as well as companies larger and smaller than Quaker. Quaker cannot readily determine its precise position in every industry it serves. Based on information available to Quaker, however, it is estimated that Quaker holds a leading global position (among a group in excess of 25 other suppliers) in the market for process fluids to produce sheet steel. It is also believed that Quaker holds significant global positions in the markets for process fluids in portions of the automotive and industrial markets. The offerings of many of our competitors differ from those of Quaker; some offer a broad portfolio of fluids, including general lubricants, while others have a more specialized product range. All competitors provide different levels of technical services to individual customers. Competition in the industry is based primarily on the ability to provide products that meet the needs of the customer, render technical services and laboratory assistance to the customer and, to a lesser extent, on price.

*Major Customers and Markets*

In 2015, Quaker's five largest customers (each composed of multiple subsidiaries or divisions with semi-autonomous purchasing authority) accounted for approximately 18% of our consolidated net sales, with the largest customer (Arcelor-Mittal Group) accounting for approximately 8% of our consolidated net sales. A significant portion of Quaker's revenues are realized from the sale of process fluids and services to manufacturers of steel, automobiles, aircraft, appliances, and durable goods, and, therefore, Quaker is subject to the same business cycles as those experienced by these manufacturers and their customers. Quaker's financial performance is generally correlated to the volume of global production within the industries it serves, rather than discretely related to financial performance in such industries. Furthermore, steel customers typically have limited manufacturing locations compared to metalworking customers and generally use higher volumes of products at a single location.

*Raw Materials*

Quaker uses over 1,000 various raw materials including mineral oils and derivatives, animal fats and derivatives, vegetable oils and derivatives, ethylene derivatives, solvents, surface active agents, and a wide variety of other organic and inorganic compounds. In 2015, three raw material groups (mineral oils and derivatives, animal fats and derivatives, and vegetable oils and derivatives) each accounted for approximately 10% or more of the total cost of Quaker's raw material purchases. The price of mineral oil and its derivatives can be affected by the price of crude oil and industry refining capacity. In addition, animal fat and vegetable oil prices are impacted by biodiesel consumption which is affected by the price of crude oil. Accordingly, significant fluctuations in the price of crude oil could have a material effect upon certain products used in the Company's business. Many of the raw materials used by Quaker are "commodity" chemicals which can have volatile prices. Accordingly, Quaker's earnings could be affected by market changes in raw material prices. Reference is made to the disclosure contained in Item 7A of this Report.

*Patents and Trademarks*

Quaker has a limited number of patents and patent applications, including patents issued, applied for, or acquired in the United States and in various foreign countries, some of which may prove to be material to its business. Principal reliance is placed upon Quaker's proprietary formulae and the application of its skills and experience to meet customer needs. Quaker's products are identified by trademarks that are registered throughout its marketed area.

*Research and Development—Laboratories*

Quaker's research and development laboratories are directed primarily toward applied research and development since the nature of Quaker's business requires continual modification and improvement of formulations to provide chemical specialties to satisfy customer requirements. Quaker maintains quality control laboratory facilities in each of its manufacturing locations. In addition, Quaker maintains facilities in Conshohocken, Pennsylvania; Santa Fe Springs, California; Batavia, New York; Aurora, Illinois; Dayton, Ohio; Uithoorn, The Netherlands; Karlshamn, Sweden; Navarra, Spain; Rio de Janiero, Brazil; and Qingpu, China that, in addition to quality control, are devoted primarily to applied research and development.

Research and development costs are expensed as incurred. Research and development expenses during 2015, 2014 and 2013 were $22.1 million, $22.1 million and $21.6 million, respectively.

Most of Quaker's subsidiaries and associated companies also have laboratory facilities. Although not as complete as the laboratories mentioned above, these facilities are generally sufficient for the requirements of the customers being served. If problems are encountered which cannot be resolved by local laboratories, such problems are generally referred to the laboratory staff in Conshohocken, Santa Fe Springs, Uithoorn or Qingpu.

*Regulatory Matters*

In order to facilitate compliance with applicable federal, state, and local statutes and regulations relating to occupational health and safety and protection of the environment, the Company has an ongoing program of site assessment for the purpose of identifying capital expenditures or other actions that may be necessary to comply with such requirements. The program includes periodic inspections of each facility by Quaker and/or independent experts, as well as ongoing inspections and training by on-site personnel. Such inspections address operational matters, record keeping, reporting requirements and capital improvements. Capital expenditures directed solely or primarily to regulatory compliance amounted to approximately $2.3 million, $0.8 million and $0.6 million in 2015, 2014 and 2013, respectively. In 2016, the Company expects to incur approximately $2.1 million for capital expenditures directed primarily to regulatory compliance.

*Number of Employees*

On December 31, 2015, Quaker's consolidated companies had approximately 2,040 full-time employees of whom approximately 630 were employed by the parent company and its U.S. subsidiaries and approximately 1,410 were employed by its non-U.S. subsidiaries. Associated companies of Quaker (in which it owns less than 50% and has significant influence) employed approximately 70 people on December 31, 2015.

*Company Segmentation*

The Company's reportable operating segments evidence the structure of the Company's internal organization, the method by which the Company's resources are allocated and the manner by which the Company assesses its performance. The Company's reportable operating segments are organized by geography as follows: North America, EMEA, Asia/Pacific and South America. See Note 5 of Notes to Consolidated Financial Statements included in Item 8 of this Report.

*Non-U.S. Activities*

Since significant revenues and earnings are generated by non-U.S. operations, Quaker's financial results are affected by currency fluctuations, particularly between the U.S. dollar and the euro, the Brazilian real, the Mexican peso, the Chinese renminbi and the Indian rupee, and the impact of those currency fluctuations on the underlying economies. Incorporated by reference is (i) the foreign exchange risk information contained in Item 7A of this Report, (ii) the geographic information in Note 5 of Notes to Consolidated Financial Statements included in Item 8 of this Report and (iii) information regarding risks attendant to foreign operations included in Item 1A of this Report.

*Quaker on the Internet*

Financial results, news and other information about Quaker can be accessed from the Company's website at http://www.quakerchem.com. This site includes important information on the Company's locations, products and services, financial reports, news releases and career opportunities. The Company's periodic and current reports on Forms 10-K, 10-Q, 8-K, and other filings, including exhibits and supplemental schedules filed therewith, and amendments to those reports, filed with the Securities and Exchange Commission ("SEC") are available on the Company's website, free of charge, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Information contained on, or that may be accessed through, the Company's website is not incorporated by reference in this Report and, accordingly, you should not consider that information part of this Report.

*Factors that May Affect Our Future Results*

(Cautionary Statements under the Private Securities Litigation Reform Act of 1995)

Certain information included in this Report and other materials filed or to be filed by Quaker with the SEC (as well as information included in oral statements or other written statements made or to be made by us) contain or may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the fact that they do not relate strictly to historical or current facts. We have based these forward-looking statements on our current expectations about future events. These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, intentions, financial condition, results of operations, future performance, and business, including:

- statements relating to our business strategy;
- our current and future results and plans; and
- statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "plan" or similar expressions.

Such statements include information relating to current and future business activities, operational matters, capital spending, and financing sources. From time to time, oral or written forward-looking statements are also included in Quaker's periodic reports on Forms 10-K, 10-Q and 8-K, press releases, and other materials released to, or statements made to, the public.

Any or all of the forward-looking statements in this Report, in Quaker's Annual Report to Shareholders for 2015 and in any other public statements we make may turn out to be wrong. This can occur as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties. Many factors discussed in this Report will be important in determining our future performance. Consequently, actual results may differ materially from those that might be anticipated from our forward-looking statements.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. However, any further disclosures made on related subjects in Quaker's subsequent reports on Forms 10-K, 10-Q, 8-K and other related filings should be consulted. Our forward-looking statements are subject to risks, uncertainties and assumptions about us and our operations that are subject to change based on various important factors, some of which are beyond our control. A major risk is that the demand for the Company's products and services is largely derived from the demand for its customers' products, which subjects the Company to uncertainties related to downturns in a customer's business and unanticipated customer production shutdowns. Other major risks and uncertainties include, but are not limited to, significant increases in raw material costs, customer financial stability, worldwide economic and political conditions, foreign currency fluctuations, future terrorist attacks and other acts of violence, each of which is discussed in greater detail in Item 1A of this Report. Furthermore, the Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, appliance, and durable goods manufacturers. These risks, uncertainties, and possible inaccurate assumptions relevant to our business could cause our actual results to differ materially from expected and historical results. Other factors beyond those discussed in this Report could also adversely affect us. Therefore, we caution you not to place undue reliance on our forward-looking statements. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

**Item 1A.** ***Risk Factors.***

***Changes to the industries and markets that Quaker serves could have a material adverse effect on the Company's liquidity, financial position and results of operations.***

The business environment in which the Company operates remains uncertain. The Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, appliance, and durable goods manufacturers. A major risk is that the Company's demand is largely derived from the global demand for its customers' products, which subjects the Company to uncertainties related to downturns in our customers' business and unanticipated customer production shutdowns or curtailments. The Company has limited ability to adjust its cost level contemporaneously with changes in sales and gross margins. Thus, a significant downturn in sales or gross margins due to reductions in global production within the industries the Company serves, weak end-user markets, loss of a significant customer, and/or rising raw material costs could have a material adverse effect on the Company's liquidity, financial position, and results of operations.

The specialty chemical industry comprises a number of companies of similar size as well as companies larger and smaller than Quaker. It is estimated that Quaker holds a leading and significant global position in the markets for process fluids to produce sheet steel, and significant global positions in portions of the automotive and industrial markets. The industry is highly competitive, and a number of companies with significant financial resources and/or customer relationships compete with us to provide similar products and services. Our competitors may be positioned to offer more favorable pricing and service terms, potentially resulting in reduced profitability and/or a loss of market share for us. In addition, several competitors could potentially consolidate their businesses to gain scale to better position their product offerings, which could have a negative impact on our profitability and market share. Historically, competition in the industry has been based primarily on the ability to provide products that meet the needs of the customer and render technical services and laboratory assistance to the customer and, to a lesser extent, on price. Factors critical to the Company's business include successfully differentiating the Company's offering from its competition, operating efficiently and profitably as a globally integrated whole, and increasing market share and customer penetration through internally developed business programs and strategic acquisitions.

***Our business depends on attracting and retaining qualified management and other key personnel.***

The unanticipated departure of any key member of our management team or other key personnel could have an adverse effect on our business. Given the relative size of the Company and the breadth of its global operations, there are a limited number of qualified personnel to assume the responsibilities of management level or other key employees. In addition, because of the specialized and technical nature of our business, our future performance is dependent on our ability to attract and retain qualified management, commercial, technical, or other key personnel. Competition for such personnel is intense, and we may be unable to continue to attract or retain such personnel. In an effort to mitigate such risks, the Company utilizes retention bonuses, offers competitive pay and maintains continued succession planning, but there can be no assurance that these mitigating factors will be adequate to attract or retain qualified management or other key personnel.

***Inability to obtain sufficient price increases or contract concessions to offset increases in the costs of raw materials could result in a loss of sales, gross margin, and/or market share and could have a material adverse effect on the Company's liquidity, financial position and results of operations. Conversely, an inability to implement timely price decreases to compensate for changes in raw material costs could result in a loss of sales, gross margin, and/or market share and could have a material adverse effect on the Company's liquidity, financial position and results of operations.***

Quaker uses over 1,000 various raw materials, including mineral oils and derivatives, animal fats and derivatives, vegetable oils and derivatives, ethylene derivatives, solvents, surface active agents, and a wide variety of other organic and inorganic compounds.  In 2015, three raw material groups (mineral oils and derivatives, animal fats and derivatives, and vegetable oils and derivatives) each accounted for approximately 10% or more of the total cost of Quaker's raw material purchases.  The price of mineral oils and derivatives can be affected by crude oil pricing and industry refining capacity.  Animal fat and vegetable oil prices also can be impacted by biodiesel consumption which is affected by the price of crude oil.  In addition, many of the raw materials used by Quaker are "commodity" chemicals, which can experience significant price volatility.  Accordingly, Quaker's earnings can be impacted by market changes in raw material prices.

Although the Company has been successful in the past in recovering a substantial amount of the raw material cost increases while retaining its customers, there can be no assurance that the Company can continue to recover higher raw material costs or retain customers in the future.  Conversely, the Company has been successful in maintaining acceptable levels of margin in periods of raw material price decline, but there can be no assurance that the Company can continue to maintain its margins through appropriate price and contract concessions, while retaining all customers in the future.  As a result of the Company's past pricing actions, in periods of rising and declining costs, customers may become more likely to consider competitors' products, some of which may be available at a lower cost.  A significant loss of customers could result in a material adverse effect on the Company's liquidity, financial position, and results of operations.

***Lack of availability of raw materials and issues associated with sourcing from some single suppliers and some suppliers in volatile economic environments could have a material adverse effect on the Company's liquidity, financial position and results of operations.***

The chemical specialty industry can experience some tightness of supply for certain raw materials. In addition, in some cases, we source from a single supplier and/or suppliers in economies that have experienced instability. Any significant disruption in supply could affect our ability to obtain raw materials, which could have a material adverse effect on our liquidity, financial position and results of operations. In addition, certain of the Company's raw materials are subject to various regulatory laws, and a change in the ability to legally use such raw materials may impact Quaker's liquidity, financial position and results of operations.

***Loss of a significant manufacturing facility may materially and adversely affect the Company's liquidity, financial position and results of operations.***

Quaker has multiple manufacturing facilities throughout the world. In certain countries, such as Brazil and China, there is only one such facility. If one of the Company's facilities is damaged to such extent that production is halted for an extended period, the Company may not be able to timely supply its customers. This could result in a loss of sales over an extended period, or permanently. The Company does take steps to mitigate against this risk, including contingency planning and procuring property and casualty insurance (including business interruption insurance). Nevertheless, the loss of sales in any one region over any extended period of time could have a significant material adverse effect on Quaker's liquidity, financial position and results of operations.

***Bankruptcy of a significant customer or a closure of a customer's major site could have a material adverse effect on our liquidity, financial position and results of operations.***

A significant portion of Quaker's revenues is derived from sales to customers in the steel and automotive industries; including some of our larger customers, where a number of bankruptcies have occurred in the past and where companies have experienced financial difficulties. As part of the bankruptcy process, the Company's pre-petition receivables may not be realized and customer manufacturing sites may be closed or contracts voided. The bankruptcy of a major customer could have a material adverse effect on the Company's liquidity, financial position and results of operations. Also, steel customers typically have limited manufacturing locations compared to metalworking customers and generally use higher volumes of products at a single location. The loss or closure of one or more steel mills or other major sites of a significant customer could have a material adverse effect on Quaker's business.

During 2015, our five largest customers (each composed of multiple subsidiaries or divisions with semi-autonomous purchasing authority) together accounted for approximately 18% of our consolidated net sales, with the largest customer (Arcelor-Mittal Group) accounting for approximately 8% of our consolidated net sales.

***Impairment evaluations of goodwill, intangible assets, investments or other long-lived assets could result in a reduction in our recorded asset values, which could have a material adverse effect on the Company's liquidity, financial position and results of operation.***

The Company performs reviews of goodwill and indefinite-lived intangible assets on an annual basis, or more frequently if triggering events indicate a possible impairment. The Company tests goodwill at the reporting unit level by comparing the carrying value of the net assets of the reporting unit, including goodwill, to the unit's fair value. Similarly, the Company tests indefinite-lived intangible assets by comparing the fair value of the assets to their carrying values. If the carrying values of goodwill or indefinite-lived intangible assets exceed their fair value, the goodwill or indefinite-lived intangible assets may be considered impaired. In addition, the Company will perform a review of a definite-lived intangible asset or other long-lived asset when changes in circumstances or events indicate a possible impairment. An estimate of undiscounted cash flows produced by the asset or appropriate group of assets is compared with its carrying value to determine if an impairment charge is warranted. If any impairment or related charge is warranted, then Quaker's liquidity, financial position and results of operations could be materially affected.

***Fluctuations in our effective tax rate could have a material effect on the Company's liquidity, financial position and results of operation.***

The Company is subject to income taxes in both the U.S. and various foreign jurisdictions, and our domestic and international tax liabilities are subject to the allocation of income among these different jurisdictions. Our effective tax rate is derived from a combination of local tax rates, applicable to the Company, in the various countries, states and other jurisdictions in which we operate. Our effective tax rate and respective tax liabilities could, therefore, be materially affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in tax rates, expiration or lapses of tax credits or incentives, changes in uncertain tax positions, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws, including matters such as transfer pricing. In addition, we are regularly under audit by tax authorities, and the final decisions of such audits could materially affect our current tax estimates and tax positions. Any of these factors, or similar tax-related risks, could cause the Company to experience an effective tax rate and tax-related payments that significantly differ from previous periods or current expectations, which could have a significant material effect on Quaker's liquidity, financial position and results of operations.

***Failure to comply with any material provision of our primary credit facility or other debt agreements could have a material adverse effect on our liquidity, financial position and results of operations.***

The Company's primary credit line is a $300 million unsecured multicurrency credit agreement with a group of lenders, which matures in June 2018. The amount available under this facility can be increased to $400 million at the Company's option if lenders agree to increase their commitments and the Company satisfies certain conditions. This facility provides the availability of revolving credit borrowings, and, in general, bears interest at either a base rate or LIBOR plus a margin based on the Company's consolidated leverage ratio.

The facility contains covenants that impose certain restrictions, including limitations on investments, acquisitions and liens, as well as default provisions customary for facilities of its type. While these covenants and restrictions are not currently considered to be overly restrictive, they could become more difficult to comply with as our business or financial conditions change. In addition, deterioration in the Company’s results of operations or financial position could significantly increase borrowing costs.

Quaker is exposed to market rate risk for changes in interest rates, due to the variable interest rate applied to the Company’s borrowings under its credit facilities. Accordingly, if interest rates rise significantly, the cost of debt to Quaker will increase, perhaps significantly, depending on the extent and timing of Quaker’s borrowings under the credit facilities. At December 31, 2015, the Company had $62.9 million in outstanding borrowings under its credit facilities. Incorporated by reference is the interest rate risk information contained in Item 7A of this Report.

***Environmental laws and regulations and/or pending and future legal proceedings may materially and adversely affect the Company’s liquidity, financial position, and results of operations, as well as its reputation in the markets it serves.***

The Company is a party to proceedings, cases, and requests for information from, and negotiations with, various claimants and federal and state agencies relating to various matters, including environmental matters. An adverse result in one or more pending or on-going matters or any potential future matter of a similar nature could materially and adversely affect the Company’s liquidity, financial position, and results of operations, as well as its reputation in the markets it serves. Incorporated herein by reference is the information concerning pending asbestos-related litigation against an inactive subsidiary, amounts accrued associated with certain environmental, non-capital remediation costs and other potential commitments or contingencies highlighted in Note 23 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

***Failure to comply with the complex global regulatory environment in which the Company operates could have an adverse impact on the Company’s reputation and/or a material adverse effect on the Company’s liquidity, financial position and results of operations.***

Changes in the regulatory environment in which the Company operates, particularly, but not limited to, the United States, Brazil, China, India and the European Union, could lead to heightened regulatory scrutiny, could adversely impact our ability to continue selling certain products in our domestic or foreign markets and/or could increase the cost of doing business. For instance, the European Union’s Registration, Authorization and Restriction of Chemicals (“REACH”), and analogous non-E.U. laws and regulations or other similar laws and regulations, could result in fines, ongoing monitoring and other future business activity, which could have a material adverse effect on the Company’s liquidity, financial position and results of operations. In addition, non-compliance with applicable laws and regulations, particularly the U.S. Foreign Corrupt Practices Act (“FCPA”), the U.K. Bribery Act and other similar laws and regulations, could result in a negative impact to the Company’s reputation, potential fines or ongoing monitoring, which could also have a material adverse effect on the Company’s liquidity, financial position, and results of operations.

***Potential product, service or other related liability claims could have a material adverse effect on the Company's liquidity, financial position and results of operations.***

The development, manufacture and sale of specialty chemical products and other related services involve inherent exposure to potential product liability claims, service level claims, product recalls and related adverse publicity. Any of these potential product or service risks could also result in substantial and unexpected expenditures and affect customer confidence in our products and services, which could have a material adverse effect on the Company's liquidity, financial position and results of operations. Although the Company maintains product and other general liability insurance, there can be no assurance that the types or levels of coverage maintained are adequate to cover these potential risks. In addition, the Company may not be able to continue to maintain its existing insurance coverage or obtain comparable or additional insurance coverage at a reasonable cost, if at all, in the event a significant product or service claim arises.

***We may be unable to adequately protect our proprietary rights and trade brands, which may limit the Company's ability to compete in its markets.***

Quaker has a limited number of patents and patent applications, including patents issued, applied for, or acquired in the United States and in various foreign countries, some of which may prove to be material to its business. Principal reliance is placed upon Quaker's proprietary formulae and the application of its skills and experience to meet customer needs. Also, Quaker's products are identified by trademarks that are registered throughout its marketed area. Despite our efforts to protect such proprietary information through patent and trademark filings, through the use of appropriate trade secret protections and through the inability of certain products to be effectively replicated by others, it is possible that competitors or other unauthorized third parties may obtain, copy, use or disclose our technologies, products, and processes. In addition, the laws and/or judicial systems of foreign countries in which we design, manufacture, market and sell our products may afford little or no effective protection of our proprietary technology or trade brands. These potential risks to our proprietary information and trade brands could subject the Company to increased competition and negatively impact our liquidity, financial position and results of operations.

***We might not be able to timely develop, manufacture and gain market acceptance of new and enhanced products required to maintain or expand our business.***

We believe that our continued success depends on our ability to continuously develop and manufacture new products and product enhancements on a timely and cost-effective basis, in response to customers' demands for higher performance process chemicals, coatings, greases and other chemical products. Our competitors may develop new products or enhancements to their products that offer performance, features and lower prices that may render our products less competitive or obsolete, and, as a consequence, we may lose business and/or significant market share. The development and commercialization of new products require significant expenditures over an extended period of time, and some products that we seek to develop may never become profitable. In addition, we may not be able to develop and introduce products incorporating new technologies in a timely manner that will satisfy our customers' future needs or achieve market acceptance.

***An inability to appropriately capitalize on growth, including prior acquisitions, organic growth, or future acquisitions, may adversely affect the Company's liquidity, financial position and results of operations.***

Quaker has completed several acquisitions recently and in the past several years and, also, may continue to seek acquisitions to grow its business in the future. The success of the Company's growth depends on its ability to successfully integrate these acquisitions, including, but not limited to its ability to do the following:

- successfully execute the integration or consolidation of the acquired or additional business into existing processes and operations;
- develop or modify financial reporting, information systems and other related financial tools to ensure overall financial integrity and adequacy of internal control procedures;
- identify and take advantage of potential cost reduction opportunities, while maintaining legacy business and other related attributes; and
- further penetrate existing, and expand into new, markets with the product capabilities acquired in acquisitions.

In addition, the Company continues to grow organically through increased end-market growth, incremental market share gains, and extending past acquisitions of adjacent technologies through its existing channels. Such growth is dependent on prevailing market conditions and the Company's ability to execute over time.

Therefore, the Company may fail to derive significant benefits or may not create the appropriate infrastructure to support such additional growth from organic or acquired businesses, which could have a material adverse effect on Quaker's liquidity, financial position, and results of operations.

***The scope of our international operations subjects the Company to risks including, but not limited to, risks from currency fluctuations, changes in trade regulations, political and economic instability, and complex local tax environments.***

Since significant revenues and earnings are generated by non-U.S. operations, Quaker's financial results are affected by currency fluctuations, particularly between the U.S. dollar and the euro, the Brazilian real, the Mexican peso, the Chinese renminbi, and the Indian rupee, and the impact of those currency fluctuations on the underlying economies.

During the past three years, sales by non-U.S. subsidiaries accounted for approximately 60% of our consolidated net sales. Generally, all of the Company's operations use their local currency as their functional currency. The Company generally does not use financial instruments that expose it to significant risk involving foreign currency transactions; however, the relative size of its non-U.S. activities has a significant impact on reported operating results and the Company's net assets. Therefore, as exchange rates vary, Quaker's results can be materially affected. Incorporated by reference is the foreign exchange risk information contained in Item 7A of this Report and the geographic information in Note 5 of Notes to Consolidated Financial Statements included in Item 8 of this Report.

The Company often sources inventory among its worldwide operations. This practice can give rise to foreign exchange risk resulting from the varying cost of inventory to the receiving location, as well as from the revaluation of intercompany balances. The Company mitigates this risk through local sourcing efforts.

Additional risks associated with the Company's international operations include, but are not limited to: instability in economic conditions from country to country; changes in a country's political condition; trade protection measures; longer payment cycles; licensing and other legal requirements; restrictions on the repatriation of our assets, including cash; the difficulties of staffing and managing dispersed international operations; less protective foreign intellectual property laws; legal systems that may be less developed and predictable than those in the United States; and complex and dynamic local tax regulations.

The breadth of Quaker's international operations subjects the Company to various local non-income taxes, including value-added-taxes ("VAT"). With VAT and other similar taxes, the Company essentially operates as an agent for various jurisdictions by collecting VAT-related taxes from customers and remitting those amounts to the taxing authorities on the goods it sells. The laws and regulations regarding VAT-related taxes can be complex and vary widely among countries, as well as among individual jurisdictions within a given country, and for the same products, making full compliance difficult. As VAT and other similar taxes are often charged as a percentage of the selling price of the goods sold, the amounts involved can be material. Should there be non-compliance by the Company, it may need to remit funds to the tax authorities prior to collecting the appropriate amounts from the customers or jurisdictions, which may have been incorrectly paid. In addition, the Company may choose for commercial reasons not to seek repayment from certain customers. This could have a material adverse effect on the Company's liquidity, financial position and results of operations. See Note 23 of Notes to Consolidated Financial Statements, included in Item 8 of this Report, which is incorporated herein by this reference, for further discussion.

***Disruption of critical information systems or material breaches in the security of our systems may adversely affect our business and our customer relationships.***

Quaker relies on information technology systems to process, transmit, and store electronic information in our day-to-day operations. The Company also relies on its technology infrastructure, among other functions, to interact with customers and suppliers, fulfill orders and bill, collect and make payments, ship products, provide support to customers, fulfill contractual obligations and otherwise conduct business. Our information technology systems are subject to potential disruptions, including significant power outages, cyberattacks, computer viruses, other malicious codes, and/or unauthorized access attempts, any of which, if successful, could result in data leaks or otherwise compromise our confidential or proprietary information and disrupt our operations. Cybersecurity incidents, such as these, are becoming more sophisticated and frequent, and there can be no assurance that our protective measures will prevent security breaches that could have a significant impact on our business, reputation and financial results. Failure to monitor, maintain or protect our information technology systems and data integrity effectively or, to anticipate, plan for and recover from significant disruptions to these systems could have a material adverse effect on our business, results of operations or financial condition.

***Terrorist attacks, other acts of violence or war, natural disasters or other uncommon global events may affect the markets in which we operate and our profitability.***

Terrorist attacks, other acts of violence or war, natural disasters or other uncommon global events may negatively affect our operations. There can be no assurance that there will not be further terrorist attacks against the U.S. or other locations where we do business. Also, other uncommon global events, such as earthquakes, fires and tsunami, cannot be predicted. Terrorist attacks, other acts of violence or armed conflicts, and natural disasters may directly impact our physical facilities and/or those of our suppliers or customers. Additional terrorist attacks or natural disasters may disrupt the global insurance and reinsurance industries with the result that we may not be able to obtain insurance at historical terms and levels, if at all, for all of our facilities. Furthermore, any of these events may make travel and the transportation of our supplies and products more difficult and more expensive and ultimately affect the sales of our products. The consequences of terrorist attacks, other acts of violence or armed conflicts, natural disasters or other uncommon global events can be unpredictable, and we may not be able to foresee events, such as these, that could have a material adverse effect on our business.

**Item 1B.** ***Unresolved Staff Comments.***

None.

**Item 2.** ***Properties.***

Quaker's corporate headquarters and a laboratory facility are located in its North American segment's Conshohocken, Pennsylvania location. The Company's other principal facilities in its North American segment are located in Aurora, Illinois; Detroit, Michigan; Middletown, Ohio; Santa Fe Springs, California; Batavia, New York; Dayton, Ohio; and Monterrey, N.L., Mexico. The Company's EMEA segment has principal facilities in Uithoorn, The Netherlands; Barcelona, Spain; Navarra, Spain; Karlshamn, Sweden; and Tradate, Italy. The Company's Asia/Pacific segment operates out of its principal facilities located in Qingpu, China; Kolkata, India; and Sydney, Australia, while its South American segment operates out of its principal facility in Rio de Janeiro, Brazil. With the exception of the Conshohocken, Santa Fe Springs, Aurora, Karlshamn, and Sydney sites, which are leased, the remaining principal facilities are owned by Quaker and, as of December 31, 2015, were mortgage free. Quaker also leases sales, laboratory, manufacturing, and warehouse facilities in other locations.

Quaker's principal facilities (excluding Conshohocken) consist of various manufacturing, administrative, warehouse, and laboratory buildings. Substantially all of the buildings (including Conshohocken) are of fire-resistant construction and are equipped with sprinkler systems. All facilities are primarily of masonry and/or steel construction and are adequate and suitable for Quaker's present operations. The Company has a program to identify needed capital improvements that are implemented as management considers necessary or desirable. Most locations have various numbers of raw material storage tanks, ranging from 2 to 58, at each location with a capacity ranging from 1,000 to 82,000 gallons, and processing or manufacturing vessels ranging in capacity from 7 to 16,000 gallons.

Each of Quaker's non-U.S. associated companies (in which it owns less than 50% interest and has significant influence) owns or leases a plant and/or sales facilities in various locations, with the exception of Primex, Ltd.

**Item 3.** ***Legal Proceedings.***

The Company is a party to proceedings, cases, and requests for information from, and negotiations with, various claimants and Federal and state agencies relating to various matters, including environmental matters. For information concerning pending asbestos-related litigation against an inactive subsidiary, amounts accrued associated with certain environmental non-capital remediation costs and the Company's value-added tax dispute settlements, reference is made to Note 23 of Notes to Consolidated Financial Statements, included in Item 8 of this Report, which is incorporated herein by this reference. The Company is a party to other litigation which management currently believes will not have a material adverse effect on the Company's results of operations, cash flow or financial condition.

**Item 4.** ***Mine Safety Disclosures.***

Not Applicable

**Item 4(a).** ***Executive Officers of the Registrant.***

Set forth below is information regarding the executive officers of the Company, each of whom (with the exception of Ms. Hall and Mr. Hostetter) have been employed by the Company for more than five years, including the respective positions and offices with the Company held by each over the respective periods indicated. Each of the executive officers, with the exception of Mr. Hostetter, is elected annually to a one-year term. Mr. Hostetter is considered an executive officer in his capacity as principal accounting officer for purposes of this Item.

| Name, Age, and Present Position with the Company | Business Experience During the Past Five Years and Period Served as an Officer |
|---|---|
| Michael F. Barry, 57<br><br>Chairman of the Board, Chief Executive Officer and President and Director | Mr. Barry, who has been employed by the Company since 1998, has served as Chairman of the Board since May 2009, in addition to his position as Chief Executive Officer and President held since October 2008. He served as interim Chief Financial Officer from October 22, 2015 until November 29, 2015. He served as Senior Vice President and Managing Director – North America from January 2006 to October 2008. He served as Senior Vice President and Global Industry Leader – Metalworking and Coatings from July through December 2005. He served as Vice President and Global Industry Leader – Industrial Metalworking and Coatings from January 2004 through June 2005 and Vice President and Chief Financial Officer from 1998 to August 2004. |
| Mary Dean Hall, 58<br><br>Vice President, Chief Financial Officer and Treasurer | Ms. Hall has served as Vice President, Chief Financial Officer and Treasurer since she joined the Company on November 30, 2015. Prior to joining the Company, Ms. Hall served as the Vice President and Treasurer of Eastman Chemical Company from April 2009 until October 2015. Prior to that role, she held various senior-level financial positions of increasing responsibility with Eastman from 1995 until April 2009, including Treasurer, Vice President and Controller, and Vice President, Finance. |
| D. Jeffry Benoliel, 57<br><br>Vice President and Global Leader – Metalworking, Can and Mining | Mr. Benoliel, who has been employed by the Company since 1995, has served as Global Leader – Mining since May 2014, in addition to his position as Vice President and Global Leader – Metalworking and Can since July 2013 and his role as Corporate Secretary, a position held from 1998 through March 2015. He served as Vice President – Global Metalworking and Fluid Power from June 2011 through June 2013 and served as General Counsel from 2001 to March 2012. He served as Vice President – Global Strategy from October 2008 to June 2011. |
| Joseph A. Berquist, 44 | |

| | |
|---|---|
| Vice President and Managing Director – North America | Mr. Berquist, who has been employed by the Company since 1997, has served as Vice President and Managing Director – North America since April 2010. He served as Senior Director, North America Commercial from October 2008 through March 2010. |
| Ronald S. Ettinger, 63<br>Vice President – Human Resources | Mr. Ettinger, who has been employed by the Company since 2002, has served as Vice President-Human Resources since December 2011. He served as Director-Global Human Resources from August 2005 through November 2011. |
| Shane W. Hostetter, 34<br>Global Controller | Mr. Hostetter, who has been employed by the Company since July 2011, has served as Global Controller since September 2014. He served as Corporate Controller from May 2013 to August 2014. He served as Assistant Global Controller from July 2011 to May 2013. Prior to joining the Company, Mr. Hostetter led the financial reporting department for Pulse Electronics Corporation (formerly Technitrol, Inc.) from May 2008 to June 2011. |

| **Name, Age, and Present Position with the Company** | **Business Experience During the Past Five Years and Period Served as an Officer** |
|---|---|
| Dieter Laininger, 52<br>Vice President and Managing Director – South America and Global Leader – Primary Metals | Mr. Laininger, who has been employed by the Company since 1991, has served as Vice President and Managing Director – South America, since January 2013, in addition to his position as Vice President and Global Leader – Primary Metals, to which he was appointed in June 2011. He served as Industry Business Director for Steel and Metalworking – EMEA from March 2001 through July 2011. |
| Joseph F. Matrange, 73<br>Vice President and Global Leader – Coatings | Mr. Matrange, who has been employed by the Company since 2000, has served as Vice President and Global Leader – Coatings since October 2008. He has also served as President of AC Products, Inc., a California subsidiary, since October 2000, and Epmar Corporation, a California subsidiary, since April 2002. |
| Jan F. Nieman, 54<br>Vice President and Global Leader – Grease and Fluid Power, Global Strategy and Marketing | Mr. Nieman, who has been employed by the Company since 1992, has served as Vice President – Global Strategy and Marketing since May 2014, in addition to his position as Global Leader – Grease and Fluid Power since August 2013. He also served as Global Leader – Mining from August 2013 through April 2014. He served as Vice President and Managing Director – Asia/Pacific from February 2005 through July 2013. |
| Wilbert Platzer, 54<br>Vice President and Managing Director – EMEA | Mr. Platzer, who has been employed by the Company since 1995, has served as Vice President and Managing Director – EMEA since January 2006. |
| Adrian Steeples, 55<br>Vice President and Managing Director – Asia/Pacific | Mr. Steeples, who has been employed by the Company since 2010, has served as Vice President and Managing Director – Asia/Pacific since July 2013. He served as Industry Business Director – Metalworking from March 2011 through June 2013, and Manager, European and Global Special Projects, from May 2010 through February 2011. Prior to joining the Company, he worked for the BP Group serving as BP/Castrol European and Asian Pacific |

Sales Director in Industrial Lubricants and Services from January 2009 through December 2009.

## PART II

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

The Company's common stock is listed on the New York Stock Exchange ("NYSE") under the trading symbol KWR. The following table sets forth, for the calendar quarters during the two most recent fiscal years, the range of high and low sales prices for the common stock as reported on the NYSE composite tape (amounts rounded to the nearest penny), and the quarterly dividends declared and paid:

| | Price Range | | | | Dividends Declared | | Dividends Paid | |
|---|---|---|---|---|---|---|---|---|
| | 2015 | | 2014 | | | | | |
| | High | Low | High | Low | 2015 | 2014 | 2015 | 2014 |
| First quarter | $ 92.72 | $ 78.03 | $ 80.91 | $ 65.19 | $ 0.30 | $ 0.25 | $ 0.30 | $ 0.25 |
| Second quarter | 90.69 | 80.69 | 81.70 | 71.16 | 0.32 | 0.30 | 0.30 | 0.25 |
| Third quarter | 95.74 | 75.04 | 79.59 | 69.17 | 0.32 | 0.30 | 0.32 | 0.30 |
| Fourth quarter | 85.99 | 75.42 | 93.56 | 67.29 | 0.32 | 0.30 | 0.32 | 0.30 |

There are no restrictions that currently limit the Company's ability to pay dividends or that the Company believes are likely to materially limit the payment of future dividends. If a default under the Company's primary credit facility were to occur and continue, the payment of dividends would be prohibited. Reference is made to the "Liquidity and Capital Resources" disclosure contained in Item 7 of this Report.

As of January 15, 2016, there were 919 shareholders of record of the Company's common stock, its only outstanding class of equity securities.

Every holder of Quaker common stock is entitled to one vote or ten votes for each share held of record on any record date depending on how long each share has been held. As of January 15, 2016, 13,263,626 shares of Quaker common stock were issued and outstanding. Based on the information available to the Company on January 15, 2016, we estimate as of that date the holders of record of 758,390 shares of Quaker common stock would have been entitled to cast ten votes for each share, or approximately 38% of the total votes that would have been entitled to be cast as of that record date, and the holders of record of 12,505,236 shares of Quaker common stock would have been entitled to cast one vote for each share, or approximately 62% of the total votes that would have been entitled to be cast as of that date. The number of shares that are indicated as entitled to one vote includes those shares presumed to be entitled to only one vote. Because the holders of these shares may rebut this presumption, the total number of votes entitled to be cast as of January 15, 2016 could be more than 20,089,136.

Reference is made to the information in Item 12 of this Report under the caption "Equity Compensation Plans," which is incorporated herein by this reference.

The following table sets forth information concerning shares of the Company's common stock acquired by the Company during the fourth quarter of the fiscal year covered by this Report:

**<u>Issuer Purchases of Equity Securities</u>**

| | (a) Total Number | (b) Average | (c) Total Number of Shares Purchased as part of Publicly | (d) Approximate Dollar Value of Shares that May Yet be |
|---|---|---|---|---|

| Period | of Shares Purchased (1) | Price Paid Per Share | Announced Plans or Programs | Purchased Under the Plans or Programs (1) |
|---|---|---|---|---|
| October 1 - October 31 | 13,838 | $ 80.17 | 13,838 | $ 93,901,217 |
| November 1 - November 30 | 12,580 | $ 81.08 | 12,580 | $ 92,881,217 |
| December 1 - December 31 | 1,858 | $ 84.66 | 1,858 | $ 92,723,918 |
| Total | 28,276 | $ 80.87 | 28,276 | $ 92,723,918 |

(1) On May 6, 2015, the Company's Board of Directors approved, and the Company announced, a new share repurchase program, pursuant to which the Company is authorized to repurchase up to $100,000,000 of Quaker Chemical Corporation common stock (the "2015 Share Repurchase Program"). The 2015 Share Repurchase Program has no expiration date. All of the shares acquired by the Company during the applicable respective periods were acquired pursuant to the 2015 Share Repurchase Program.

The following graph compares the cumulative total return (assuming reinvestment of dividends) from December 31, 2010 to December 31, 2015 for (i) Quaker's common stock, (ii) the S&P SmallCap 600 Index (the "SmallCap Index"), and (iii) the S&P 600 Materials Group Index (the "Materials Group Index"). The graph assumes the investment of $100 on December 31, 2010 in each of Quaker's common stock, the stocks comprising the SmallCap Index and the stocks comprising the Materials Group Index.

| | **12/31/2010** | **12/31/2011** | **12/31/2012** | **12/31/2013** | **12/31/2014** | **12/31/2015** |
|---|---|---|---|---|---|---|
| Quaker | $ 100.00 | $ 95.60 | $ 135.22 | $ 196.47 | $ 238.15 | $ 202.90 |
| SmallCap Index | 100.00 | 101.02 | 117.51 | 166.05 | 175.61 | 172.15 |
| Materials Group Index | 100.00 | 91.73 | 114.94 | 156.10 | 156.56 | 116.41 |

**Item 6.** ***Selected Financial Data.***

The following table sets forth selected financial data for the Company and its consolidated subsidiaries:

| | **Year Ended December 31,** | | | | |
|---|---|---|---|---|---|
| *(in thousands, except dividends and per share data):* | **2015 (1)** | **2014 (2)** | **2013 (3)** | **2012 (4)** | **2011 (5)** |
| Summary of Operations: | | | | | |
| Net sales | $ 737,555 | $ 765,860 | $ 729,395 | $ 708,226 | $ 683,231 |
| Income before taxes and equity in net income of associated companies | 70,230 | 78,293 | 72,826 | 62,948 | 59,377 |
| Net income attributable to Quaker Chemical Corporation | 51,180 | 56,492 | 56,339 | 47,405 | 45,892 |
| Per share: | | | | | |
| Net income attributable to Quaker Chemical Corporation Common Shareholders - basic | $ 3.84 | $ 4.27 | $ 4.28 | $ 3.64 | $ 3.71 |
| Net income attributable to Quaker Chemical Corporation Common Shareholders - diluted | $ 3.84 | $ 4.26 | $ 4.27 | $ 3.63 | $ 3.66 |
| Dividends declared | 1.260 | 1.150 | 0.995 | 0.975 | 0.955 |
| Dividends paid | 1.24 | 1.10 | 0.99 | 0.97 | 0.95 |
| Financial Position | | | | | |
| Working capital | $ 241,298 | $ 226,617 | $ 197,991 | $ 170,018 | $ 152,900 |
| Total assets | 685,513 | 665,526 | 584,146 | 536,634 | 511,152 |
| Long-term debt | 81,439 | 75,328 | 17,321 | 30,000 | 46,701 |
| Total equity | 381,243 | 365,135 | 344,696 | 289,676 | 261,357 |

Notes to the above table *(in thousands)*:

(1) The results of operations for 2015 include equity income from a captive insurance company of $2,078 after tax; offset by an after-tax charge of $2,806 related to a currency conversion charge at the Company's 50% owned equity affiliate in Venezuela; $2,813 of one-time transaction expenses related to the Company's July 2015 acquisition of Verkol S.A.; $173 of charges related to cost streamlining initiatives in the Company's South American segment; $328 of charges related to certain U.S. customer bankruptcies; and $6,790 of charges related to a global restructuring program.

(2) The results of operations for 2014 include equity income from a captive insurance company of $2,412 after tax; offset by an after-tax charge of $321 related to a currency conversion charge at the Company's 50% owned equity affiliate in Venezuela; $1,166 of charges related to cost streamlining initiatives in the Company's EMEA and South American segments; a $902 charge related to a U.K. pension plan amendment; and $825 of charges related to certain customer bankruptcies.

(3) The results of operations for 2013 include equity income from a captive insurance company of $5,451 after tax; an increase to other income of $2,540 related to a mineral oil excise tax refund; and an increase to other income of $497 related to a change in an acquisition-related earnout liability; partially offset by an after-tax charge of $357 related to a currency conversion charge at the Company's 50% owned equity affiliate in Venezuela; $1,419 of charges related to cost streamlining initiatives in the Company's EMEA and South American segments; and a $796 net charge related to a non-income tax contingency.

(4) The results of operations for 2012 include equity income from a captive insurance company of $1,812 after tax; and an increase to other income of $1,737 related to a change in an acquisition-related earnout liability; partially offset by a charge of $1,254 related to the bankruptcy of certain customers in the U.S.; and a charge of $609 related to CFO transition costs.

(5) The results of operations for 2011 include equity income from a captive insurance company of $2,323 after tax; an increase to other income of $2,718 related to the revaluation of the Company's previously held ownership interest in Tecniquimia Mexicana S.A de C.V. to its fair value; and an increase to other income of $595 related to a change in an acquisition-related earnout liability.

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

*Executive Summary*

Quaker Chemical Corporation is a leading global provider of process fluids, chemical specialties, and technical expertise to a wide range of industries, including steel, aluminum, automotive, mining, aerospace, tube and pipe, cans, and others. For nearly 100 years, Quaker has helped customers around the world achieve production efficiency, improve product quality, and lower costs through a combination of innovative technology, process knowledge, and customized services. Headquartered in Conshohocken, Pennsylvania USA, Quaker serves businesses worldwide with a network of dedicated and experienced professionals whose mission is to make a difference.

The Company delivered solid operating results in 2015, despite significant foreign exchange headwinds and challenging market conditions, most notably, lower global steel production. Net sales were $737.6 million for 2015 compared to $765.9 million for 2014. The 4% decrease in net sales was primarily driven by the negative impact of foreign currency translation of $53.6 million, or 7%, and declines in selling price and product mix of 1%, which offset the Company's product volume and acquisition-related growth of 4% in 2015. Gross profit improved year-over-year primarily as a result of higher gross margin of 37.6% for 2015 compared to 35.7% for 2014, due to timing of certain raw material cost decreases in 2015 compared to 2014. Selling, general and administrative expenses ("SG&A") increased $3.1 million from 2014, due to several factors, including higher labor-related costs and incremental costs associated with the Company's recent acquisitions, including certain one-time transaction expenses of $2.8 million incurred with the Company's third quarter of 2015 Verkol S.A. ("Verkol") acquisition, partially offset by the impact of foreign currency translation. Also, the Company incurred expenses of $6.8 million in 2015 related to a global restructuring program, which included costs to reduce total headcount by approximately 65 employees globally and to close certain non-manufacturing locations. The Company expects to substantially complete this program in 2016 and currently projects pre-tax cost savings as a result of this program to be approximately $3 million in 2016 and approximately $6 million annually in subsequent years. The net result of the Company's operating performance in 2015, supplemented by a lower tax rate compared to 2014, was earnings per diluted share of $3.84 for 2015 compared to $4.26 for 2014. With the fourth quarter of 2015 restructuring expenses and other uncommon items excluded, the Company's non-GAAP earnings per diluted share increased 4% to $4.43 for 2015 compared to $4.26 for 2014. The Company was able to achieve these reported and non-GAAP results despite a negative impact of $0.31 per diluted share, or 7%, from changes in foreign exchange rates and, also, lower global steel production. As a result of this non-GAAP earnings growth, the Company's adjusted EBITDA increased 2% to $101.6 million for 2015 compared to $99.8 million in 2014. See the Non-GAAP Measures section of this Item, below, as well as other items discussed in the Company's Consolidated Operations Review, in the Operations section of this Item, below.

From a regional perspective, the Company's 2015 operating performance was driven primarily by its North America and Asia/Pacific regions, which experienced increased volumes and higher gross margins. Notably, North America included contributions from a full year of the 2014 acquisition of ECLI Products, LLC ("ECLI"). However, both regions were negatively impacted by foreign currency translation, due to the weakening against the U.S. dollar of the Mexican peso and the Chinese renminbi, Indian rupee and Australian dollar, respectively. Related to Europe, Middle East and Africa ("EMEA"), the region's results decreased from 2014 mainly due to the weakening of the euro against the U.S. dollar, as well as declines in selling price and product mix, which offset higher product volumes, including contributions from the Company's 2015 and 2014 acquisitions of Verkol and Binol AB ("Binol"), respectively. Finally, South America's performance continued to be negatively impacted by the economic downturn and related effects on end-user production in Brazil. In addition, foreign exchange continued to negatively impact South America's results, due to the weakening of the Brazilian real and the Argentinian peso against the U.S. dollar. These decreases to the region's performance were partially offset by the positive effects of selling price and product mix and lower labor-related costs as a result of the cost streamlining initiatives taken in this segment during 2013 and 2014. See the Reportable Operating Segment Review, in the Operations section of this Item, below.

The Company's solid operating performance, coupled with lower cash invested in the Company's working capital, increased its net operating cash flow by $18.7 million, or 34%, to $73.4 million for 2015 compared to $54.7 million for 2014. The most notable driver of the Company's working capital improvement was the decrease of cash outflow from accounts receivable, primarily due to the levels of sales at each year-end and, also, better timing of cash receipts. These working capital changes are further discussed in the Company's Liquidity and Capital Resources section of this Item, below.

Overall, the Company is pleased with its 2015 operating performance. Specifically, the Company was able to grow its non-GAAP earnings by 4% and deliver strong cash flow despite significant foreign exchange headwinds, weak economic conditions in several regions, especially in South America, and lower global production in the Company's largest market, steel. In addition, the Company's sales continued to be impacted by downward price adjustments due to lower raw material costs. The Company's performance, despite these headwinds, was highlighted by further market share gains, leveraging of past acquisitions, improved gross margin, and controlled SG&A levels which fell to the bottom line and produced the Company's sixth consecutive year of non-GAAP earnings and adjusted EBITDA growth. Looking forward to 2016, while the Company anticipates a continued strong U.S. dollar, further pricing pressure to adjust to a lower raw material cost environment, and continued uncertain economic conditions in South America and China, the Company believes its track record of market share gains and leveraging of past acquisitions will continue to offset these market challenges. Also, the Company's restructuring program will allow it to further gain SG&A leverage and yield meaningful cost savings into 2016. Finally, the Company's strong cash flow generation and balance sheet continue to be strengths that will allow for future key strategic initiatives and acquisitions. The Company's 2016 plans indicate growth in its top and bottom lines despite currency headwinds. Overall, the Company remains confident in its future and expects 2016 to be another good year for Quaker, as the Company expects to increase non-GAAP earnings and adjusted EBITDA for a seventh consecutive year.

*Critical Accounting Policies and Estimates*

Quaker's discussion and analysis of its financial condition and results of operations are based upon Quaker's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires Quaker to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, Quaker evaluates its estimates, including those related to customer sales incentives, product returns, bad debts, inventories, property, plant and equipment, investments, goodwill, intangible assets, income taxes, financing operations, business combinations, restructuring, incentive compensation plans (including equity-based compensation), pensions and other postretirement benefits, and contingencies and litigation. Quaker bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under such circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. However, actual results may differ from these estimates under different assumptions or conditions.

Quaker believes the following critical accounting policies describe the more significant judgments and estimates used in the preparation of its consolidated financial statements:

1. Accounts receivable and inventory exposures — Quaker establishes allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of Quaker's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. As part of its terms of trade, Quaker may custom manufacture products for certain large customers and/or may ship products on a consignment basis. Further, a significant portion of Quaker's revenues is derived from sales to customers in industries where a number of bankruptcies have occurred in past years and where companies have experienced financial difficulties. When a bankruptcy occurs, Quaker must judge the amount of proceeds, if any, that may ultimately be received through the bankruptcy or liquidation process. These matters may increase the Company's exposure, should a bankruptcy occur, and may require a write down or a disposal of certain inventory due to its estimated obsolescence or limited marketability. Reserves for customers filing for bankruptcy protection are generally established at 75-100% of the amount outstanding at the bankruptcy filing date. However, initially establishing a reserve and the amount thereto is dependent on the Company's evaluation of likely proceeds to be received from the bankruptcy process, which could result in the Company recognizing minimal or no reserve at the date of bankruptcy. Large and/or financially distressed customers are generally reserved for on a specific review basis, while a general reserve is maintained for other customers based on historical experience. The Company's consolidated allowance for doubtful accounts was $7.8 million and $6.5 million at December 31, 2015 and 2014, respectively. The Company recorded an increase in its provision for doubtful accounts of $1.5 million in 2015, compared to a reduction of $0.3 million in 2014 and an increase to its provision for doubtful accounts of $1.1 million in 2013. Changing the recorded provisions by 10% would have increased or decreased the Company's pre-tax earnings by approximately $0.2 million, less than $0.1 million, and $0.1 million in 2015, 2014 and 2013, respectively. See Note 10 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

2. Environmental and litigation reserves — Accruals for environmental and litigation matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. Accrued liabilities are exclusive of claims against third parties and are not discounted. Environmental costs and remediation costs are capitalized if the costs extend the life, increase the capacity or improve the safety or efficiency of the

property from the date acquired or constructed, and/or mitigate or prevent contamination in the future. Estimates for accruals for environmental matters are based on a variety of potential technical solutions, governmental regulations and other factors, and are subject to a wide range of potential costs for remediation and other actions. A considerable amount of judgment is required in determining the most likely estimate within the range of total costs, and the factors determining this judgment may vary over time. Similarly, reserves for litigation and similar matters are based on a range of potential outcomes and require considerable judgment in determining the most probable outcome. If no amount within the range is considered more probable than any other amount, the Company accrues the lowest amount in that range in accordance with generally accepted accounting principles. See Note 23 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

3. Realizability of equity investments — Quaker holds equity investments in various foreign companies, where it has the ability to influence, but not control, the operations of the entity and its future results. Quaker would record an impairment charge to an investment if it believed a decline in value that was other than temporary occurred. Future adverse changes in market conditions, poor operating results of underlying investments, devaluation of foreign currencies or other events or circumstances could result in losses or an inability to recover the carrying value of the investments. These indicators may result in an impairment charge in the future. The carrying amount of the Company’s equity investments at December 31, 2015 was $20.4 million, which included four investments: approximately $14.9 million, or a 32.8% interest, in Primex, Ltd. (Barbados); $5.0 million, or a 50% interest, in Nippon Quaker Chemical, Ltd. (Japan); $0.2 million, or a 50% interest, in Kelko Quaker Chemical, S.A. (Venezuela); and $0.2 million, or a 50% interest, in Kelko Quaker Chemical, S.A. (Panama), respectively. See Note 14 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

4. Tax exposures, valuation allowances and uncertain tax positions — Quaker records expenses and liabilities for taxes based on estimates of amounts that will be ultimately determined to be deductible in tax returns filed in various jurisdictions. The filed tax returns are subject to audit, which often occur several years subsequent to the date of the financial statements. Disputes or disagreements may arise during audits over the timing or validity of certain items or deductions, which may not be resolved for extended periods of time. Quaker applies the provisions of FASB's guidance regarding uncertain tax positions. The guidance applies to all income tax positions taken on previously filed tax returns or expected to be taken on a future tax return. The FASB's guidance regarding accounting for uncertainty in income taxes prescribes the recognition threshold and measurement attributes for financial statement recognition and measurement of tax positions taken or expected to be taken on a tax return. The guidance further requires the determination of whether the benefits of tax positions will be more likely than not sustained upon audit based upon the technical merits of the tax position. For tax positions that are determined to be more likely than not sustained upon audit, a company recognizes the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement in the financial statements. For tax positions that are not determined to be more likely than not sustained upon audit, a company does not recognize any portion of the benefit in the financial statements. Additionally, the guidance provides for derecognition, classification, penalties and interest, accounting in interim periods, disclosure and transition. The guidance also requires that the amount of interest expense and income to be recognized related to uncertain tax positions be computed by applying the applicable statutory rate of interest to the difference between the tax position recognized, including timing differences, and the amount previously taken or expected to be taken in a tax return. The Company's continuing practice is to recognize interest and/or penalties related to income tax matters in income tax expense. Also, the Company would net its liability for unrecognized tax benefits against deferred tax assets related to net operating losses or other tax credit carryforwards if the uncertain tax position were settled for the presumed amount at the balance sheet date. Quaker also records valuation allowances when necessary to reduce its deferred tax assets to the amount that is more likely than not to be realized. While Quaker has considered future taxable income and employs prudent and feasible tax planning strategies in assessing the need for a valuation allowance, in the event we were to determine that it would be able to realize its deferred tax assets in the future in excess of its net recorded amount, an adjustment to the deferred tax asset would increase income in the period such determination was made. Likewise, should Quaker determine that it would not be able to realize all or part of its net deferred tax assets in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made. Both determinations could have a material impact on the Company's financial statements. In addition, U.S. income taxes have not been provided on the undistributed earnings of non-U.S. subsidiaries since it is the Company's intention to continue to reinvest these earnings in those foreign subsidiaries for working capital needs and certain other growth initiatives. The amount of such undistributed earnings at December 31, 2015 was approximately $203 million. However, U.S. and foreign income taxes that would be payable if such earnings were distributed may be lower than the amount computed at the U.S. statutory rate due to the availability of foreign tax credits. See Note 8 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

5. Goodwill and other intangible assets — The Company accounts for business combinations under the acquisition method of accounting. This method requires the recording of acquired assets, including separately identifiable intangible assets, at their acquisition date fair values. Any excess of the purchase price over the estimated fair value of the identifiable net assets acquired is recorded as goodwill. The determination of the estimated fair value of assets acquired requires management's judgment and often involves the use of significant estimates and assumptions, including assumptions with respect to future cash inflows and outflows, discount rates, royalty rates, asset lives and market multiples, among other items. When necessary, we consult with external advisors to help determine fair value. For non-observable market values, the Company may determine fair value using acceptable valuation principles, such as the excess earnings, relief from royalty, lost profit or cost methods.

The Company amortizes definite-lived intangible assets on a straight-line basis over the useful lives of the intangible assets. Goodwill and intangible assets which have indefinite lives are not amortized and are required to be assessed at least annually for impairment. The Company compares the assets' fair value to their carrying value, primarily based on future discounted cash flows, in order to determine if an impairment charge is warranted. The estimates of future cash flows involve considerable management judgment and are based upon assumptions about expected future operating performance. Assumptions used in these forecasts are consistent with internal planning, but the actual cash flows could differ from management's estimates due to changes in business conditions, operating performance, and economic conditions. The Company's assumption of weighted average cost of capital ("WACC") and estimated future net operating profit after tax ("NOPAT") are particularly important in determining estimated future cash flows.

The Company completed its annual impairment assessment as of the end of the third quarter of 2015, and no impairment charge was warranted. Furthermore, the estimated fair value of each of the Company's reporting units substantially exceeded its carrying value, with none of the Company's reporting units at risk for failing step one of the goodwill impairment test. The Company's consolidated goodwill and indefinite-lived intangible assets at December 31, 2015 and 2014 were $80.2 million and $79.0 million, respectively. The Company used a WACC of approximately 11% and, at September 30, 2015, this assumption would have had to increase by more than 9 percentage points to a WACC of approximately 20% before any of the Company's reporting units would fail step one of the impairment analysis. Further, at September 30, 2015, the Company's estimate of future NOPAT would have had to decrease by more than 36% before any of the Company's reporting units would be considered potentially impaired. See Note 13 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

6. Postretirement benefits — The Company provides certain defined benefit pension and other postretirement benefits to current employees, former employees and retirees. Independent actuaries, in accordance with accounting principles generally accepted in the United States, perform the required valuations to determine benefit expense and, if necessary, non-cash charges to equity for additional minimum pension liabilities. Critical assumptions used in the actuarial valuation include the weighted average discount rate, rates of increase in compensation levels, and expected long-term rates of return on assets. If different assumptions were used, additional pension expense or charges to equity might be required. As of December 31, 2015, the Company has elected to use a split discount rate (spot-rate approach) for the U.S. plans and certain foreign plans. Under the spot rate approach, benefit obligations have been determined based on application of the spot rates on a given yield curve at each future year to each plan's projected cash flows. The use of the spot-rate approach did not have an impact on the Company's 2015 Consolidated Financial Statements, which appear in Item 8 of this Report. The use of the spot-rate approach differs from the historical approach of deriving a single equivalent discount rate from the calculation of the projected benefit obligation and utilizing that average rate to calculate the components of net benefit cost. Depending on the slope of a given yield curve, the Company expects that beginning in 2016, the use of the spot-rate approach may result in lower interest and service costs, which are components of net periodic benefit costs and will be included in pre-tax earnings. The Company’s U.S. pension plan year-end is November 30, and the measurement date is December 31. See Note 18 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report. The following table highlights the potential impact on the Company’s pre-tax earnings, due to changes in these assumptions with respect to the Company’s pension plans, based on assets and liabilities at December 31, 2015:

| | **1/2 Percentage Point Increase** | | | **1/2 Percentage Point Decrease** | | |
|---|---|---|---|---|---|---|
| **(Amounts in millions)** | **Foreign** | **Domestic** | **Total** | **Foreign** | **Domestic** | **Total** |
| Discount rate (1) | $ 0.4 | $ 0.1 | $ 0.5 | $ (0.5) | $ (0.1) | $ (0.6) |
| Expected rate of return on plan assets (2) | 0.4 | 0.2 | 0.6 | (0.4) | (0.2) | (0.6) |

(1) T he weighted-average discount rate used to determine net periodic benefit costs for the year ended December 31, 2015 was 2.51% for Foreign plans and 3.72% for Domestic plans.

(2) The weighted average expected rate of return on plan assets used to determine net periodic benefit costs for the year ended December 31, 2015 was 2.55% for Foreign plans and 7.30% for Domestic plans.

7. Restructuring and other related liabilities – A restructuring and related activities program may consist of charges for employee severance, rationalization of manufacturing facilities and other related expenses. To account for such, the Company applies FASB’s guidance regarding exit or disposal cost obligations. This guidance requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred, is estimable, and payment is probable. See Note 4 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

*Recently Issued Accounting Standards*

See Note 2 of Notes to the Consolidated Financial Statements, which appears in Item 8 of this Report for a discussion regarding recently issued accounting standards.

*Liquidity and Capital Resources*

Quaker’s cash and cash equivalents increased to $81.1 million at December 31, 2015 from $64.7 million at December 31, 2014. The approximate $16.3 million increase was the net result of $73.4 million of cash provided by operating activities, $34.2 million of cash used in investing activities, $16.9 million of cash used in financing activities and a $6.0 million negative impact due to the effect of exchange rates on cash. At December 31, 2015, the Company held approximately $77.2 million of its total cash and cash equivalents among its foreign subsidiaries, which is subject to possible limitations on repatriation to the United States.

Net cash flow provided by operating activities increased $18.7 million to $73.4 million in 2015 compared to $54.7 million in 2014, due to strong operating performance and lower cash invested in the Company's working capital during 2015. Specifically, the Company's cash flow from its accounts receivables increased due to the levels of sales at the end of 2015 compared to 2014, and, also, improvements in collection efforts and timing of receipts. In addition to its receivables, the Company had higher cash inflows from inventory due to more stable levels during 2015 compared to 2014, when the Company re-established safety stock levels that were low at year-end 2013. Partially offsetting these increases to net operating cash flow in 2015 were higher cash outflows from prepaid expenses and other current assets, primarily related to higher tax-related payments, and higher cash outflows due to timing of payments related to the Company's trade accounts payable and other accrued liabilities. In addition, the Company received a $0.6 million dividend distribution in the third quarter of 2015 from its captive insurance equity affiliate, which also impacted the 2014 comparison of the Company's operating cash flow.

Net cash flow used in investing activities decreased $50.3 million to $34.2 million in 2015 compared to $84.5 million in 2014, which was primarily the result of lower payments for acquisitions and property, plant and equipment. During 2015, the Company used $24.6 million to purchase Verkol for its EMEA segment, compared to $73.5 million in 2014, primarily related to the purchase of ECLI for its North American segment and Binol for its EMEA segment. In January 2016, the Company paid $1.4 million as part of a post-closing adjustment related to the Verkol acquisition, which was accrued for as of December 31, 2015. See Note 21 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report. In addition, the Company had a cash inflow of $0.5 million during 2015 due to a post-closing adjustment related to its acquisition of Binol. Related to property, plant and equipment, the decrease in cash used in investing activities was primarily related to lower spending on information technology development and other related initiatives primarily in the Company's EMEA segment. These decreases were partially offset by lower cash inflows from changes in the Company's restricted cash in 2015, which is dependent upon the timing of claims and payments associated with a subsidiary's asbestos litigation.

Net cash flow used in financing activities was $16.9 million in 2015 compared to $30.2 million of cash provided by financing activities in 2014. The $47.1 million decrease in cash provided by financing activities was due to the net impact of several factors. Specifically, proceeds from long-term debt, net of repayments, were $5.7 million in 2015 compared to $57.4 million in 2014, primarily due to lower borrowings in 2015 on the Company's revolving credit line. The lower borrowings year-over-year were primarily the result of lower funding requirements for the acquisition of Verkol in 2015 compared to the 2014 requirements for the purchase of ECLI and Binol, the purchase of the remaining interest in the Company's Australia affiliate, a payment of an acquisition-related earnout liability and dividends to noncontrolling affiliate shareholders. The Company had $2.0 million higher cash outflow from dividend payments in 2015 compared to 2014, due to a larger number of shares outstanding during the year and increased dividends declared per share. Also, the Company had cash outflows of $7.3 million in 2015 to repurchase 87,386 shares of the Company's common stock in connection with the Company's share repurchase program. In May 2015, the Company's Board of Directors authorized a share repurchase program for the repurchase of up to $100 million of Quaker common stock (the "2015 Share Repurchase Program"), which provides a framework of conditions under which management can repurchase shares of the Company's common stock. The Company intends to repurchase shares to at least offset the dilutive impact of shares issued each year as part of its employee benefit and share-based compensation plans, and could repurchase more if the Company considers the share price to be an amount that is an advantageous return for its shareholders. The Company has continued these share repurchases during the first quarter of 2016, with repurchases of approximately 84,000 shares at an average price of $69.8 per share for approximately $5.9 million to date.

The Company's primary credit line is a $300 million syndicated multicurrency credit agreement, with a group of lenders, which matures in June 2018. The maximum amount available under this facility can be increased to $400 million at the Company's option if the lenders agree and the Company satisfies certain conditions. Borrowings under this facility generally bear interest at a base rate or LIBOR rate plus a margin. At December 31, 2015 and 2014, the Company had borrowings outstanding of approximately $62.9 million and $58.4 million primarily under this credit facility, at weighted average borrowing rates of 1.38% and 1.16%, respectively. Access to this credit facility is dependent on meeting certain financial, acquisition and other covenants, but primarily depends on the Company's consolidated leverage ratio calculation, which cannot exceed 3.50 to 1. As of December 31, 2015 and 2014, the Company's consolidated leverage ratio was below 1.0 to 1, and the Company was also in compliance with all of the other covenants.

In the fourth quarter of 2015, Quaker's management approved a global restructuring program to reduce operating costs. This program includes restructuring and associated severance costs to reduce total headcount by approximately 65 people globally and to close certain non-manufacturing locations. As a result of this program, the Company recognized a $6.8 million, or $0.36 per diluted share, restructuring charge and made $0.5 million of operating cash payments related to this program during the fourth quarter of 2015. The Company expects to substantially complete this program in 2016, including operating cash flows for the settlement of its remaining restructuring liabilities. The Company currently projects pre-tax savings as a result of this program to be approximately $3 million in 2016 and approximately $6 million annually in subsequent years. See Note 4 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

At December 31, 2015, the Company's gross liability for uncertain tax positions, including interest and penalties, was $14.4 million. The Company cannot determine a reliable estimate of the timing of cash flows by period related to its uncertain tax position liability. However, should the entire liability be paid, the amount of the payment may be reduced by up to $9.9 million as a result of offsetting benefits in other tax jurisdictions.

The Company believes it is capable of supporting its operating requirements and funding its business objectives, including but not limited to, pension plan contributions, payments of dividends to shareholders, potential share repurchases, possible acquisitions and other business opportunities, capital expenditures and possible resolution of contingencies, through internally generated funds supplemented with debt or equity as needed.

The following table summarizes the Company's contractual obligations at December 31, 2015, and the effect such obligations are expected to have on its liquidity and cash flows in future periods. Pension and other postretirement plan contributions beyond 2016 are not determinable since the amount of any contribution is heavily dependent on the future economic environment and investment returns on pension trust assets. The timing of payments related to other long-term liabilities, which consist primarily of deferred compensation agreements, also cannot be readily determined due to their uncertainty. Interest obligations on the Company's long-term debt and capital leases assume the current debt levels will be outstanding for the entire respective period and apply the interest rates in effect at December 31, 2015.

| | | Payments due by period | | | | | |
|---|---|---|---|---|---|---|---|
| **Contractual Obligations (Amounts in millions)** | **Total** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021 and Beyond** |
| Long-term debt | $ 82.182 | $ 0.601 | $ 0.661 | $ 66.931 | $ 0.656 | $ 0.651 | $ 12.682 |
| Interest obligations | 10.393 | 1.662 | 1.652 | 1.621 | 0.969 | 0.583 | 3.906 |
| Capital lease obligations | 0.119 | 0.061 | 0.058 | — | — | — | — |
| Non-cancelable operating leases | 9.848 | 5.291 | 3.040 | 0.779 | 0.485 | 0.172 | 0.081 |
| Purchase obligations | 3.667 | 3.667 | — | — | — | — | — |
| Pension and other postretirement plan contributions | 8.021 | 8.021 | — | — | — | — | — |
| Other long-term liabilities (See Note 19 of Notes to Consolidated Financial Statements) | 6.378 | — | — | — | — | — | 6.378 |
| Total contractual cash obligations | $ 120.608 | $ 19.303 | $ 5.411 | $ 69.331 | $ 2.110 | $ 1.406 | $ 23.047 |

*Non-GAAP Measures*

Included in this Form 10-K filing are non-GAAP (unaudited) financial measures of non-GAAP earnings per diluted share and adjusted EBITDA. The Company believes these non-GAAP financial measures provide meaningful supplemental information as they enhance a reader's understanding of the financial performance of the Company, are more indicative of the future operating performance of the Company, and facilitate a better comparison among fiscal periods, as the non-GAAP financial measures exclude items that are not considered core to the Company's operations. These non-GAAP results are presented for supplemental informational purposes only and should not be considered a substitute for the financial information presented in accordance with GAAP.

The following are reconciliations between the non-GAAP (unaudited) financial measures of non-GAAP earnings per diluted share and adjusted EBITDA to their most directly comparable GAAP financial measures:

| | For the years ended December 31, 2015 | 2014 | 2013 |
|---|---|---|---|
| GAAP earnings per diluted share attributable to Quaker Chemical Corporation Common Shareholders | $ 3.84 | $ 4.26 | $ 4.27 |
| Equity income in a captive insurance company per diluted share | (0.16) | (0.18) | (0.41) |
| Restructuring expenses per diluted share | 0.36 | — | — |
| Verkol transaction-related expenses per diluted share | 0.15 | — | — |
| U.K. pension plan amendment per diluted share | — | 0.05 | — |
| Customer bankruptcy costs per diluted share | 0.02 | 0.05 | — |
| Mineral oil excise tax refund per diluted share | — | — | (0.14) |
| Change in an acquisition-related earnout liability per diluted share | — | — | (0.03) |
| Cost streamlining initiatives per diluted share | 0.01 | 0.06 | 0.08 |
| Non-income tax contingency charge per diluted share | — | — | 0.04 |
| | 0.21 | 0.02 | 0.03 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Currency conversion impact of the Venezuelan bolivar fuerte per diluted share | | | | | | |
| Non-GAAP earnings per diluted share | $ | 4.43 | $ | 4.26 | $ | 3.84 |

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| | For the years ended December 31, | | |
|---|---|---|---|
| | 2015 | 2014 | 2013 |
| Net income attributable to Quaker Chemical Corporation | $ 51,180 | $ 56,492 | $ 56,339 |
| Depreciation and amortization | 19,206 | 16,631 | 15,784 |
| Interest expense | 2,585 | 2,371 | 2,922 |
| Taxes on income before equity in net income of associated companies | 17,785 | 23,539 | 20,489 |
| Equity income in a captive insurance company | (2,078) | (2,412) | (5,451) |
| Restructuring expenses | 6,790 | — | — |
| Verkol transaction-related expenses | 2,813 | — | — |
| U.K. pension plan amendment | — | 902 | — |
| Customer bankruptcy costs | 328 | 825 | — |
| Mineral oil excise tax refund | — | — | (2,540) |
| Change in an acquisition-related earnout liability | — | — | (497) |
| Cost streamlining initiatives | 173 | 1,166 | 1,419 |
| Non-income tax contingency charge | — | — | 796 |
| Currency conversion impact of the Venezuelan bolivar fuerte | 2,806 | 321 | 357 |
| Adjusted EBITDA | $ 101,588 | $ 99,835 | $ 89,618 |

*Out-of-Period Adjustment (2012)*

During 2012, the Company reassessed its ability to significantly influence the operating and financial policies of its captive insurance equity affiliate, Primex Ltd. ("Primex"). Based on its ownership percentage and other factors, the Company determined that, during 2012, the Company obtained the ability to significantly influence Primex and, as a result, changed its method of accounting from the cost to equity method. During the first quarter of 2013, the Company identified errors in Primex's estimated 2012 financial statements, which primarily related to a reinsurance contract held by Primex. The identified errors resulted in a cumulative $1.0 million understatement of the Company's equity in net income from associated companies for the year ended December 31, 2012. The Company corrected the errors related to Primex in the first quarter of 2013, which had the net effect of increasing equity in net income from associated companies by $1.0 million for the three months ended March 31, 2013 and the year ended December 31, 2013. The Company did not believe this adjustment was material to its consolidated financial statements for the year ended December 31, 2012 or to the Company's results for the year ended December 31, 2013 and, therefore, did not restate any prior period amounts. See Note 3 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

*Operations*

***Consolidated Operations Review – Comparison of 2015 with 2014***

Net sales for 2015 of $737.6 million decreased 4% from $765.9 million for 2014. This decrease in the Company's net sales was primarily due to the negative impact of foreign currency translation of $53.6 million, or 7%, and declines in selling price and product mix of 1%, which collectively offset a 4% increase in product volume, including $39.1 million of sales attributed to the Company's 2015 and 2014 acquisitions.

Cost of goods sold for 2015 of $460.5 million decreased 7% from $492.7 million for 2014. This decrease was primarily due to the impact of foreign currency translation, a decrease in raw material costs and product mix and a one-time 2014 charge of $0.3 million, or $0.02 per diluted share, related to finalizing a manufacturing cost streamlining initiative in EMEA that began in 2013. These decreases to cost of goods sold were partially offset by increases in product volume, including additional cost of goods sold attributed to the Company's 2015 and 2014 acquisitions.

Gross profit for 2015 increased $3.8 million, or 1%, compared to 2014, driven by an expansion of gross margin to 37.6% for 2015 compared to 35.7% for 2014, partially offset by the negative impact of foreign currency translation. The increase in gross margin was mainly due to the timing of certain raw material cost decreases in 2015 compared to 2014.

SG&A increased $3.1 million from 2014, which was due to the net impact of several factors, including higher overall labor-related costs, incremental costs associated with the Company’s recent acquisitions, including certain one-time transaction-related expenses of $2.8 million, or $0.15 per diluted share, incurred in the third quarter of 2015 related to the Verkol acquisition, and certain other one-time 2015 charges, which include $0.3 million, or $0.02 per diluted share, related to certain customer bankruptcies, $0.2 million, or $0.01 per diluted share, related to a cost streamlining initiative in South America, and $0.2 million, or $0.01 per diluted share, related to events at the Company’s Venezuela affiliate.  These increases to SG&A were partially offset by decreases from foreign currency translation and certain one-time 2014 charges, which include $0.9 million, or $0.05 per diluted share, related to an amendment to the Company’s pension plan in the U.K., $0.8 million, or $0.05 per diluted share, related to certain customer bankruptcies, and $0.9 million, or $0.04 per diluted share, related to the Company’s cost streamlining activities in South America.

In the fourth quarter of 2015, the Company had restructuring expenses of $6.8 million, or $0.36 per diluted share, related to the initiation of a global restructuring program. This program includes restructuring and associated costs to reduce total headcount by approximately 65 people globally and to close certain non-manufacturing locations. There were no analogous restructuring expenses in 2014. See Note 4 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

Other income decreased $0.8 million in 2015 compared to 2014. The decrease was primarily due to lower receipts of annual government-related grants in one of the Company's regions, lower third party license fees, and higher foreign exchange transaction losses incurred during 2015 compared to 2014.

Interest expense was $0.2 million higher in 2015 compared to 2014, primarily due to higher average borrowings outstanding during 2015 to fund the Company's recent acquisition activity. Interest income was $0.9 million lower in 2015 compared to 2014, primarily due to a decrease in the level of cash invested in certain regions with higher returns and interest received on certain tax-related credits in 2014.

The Company's effective tax rates for 2015 and 2014 were 25.3% and 30.1%, respectively. The primary contributors to the decrease in the 2015 effective tax rate were the mix of earnings between higher and lower tax jurisdictions in 2015, accelerated recognition of certain tax-related credits due to changes in local tax regulations, adjustments related to previous years' tax estimates, and certain one-time items that inflated the 2014 effective tax rate. The Company has experienced and expects to continue to experience volatility in its effective tax rates due to several factors, including the timing of tax audits and the expiration of applicable statutes of limitations as they relate to uncertain tax positions, and the unpredictability of the timing and amount of certain incentives in various tax jurisdictions, among other factors. Going into 2016, we expect the full year effective tax rate will increase to between 28% and 30%. In addition, the Company expects its quarterly effective tax rates will be higher in the first three quarters of 2016, similar to the 2013 quarterly effective tax rate trend, as the Company will book earnings in one of its subsidiaries at the statutory tax rate of 25% while it awaits recertification of a concessionary 15% tax rate. We currently estimate our first quarter of 2016 effective tax rate will be between 31% and 33%.

Equity income decreased $3.3 million in 2015 compared to 2014. The decrease was primarily due to a first quarter of 2015 currency conversion charge of $2.6 million, or $0.20 per diluted share, at the Company's Venezuela affiliate, and lower related earnings from this affiliate. See Note 14 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report. This 2015 charge was partially offset by a similar 2014 expense related to the conversion of Venezuelan bolivar fuerte to the U.S. dollar of $0.3 million, or $0.02 per diluted share. Excluding these charges, the primary component of equity income is the Company's interest in a captive insurance company. Earnings attributable to this equity interest were $2.1 million, or $0.16 per diluted share, in 2015 compared to $2.4 million, or $0.18 per diluted share, in 2014.

The $0.3 million decrease in net income attributable to noncontrolling interest in 2015 compared to 2014 was primarily due to the Company's June 2014 acquisition of the noncontrolling interest in its Australia affiliate.

Outside the one-time transaction-related expenses mentioned above, the Company realized a minimal impact to net income from its 2015 Verkol acquisition, as its operating results were offset by normal acquisition-related costs and initial adjustments related to fair value accounting.

Changes in foreign exchange rates, excluding the currency conversion effects of the Venezuelan bolivar fuerte, noted above, negatively impacted 2015 net income by approximately 7%, or $0.31 per diluted share.

***Consolidated Operations Review – Comparison of 2014 with 2013***

Net sales for 2014 of $765.9 million increased 5% from $729.4 million for 2013. This increase in the Company's net sales was primarily due to a 5% increase in product volumes. Included in the Company's net sales growth in 2014 was approximately $12.8 million of additional sales from acquisitions, which was largely offset by a decrease of $10.3 million, or 1%, due to the negative impact of foreign currency translation. The effects on net sales related to selling price and product mix were generally consistent in 2014 compared to 2013.

Cost of goods sold for 2014 of $492.7 million increased 5% from $468.3 million for 2014. This increase was primarily due to increases in product volume, including additional cost of goods sold attributed to the Company's acquisitions, and, also, a one-time 2014 charge of $0.3 million, or $0.02 per diluted share, related to finalizing a manufacturing cost streamlining initiative in EMEA that began in 2013. These increases were partially offset by impacts related to foreign currency translation. The impact of raw material costs and product mix on cost of goods sold were relatively consistent in 2014 compared to 2013.

Gross profit increased $12.1 million, or 5%, from 2013, which was driven by the increase in sales volumes, noted above, on relatively flat gross margins of 35.7% and 35.8% for 2014 and 2013, respectively.

SG&A increased $6.0 million from 2013, which was due to the net impact of several factors, including additional costs acquired with the Company's 2014 acquisitions, higher overall labor-related costs, and certain one-time 2014 charges, which include $0.9 million, or $0.05 per diluted share, related to an amendment to the Company's pension plan in the U.K., $0.8 million, or $0.05 per diluted share, related to certain customer bankruptcies, and $0.9 million, or $0.04 per diluted share, related to the Company's cost streamlining activities in South America. These increases to SG&A for 2014 were partially offset by decreases in foreign currency translation and certain one-time 2013 charges, which include $0.8 million, or $0.04 per diluted share, related to a non-income tax contingency and $1.2 million, or $0.07 per diluted share, related to the Company's cost streamlining activities in South America and EMEA.

Other income decreased $2.8 million in 2014 compared to 2013. This decrease was primarily related to the 2013 refund of $2.5 million, or $0.14 per diluted share, related to past excise taxes paid on certain Italian mineral oil sales and, also, $0.5 million, or $0.03 per diluted share, related to 2013 changes in an acquisition-related earnout liability, net of a 2013 charge of $0.2 million or $0.01 per diluted share, related to cost streamlining initiatives in EMEA.

Interest expense was $0.6 million lower in 2014 compared to 2013, primarily due to interest accretion of an acquisition-related earnout liability in 2013, discussed above, which was settled early in the second quarter of 2014. This decrease to interest expense was net of additional expense from higher average borrowings due to the Company's 2014 acquisition activity.

Interest income was $1.6 million higher in 2014 compared to 2013, primarily due to interest received on several non-income tax-related credits and an increase in the level of the Company's invested cash in regions with higher returns.

The Company's effective tax rates for 2014 and 2013 were 30.1% and 28.1%, respectively. The primary contributors to the Company's higher effective tax rate in 2014 was an increase in reserves related to uncertain tax positions and certain other one-time items that impacted the 2014 effective tax rate.

The decrease in the Company's equity income of $3.0 million in 2014 compared to 2013 was primarily caused by lower earnings related to the Company's equity interest in a captive insurance company. Earnings attributable to this equity interest were $2.4 million, or $0.18 per diluted share, in 2014 compared to $5.5 million, or $0.41 per diluted share, in 2013, including a $1.0 million out-of-period adjustment. See the Out-of-Period Adjustment section in this Item, above. In addition, the Company's equity income includes comparable currency charges related to the conversion of the Venezuelan bolivar fuerte to the U.S. dollar of $0.3 million, or $0.02 per diluted share, in 2014, and $0.4 million, or $0.03 per diluted share, in 2013.

The primary component of the $0.7 million decrease in net income attributable to noncontrolling interest in 2014 compared to 2013 was the Company's second quarter of 2014 acquisition of its noncontrolling interest in its Australia affiliate.

The Company's 2014 acquisitions generally performed in line with their expected positive operating results; however, the Company realized a minimal impact to net income from these acquisitions as their operating results were largely offset by the acquisition-related costs, noted above, and initial adjustments related to fair value accounting.

Changes in foreign exchange rates negatively impacted 2014 net income, compared to 2013, by approximately $1.2 million, or $0.09 per diluted share.

***Reportable Operating Segment Review – Comparison of 2015 with 2014***

The Company sells its industrial process fluids, chemical specialties and technical expertise to a wide range of industries in a global product portfolio throughout its four segments: (i) North America, (ii) EMEA, (iii) Asia/Pacific and (iv) South America.

***North America***

North America represented approximately 47% of the Company's consolidated net sales in 2015, and increased $9.8 million, or 3%, compared to 2014. The increase in net sales was generally due to higher product volumes, including acquisitions, of 5%, partially offset by the negative impact of foreign currency translation of 2%. The foreign exchange impact was primarily due to a weaker Mexican peso against the U.S. dollar, as this exchange rate averaged

15.83 in 2015 compared to 13.29 in 2014. This reportable segment's operating earnings, excluding indirect expenses, increased $11.5 million, or 17%, compared to 2014. The 2015 increase was mainly due to the increase in net sales, noted above, and an increase in gross margin due to the timing of certain raw material cost decreases and product mix. These increases to operating earnings were partially offset by higher overall labor-related costs on improved segment performance and incremental SG&A from 2014 acquisition activity.

***EMEA***

EMEA represented approximately 24% of the Company's consolidated net sales in 2015, and decreased approximately $15.6 million, or 8%, compared to 2014. The decrease in net sales was primarily due to the negative impact of foreign currency translation of 16% and a decrease in selling price and product mix of 2%, partially offset by higher product volumes, including acquisitions, of 10%. The foreign exchange impact was primarily due to a weakening of the euro against the U.S. dollar, as this exchange rate averaged 1.11 in 2015 compared to 1.33 in 2014. This reportable segment's operating earnings, excluding indirect expenses, decreased $4.6 million, or 14%, compared to 2014. The 2015 decrease was mainly driven by lower gross profit on the decrease in net sales, noted above, on relatively flat gross margin, and, also, incremental SG&A from 2015 and 2014 acquisition activity. These decreases to operating earnings were partially offset by the impact of the weaker euro on the segment's operating costs.

***Asia/Pacific***

Asia/Pacific represented approximately 25% of the Company's consolidated net sales in 2015, and decreased approximately $4.9 million, or 3%, compared to 2014. The decrease in net sales was primarily due to the negative impact of foreign currency translation of 3% and a decrease in selling price and product mix of 2%, partially offset by higher product volumes of 2%. The foreign exchange impact was primarily due to a weakening of the Chinese renminbi, Indian rupee and Australian dollar against the U.S. dollar, as these exchange rates averaged 6.23, 64.07 and 0.75 in 2015 compared to 6.15, 60.95 and 0.90 in 2014, respectively. This reportable segment's operating earnings, excluding indirect expenses, increased $1.3 million, or 3%, compared to 2014. The increase in 2015 was mainly driven by higher gross profit on increased product volumes and higher gross margins due to the timing of certain raw material cost decreases and product mix, and lower costs due to the weaker Chinese renminbi, Indian rupee and Australian dollar to U.S. dollar exchange rates. These increases to operating earnings were partially offset by higher overall labor-related costs.

***South America***

South America represented approximately 4% of the Company's consolidated net sales in 2015, and decreased $17.6 million, or 35%, compared to 2014. The decrease in net sales was generally attributable to the negative impact of foreign currency translation of 22% and lower product volumes of approximately 16%, partially offset by an increase in selling price and product mix of 3%. The foreign exchange impact was primarily due to a weakening of the Brazilian real and Argentinian peso against the U.S. dollar, as these exchange rates averaged 3.28 and 9.19 in 2015 compared to 2.35 and 8.09 in 2014, respectively. This reportable segment's operating earnings, excluding indirect expenses, decreased $2.5 million, or 58%, compared to 2014. The 2015 decrease was mainly due to the decrease in net sales, noted above, and lower gross margin due to raw material cost increases and product mix, partially offset by lower labor-related costs. The decrease in labor-related costs is primarily due to the segment's lower performance, the positive effects from the cost streamlining initiatives taken in this segment during 2013, 2014, and 2015, and the weaker Brazilian real and Argentinian peso to U.S. dollar exchange rates.

***Reportable Operating Segment Review – Comparison of 2014 with 2013***

***North America***

North America represented approximately 44% of the Company's consolidated net sales in 2014, and increased approximately $26.0 million, or 8%, compared to 2013. The increase in net sales was generally attributable to higher product volumes, including acquisitions, of 9%, partially offset by a 1% decrease related to selling price and product mix. This reportable segment's operating earnings, excluding indirect expenses, increased approximately $7.0 million, or 11%, from 2013. The increase in 2014 was mainly due to the increases to net sales, noted above, and a slight margin improvement on a change in raw material costs and product mix, partially offset by higher labor-related costs on improved segment performance.

***EMEA***

EMEA represented approximately 26% of the Company's consolidated net sales in 2014, and increased approximately $7.5 million, or 4%, compared to 2013. The increase in net sales was generally attributable to higher product volumes, including acquisitions, of 5%, partially offset by decreases related to selling price and product mix of 1%. Effects on net sales from foreign currency translation were generally comparable in 2014 and 2013. This reportable segment's operating earnings, excluding indirect expenses, increased approximately $2.9 million, or 10%, from 2013. This increase in 2014 was mainly due to the increases to net sales, noted above, the incremental 2013 costs related to EMEA's streamlining initiatives and a decrease in 2014's SG&A due to the impacts from the same initiatives, partially offset by higher labor-related costs on improved segment performance.

***Asia/Pacific***

Asia/Pacific represented approximately 24% of the Company's consolidated net sales in 2014, and increased approximately $16.5 million, or 10%, compared to 2013. The increase in net sales was primarily due to higher product volumes of 9% and an increase due to selling price and product mix of 2%, partially offset by the negative impact of foreign currency translation of 1%. The foreign currency translation impact was primarily due to a weaker Australian dollar against the U.S. dollar, as this exchange rate averaged 0.90 in 2014 compared to 0.97 in 2013. This reportable segment's operating earnings, excluding indirect expenses, increased approximately $1.5 million, or 3%, from 2013. The increase in 2014 was mainly due to the increases to net sales, noted above, partially offset by lower gross margins due to changes in raw material costs and product mix and, also, higher labor-related costs on improved segment performance.

***South America***

South America represented approximately 6% of the Company's consolidated net sales in 2014, and decreased approximately $13.6 million, or 21%, compared to 2013. The decrease in net sales was generally attributable to lower product volumes of 15% and the negative impact of foreign currency translation of 11%, partially offset by an increase in selling price and product mix of 5%. The foreign currency translation impact was primarily due to a weakening in the Brazilian real and Argentinian peso against the U.S. dollar, as these exchange rates averaged 2.35 and 8.09 in 2014 compared to 2.15 and 5.44 in 2013, respectively. This reportable segment's operating earnings, excluding indirect expenses, decreased approximately $4.9 million, or 53%, from 2013. The decrease in 2014 was mainly due to the decreases to net sales, noted above, a gross margin decline on changes in raw material costs and product mix, incremental costs related to South America's streamlining initiatives and higher labor-related costs, partially offset by the positive impacts from cost streamlining initiatives taken in this segment during 2013 and the impacts on SG&A related to lower segment performance.

*Environmental Clean-up Activities*

The Company is involved in environmental clean-up activities in connection with an existing plant location and former waste disposal sites. In 1992, the Company identified certain soil and groundwater contamination at AC Products, Inc. ("ACP"), a wholly owned subsidiary. In voluntary coordination with the Santa Ana California Regional Water Quality Board ("SACRWQB"), ACP has been remediating the contamination. In 2007, ACP agreed to operate two groundwater treatment systems, so as to hydraulically contain groundwater contamination emanating from ACP's site until such time as the concentrations of contaminants are below the current Federal maximum contaminant level for four consecutive quarterly sampling events. In February 2014, ACP ceased operation at one of its two groundwater treatment systems, as it had met the above condition for closure. At December 31, 2015, the Company believes that the remaining potential-known liabilities associated with the ACP contamination, namely estimated future cost of the water remediation program, is approximately $0.4 million to $1.0 million, for which the Company has sufficient reserves. Notwithstanding the foregoing, the Company cannot be certain that future liabilities in the form of remediation expenses and damages will not be in excess of the amount reserved. See Note 23 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report.

*General*

See Item 7A of this Report for further discussion of certain quantitative and qualitative disclosures about market risk.

*Factors that May Affect Our Future Results*

(Cautionary Statements Under the Private Securities Litigation Reform Act of 1995)

Certain information included in this Report and other materials filed or to be filed by Quaker with the SEC (as well as information included in oral statements or other written statements made or to be made by us) contain or may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the fact that they do not relate strictly to historical or current facts. We have based these forward-looking statements on our current expectations about future events. These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, intentions, financial condition, results of operations, future performance, and business, including:

- statements relating to our business strategy;
- our current and future results and plans; and
- statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "plan" or similar expressions.

Such statements include information relating to current and future business activities, operational matters, capital spending, and financing sources. From time to time, oral or written forward-looking statements are also included in Quaker's periodic reports on Forms 10-Q and 8-K, press releases and other materials released to, or statements made to, the public.

Any or all of the forward-looking statements in this Report, in Quaker's Annual Report to Shareholders for 2015 and in any other public statements we make may turn out to be wrong. This can occur as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties. Many factors discussed in this Report will be important in determining our future performance. Consequently, actual results may differ materially from those that might be anticipated from our forward-looking statements.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. However, any further disclosures made on related subjects in Quaker's subsequent reports on Forms 10-K, 10-Q and 8-K should be consulted. Our forward-looking statements are subject to risks, uncertainties and assumptions about us and our operations that are subject to change based on various important factors, some of which are beyond our control. A major risk is that the demand for the Company's products and services is largely derived from the demand for its customers' products, which subjects the Company to uncertainties related to downturns in a customer's business and unanticipated customer production shutdowns. Other major risks and uncertainties include, but are not limited to, significant increases in raw material costs, customer financial stability, worldwide economic and political conditions, foreign currency fluctuations, future terrorist attacks and other acts of violence, each of which is discussed in greater detail in Item 1A of this Report. Furthermore, the Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, appliance, and durable goods manufacturers. These risks, uncertainties, and possible inaccurate assumptions relevant to our business could cause our actual results to differ materially from expected and historical results. Other factors beyond those discussed in this Report could also adversely affect us. Therefore, we caution you not to place undue reliance on our forward-looking statements. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

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

Quaker is exposed to the impact of interest rates, foreign currency fluctuations, changes in commodity prices, and credit risk.

*Interest Rate Risk.* Quaker's exposure to changes in interest rates relates primarily to its credit facilities. Interest rates for Quaker's credit facilities are generally based on a base rate or LIBOR plus a spread. Accordingly, if interest rates rise significantly, the cost of debt to Quaker will increase. This can have an adverse effect on Quaker, depending on the extent of Quaker's borrowings throughout a given year. As of December 31, 2015, Quaker had $62.9 million outstanding under its credit facilities at a weighted average borrowing rate of approximately 1.38%. If interest rates had changed by 10%, the Company's interest expense would have correspondingly increased or decreased by approximately $0.1 million. Quaker's other long-term and short-term debt consists primarily of fixed rate bonds and loans which are not exposed to interest rate fluctuations. The Company previously used derivative financial instruments primarily for the purposes of hedging exposures to fluctuations in interest rates. The Company did not use any similar instruments in 2015 or 2014, and has not entered into derivative contracts for trading or speculative purposes. See the information included under the caption "Derivatives" in Note 1 of Notes to Consolidated Financial Statements, which appears in Item 8 of this Report and is incorporated herein by reference.

*Foreign Exchange Risk.* A significant portion of Quaker's revenues and earnings are generated by its foreign operations. These foreign operations also represent a significant portion of Quaker's assets and liabilities. Generally, all of these foreign operations use the local currency as their functional currency. Accordingly, Quaker's financial results are affected by foreign currency fluctuations, particularly between the U.S. dollar and the euro, the Brazilian real, the Mexican peso, the Chinese renminbi and the Indian rupee. Quaker's results can be materially affected depending on the volatility and magnitude of foreign exchange rate changes. If the euro, the Brazilian real, the Mexican peso, the Chinese renminbi and the Indian rupee had all strengthened or weakened by 10% against the U.S. dollar, the Company's 2015 revenues and pre-tax earnings would have correspondingly increased or decreased approximately $35.7 million and $5.0 million, respectively.

The Company generally does not use financial instruments that expose it to significant risk involving foreign currency transactions. However, the size of its non-U.S. activities has a significant impact on reported operating results and the attendant net assets. During the past three years, sales by its non-U.S. subsidiaries accounted for approximately 60% of our consolidated net sales.

In addition, the Company often sources inventory among its worldwide operations. This practice can give rise to foreign exchange risk resulting from the varying cost of inventory to the receiving location, as well as from the revaluation of intercompany balances. The Company primarily mitigates this risk through local sourcing efforts.

*Commodity Price Risk.* Many of the raw materials used by Quaker are commodity chemicals, and, therefore, Quaker's earnings can be materially affected by market changes in raw material prices. At times, Quaker has entered into fixed-price purchase contracts to manage this risk. These contracts provide protection to Quaker if the prices for the contracted raw materials rise; however, in certain limited circumstances, Quaker will not realize the benefit if such prices decline. If the Company's gross margin had changed by one percentage point, the Company's 2015 pre-tax earnings would have correspondingly increased or decreased by approximately $7.4 million.

*Credit Risk.* Quaker establishes allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of Quaker's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances might be required. Downturns in the overall economic climate may also exacerbate specific customer financial issues. A significant portion of Quaker's revenues is derived from sales to customers in the U.S. steel and automotive industries, including some of our larger customers, where a number of bankruptcies have occurred in past years and where companies have experienced financial difficulty. When a bankruptcy occurs, Quaker must judge the amount of proceeds, if any, that may ultimately be received through the bankruptcy or liquidation process. In addition, as part of its terms of trade, Quaker may custom manufacture products for certain large customers and/or may ship product on a consignment basis. These practices may increase the Company's exposure should a bankruptcy occur, and may require a write-down or disposal of certain inventory due to its estimated obsolescence or limited marketability. Customer returns of products or disputes may also result in similar issues related to the realizability of recorded accounts receivable or returned inventory. The Company recorded an increase in its provision for doubtful accounts of $1.5 million in 2015, compared to a reduction of $0.3 million in 2014 and an increase of $1.1 million in 2013. A change of 10% to the recorded provision would have increased or decreased the Company's pre-tax earnings by approximately $0.2 million, less than $0.1 million, and $0.1 million in 2015, 2014 and 2013, respectively.

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

## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS


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**Report of Independent Registered Public Accounting Firm**

To the Shareholders and Board of Directors

of Quaker Chemical Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows present fairly, in all material respects, the financial position of Quaker Chemical Corporation and its subsidiaries (the “Company”) at December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

As described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, management has excluded Verkol S.A. from its assessment of internal control over financial reporting as of December 31, 2015 because this entity was acquired by the Company in a purchase business combination in July 2015. We have also excluded Verkol S.A. from our audit of internal control over financial reporting. Verkol S.A. is a wholly owned subsidiary of the Company, whose total assets and total revenues represent 6% and 2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2015.

/s/ PricewaterhouseCoopers LLP

Philadelphia, PA

February 25, 2016

**QUAKER CHEMICAL CORPORATION**

**CONSOLIDATED STATEMENTS OF INCOME**

**(Dollars in thousands, except per share data)**

| | Year Ended December 31, 2015 | 2014 | 2013 |
|---|---|---|---|
| Net sales | $ 737,555 | $ 765,860 | $ 729,395 |
| Costs and expenses | | | |
| Cost of goods sold | 460,515 | 492,654 | 468,320 |
| Selling, general and administrative expenses | 198,990 | 195,850 | 189,832 |
| Restructuring and related activities | 6,790 | — | — |
| | 666,295 | 688,504 | 658,152 |
| Operating income | 71,260 | 77,356 | 71,243 |
| Other (expense) income, net | (69) | 767 | 3,519 |
| Interest expense | (2,585) | (2,371) | (2,922) |
| Interest income | 1,624 | 2,541 | 986 |
| Income before taxes and equity in net income of associated companies | 70,230 | 78,293 | 72,826 |
| Taxes on income before equity in net income of associated companies | 17,785 | 23,539 | 20,489 |
| Income before equity in net income of associated companies | 52,445 | 54,754 | 52,337 |
| Equity in net income of associated companies | 261 | 3,543 | 6,514 |
| Net income | 52,706 | 58,297 | 58,851 |
| Less: Net income attributable to noncontrolling interest | 1,526 | 1,805 | 2,512 |
| Net income attributable to Quaker Chemical Corporation | $ 51,180 | $ 56,492 | $ 56,339 |
| Earnings per common share data: | | | |
| Net income attributable to Quaker Chemical Corporation Common Shareholders – basic | $ 3.84 | $ 4.27 | $ 4.28 |
| Net income attributable to Quaker Chemical Corporation Common Shareholders – diluted | $ 3.84 | $ 4.26 | $ 4.27 |

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

**QUAKER CHEMICAL CORPORATION**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

**(Dollars in thousands)**

| | Year Ended December 31, 2015 | 2014 | 2013 |
|---|---|---|---|
| Net income | $ 52,706 | $ 58,297 | $ 58,851 |
| Other comprehensive (loss) income, net of tax | | | |
| Currency translation adjustments | (24,869) | (15,701) | (3,490) |
| Defined benefit retirement plans | | | |
| Net gain (loss) arising during the period, other | 3,821 | (6,210) | 6,614 |
| Amortization of actuarial loss | 2,561 | 2,162 | 2,748 |
| Amortization of prior service (gain) loss | (82) | (70) | 119 |
| Unrealized loss on available-for-sale securities | (978) | (124) | (142) |
| Other comprehensive (loss) income | (19,547) | (19,943) | 5,849 |
| Comprehensive income | 33,159 | 38,354 | 64,700 |
| Less: Comprehensive income attributable to noncontrolling interest | (889) | (1,568) | (1,206) |
| Comprehensive income attributable to Quaker Chemical Corporation | $ 32,270 | $ 36,786 | $ 63,494 |

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

**QUAKER CHEMICAL CORPORATION**

**CONSOLIDATED BALANCE SHEETS**

**(Dollars in thousands, except par value and share amounts)**

| | December 31, 2015 | December 31, 2014 |
|---|---|---|
| **ASSETS** | | |
| Current assets | | |
| Cash and cash equivalents | $ 81,053 | $ 64,731 |
| Accounts receivable, net | 188,297 | 189,484 |
| Inventories, net | 75,099 | 77,708 |
| Current deferred tax assets | 7,822 | 8,367 |
| Prepaid expenses and other current assets | 13,582 | 11,228 |
| Total current assets | 365,853 | 351,518 |
| Property, plant and equipment, net | 87,619 | 85,763 |
| Goodwill | 79,111 | 77,933 |
| Other intangible assets, net | 73,287 | 70,408 |
| Investments in associated companies | 20,354 | 21,751 |
| Non-current deferred tax assets | 27,071 | 24,411 |
| Other assets | 32,218 | 33,742 |
| Total assets | $ 685,513 | $ 665,526 |
| **LIABILITIES AND EQUITY** | | |
| Current liabilities | | |
| Short-term borrowings and current portion of long-term debt | $ 662 | $ 403 |
| Accounts payable | 67,291 | 74,987 |
| Dividends payable | 4,252 | 3,990 |
| Accrued compensation | 19,166 | 19,853 |
| Accrued restructuring | 6,303 | — |
| Accrued pension and postretirement benefits | 1,144 | 1,239 |
| Current deferred tax liabilities | 41 | 732 |
| Other current liabilities | 25,696 | 23,697 |
| Total current liabilities | 124,555 | 124,901 |
| Long-term debt | 81,439 | 75,328 |
| Non-current deferred tax liabilities | 15,003 | 8,584 |
| Non-current accrued pension and postretirement benefits | 40,689 | 46,088 |
| Other non-current liabilities | 42,584 | 45,490 |
| Total liabilities | 304,270 | 300,391 |
| Commitments and contingencies (Note 23) | | |
| Equity | | |
| Common stock $1 par value; authorized 30,000,000 shares; issued and outstanding | | |
| 2015 – 13,288,113 shares; 2014 – 13,300,891 shares | 13,288 | 13,301 |
| Capital in excess of par value | 106,333 | 99,056 |
| Retained earnings | 326,740 | 299,524 |

| | | | | |
|---|---|---|---|---|
| Accumulated other comprehensive loss | | (73,316) | | (54,406) |
| Total Quaker shareholders' equity | | 373,045 | | 357,475 |
| Noncontrolling interest | | 8,198 | | 7,660 |
| Total equity | | 381,243 | | 365,135 |
| Total liabilities and equity | $ | 685,513 | $ | 665,526 |

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

**QUAKER CHEMICAL CORPORATION**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**(Dollars in thousands)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2015** | **2014** | **2013** |
| **Cash flows from operating activities** | | | |
| Net income | $ 52,706 | $ 58,297 | $ 58,851 |
| Adjustments to reconcile net income to net cash provided by operating activities | | | |
| Depreciation | 12,395 | 12,306 | 12,339 |
| Amortization | 6,811 | 4,325 | 3,445 |
| Equity in undistributed earnings of associated companies, net of dividends | 578 | (3,180) | (4,162) |
| Deferred income taxes | (2,401) | 1,007 | (30) |
| Uncertain tax positions (non-deferred portion) | (1,122) | (1,256) | (1,826) |
| Acquisition-related fair value adjustments | — | — | 200 |
| Deferred compensation and other, net | 14 | 3,174 | (259) |
| Stock-based compensation | 5,919 | 5,309 | 4,161 |
| Restructuring and related activities | 6,790 | — | — |
| (Gain) loss on disposal of property, plant and equipment and other assets | (12) | (86) | 200 |
| Insurance settlement realized | (760) | (1,907) | (988) |
| Pension and other postretirement benefits | 2,591 | 1,265 | 862 |
| (Decrease) increase in cash from changes in current assets and current liabilities, net of acquisitions: | | | |
| Accounts receivable | (188) | (24,944) | (11,837) |
| Inventories | 1,292 | (5,484) | 406 |
| Prepaid expenses and other current assets | (721) | 2,003 | (743) |
| Accounts payable and accrued liabilities | (9,040) | 2,999 | 11,301 |
| Change in restructuring liabilities | (490) | — | — |
| Estimated taxes on income | (930) | 862 | 1,881 |
| Net cash provided by operating activities | 73,432 | 54,690 | 73,801 |
| **Cash flows from investing activities** | | | |
| Investments in property, plant and equipment | (11,033) | (13,052) | (11,439) |
| Payments related to acquisitions, net of cash acquired | (24,058) | (73,527) | (2,478) |
| Proceeds from disposition of assets | 135 | 201 | 513 |
| Insurance settlement interest earned | 35 | 44 | 52 |
| Change in restricted cash, net | 725 | 1,863 | 936 |
| Net cash used in investing activities | (34,196) | (84,471) | (12,416) |
| **Cash flows from financing activities** | | | |
| Proceeds from long-term debt | 6,163 | 58,771 | — |
| Repayment of long-term debt | (477) | (1,368) | (12,791) |
| Dividends paid | (16,513) | (14,562) | (13,018) |
| Stock options exercised, other | 1,048 | 804 | (307) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Payments for repurchase of common stock | | (7,276) | | — | | — |
| Excess tax benefit related to stock option exercises | | 384 | | 453 | | 815 |
| Purchase of noncontrolling interest in affiliates, net | | — | | (7,422) | | — |
| Payment of acquisition-related liabilities | | (226) | | (4,709) | | — |
| Distributions to noncontrolling affiliate shareholders | | — | | (1,806) | | (905) |
| Net cash (used in) provided by financing activities | | (16,897) | | 30,161 | | (26,206) |
| Effect of exchange rate changes on cash | | (6,017) | | (4,141) | | 766 |
| Net increase (decrease) in cash and cash equivalents | | 16,322 | | (3,761) | | 35,945 |
| Cash and cash equivalents at beginning of period | | 64,731 | | 68,492 | | 32,547 |
| Cash and cash equivalents at end of period | $ | 81,053 | $ | 64,731 | $ | 68,492 |
| **Supplemental cash flow disclosures:** | | | | | | |
| Cash paid during the year for: | | | | | | |
| Income taxes | $ | 20,996 | $ | 22,713 | $ | 17,744 |
| Interest | | 2,223 | | 1,894 | | 1,776 |
| Non-cash activities: | | | | | | |
| Change in accrued purchases of property, plant and equipment, net | $ | 209 | $ | (1,158) | $ | 1,287 |

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

**QUAKER CHEMICAL CORPORATION**

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**

**(Dollars in thousands, except per share amounts)**

| | Common stock | Capital in excess of par value | Retained earnings | Accumulated other comprehensive loss | Noncontrolling interest | Total |
|---|---|---|---|---|---|---|
| Balance at December 31, 2012 | $ 13,095 | $ 94,470 | $ 215,390 | $ (41,855) | $ 8,576 | $ 289,676 |
| Net income | — | — | 56,339 | — | 2,512 | 58,851 |
| Adjustment to prior period earnings | — | — | (335) | — | — | (335) |
| Amounts reported in other comprehensive income (loss) | — | — | — | 7,155 | (1,306) | 5,849 |
| Dividends ($0.995 per share) | — | — | (13,109) | — | — | (13,109) |
| Distributions to noncontrolling affiliate shareholders | — | — | — | — | (905) | (905) |
| Shares issued upon exercise of stock options and other | 24 | (668) | — | — | — | (644) |
| Shares issued for employee stock purchase plan | 6 | 331 | — | — | — | 337 |
| Equity based compensation plans | 71 | 4,090 | — | — | — | 4,161 |
| Excess tax benefit from stock option exercises | — | 815 | — | — | — | 815 |
| Balance at December 31, 2013 | 13,196 | 99,038 | 258,285 | (34,700) | 8,877 | 344,696 |
| Net income | — | — | 56,492 | — | 1,805 | 58,297 |
| Amounts reported in other comprehensive loss | — | — | — | (19,706) | (237) | (19,943) |
| Dividends ($1.15 per share) | — | — | (15,253) | — | — | (15,253) |
| Distributions to noncontrolling affiliate shareholders | — | — | — | — | (1,806) | (1,806) |
| Acquisition of noncontrolling interests, net | — | (6,443) | — | — | (979) | (7,422) |
| Shares issued upon exercise of stock options and other | 19 | 369 | — | — | — | 388 |
| Shares issued for employee stock purchase plan | 6 | 410 | — | — | — | 416 |
| Equity based compensation plans | 80 | 5,229 | — | — | — | 5,309 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Excess tax benefit from stock option exercises | — | 453 | — | — | — | 453 |
| Balance at December 31, 2014 | 13,301 | 99,056 | 299,524 | (54,406) | 7,660 | 365,135 |
| Net income | — | — | 51,180 | — | 1,526 | 52,706 |
| Amounts reported in other comprehensive loss | — | — | — | (18,910) | (637) | (19,547) |
| Repurchases of common stock | (87) | — | (7,189) | — | — | (7,276) |
| Dividends ($1.26 per share) | — | — | (16,775) | — | — | (16,775) |
| Disposition of noncontrolling interest | — | — | — | — | (351) | (351) |
| Shares issued upon exercise of stock options and other | 17 | 602 | — | — | — | 619 |
| Shares issued for employee stock purchase plan | 6 | 423 | — | — | — | 429 |
| Equity based compensation plans | 51 | 5,868 | — | — | — | 5,919 |
| Excess tax benefit from stock option exercises | | | | | | |