

CHASE CORP
Form 10-K
November 14, 2016
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10 K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d)

OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended August 31, 2016

Commission File Number: 1 9852

CHASE CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts	11 1797126
(State or other jurisdiction of incorporation of organization)	(I.R.S. Employer Identification No.)

295 University Avenue, Westwood, Massachusetts 02090

(Address of Principal Executive Offices, Including Zip Code)

(781) 332-0700

(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class:	Name of Each Exchange on Which Registered
Common Stock	NYSE MKT
(\$0.10 Par Value)	

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

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Indicate by check mark if the registrant is a well known seasoned issuer (as defined in Rule 405 of the Securities Act). YES NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. YES NO

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

Indicate by check mark whether the registrant has submitted electronically 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 NO

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

Indicate by checkmark 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 Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company)

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the common stock held by non-affiliates of the registrant, as of February 29, 2016 (the last business day of the registrant's second quarter of fiscal 2016), was approximately \$329,518,000.

As of October 31, 2016, the Company had outstanding 9,322,282 shares of common stock, \$0.10 par value, which is its only class of common stock.

Documents Incorporated By Reference:

Portions of the registrant's definitive proxy statement for the Annual Meeting of Shareholders, which is expected to be filed within 120 days after the registrant's fiscal year ended August 31, 2016, are incorporated by reference into Part III hereof.

Table of Contents

CHASE CORPORATION

INDEX TO ANNUAL REPORT ON FORM 10-K

For the Year Ended August 31, 2016

	Page No.
<u>PART I</u>	
<u>Item 1 Business</u>	2
<u>Item 1A Risk Factors</u>	7
<u>Item 1B Unresolved Staff Comments</u>	10
<u>Item 2 Properties</u>	11
<u>Item 3 Legal Proceedings</u>	12
<u>Item 4 Mine Safety Disclosures</u>	12
<u>Item 4A Executive Officers of the Registrant</u>	12
<u>PART II</u>	
<u>Item 5 Market for the Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	13
<u>Item 6 Selected Financial Data</u>	15
<u>Item 7 Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	16
<u>Item 7A Quantitative and Qualitative Disclosures About Market Risk</u>	32
<u>Item 8 Financial Statements and Supplementary Data</u>	33
<u>Item 9 Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	82
<u>Item 9A Controls and Procedures</u>	82
<u>Item 9B Other Information</u>	82
<u>PART III</u>	
<u>Item 10 Directors, Executive Officers and Corporate Governance</u>	83
<u>Item 11 Executive Compensation</u>	83
<u>Item 12 Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	83
<u>Item 13 Certain Relationships and Related Transactions, and Director Independence</u>	83
<u>Item 14 Principal Accountant Fees and Services</u>	83
<u>PART IV</u>	
<u>Item 15 Exhibits and Financial Statement Schedules</u>	84
<u>Item 16 Form 10-K Summary</u>	86
<u>SIGNATURES</u>	87

Table of Contents

PART I

Item 1 – Business

Primary Operating Divisions and Facilities and Industry Segments

Chase Corporation (the “Company,” “Chase,” “we,” or “us”), founded in 1946, is a leading manufacturer of protective materials for high-reliability applications. Our strategy is to maximize the performance of our core businesses and brands while seeking future opportunities through strategic acquisitions. We are organized into two operating segments, an Industrial Materials segment and a Construction Materials segment. The segments are distinguished by the nature of the products we manufacture and how they are delivered to their respective markets. The Industrial Materials segment includes specified products that are used in, or integrated into, another company’s product, with demand typically dependent upon general economic conditions. The Construction Materials segment is principally composed of project-oriented product offerings that are primarily sold and used as "Chase" branded products. Our manufacturing facilities are distinct to their respective segments with the exception of our O’Hara Township, PA and Blawnox, PA facilities, which produce products related to both operating segments. A summary of our operating structure as of August 31, 2016 is as follows:

INDUSTRIAL MATERIALS SEGMENT

	Primary Manufacturing Locations	Background/History
Key Products Specialty tapes and related products for the electronic and telecommunications industries using the brand name Chase & Sons®.	Oxford, MA	In August 2011, we moved our manufacturing processes that had been previously conducted at our Webster, MA facility to this location.
Insulating and conducting materials for the manufacture of electrical and telephone wire and cable, electrical splicing, and terminating and repair tapes, which are marketed to wire and cable manufacturers selling into energy-oriented and communication markets, and to public utilities.		In December 2012, we moved the majority of our manufacturing processes that had been previously conducted at our Randolph, MA facility to this location. Our Randolph facility was one of our first operating facilities, and had been producing products for the wire and cable industry for more than fifty years.
PaperTyger®, a trademark for laminated durable papers sold to the envelope converting and commercial printing industries.		In December 2003, we acquired the assets of Paper Tyger, LLC.
Chase BLH2OCK®, a water-blocking compound sold to the wire and cable industry.	Blawnox, PA	In September 2012, we moved our Chase BLH2OCK® manufacturing processes that had

been previously conducted at our Randolph, MA facility to this location.

Protective conformal coatings under the brand name HumiSeal®, moisture protective electronic coatings sold to the electronics industry including circuitry used in automobiles and home appliances.

O'Hara Township, PA

The HumiSeal business and product lines were acquired in the early 1970's.

Laminated film foils for the electronics and cable industries and cover tapes essential to delivering semiconductor components via tape and reel packaging.

Pawtucket, RI
Lenoir, NC

In June 2012, we acquired all of the capital stock of NEPTCO Incorporated, which operated facilities in Rhode Island, North Carolina and China.

Pulling and detection tapes used in the installation, measurement and location of fiber optic cables, and water and natural gas lines.

Granite Falls, NC

In October 2013, we moved the majority of our manufacturing processes that had been conducted at our Taylorsville, NC facility to our Lenoir, NC location.

Flexible, rigid and semi-rigid fiber optic strength elements designed to allow fiber optic cables to withstand mechanical and environmental strain and stress.

Suzhou, China

In October 2014, we purchased the outstanding 50% noncontrolling interest of the NEPTCO JV from our joint venture partner.

Cover tapes essential to delivering semiconductor components via tape and reel packaging.

Table of Contents

	Primary Manufacturing Location(s)	Background/History
<p>Key Products & Services Protective conformal coatings under the brand name HumiSeal®, moisture protective electronic coatings sold to the electronics industry including circuitry used in automobiles and home appliances.</p>	<p>Winnersh, Wokingham, England</p>	<p>In October 2005, we acquired all of the capital stock of Concoat Holdings Ltd. and its subsidiaries. In 2006 Concoat was renamed HumiSeal Europe.</p> <p>In March 2007, we expanded our international presence with the formation of HumiSeal Europe SARL in France. HumiSeal Europe SARL operates a sales/technical service office and warehouse near Paris, France. This business works closely with the HumiSeal operation in Winnersh, Wokingham, England allowing direct sales and service to the French market.</p> <p>In June 2016, we expanded our international presence through the purchase of Spray Products (India) Private Limited, located in Pune, India. This business enhances the Company's ability to provide technical, sales, manufacturing, chemical handling, and packaging services in the region and works closely with our HumiSeal manufacturing operation in Winnersh, Wokingham, England.</p>
<p>Polymeric microspheres, sold under the Dualite® brand, which are utilized for weight and density reduction and sound dampening across varied industries.</p> <p>Water-based polyurethane dispersions utilized for various coating products.</p>	<p>Greenville, SC</p>	<p>In January 2015, we acquired two product lines from Henkel Corporation. They comprise our specialty chemical intermediates product line.</p> <p>The Company currently utilizes an external resource, located in Elgin, IL, to provide services related to water-based polyurethane dispersions.</p>

Table of Contents

CONSTRUCTION MATERIALS SEGMENT

<p>Key Products Protective pipe coating tapes and other protectants for valves, regulators, casings, joints, metals, concrete, and wood which are sold under the brand name Royston®, to oil companies, gas utilities, and pipeline companies.</p>	<p>Primary Manufacturing Locations Blawnox, PA</p>	<p>Background/History The Royston business was acquired in the early 1970's.</p>
<p>Rospphalt50® is a polymer additive that provides long-term cost-effective solutions in many applications such as waterproofing of approaches and bridges, ramps, race tracks, airports and specialty road applications.</p>		
<p>Waterproofing sealants, expansion joints and accessories for the transportation, industrial and architectural markets.</p>	<p>O'Hara Township, PA</p>	<p>In April 2005, we acquired certain assets of E-Poxy Engineered Materials. Additionally, in September 2006, we acquired all of the capital stock of Capital Services Joint Systems. Both of these acquisitions were combined to form the expansion joints product line.</p>
<p>Technologically advanced products, including the brand Tapecoat®, for demanding anti-corrosion applications in the gas, oil and marine pipeline market segments, as well as tapes and membranes for roofing and other construction-related applications.</p>	<p>Evanston, IL</p>	<p>In November 2001, we acquired substantially all of the assets of Tapecoat, previously a division of T.C. Manufacturing Inc.</p>
<p>Specialized high performance coating and lining systems used worldwide in liquid storage and containment applications.</p>	<p>Houston, TX</p>	<p>In September 2009, we acquired all of the outstanding capital stock of C.I.M. Industries Inc. ("CIM").</p>
<p>Waterproofing and corrosion protection systems for oil, gas and water pipelines and a supplier to Europe, the Middle East and Southeast Asia. This facility joins Chase's North American based Tapecoat® and Royston® brands to broaden the protective coatings product line and better address increasing global demand.</p>	<p>Rye, East Sussex, England</p>	<p>In September 2007, we purchased certain product lines and a related manufacturing facility in Rye, East Sussex, England through our wholly-owned subsidiary, Chase Protective Coatings Ltd.</p>

The ServiWrap® product line complements the portfolio of our pipeline protection tapes, coatings and accessories to extend our global customer base.

In December 2009, we acquired the full range of ServiWrap® pipeline protection products (“ServiWrap”) from Grace Construction Products Limited, a UK-based unit of W.R. Grace & Co.

Other Business Developments

On September 30, 2016, subsequent to the fiscal year end, the Company acquired certain assets of Resin Designs, LLC (“Resin Designs”), an advanced adhesives and sealants manufacturer, with locations in Woburn, MA and Newark, CA. The business was acquired for a purchase price of \$30,435,000, pending any final working capital adjustment and excluding acquisition-related costs. As part of this transaction, Chase is acquiring all working capital and fixed assets of the business, and entering into multi-year leases at both locations. The purchase was funded entirely with available cash on hand. Resin Designs is a formulator of customized adhesive and sealant systems used in high-reliability electronic applications. The Company anticipates the acquisition will broaden its adhesives and sealants product offering and manufacturing capabilities, and expand its market reach. The Company is currently in the process of finalizing purchase accounting, and anticipates completion within the first half of fiscal 2017. For periods subsequent to the effective date of the acquisition, the financial results of Resin Designs operations will be included in the Company’s financial statements within the electronic coatings product line, contained within the Industrial Materials operating segment.

On June 23, 2016, the Company acquired all the capital stock of Spray Products (India) Private Limited for \$1,161,000, net of cash acquired. This acquired business works closely with our HumiSeal manufacturing operation in Winnersh, Wokingham, England. The acquisition in India enhances the Company’s ability to provide technical, sales, manufacturing, chemical handling, and packaging services in the region. Since the effective date for this acquisition, the financial results of the business have been included in the Company's financial statements within the Company’s

Table of Contents

Industrial Materials operating segment in the electronic coatings product line. Purchase accounting was completed in the quarter ended August 31, 2016.

In November 2015, the Company sold its RodPack® wind energy business, contained within its structural composites product line, to an otherwise unrelated party (“Buyer”) for proceeds of \$2,186,000. The Company’s structural composites product line is a part of the Company’s Industrial Materials operating segment. At August 31, 2015 (prior year end), the related RodPack assets were recorded as assets held for sale on the consolidated balance sheet.

Products and Markets

Our principal products are specialty tapes, laminates, sealants, coatings and chemical intermediates that are sold by our salespeople, manufacturers' representatives and distributors. In our Industrial Materials segment, these products consist of:

- (i) insulating and conducting materials for the manufacture of electrical and telephone wire and cable, electrical splicing, and terminating and repair tapes, which are marketed to wire and cable manufacturers;
- (ii) laminated film foils, including EMI/RFI shielding tapes used in communication cables;
- (iii) moisture protective coatings, which are sold to the electronics industry for circuitry manufacturing including circuitry used in automobiles and home appliances;
- (iv) laminated durable papers, including laminated paper with an inner security barrier used in personal and mail-stream privacy protection, which are sold primarily to the envelope converting and commercial printing industries;
- (v) pulling and detection tapes used in the installation, measurement and location of fiber optic cables, water and natural gas lines, and power, data, and video cables for commercial buildings;
- (vi) cover tapes with reliable adhesive and anti-static properties essential to delivering semiconductor components via tape and reel packaging;
- (vii) flexible, rigid and semi-rigid fiber optic strength elements designed to allow fiber optic cables to withstand mechanical and environmental strain and stress;

- (viii) polymeric microspheres utilized by various industries to allow for weight and density reduction and sound dampening;
- (ix) water-based polyurethane dispersions utilized for various coating products; and
- (x) composite strength elements.

In our Construction Materials segment, these products consist of:

- (i) protective pipe coating tapes and other protectants for valves, regulators, casings, joints, metals, concrete and wood, which are sold to oil companies, gas utilities, and pipeline companies for utilization in both the construction and maintenance of oil and gas, water and wastewater pipelines;
- (ii) protectants for highway bridge deck metal-supported surfaces, which are sold to municipal transportation authorities;
- (iii) fluid applied coating and lining systems for use in the water and wastewater industry; and
- (iv) expansion and control joint systems designed for roads, bridges, stadiums and airport runways.

Table of Contents

There is some seasonality in selling products into the construction market. Higher demand is often experienced when temperatures are warmer in most of North America (April through October), with lower demand occurring when temperatures are colder (typically our second fiscal quarter). We did not introduce any new products requiring an investment of a material amount of our assets during fiscal year 2016.

Employees

As of October 31, 2016, we employed approximately 677 people (including union employees). We consider our employee relations to be good. In the US, we offer our employees a wide array of company-paid benefits, which we believe are competitive relative to others in our industry. In our operations outside the US, we offer benefits that may vary from those offered to our US employees due to customary local practices and statutory requirements.

Backlog, Customers and Competition

As of October 31, 2016, the backlog of customer orders believed to be firm was approximately \$17,583,000. This compared with a backlog of \$12,717,000 as of October 31, 2015. The increase in backlog from the prior year amount is primarily due to current period increases in wire and cable, pipeline coatings and pulling and detection products, in addition to the inclusion of the Resin Designs LLC backlog. During fiscal 2016, 2015 and 2014, no customer accounted for more than 10% of sales. No material portion of our business is subject to renegotiation or termination of profits or contracts at the election of the United States Federal Government.

There are other companies that manufacture or sell products and services similar to those made and sold by us. Many of those companies are larger and have greater financial resources than we have. We compete principally on the basis of technical performance, service reliability, quality and price.

Raw Materials

We obtain raw materials from a wide variety of suppliers, with alternative sources of most essential materials available within reasonable lead times.

Patents, Trademarks, Licenses, Franchises and Concessions

We own the following trademarks that we believe are of material importance to our business: Chase Corporation®, C-Spray (Logo), a trademark used in conjunction with most of the Company's business segment and product line marketing material and communications; HumiSeal®, a trademark for moisture protective coatings sold to the electronics industry; Chase & Sons®, a trademark for barrier and insulating tapes sold to the wire and cable industry; Chase BLH2OCK®, a trademark for a water blocking compound sold to the wire and cable industry; Rosphalt50®, a trademark for an asphalt additive used predominantly on bridge decks for waterproofing protection; PaperTyger®, a trademark for laminated durable papers sold to the envelope converting and commercial printing industries; DuraDocument®, a trademark for durable, laminated papers sold to the digital print industry; Defender® a trademarked and patent-pending RFID protective material sold to the personal accessories and paper industries; Tapecoat®, a trademark for corrosion preventative surface coatings and primers; Maflowrap®, a trademark for anti-corrosive tapes incorporating self-adhesive mastic or rubber backed strips, made of plastic materials; Royston®, a trademark for corrosion inhibiting coating composition for use on pipes; Ceva®, a trademark for epoxy pastes/gels/mortars and elastomeric concrete used in the construction industry; CIM® trademarks for fluid applied coating and lining systems used in the water and wastewater industry; ServiWrap® trademarks for pipeline protection tapes, coatings and accessories; NEPTCO®, a trademark used in conjunction with most of NEPTCO's business and product line marketing material and communications; NEPTAPE®, a trademark for coated shielding and insulation materials used in the wire and cable industry; Muletape®, a trademark for pulling and installation tapes sold to the telecommunications industry; Trace-Safe®, a trademark for detection tapes sold to the water and gas industry; and Dualite®, a trademark for polymeric microspheres utilized for density and weight reduction and sound dampening by various industries. We do not have any other material trademarks, licenses, franchises, or concessions. While we do hold various patents, as well as other trademarks, we do not believe that they are material to the success of our business.

Table of Contents

Working Capital

We fund our business operations through a combination of available cash and cash equivalents, short-term investments and cash flows generated from operations. In addition, our revolving credit facility is available for additional working capital needs or investment opportunities. We have historically funded acquisitions through both available cash on hand and through additional borrowings and financing agreements with our bank lenders.

Research and Development

Approximately \$2,792,000, \$2,690,000 and \$2,599,000 was expensed for Company-sponsored research and development during fiscal 2016, 2015 and 2014, respectively, and recorded within selling, general and administrative expenses. Research and development increased by \$102,000 in fiscal 2016 due to continued focused development work on certain product lines, and twelve full months of research and development related to our specialty chemical intermediates product line, acquired in the second quarter of fiscal 2015.

Available Information

Chase maintains a website at <http://www.chasecorp.com>. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to such reports filed or furnished pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934, as well as section 16 reports on Form 3, 4, or 5, are available free of charge on this site as soon as is reasonably practicable after they are filed or furnished with the SEC. Our Code of Conduct and Ethics and the charters for the Audit Committee, the Nominating and Governance Committee and the Compensation and Management Development Committee of our Board of Directors are also available on our internet website. The Code of Conduct and Ethics and charters are also available in print to any shareholder upon request. Requests for such documents should be directed to Paula Myers, Shareholder and Investor Relations Department, at 295 University Avenue, Westwood, Massachusetts 02090. Our internet website and the information contained on it or connected to it are not part of nor incorporated by reference into this Form 10-K. Our filings with the SEC are also available on the SEC's website at <http://www.sec.gov>.

Financial Information regarding Segment and Geographic Areas

Please see Notes 11 and 12 to the Company's Consolidated Financial Statements for financial information about the Company's operating segments and domestic and foreign operations for each of the last three fiscal years.

Item 1A – Risk Factors

The following risk factors should be read carefully in connection with evaluating our business and the forward-looking information contained in this Annual Report on Form 10-K. We feel that any of the following risks could materially adversely affect our business, operations, industry, financial position or our future financial performance. While we believe that we have identified and discussed below the key risk factors affecting our business, there may be additional risks and uncertainties that are not presently known or that are not currently believed to be significant that may adversely affect our business, operations, industry, financial position and financial performance in the future.

We currently operate in mature markets where increases or decreases in market share could be significant.

Our sales and net income are largely dependent on sales from a consistent and well established customer base. Organic growth opportunities are minimal; however, we have used and will continue to use strategic acquisitions as a means to build and grow the business. In this business environment, increases or decreases in market share could have a material effect on our business condition or results of operation. We face intense competition from a diverse range of competitors, including operating divisions of companies much larger and with far greater resources than we have. If we are unable to maintain our market share, our business could suffer.

Table of Contents

Our business strategy includes the pursuit of strategic acquisitions, which may not be successful if they happen at all.

From time to time, we engage in discussions with potential target companies concerning potential acquisitions. In executing our acquisition strategy, we may be unable to identify suitable acquisition candidates. In addition, we may face competition from other companies for acquisition candidates, making it more difficult to acquire suitable companies on favorable terms.

Even if we do identify a suitable acquisition target and are able to negotiate and close a transaction, the integration of an acquired business into our operations involves numerous risks, including potential difficulties in integrating an acquired company's product line with ours; the diversion of our resources and management's attention from other business concerns; the potential loss of key employees; limitations imposed by antitrust or merger control laws in the United States or other jurisdictions; risks associated with entering a new geographical or product market; and the day-to-day management of a larger and more diverse combined company.

We may not realize the synergies, operating efficiencies, market position or revenue growth we anticipate from acquisitions and our failure to effectively manage the above risks could have a material adverse effect on our business, growth prospects and financial performance.

Our results of operations could be adversely affected by uncertain economic and political conditions and the effects of these conditions on our customers' businesses and levels of business activity.

Global economic and political conditions can affect the businesses of our customers and the markets they serve. A severe or prolonged economic downturn or a negative or uncertain political climate could adversely affect, among others, the automotive, housing, construction, pipeline, energy, transportation infrastructure and electronics industries. This may reduce demand for our products or depress pricing of those products, either of which may have a material adverse effect on our results of operations. Changes in global economic conditions could also shift demand to products for which we do not have competitive advantages, and this could negatively affect the amount of business that we are able to obtain. In addition, if we are unable to successfully anticipate changing economic and political conditions, we may be unable to effectively plan for and respond to those changes and our business could be negatively affected.

General economic factors, domestically and internationally, may also adversely affect our financial performance through increased raw material costs or other expenses and by making access to capital more difficult.

The cumulative effect of higher interest rates, energy costs, inflation, levels of unemployment, healthcare costs, unsettled financial markets, and other economic factors (including changes in foreign currency exchange rates) could adversely affect our financial condition by increasing our manufacturing costs and other expenses at the same time that our customers may be scaling back demand for our products. Prices of certain commodity products, including oil and petroleum-based products, are historically volatile and are subject to fluctuations arising from changes in domestic and international supply and demand, labor costs, competition, weather events, market speculation, government regulations and periodic delays in delivery. Rapid and significant changes in commodity prices may affect our sales and profit margins. These factors can increase our cost of products and services sold and/or selling, general and administrative expenses, and otherwise adversely affect our operating results. Disruptions in the credit markets may limit our ability to access debt capital for use in acquisitions or other purposes on advantageous terms or at all. If we are unable to manage our expenses in response to general economic conditions and margin pressures, or if we are unable to obtain capital for strategic acquisitions or other needs, then our results of operations would be negatively affected.

Fluctuations in the supply and prices of raw materials may negatively impact our financial results.

We obtain raw materials needed to manufacture our products from a number of suppliers. Many of these raw materials are petroleum-based derivatives. Under normal market conditions, these materials are generally available on the open market and from a variety of producers. From time to time, however, the prices and availability of these raw materials fluctuate, which could impair our ability to procure necessary materials, or increase the cost of manufacturing our

Table of Contents

products. If the prices of raw materials increase, and we are unable to pass these increases on to our customers, we could experience reduced profit margins.

If our products fail to perform as expected, or if we experience product recalls, we could incur significant and unexpected costs and lose existing and future business.

Our products are complex and could have defects or errors presently unknown to us, which may give rise to claims against us, diminish our brands or divert our resources from other purposes. Despite testing, new and existing products could contain defects and errors and may in the future contain manufacturing or design defects, errors or performance problems when first introduced, or even after these products have been used by our customers for a period of time. These problems could result in expensive and time-consuming design modifications or warranty charges, changes to our manufacturing processes, product recalls, significant increases in our maintenance costs, or exposure to liability for damages, any of which may result in substantial and unexpected expenditures, require significant management attention, damage our reputation and customer relationships, and adversely affect our business, our operating results and our cash flow.

We are dependent on key personnel.

We depend significantly on our executive officers including our President and Chief Executive Officer, Adam P. Chase, and our Executive Chairman, Peter R. Chase, and on other key employees. The loss of the services of any of these key employees could have a material impact on our business and results of operations. In addition, our acquisition strategy will require that we attract, motivate and retain additional skilled and experienced personnel. The inability to satisfy such requirements could have a negative impact on our ability to remain competitive in the future.

If we cannot successfully manage the unique challenges presented by international markets, we may not be successful in expanding our international operations.

Our strategy includes expansion of our operations in existing and new international markets by selective acquisitions and strategic alliances. Our ability to successfully execute our strategy in international markets is affected by many of the same operational risks we face in expanding our US operations. In addition, our international expansion may be adversely affected by our ability to identify and gain access to local suppliers as well as by local laws and customs, legal and regulatory constraints, political and economic conditions and currency regulations of the countries or regions in which we currently operate or intend to operate in the future. Risks inherent in our international operations also include, among others, the costs and difficulties of managing international operations, adverse tax consequences and greater difficulty in enforcing intellectual property rights. Additionally, foreign currency exchange rates and fluctuations (such as those experienced following the June 23, 2016 “Brexit” referendum vote in the United Kingdom) may have an impact on future costs or on future cash flows from our international operations.

We may experience difficulties in the redesign and consolidation of our manufacturing facilities which could impact shipments to customers, product quality, and our ability to realize cost savings.

We currently have several ongoing projects to streamline our manufacturing operations, which include the redesign and consolidation of certain manufacturing facilities. We anticipate a reduction of overhead costs as a result of these projects, to the extent that we can effectively leverage assets, personnel, and business processes in the transition of production among manufacturing facilities. However, uncertainty is inherent within the facility redesign and consolidation process, and unforeseen circumstances could offset the anticipated benefits, disrupt service to customers, and impact product quality.

Financial market performance may have a material adverse effect on our pension plan assets and require additional funding requirements.

Significant and sustained declines in the financial markets may have a material adverse effect on the fair market value of the assets of our pension plans. While these pension plan assets are considered non-financial assets since they are not carried on our balance sheet, the fair market valuation of these assets could impact our funding requirements, funded

Table of Contents

status or net periodic pension cost. Any significant and sustained declines in the fair market value of these pension assets could require us to increase our funding requirements, which would have an impact on our cash flow, and could also lead to additional pension expense.

Regulations related to conflict minerals could adversely impact our business.

The Dodd-Frank Wall Street Reform and Consumer Protection Act contains provisions to improve transparency and accountability concerning the supply of certain minerals, known as “conflict minerals” (tin, tungsten, tantalum, and gold). As a result, the SEC has adopted annual disclosure and reporting requirements concerning the supply chain for those public companies that use conflict minerals that are necessary to the functionality or production of their products. These requirements require companies to perform certain reasonable country of origin inquiry and due diligence exercises to determine if any of their sourced conflict minerals originated from the Democratic Republic of Congo (DRC) or adjoining countries. We filed our annual report under these rules in May 2016, to cover calendar year 2015, and anticipate filing reports on this matter on or prior to the annual May 31 due date going forward.

There are costs associated with complying with these annual disclosure requirements, including ongoing due diligence to determine the sources of conflict minerals used in our products and potential changes to products, processes or sources of supply as a consequence of such verification activities. Continued adherence to these rules could adversely affect the sourcing, supply and pricing of materials used in our products. As there may be only a limited number of suppliers offering conflict-free conflict minerals, we cannot be sure that we will be able to obtain necessary conflict minerals from such suppliers in sufficient quantities or at competitive prices. Also, we may face reputational challenges if we determine that certain of our products contain conflict minerals not determined to be conflict-free or if we are unable to sufficiently verify the origins for all conflict minerals used in our products through the procedures we may implement. In addition, some of our customers may choose to disqualify us as a supplier if we are unable to verify that any conflict minerals used in our products are not sourced from the covered countries or are not done so by conflict-free certified refiners and smelters.

Failure or compromise of security with respect to an operating or information system or portable electronic device could adversely affect our results of operations and financial condition or the effectiveness of our internal controls over operations and financial reporting.

We are highly dependent on automated systems to record and process our daily transactions and certain other components of our financial statements. We could experience a failure of one or more of these systems, or a compromise of our security due to technical system flaws, data input or record keeping errors, or tampering or manipulation of our systems by employees or unauthorized third parties. Information security risks also exist with respect to the use of portable electronic devices, such as laptops and smartphones, which are particularly vulnerable to loss and theft. We may also be subject to disruptions of any of these systems arising from events that are wholly or partially beyond our control (for example, natural disasters, acts of terrorism, epidemics, computer viruses, cyber-attacks and electrical/telecommunications outages). All of these risks are also applicable wherever we rely on

outside vendors to provide services. Operating system failures, disruptions, or the compromise of security with respect to operating systems or portable electronic devices could subject us to liability claims, harm our reputation, interrupt our operations, or adversely affect our business, results from operations, financial condition, cash flow or internal control over financial reporting.

Item 1B – Unresolved Staff Comments

Not applicable.

10

Table of Contents

Item 2 – Properties

We own and lease office and manufacturing properties as outlined in the table below.

Location	Square Feet	Owned / Leased	Principal Use
Westwood, MA	20,200	Leased	Corporate headquarters, executive office and global operations center, including research and development, sales and administrative services
Bridgewater, MA	5,200	Owned	Former corporate headquarters and executive office. Subsequent to fiscal year end, the Company classified this location as an asset held for sale
Oxford, MA	73,600	Owned	Manufacture of tape and related products for the electronic and telecommunications industries, as well as laminated durable papers
Blawnox, PA	44,000	Owned	Manufacture and sale of protective coatings and tape products
O'Hara Township, PA	109,000	Owned	Manufacture and sale of protective electronic coatings, expansion joints and accessories
Evanston, IL	100,000	Owned	Manufacture and sale of protective coatings and tape products
Houston, TX	45,000	Owned	Manufacture of coating and lining systems for use in liquid storage and containment applications
Pawtucket, RI	70,400	Owned	Manufacture and sale of laminated film foils for the electronics and cable industries, and offices for sales and administrative services
Granite Falls, NC	108,000	Owned	Manufacture and sale of pulling and detection tapes and fiber optic strength elements, as well as research and development services
Lenoir, NC	110,000	Owned	Manufacture and sale of laminated film foils and cover tapes
Greenville, SC	34,600	Leased	Manufacture and sale of polymeric microspheres, as well as research and development
Winnersh, Wokingham, England	18,800	Leased	Manufacture and sale of protective electronic coatings, as well as research and development
Rye, East Sussex, England	36,600	Owned	Manufacture and sale of protective coatings and tape products
Paris, France	1,900	Leased	Sales/technical service office and warehouse allowing direct sales and service to the French market
Mississauga, Canada	2,500	Leased	Distribution center
	2,500	Leased	Distribution center

Rotterdam, Netherlands			
Suzhou, China	48,000	Leased	Manufacture of packaging tape products for the electronics industries
Pune, India	4,650	Owned	Packaging and sale of protective electronic coatings
Paterson, NJ	40,000	Owned/Leased	We own the building and lease the land from the landowner. The building is leased, and the land is sub-leased to a tenant. This location is classified as an asset held for sale
Randolph, MA	-	Owned	Ceased manufacturing products at this location in 2012. During fiscal 2016, we demolished the building and classified the property as an asset held for sale

The above facilities vary in age, are in good condition and, in the opinion of management, adequate and suitable for present operations. We also own equipment and machinery that is in good repair and, in the opinion of management, adequate and suitable for present operations. We believe that we could significantly add to our capacity by increasing shift operations. Availability of machine hours through additional shifts would provide expansion of current production volume without significant additional capital investment.

Table of Contents

Item 3 – Legal Proceedings

We are involved from time to time in litigation incidental to the conduct of our business. Although we do not expect that the outcome in any of these matters, individually or collectively, will have a material adverse effect on our financial condition, results of operations or cash flows, litigation is inherently unpredictable. Therefore, judgments could be rendered or settlements agreed to, that could adversely affect our operating results or cash flows in a particular period. We routinely assess all of our litigation and threatened litigation as to the probability of ultimately incurring a liability, and record our best estimate of the ultimate loss in situations where we assess the likelihood of loss as probable.

item 4 – mine safety disclosures

Not applicable.

Item 4a – Executive Officers of the Registrant

The following table sets forth information concerning our Executive Officers as of October 31, 2016. Each of our Executive Officers is selected by our Board of Directors and holds office until his successor is elected and qualified.

Name	Age	Offices Held and Business Experience during the Past Five Years
Adam P. Chase	44	President of the Company since January 2008, Chief Executive Officer of the Company since February 2015. Adam Chase was the Chief Operating Officer of the Company from February 2007 to February 2015.
Peter R. Chase	68	Chairman of the Board of the Company since February 2007, and Executive Chairman of the Company since February 2015. Peter Chase was the Chief Executive Officer of the Company from September 1993 to February 2015. Peter Chase is the father of Adam Chase.
Kenneth J. Feroldi	61	Chief Financial Officer and Treasurer of the Company since September 2014. Previously Director of Finance for the Company, prior to which he served as Vice President – Finance, Chief Financial Officer and Treasurer of NEPTCO, Inc. from 1992 until 2012, when NEPTCO was acquired by the Company.

Table of Contents

PART II

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

Our common stock is traded on the NYSE MKT under the symbol CCF. As of October 31, 2016, there were 351 shareholders of record of our Common Stock and we believe there were approximately 4,299 beneficial shareholders who held shares in nominee name. On that date, the closing price of our common stock was \$68.35 per share as reported by the NYSE MKT.

The following table sets forth the high and low daily sales prices for our common stock as reported by the NYSE MKT for each quarter in the fiscal years ended August 31, 2016 and 2015:

	Fiscal 2016		Fiscal 2015	
	High	Low	High	Low
First Quarter	\$ 44.61	\$ 36.83	\$ 36.46	\$ 29.70
Second Quarter	50.87	37.20	44.25	33.50
Third Quarter	58.79	45.07	43.99	35.46
Fourth Quarter	65.19	55.54	42.45	37.01

Single annual cash dividend payments were declared and scheduled to be paid subsequent to year end in the amounts of \$0.70, \$0.65, and \$0.60 per common share, for the years ended August 31, 2016, 2015 and 2014, respectively. Certain of our borrowing facilities contain financial covenants which may have the effect of limiting the amount of dividends that we can pay.

Table of Contents

Comparative Stock Performance

The following line graph compares the yearly percentage change in our cumulative total shareholder return on the Common Stock for the last five fiscal years with the cumulative total return on the Standard & Poor's 500 Stock Index (the "S&P 500 Index"), and two composite peer indexes that are weighted by market equity capitalization (the "New Peer Group Index" and the "Old Peer Group Index"). The companies included in the New Peer Group Index are Henkel AG & Co KGaA, H.B. Fuller Company, Intertape Polymer Group, Rogers Corporation and RPM International, Inc., while the companies included in the Old Peer Group Index are American Biltrite Inc., Circor International Inc., H.B. Fuller Company, Quaker Chemical Corporation and RPM International, Inc. (and are consistent with the Peer Group utilized in prior year's Comparative Stock Performance disclosure). The change to the New Peer Index in fiscal 2016 was due to a desire to provide a more aligned peer group given recent acquisitions and expansions in product offerings of the Company. Cumulative total returns are calculated assuming that \$100 was invested on August 31, 2011 in each of the Common Stock, the S&P 500 Index and the Peer Group Indexes, and that all dividends were reinvested.

	2011	2012	2013	2014	2015	2016
Chase Corp	\$ 100	\$ 131	\$ 244	\$ 296	\$ 335	\$ 553
S&P 500 Index	\$ 100	\$ 118	\$ 140	\$ 175	\$ 176	\$ 198
New Peer Group Index	\$ 100	\$ 129	\$ 169	\$ 192	\$ 189	\$ 242
Old Peer Group Index	\$ 100	\$ 132	\$ 175	\$ 235	\$ 208	\$ 267

The information under the caption "Comparative Stock Performance" above is not deemed to be "filed" as part of this Annual Report, and is not subject to the liability provisions of Section 18 of the Securities Exchange Act of 1934. Such information will not be deemed to be incorporated by reference into any filing we make under the Securities Act of 1933 unless we explicitly incorporate it into such a filing at the time.

Table of Contents

Item 6 – Selected Financial Data

the following selected financial data should be read in conjunction with “Item 7 – Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Item 8 – Financial Statements and Supplementary Data.”

	Fiscal Years Ended August 31,				
	2016	2015	2014	2013	2012
	(In thousands, except per share amounts)				
Statement of Operations Data					
Revenue from continuing operations	\$ 238,094	\$ 238,046	\$ 224,006	\$ 216,062	\$ 148,919
Net income	\$ 32,807	\$ 26,413	\$ 26,523	\$ 16,740	\$ 9,264
Add: net (gain) loss attributable to noncontrolling interest	—	(95)	108	474	74
Net income attributable to Chase Corporation	\$ 32,807	\$ 26,318	\$ 26,631	\$ 17,214	\$ 9,338
Net income available to common shareholders, per common and common equivalent share:					
Basic:					
Net income per common and common equivalent share	\$ 3.55	\$ 2.87	\$ 2.92	\$ 1.90	\$ 1.03
Diluted:					
Net income per common and common equivalent share	\$ 3.50	\$ 2.82	\$ 2.86	\$ 1.87	\$ 1.03
Balance Sheet Data					
Total assets	\$ 262,819	\$ 255,642	\$ 245,545	\$ 224,360	\$ 214,832
Long-term debt, including current portion (1)	43,400	51,800	58,800	64,400	70,000
Total stockholders' equity	174,089	154,342	137,490	113,860	99,645
Cash dividends paid per common and common equivalent share	\$ 0.65	\$ 0.60	\$ 0.45	\$ 0.40	\$ 0.35

(1) At August 31, 2016, the entire balance of “Long-term debt, including current portion” was due within one year.

Table of Contents

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

The following discussion provides an analysis of our financial condition and results of operations and should be read in conjunction with the Consolidated Financial Statements and notes thereto included in Item 8 of this Annual Report on Form 10-K.

Selected Relationships within the Consolidated Statements of Operations

	Years Ended August 31,					
	2016		2015		2014	
	(Dollars in thousands)					
Revenue	\$ 238,094		\$ 238,046		\$ 224,006	
Net income	\$ 32,807		\$ 26,413		\$ 26,523	
Add: net (gain) loss attributable to noncontrolling interest	—		(95)		108	
Net income attributable to Chase Corporation	\$ 32,807		\$ 26,318		\$ 26,631	
Increase in revenue from prior year						
Amount	\$ 48		\$ 14,040		\$ 7,944	
Percentage	*	%	6	%	4	%
Increase/(Decrease) in net income from prior year						
Amount	\$ 6,394		\$ (110)		\$ 9,783	
Percentage	24	%	(*)	%	58	%
Percentage of revenue:						
Revenue	100	%	100	%	100	%
Cost of products and services sold	61		63		65	
Selling, general and administrative expenses	19		19		19	
Acquisition-related costs	—		*	(b)	—	
Other (income) expense, net	(*)	(a)	*		(2)	(c)
Income before income taxes	21	%	17	%	18	%
Income taxes	7		6		6	
Net income	14	%	11	%	12	%

(a) Includes effects of \$1,031 gain on sale of RodPack business

(b) Represents \$584 in expenses related to the acquisition of the specialty chemical intermediates product line

(c) Includes effects of \$5,706 gain on sale of Insulfab product line

* Denotes less than one percent

Overview

The Company's positive results in fiscal 2016 were attributable to our continued focus on our key strategies and initiatives: dedication to our core brands, strategic acquisitions, and diligent cost management practices, inclusive of our facility consolidation and rationalization initiative. In the current year, our products with exposure to the telecommunications, bridge and highway infrastructure and general and architectural waterproofing markets saw year-over-year gains, while those with direct and indirect dependency on the domestic and international oil and gas markets saw decreases from the prior year. Our prior year acquisition of the specialty chemical intermediates product line, which completed its first full year of operations under Chase in fiscal 2016, was also a strong contributor of year-over-year growth. This year again proved the importance of the strategic diversification of our product offerings.

In November 2015 we completed the sale of our RodPack® wind energy business. In June 2016 we acquired a manufacturing operation in Pune, India, which provides us with a strategic physical presence in the region, through which we can better serve and grow our existing customer base. During 2016, we initiated and substantially completed the demolition of our idle Randolph, MA facility (in preparation for an eventual sale), and committed to a plan to sell our Paterson, NJ location.

Table of Contents

Revenue from the Industrial Materials segment increased over the prior year on greater demand for our pulling and detection and electronic coatings product lines. The segment's organic increases in these legacy product lines was complemented by the January 2015 acquisition of the specialty chemical intermediates product line; the new product line completed its first full fiscal year of operations under Chase in fiscal 2016, with increased revenue over fiscal 2015. The segment's overall revenue increase was negatively impacted by a reduction in demand for our wire and cable and fiber optic cable components products.

Revenue from the Construction Materials segment fell short of the prior year primarily due to the decreased demand for both our domestic and UK-produced pipeline coatings products. The overall decrease in sales experienced by the segment was lessened by increased sales of our coating and lining systems and bridge and highway products.

Chase's core strategies continue to focus on marketing and product development efforts and the identification and pursuit of potential acquisition targets; while our operating strategy places a premium on increasing efficiencies and striving for continuous improvement. Our \$15,000,000 line of credit is fully available, while the balance of our term debt is \$43,400,000. The entire outstanding balance of our term debt became current in the fourth fiscal quarter of 2016, with final payment due June 2017 (the fourth quarter of fiscal 2017). Chase expects to refinance its debt within the coming year.

The Company has two reportable segments summarized below:

Segment	Product Lines	Manufacturing Focus and Products
Industrial Materials	Wire and Cable Electronic Coatings Specialty Products Pulling and Detection Electronic Materials Structural Composites Fiber Optic Cable Components (1) Specialty Chemical Intermediates	Protective coatings and tape products, including insulating and conducting materials for wire and cable manufacturers; moisture protective coatings for electronics; laminated durable papers, packaging and industrial laminate products; pulling and detection tapes used in the installation, measurement and location of fiber optic cables and water and natural gas lines; cover tapes essential to delivering semiconductor components via tape and reel packaging; composite materials elements; glass-based strength elements designed to allow fiber optic cables to withstand mechanical and environmental strain and stress; Dualite brand microspheres; and polyurethane dispersions.

Construction Materials	Coating and Lining Systems Pipeline Coatings Building Envelope Bridge and Highway	Protective coatings and tape products, including coating and lining systems for use in liquid storage and containment applications; protective coatings for pipeline and general construction applications; adhesives and sealants used in architectural and building envelope waterproofing applications; high-performance polymeric asphalt additives; and expansion and control joint systems for use in the transportation and architectural markets.
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(1) 50% owned joint venture until October 31, 2014, when we purchased the remaining 50% noncontrolling interest.

Table of Contents

Results of Operations

Revenue and Operating Profit by Segment are as follows:

	Revenue	Income Before Income Taxes	% of Revenue	
	(Dollars in thousands)			
Fiscal 2016				
Industrial Materials	\$ 181,728	\$ 53,530	(a) 29	%
Construction Materials	56,366	19,967	35	%
	\$ 238,094	73,497	31	%
Less corporate and common costs		(23,387)	(b)	
Income before income taxes		\$ 50,110		
Fiscal 2015				
Industrial Materials	\$ 176,547	\$ 46,388	(c) 26	%
Construction Materials	61,499	17,272	28	%
	\$ 238,046	63,660	27	%
Less corporate and common costs		(22,434)	(d)	
Income before income taxes		\$ 41,226		
Fiscal 2014				
Industrial Materials	\$ 169,657	\$ 48,775	(e) 29	%
Construction Materials	54,349	11,209	21	%
	\$ 224,006	59,984	27	%
Less corporate and common costs		(19,494)	(f)	
Income before income taxes		\$ 40,490		

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- (a) Includes both a \$1,031 gain on sale of our RodPack wind energy business contained within our structural composites product line and a \$365 write-down on certain other structural composites assets based on usage constraints following the sale, both recognized in November 2015
- (b) Includes \$935 in Randolph, MA facility exit and demolition costs, a \$877 gain on the write-down of an annuity and \$13 of pension-related settlement costs due to the timing of lump sum distributions
- (c) Includes \$65 of expense related to inventory step-up in fair value related to the January 2015 acquisition of the specialty chemical intermediates product line
- (d) Includes \$584 in expenses related to the January 2015 acquisition of the specialty chemical intermediates product line and \$188 of pension-related settlement costs due to the timing of lump sum distributions
- (e) Includes \$5,706 gain on sale of Insulfab product line
- (f) Includes \$348 of pension-related settlement costs due to the timing of lump sum distributions

Total Revenue

Total revenue in fiscal 2016 increased \$48,000 or less than one percent to \$238,094,000 from \$238,046,000 in the prior year.

Revenue in our Industrial Materials segment increased \$5,181,000 or 3% to \$181,728,000 for the year ended August 31, 2016 compared to \$176,547,000 in fiscal 2015. The increase in revenue from our Industrial Materials segment in fiscal 2016 was primarily due to: (a) increased sales volume of specialty chemical intermediates products totaling \$7,755,000, aided by a full year of operations in fiscal 2016; (b) increased sales volume of \$3,356,000 from our pulling and detection products, which continued to experience increased demand in product volume by the utility and telecom industries; and (c) \$574,000 in increased sales volume from our electronic coatings product line, primarily due to a higher rate of acceptance and use in the automotive and appliance industries. These increases were partially offset by decreased sales of \$4,077,000 from our wire and cable products, reflecting a decrease in demand for products with

Table of Contents

exposure to energy-related markets (inclusive of the oil exploration and mining markets), as well as lower sales volume of \$1,744,000 from our fiber optic cable components product line.

Revenue from our Construction Materials segment decreased \$5,133,000 or 8% to \$56,366,000 for the year ended August 31, 2016 compared to \$61,499,000 for fiscal 2015. The decreased sales from our Construction Materials segment in fiscal 2016 was primarily due to a decrease in sales volume of \$7,708,000 in pipeline coatings products. The anticipated slowdown in Middle East water infrastructure project demand, for products produced at our Rye, UK facility, drove the majority of this decrease, while domestic pipeline coatings sales, which have a largely repair and maintenance focus, had a more tempered year-over-year decrease. Partially offsetting the overall decrease in sales for the segment, were: (a) a \$1,793,000 year-over-year increase in our coating and lining systems products sales volume, resulting from increased market acceptance and project demand; and (b) bridge and highway products, which capitalized on the weather-lengthened road construction seasons to obtain a \$1,193,000 year-over-year sales volume increase.

Royalties and commissions in the Industrial Materials segment were \$3,644,000, \$3,156,000 and \$2,972,000 for the years ended August 31, 2016, 2015 and 2014, respectively. The increase in royalties and commissions in fiscal 2016 over both fiscal 2015 and 2014 was primarily due to increased sales of electronic coating products by our licensed manufacturer in Asia.

Export sales from domestic operations to unaffiliated third parties were \$28,826,000, \$27,955,000 and \$21,212,000 for the years ended August 31, 2016, 2015 and 2014, respectively. The increase in export sales in fiscal 2016 against fiscal 2015 came as a result of increased export sales to the Middle East tempered by decreases in sales to the UK, Canada and certain Asia-Pacific countries. The increase in fiscal 2015 export sales over 2014 was primarily due to increased sales volume into developing markets in Asia-Pacific in fiscal 2015, as well as growth in sales to Canada. We do not anticipate any material changes to export sales during fiscal 2017.

In fiscal 2015, total revenue increased \$14,040,000 or 6% to \$238,046,000 from \$224,006,000 in fiscal 2014. Revenue in our Industrial Materials segment increased \$6,890,000 or 4% to \$176,547,000 for the year ended August 31, 2015 compared to \$169,657,000 in fiscal 2014. The increase in revenue from our Industrial Materials segment in fiscal 2015 was primarily due to: (a) the first seven months of sales from our newly acquired specialty chemical intermediates product line totaling \$12,449,000; (b) increased sales volume of \$2,963,000 from our pulling and detection products reflecting continuing higher demand in product volume by the utility and telecom industries; and (c) \$2,471,000 in increased sales volume from our global electronic coatings product line, primarily due to higher sales volume into the Americas, Europe and Asia. These increases were partially offset by decreased sales of \$7,154,000 from our wire and cable products, reflecting a decrease in demand from energy-related markets, as well as lower sales of \$2,242,000 from our durable paper products. Revenue from our Construction Materials segment increased \$7,150,000 or 13% to \$61,499,000 for the year ended August 31, 2015 compared to \$54,349,000 for fiscal 2014. The increased sales from our Construction Materials segment in fiscal 2015 was primarily due to a net increase in sales volume of \$6,397,000 in pipeline products, primarily driven by Middle East water infrastructure project demand for products produced at our Rye, UK facility. This international growth in pipeline products was partially offset by decreased domestic sales of pipeline products, which are primarily sold into the oil and gas markets. Our

building envelope products also had increased sales volume of \$1,358,000 in fiscal 2015.

Table of Contents

Cost of Products and Services Sold

Cost of products and services sold decreased \$4,764,000 or 3% to \$144,438,000 for the fiscal year ended August 31, 2016 compared to \$149,202,000 in fiscal 2015. As a percentage of revenue, cost of products and services sold decreased to 61% in fiscal 2016 compared to 63% for fiscal 2015.

The following table summarizes the relative percentages of cost of products and services sold to revenue for both of our operating segments:

	Fiscal Years Ended					
	August 31,					
Cost of products and services sold	2016		2015		2014	
Industrial Materials	61	%	63	%	64	%
Construction Materials	59	%	63	%	68	%
Total	61	%	63	%	65	%

Cost of products and services sold in our Industrial Materials segment was \$111,424,000 for the fiscal year ended August 31, 2016 compared to \$110,729,000 in fiscal 2015. As a percentage of revenue, cost of products and services sold in this segment decreased to 61% for fiscal 2016 compared to 63% in fiscal 2015. Cost of products and services sold in our Construction Materials segment was \$33,014,000 for the fiscal year ended August 31, 2016 compared to \$38,473,000 in fiscal 2015. As a percentage of revenue, cost of products and services sold in this segment decreased to 59% in fiscal 2016 compared to 63% for fiscal 2015. As a percentage of revenue, cost of products and services sold in both segments decreased primarily due to product mix as we had decreased sales volume from our lower margin products within the segments. We purchase a wide variety of commodity items, including petroleum-based solvents, films, yarns, and nonwovens, along with base metals of aluminum and copper, as well as many other substrates. To facilitate continued improvement in margins, we closely monitor pricing of our commodities-based raw materials across all product lines, as their price volatility can have short and long term effects on our sales volume and margins. We also remain focused on reducing fixed overhead spend, as consolidation and the further leveraging of current resources continue as key facets of our core operating strategy.

In fiscal 2015, cost of products and services sold in our Industrial Materials segment was \$110,729,000 compared to \$108,121,000 in fiscal 2014. As a percentage of revenue, cost of products and services sold in this segment decreased to 63% in fiscal 2015 compared to 64% for fiscal 2014. Cost of products and services sold in our Construction Materials segment was \$38,473,000 for the fiscal year ended August 31, 2015 compared to \$37,072,000 in fiscal 2014. As a percentage of revenue, cost of products and services sold in this segment decreased to 63% in fiscal 2015 compared to 68% for fiscal 2014. As a percentage of revenue, cost of products and services sold in both segments decreased primarily due to product mix as we had decreased sales volume from our lower margin products within the segments.

Selling, General and Administrative Expenses

Selling, general and administrative expenses decreased \$1,411,000 or 3% to \$44,574,000 during fiscal 2016 compared to \$46,015,000 in fiscal 2015. As a percentage of revenue, selling, general and administrative expenses were consistent at 19% of total revenue in both fiscal 2016 and fiscal 2015. The year-over-year decrease in expenses is primarily attributable to: (a) decreased international sales commission expenses of \$938,000 over the prior year, due to a commission structure change relating to sales in certain geographic regions in the current year; (b) a \$877,000 gain on the write-down of an annuity previously owed to a related party; and (c) decreased pension costs of \$228,000 in the current year against the prior year, given lower settlement loss charges recognized in the current year. These decreases in cost were partially offset by increased amortization expense on acquired intangible assets of \$1,074,000 for the year, primarily attributable to the specialty chemical intermediates product line acquisition in the second quarter of fiscal 2015.

During fiscal 2015, selling, general and administrative expenses increased \$3,375,000 or 8% to \$46,015,000 compared to \$42,640,000 in fiscal 2014. As a percentage of revenue, selling, general and administrative expenses were consistent at 19% of total revenue in both fiscal 2015 and fiscal 2014. The year-over-year increase in expenses is primarily attributable to: (a) increased amortization expense on acquired intangible assets of \$1,940,000 for the year, primarily attributable to the specialty chemical intermediates product line acquisition in the second quarter of fiscal 2015; (b)

Table of Contents

increased international sales commission expenses of \$1,051,000 in fiscal 2015 over fiscal 2014, incurred related to increased revenue generated by sales in those regions; (c) increased pension costs of \$399,000 in fiscal 2015 against fiscal 2014, inclusive of a \$188,000 settlement loss charge; and (d) a year-over-year decrease of \$375,000 in the capitalization of internal labor, most notably related to our multiyear companywide single ERP system rollout, which was substantially completed as to our previously existing locations in December 2014. These increases in cost were partially offset by our ongoing efforts with production facility consolidation, efficiency improvements and streamlining overhead costs.

Acquisition Related Costs

In fiscal 2015, we incurred \$584,000 of acquisition costs related to our acquisition of the specialty chemical intermediates product line. This acquisition was accounted for as a business combination in accordance with applicable accounting standards, and as such all related professional service fees (i.e., banking, legal, accounting, actuarial, etc.) were expensed as incurred during the year ended August 31, 2015.

Interest Expense

Interest expense decreased \$9,000 or 1% to \$1,054,000 in fiscal 2016 compared to \$1,063,000 in fiscal 2015. Interest expense decreased \$80,000 or 7% to \$1,063,000 in fiscal 2015 compared to \$1,143,000 in fiscal 2014. The continued decrease in interest expense is a result of the reduction in our overall average debt balance through principal payments made from operating cash flow over the applicable periods. Our debt balance is attributable to our term note related to the June 2012 acquisition of NEPTCO, which will mature in the fourth quarter of fiscal 2017.

Gain on Sale of Business

In the first quarter of fiscal 2016, the Company sold the RodPack wind energy business formerly contained within its structural composites product line. This transaction resulted in a pre-tax book gain of \$1,031,000, which was recorded in fiscal 2016. The Company will provide ongoing development support to the buyer for which it will receive additional consideration upon the completion of services.

On October 7, 2013, the Company sold substantially all of its property and assets, including intellectual property, comprising the Insulfab product line, to an unrelated buyer. This transaction resulted in a pre-tax book gain of \$5,706,000, which was recorded in our fiscal quarter ended November 30, 2013 (the first quarter of our fiscal 2014).

Other Income (Expense)

Other income was \$2,351,000 in fiscal 2016 compared to other income of \$44,000 in fiscal 2015, a difference of \$2,307,000. Other income (expense) primarily includes interest income, rental income and foreign exchange gains and losses caused by changes in exchange rates on transactions or balances denominated in currencies other than the functional currency of our subsidiaries. Income in the current year-to-date period was primarily the result of sales made from our UK-based operations but denominated in either US dollars or euros. This income was most predominantly observed in our fourth fiscal quarter following the June 23, 2016 referendum by British voters to exit the European Union (“Brexit”), which impacted global currency markets and resulted in a decline in the value of the British pound, as compared to the US dollar and euro.

Other income was \$44,000 in fiscal 2015 compared to other expense of \$246,000 in fiscal 2014, a difference of \$290,000. Other (expense) income primarily includes interest income, rental income and foreign exchange gains and losses caused by changes in exchange rates on transactions or balances denominated in currencies other than the functional currency of our subsidiaries.

Table of Contents

Income Taxes

Our effective tax rate for fiscal 2016 was 34.5% as compared to 35.9% and 34.5% in fiscal 2015 and 2014, respectively. In all three years, we have received the benefit of the domestic production deduction. The increased effective tax rate in fiscal 2015 (the prior year) was primarily due to a less favorable effective state income tax rate and a less favorable domestic production deduction effect than realized in both fiscal 2016 and 2014.

Noncontrolling Interest

The income (loss) from noncontrolling interest relates to a joint venture in which we had, prior to October 2014, a 50% controlling ownership interest. We acquired the 50% outstanding noncontrolling membership interest in October 2014 (the first quarter of fiscal 2015). The joint venture between the Company and its now-former joint venture partner (an otherwise unrelated party) was managed and operated on a day-to-day basis by the Company.

Net Income attributable to Chase Corporation

Net income attributable to Chase Corporation in fiscal 2016 increased \$6,489,000 or 25% to \$32,807,000 compared to \$26,318,000 in fiscal 2015. The increase in net income in 2016 was primarily due to: (a) an improved gross margin based on sales mix, including increases in revenue and earnings provided by the specialty chemical intermediates product line which we acquired in the second quarter of fiscal 2015; (b) foreign exchange transaction gains recognized in other income (expense); and (c) a gain on the sale of our RodPack wind energy business in November 2015.

Net income attributable to Chase Corporation in fiscal 2015 decreased \$313,000 or 1% to \$26,318,000 compared to \$26,631,000 in fiscal 2014. The decrease in net income in 2015 was primarily due to the \$5,706,000 (\$3,709,000 after-tax) gain on the Company's Insulfab product line sold in October 2013, which significantly contributed to earnings and cash flows in fiscal 2014, and which did not recur in fiscal 2015.

Other Important Performance Measures

We believe that EBITDA, Adjusted EBITDA and Free Cash Flow are useful performance measures. They are used by our executive management team to measure operating performance, to allocate resources, to evaluate the effectiveness of our business strategies and to communicate with our Board of Directors and investors concerning our financial performance. The Company believes EBITDA, Adjusted EBITDA and Free Cash Flow are commonly used by

financial analysts and others in the industries in which the Company operates and thus provide useful information to investors. EBITDA, Adjusted EBITDA and Free Cash Flow are non-GAAP financial measures.

We define EBITDA as net income attributable to Chase Corporation before interest expense from borrowings, income tax expense, depreciation expense from fixed assets, and amortization expense from intangible assets. We define Adjusted EBITDA as EBITDA excluding costs and (gains)/losses related to our acquisitions and divestitures, costs of products sold related to inventory step-up to fair value, settlement (gains)/losses resulting from lump sum distributions to participants from our defined benefit plans, and other significant items. We define Free Cash Flow as Net cash provided by operating activities less purchases of property, plant and equipment.

The use of EBITDA, Adjusted EBITDA and Free Cash Flow has limitations and these performance measures should not be considered in isolation from, or as an alternative to, US GAAP measures such as net income and net cash provided by operating activities. None of these measures should be interpreted as representing the residual cash flow of the Company available for discretionary expenditures or to invest in the growth of our business, since we have certain non-discretionary expenditures that are not deducted from these measures, including scheduled principal and (in the case of Free Cash Flow) interest payments on outstanding debt. Our measurement of EBITDA, Adjusted EBITDA and Free Cash Flow may not be comparable to similarly-titled measures used by other companies.

Table of Contents

The following table provides a reconciliation of net income attributable to Chase Corporation, the most directly comparable financial measure presented in accordance with US GAAP, to EBITDA and Adjusted EBITDA for the periods presented:

	Years Ended August 31,		
	2016	2015	2014
Net income attributable to Chase Corporation	\$ 32,807	\$ 26,318	\$ 26,631
Interest expense	1,054	1,063	1,143
Income taxes	17,303	14,813	13,967
Depreciation expense	5,606	5,810	5,692
Amortization expense	7,836	6,762	4,822
EBITDA	\$ 64,606	\$ 54,766	\$ 52,255
Exit costs related to idle facility (a)	935	—	—
Gain on sale of business (b)	(1,031)	—	(5,706)
Write-down of certain assets under construction (c)	365	—	—
Annuity settlement (d)	(877)	—	—
Pension settlement costs (e)	13	188	348
Acquisition-related costs (f)	—	584	—
Cost of sale of inventory step-up (g)	—	65	—
Adjusted EBITDA	\$ 64,011	\$ 55,603	\$ 46,897

- (a) Represents Randolph, MA facility exit and demolition costs incurred
- (b) Represents gain on sale of the RodPack wind energy business contained within the structural composites product line that was completed in November 2015 (fiscal 2016) and gain on sale of Insulfab product line that was completed in October 2013 (fiscal 2014)
- (c) Represents a write-down of certain structural composites assets under construction based on usage constraints recognized following the sale of the RodPack wind energy business in November 2015
- (d) Represents the gain recognized on write-down of an accrued annuity previously owed by the Company
- (e) Represents pension-related settlement costs due to the timing of lump sum distributions
- (f) Represents costs related to the January 2015 acquisition of the specialty chemical intermediates product line
- (g) Represents expenses related to inventory step-up in fair value related to the January 2015 acquisition of the specialty chemical intermediates product line

The following table provides a reconciliation of net cash provided by operating activities, the most directly comparable financial measure presented in accordance with US GAAP, to Free Cash Flow for the periods presented:

	Years Ended August 31,		
	2016	2015	2014
Net cash provided by operating activities	\$ 48,833	\$ 40,959	\$ 28,606
Purchases of property, plant and equipment	(2,046)	(2,642)	(4,290)
Free Cash Flow	\$ 46,787	\$ 38,317	\$ 24,316

Liquidity and Sources of Capital

Our cash balance increased \$29,592,000 to \$73,411,000 at August 31, 2016 from \$43,819,000 at August 31, 2015. The increased cash balance is primarily attributable to cash from operations, the sale of the RodPack wind energy business and proceeds from the cash surrender value of a life insurance policy. The overall increase was negatively impacted by: (a) principal payments made on our term debt; (b) payment of the annual dividend in December 2015; (c) cash paid for purchases of machinery and equipment at our manufacturing locations; and (d) cash paid for our acquisition of Spray Products (India) Private Limited. Of the above noted amounts, \$27,550,000 and \$18,659,000 were held outside the US by Chase Corporation and our foreign subsidiaries as of August 31, 2016 and 2015, respectively. Given our cash position and borrowing capability in the US and the potential for increased investment and acquisitions in foreign jurisdictions, we do not have a history of repatriating a significant portion of our foreign cash. However, we do not

Table of Contents

currently take the position that undistributed foreign subsidiaries' earnings are considered to be permanently reinvested. Accordingly, we recognize a deferred tax liability for the estimated future tax effects attributable to temporary differences due to these unremitted earnings. In the event that circumstances should change in the future and we decide to repatriate these foreign amounts to fund US operations, the Company would pay the applicable US taxes on these repatriated foreign amounts, less any tax credit offsets, to satisfy all previously recorded tax liabilities.

Our cash balance at August 31, 2015 decreased \$9,403,000 to \$43,819,000 from \$53,222,000 at August 31, 2014. The decreased cash balance was primarily attributable to the \$33,285,000 purchase of the specialty chemical intermediates product line in January 2015, and payment of \$5,477,000 for the annual dividend in December 2014, partially offset by cash from operations. Approximately \$14,575,000 was held outside the US by our foreign subsidiaries as of August 31, 2014.

Cash provided by operations was \$48,833,000 for the year ended August 31, 2016 compared to \$40,959,000 in fiscal 2015. Cash provided by operations during fiscal 2016 was primarily due to operating income and decreased accounts receivable and inventories. Decreased accounts receivable resulted from lower current year fourth quarter international sales, which customarily have longer collection terms, while decreased inventory is a result of the enhanced inventory management control the Company is exercising through the use of its companywide ERP system, whose roll out was substantially completed in the prior year. Partially offsetting the overall amount of cash provided by operations was a decrease in accounts payable, a direct result of the Company maintaining a lower inventory balance.

Cash provided by operations was \$40,959,000 for fiscal 2015 compared to \$28,606,000 in the year ended August 31, 2014. Cash provided by operations during fiscal 2015 was primarily due to operating income and decreased inventories and increased accrued income taxes, offset by an increase in accounts receivable. The decrease in inventories related primarily to efficiencies in purchasing and inventory management, while the increase in accounts receivable primarily related to overall increased sales, including the addition of the specialty chemical intermediates product line in the current year, as well as an overall increase in international sales, which customarily have longer collection terms.

The ratio of current assets to current liabilities was 2.0 as of August 31, 2016 compared to 3.1 as of August 31, 2015. The decrease in our current ratio at August 31, 2016 was primarily attributable to the entire outstanding balance of our term debt becoming current in the fourth fiscal quarter of 2016. Our term debt matures in June 2017 (the fourth quarter of fiscal 2017).

Cash used in investing activities was \$612,000 for the year ended August 31, 2016 compared to \$35,713,000 in fiscal 2015. During fiscal 2016, cash used in investing activities was primarily due to the acquisition of the Spray Products (India) Private Limited business, in addition to cash paid for purchases of machinery and equipment at our manufacturing locations. These uses were partially offset by cash received from both the sale of our RodPack wind energy business and in relation to a life insurance policy. During fiscal 2015, cash used in investing activities was \$35,713,000 compared to cash provided by investing activities of \$4,443,000 in fiscal 2014. During fiscal 2015, cash

used in investing activities was primarily due to the acquisition of the specialty chemical intermediates product line in January 2015, in addition to cash paid for purchases of machinery and equipment at our manufacturing locations during fiscal 2015

Cash used in financing activities was \$15,299,000 for the year ended August 31, 2016 compared to \$13,498,000 in fiscal 2015 and \$10,501,000 in fiscal 2014. During fiscal 2016, 2015 and 2014, cash used in financing activities was primarily due to our annual dividend payment and payments made on the term debt used to finance our fiscal 2012 acquisition of NEPTCO.

On November 1, 2016, we announced a cash dividend of \$0.70 per share (totaling approximately \$6,500,000) to shareholders of record on November 11, 2016 and payable on December 7, 2016.

On October 28, 2015, we announced a cash dividend of \$0.65 per share (resulting in payment of \$5,999,000) to shareholders of record on November 9, 2015 and paid on December 4, 2015.

Table of Contents

On October 23, 2014, we announced a cash dividend of \$0.60 per share (resulting in payment of \$5,477,000), composed of \$0.50 related to earnings from continuing operations and \$0.10 related to the sale of the Insulfab business, to shareholders of record on November 3, 2014 and paid on December 4, 2014.

In June 2012, in connection with our acquisition of NEPTCO, we borrowed \$70,000,000 under a five year term debt financing arrangement led and arranged by Bank of America, with participation from RBS Citizens (the "Credit Facility"). The applicable interest rate is based on the effective LIBOR plus a range of 1.75% to 2.25%, depending on our consolidated leverage ratio. At August 31, 2016, the applicable interest rate was 2.27% per annum and the outstanding principal amount was \$43,400,000. We are required to repay the principal amount of the term loan in quarterly installments. Installment payments of \$1,400,000 began in September 2012 and continued through June 2014, increased to \$1,750,000 per quarter thereafter through June 2015, and increased to \$2,100,000 per quarter thereafter through March 2017. The Credit Facility matures in June 2017 (the fourth quarter of fiscal 2017) and prepayment of the Credit Facility is allowed at any time.

We also have a revolving line of credit with Bank of America (the "Revolver") totaling \$15,000,000, which bears interest at LIBOR plus a range of 1.75% to 2.25%, depending on our consolidated leverage ratio, or, at our option, at the bank's base lending rate. As of August 31, 2016 and October 31, 2016, the entire amount of \$15,000,000 was available for use. The Revolver is scheduled to mature in June 2017 (the fourth quarter of fiscal 2017). This Revolver allows for increased flexibility for working capital requirements going forward, and we plan to use this availability to help finance our cash needs, including potential acquisitions, in future periods.

Our credit agreement with Bank of America, which outlines the terms of both the Credit Facility and the Revolver, contains customary affirmative and negative covenants that, among other things, restrict our ability to incur additional indebtedness. It also requires us to maintain a ratio of consolidated indebtedness to consolidated EBITDA (each as defined in the credit agreement) of no more than 3.00 to 1.00, and to maintain a consolidated fixed charge coverage ratio (as calculated in the credit agreement) of at least 1.25 to 1.00. We were in compliance with our debt covenants as of August 31, 2016.

Currently, we have several on-going capital projects, as well as our facility consolidation and rationalization initiative, which are important to our long-term strategic goals. Further, machinery and equipment will be added as needed to increase capacity or enhance operating efficiencies in our other manufacturing plants.

During fiscal 2016, we took action to market for sale two non-production properties owned by the Company. Included in this was the razing of our idle facility in Randolph, MA, which was done in part to make the location more attractive to a potential buyer. The demolition work was substantially completed in 2016, with the sale of the property anticipated to follow. Our Paterson, NJ site was reclassified to assets held for sale during the second fiscal quarter of 2016, and we are currently working to execute a sales agreement with a potential buyer. Subsequent to fiscal year end, the Company entered a conditional agreement to sell its now former corporate headquarters and executive office in Bridgewater, MA.

In future periods, we may acquire companies or other assets which are complementary to our business. We believe that our existing resources, including cash on hand and our Revolver, together with cash generated from operations and additional bank borrowings, will be sufficient to fund our cash flow requirements through at least the next twelve months.

Upon the June 2017 maturity date of our Credit Facility and Revolver, the outstanding loan balance of each, plus interest, will become due and payable. It is our intention to renew our Credit Facility and Revolver or replace them with a new facility from another financing source prior to the scheduled maturity date, and we currently expect that we will be able to do so. A failure to renew or replace our existing facility under similar terms and conditions could significantly impact our ability to manage our operations and fund working capital requirements and our acquisition program going forward. We can provide no assurance in our ability to renew or to replace this line under similar terms and conditions, if at all.

To the extent that interest rates increase in future periods, we will assess the impact of these higher interest rates on the financial and cash flow projections of our potential acquisitions.

Table of Contents

The June 23, 2016 referendum by British voters to exit the European Union (“Brexit”) impacted global currency markets. It resulted in a decline in the value of the British pound, as compared to the US dollar and other currencies, during our fourth fiscal quarter of 2016. Volatility in exchange rates could be expected to continue in the short term as the United Kingdom negotiates its exit from the European Union. A weaker British pound compared to the US dollar has caused local currency operational results of our United Kingdom locations to be translated into fewer US dollars for the affected period. Offsetting the decline in the value of the British pound, sales (and resulting accounts receivable and cash balances) from our United Kingdom locations denominated in currencies other than the British pound have resulted in significant transactional gains, recorded to other income (expense) on the consolidated statement of operations. In the longer term, any lasting impact from Brexit on our United Kingdom operations will depend, in part, on the outcome of tariff, trade, regulatory, and other negotiations.

We have no material off-balance sheet arrangements.

Contractual Obligations

The following table summarizes our contractual cash obligations at August 31, 2016 and the effect such obligations are expected to have on our liquidity and cash flow in future periods:

Contractual Obligations	Total	Payments Due Less than 1 Year	Payments Due 1 - 3 Years	Payments Due 3 - 5 Years	Payments After 5 Years
	(Dollars in thousands)				
Long-term debt including estimated interest	\$ 44,157	\$ 44,157	\$ —	\$ —	\$ —
Operating leases	6,355	950	1,687	1,602	2,116
Capital leases	9	9	—	—	—
Purchase obligations	8,107	8,107	—	—	—
Total (1) (2)	\$ 58,628	\$ 53,223	\$ 1,687	\$ 1,602	\$ 2,116

(1) We may be required to make payments related to our unrecognized tax benefits. However, due to the uncertainty of the timing of future cash flows associated with these unrecognized tax benefits, we are unable to make reasonably reliable estimates of the period of cash settlement, if any, with the respective taxing authorities. Accordingly, unrecognized tax benefits of \$1,229,000 as of August 31, 2016 have been excluded from the contractual obligations table above. See Note 7 “Income Taxes” to the Consolidated Financial Statements for further information.

(2) This table does not include the expected payments for our obligations for pension and other post-retirement benefit plans. As of August 31, 2016, we had recognized an accrued benefit plan liability of \$15,578,000 representing the unfunded obligations of the pension benefit plans. See Note 9 “Benefits and Pension Plans” to the Consolidated Financial Statements for further information, including expected pension benefit payments for the next 10 years.

Recently Issued Accounting Standards

In May 2014, the FASB issued Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers,” which will replace most of the existing revenue recognition guidance under US Generally Accepted Accounting Principles (“GAAP”). The core principle of the ASU is that an entity should recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled to receive for those goods or services. The ASU requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments. In March, April and May 2016, the FASB issued ASU 2016-08 “Principal versus Agent Considerations (Reporting Revenue Gross versus Net)”, ASU 2016-10 “Identifying Performance Obligations and Licensing,” and ASU 2016-12, “Revenue from Contracts with Customers (Topic 606), Narrow-Scope Improvements and Practical Expedients” all of which provide further clarification to be considered when implementing ASU 2014-09. The ASU will be effective for the Company beginning September 1, 2018 (fiscal 2019), including interim periods in its fiscal year 2019, and allows for either retrospective or modified retrospective methods of adoption. The Company is in the process of determining the method of adoption and assessing the impact of this ASU on the Company’s consolidated financial position, results of operations and cash flows.

Table of Contents

In August 2014, the FASB issued ASU No. 2014-15 “Presentation of Financial Statements: Going Concern (Subtopic 205-40),” which provides guidance on determining when and how to disclose going-concern uncertainties in the financial statements. The new standard requires management to perform interim and annual assessments of an entity’s ability to continue as a going concern within one year of the date the financial statements are issued. An entity must provide certain disclosures if “conditions or events raise substantial doubt about the entity’s ability to continue as a going concern.” The guidance applies to all entities and is effective for annual periods ending after December 15, 2016, and interim periods thereafter (fiscal year 2017 for the Company). The adoption of ASU 2014-15, which will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company’s consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs," which requires that debt issue costs related to a recognized debt liability be presented on the balance sheet as a direct deduction from the amount of the debt liability, consistent with debt discounts and premiums. Amortization of such costs is still reported as interest expense. ASU 2015-03 is effective for fiscal years, and interim periods therein, beginning after December 15, 2015 (fiscal year 2017 for the Company). In August 2015, the FASB issued ASU 2015-15, "Presentation and Subsequent Measurement of Debt Issue Costs Associated with Line-of-Credit Arrangements." ASU 2015-15 supplements the requirements of ASU 2015-03 by allowing an entity to defer and present debt issue costs related to a line of credit arrangement as an asset and subsequently amortize the deferred costs ratably over the term of the line of credit arrangement. The adoption of ASU 2015-03, which will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company’s consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, “Inventory (Topic 330): Simplifying the Measurement of Inventory.” Under this accounting guidance, inventory will be measured at the lower of cost and net realizable value and other options that currently exist for market value will be eliminated. ASU No. 2015-11 defines net realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. No other changes were made to the current guidance on inventory measurement. The Company adopted this standard, prospectively, as of August 31, 2016. The adoption’s effects on our consolidated financial position, results of operations and cash flows were not significant.

In November 2015, the FASB issued ASU No. 2015-17, “Income Taxes – Balance Sheet Classification of Deferred Taxes.” The purpose of the standard is to simplify the presentation of deferred taxes on a classified balance sheet. Under current GAAP, deferred income tax assets and liabilities are separated into current and noncurrent amounts in the balance sheet. The amendments in ASU 2015-17 require that all deferred tax assets and liabilities be classified as noncurrent in the balance sheet. The Company adopted this standard, retrospectively, as of August 31, 2016. The changes in the effected income tax related balance sheet accounts at August 31, 2015 (the prior year end), were as follows (the adoption had no effect on the consolidated statement of operations, other comprehensive income, equity or cash flows):

August 31, 2015			
	Previously Reported	Effects of Adoption	As Adopted

Assets

Current Assets			
Deferred income taxes	\$ 2,255	\$ (2,255)	\$ —
Other Assets			
Deferred income taxes	\$ 390	\$ —	\$ 390
Liabilities			
Deferred income taxes	\$ 6,174	\$ (2,255)	\$ 3,919

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842).” Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (a) a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis; and (b) a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. Changes were made to align lessor accounting with the lessee accounting model and ASU No. 2014-09, “Revenue from Contracts with Customers.” The new lease guidance simplifies the accounting for

Table of Contents

sale and leaseback transactions primarily because lessees must recognize lease assets and lease liabilities. The ASU will be effective for the Company beginning September 1, 2019 (fiscal 2020). Early application is permitted for all public business entities upon issuance. Lessees must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees may not apply a full retrospective transition approach. We are currently evaluating the impact of the application of this accounting standard update on our consolidated financial statements, results of operations and cash flows.

In March 2016, the FASB issued ASU No. 2016-09, “Compensation - Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting.” This ASU provides simplification in the accounting for share-based payment transactions including the accounting for income taxes, forfeitures, statutory tax withholding requirements and classification in the statement of cash flows. The effective date for adoption of this guidance would be our fiscal year beginning September 1, 2017 (fiscal 2018), but with early adoption allowed. The adoption of ASU 2016-09, which we anticipate will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company’s consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, “Statement of Cash Flows (Topic 230).” This ASU will provide guidance on the presentation and classification of specific cash flow items to improve consistency within the statement of cash flows. The effective date for adoption of this guidance would be our fiscal year beginning September 1, 2018 (fiscal 2019) with early adoption permitted. The Company is currently evaluating the effect that ASU 2016-15 will have on its financial statements and related disclosures.

Critical Accounting Policies, Judgments, and Estimates

The US Securities and Exchange Commission (“SEC”) requires companies to provide additional disclosure and commentary on their most critical accounting policies. The SEC has defined the most critical accounting policies as the ones that are most important to the portrayal of a company’s financial condition and operating results, and requires management to make its most significant estimates and judgments in the preparation of its consolidated financial statements. Our critical accounting policies are described below.

Accounts Receivable

We evaluate the collectability of accounts receivable balances based on a combination of factors. In cases where we are aware of circumstances that may impair a specific customer’s ability to meet its financial obligations to us, a specific allowance against amounts due to us is recorded, and thereby reduces the net recognized receivable to the amount we reasonably believe will be collected. For all other customers, we recognize allowances for doubtful accounts based on the length of time the receivables are past due, industry and geographic concentrations, the current business environment and our historical experience. If the financial condition of our customers deteriorates or if economic conditions worsen, additional allowances may be required in the future, which could have an adverse impact on our future operating results.

Inventory

We value inventory at the lower of cost or net realizable value using the first in, first out (FIFO) method. Management assesses the recoverability of inventory based on types and levels of inventory held, forecasted demand and changes in technology. These assessments require management judgments and estimates, and valuation adjustments for excess and obsolete inventory may be recorded based on these assessments. We estimate excess and obsolescence exposures based upon assumptions about future demand, product transitions, and market conditions and record adjustments to reduce inventories to their estimated net realizable value. The failure to accurately forecast demand may lead to additional excess and obsolete inventory and future charges.

Table of Contents

Business Combinations

We assign the value of the consideration transferred to acquire a business to the tangible assets and identifiable intangible assets acquired and liabilities assumed on the basis of their fair values at the date of acquisition. We assess the fair value of assets, including intangible assets, using a variety of methods and each asset is measured at fair value from the perspective of a market participant. The method used to estimate the fair values of intangible assets incorporates significant assumptions regarding the estimates a market participant would make in order to evaluate an asset, including a market participant's use of the asset and the appropriate discount rates for a market participant. Assets recorded from the perspective of a market participant that are determined to not have economic use for us are expensed immediately. Any excess purchase price over the fair value of the net tangible and intangible assets acquired is allocated to goodwill. Transaction costs and restructuring costs associated with a transaction to acquire a business are expensed as incurred.

Goodwill, Intangible Assets, and Other Long-Lived Assets

Long-lived assets consist of goodwill, identifiable intangible assets, trademarks, patents and agreements and property, plant, and equipment. Intangible assets and property, plant, and equipment, excluding goodwill, are amortized using the straight-line method over their estimated useful life. We review long-lived assets and all intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be recoverable.

Goodwill is also reviewed at least annually for impairment. We perform our annual goodwill impairment assessment during the fourth fiscal quarter of each year. When evaluating the potential impairment of goodwill, we first assess a range of qualitative factors, including but not limited to, industry conditions, the competitive environment, changes in the market for our products and services, entity-specific factors such as strategy and changes in key personnel, and the overall financial performance for each of our reporting units relative to historical or projected future operating results. If after completing this assessment, it is determined that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we then proceed to a two-step impairment testing methodology using the income approach (discounted cash flow method).

In the first step of this testing methodology, we compare the carrying value of the reporting unit, including goodwill, with its fair value, as determined by its estimated discounted cash flows. If the carrying value of a reporting unit exceeds its fair value, we then complete the second step of the impairment test to determine the amount of impairment to be recognized. In the second step, we estimate an implied fair value of the reporting unit's goodwill by allocating the fair value of the reporting unit to all of the assets and liabilities other than goodwill (including intangible assets). If the carrying value of a reporting unit's goodwill exceeds its implied fair value, we record an impairment loss equal to the difference in that period.

When required, we arrive at our estimates of fair value using a discounted cash flow methodology which includes estimates of future cash flows to be generated by particular assets, as well as selecting a discount rate to measure the present value of those anticipated cash flows. Estimating future cash flows requires significant judgment and includes

making assumptions about projected growth rates, industry-specific factors, working capital requirements, current and anticipated operating conditions, and terminal sales value at the end of the period under review. The cash flow estimates used to determine impairment, if any, contain management's best estimates, using appropriate and customary assumptions and projections at the time. See Note 4 to the Consolidated Financial Statements included in this Report.

Revenue

We recognize revenue when persuasive evidence of an arrangement exists, performance of our obligation is complete, our price to the buyer is fixed or determinable, and we are reasonably assured of collecting. These four transaction elements are typically met at the time of shipment or upon receipt by the customer based on contractual terms. If a loss is anticipated on any contract, a provision for the entire loss is made immediately. Revenue recognition involves judgments and assessments of expected returns, and the likelihood of nonpayment by customers. We analyze various factors, including a review of specific customer contracts and shipment terms, historical experience, creditworthiness of customers and current market and economic conditions in determining when to recognize revenue. Changes in judgments on these factors could impact the timing and amount of revenue recognized with a resulting impact on the timing and amount of operating income. For certain products, consigned inventory is maintained at customer locations,

Table of Contents

and revenue is typically recognized in the period that the consigned inventory is consumed. Commissions are recognized when earned and payments are received from the manufacturers represented. Royalty revenue is recognized based on licensee production statements received from the authorized manufacturers. Billed shipping and handling fees are recorded as sales revenue with the associated costs recorded within cost of products and services sold.

Contingent Income Tax Liabilities

We are subject to routine income tax audits that occur periodically in the normal course of business. Our contingent income tax liabilities are estimated based on the methodology prescribed in the guidance for accounting for uncertain tax positions. The guidance prescribes a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. Our liabilities related to uncertain tax positions require an assessment of the probability of the income-tax-related exposures and settlements. Our assessment is based on our historical audit experiences with various state and federal taxing authorities, as well as by current income tax trends. If circumstances change, we may be required to record adjustments that could be material to our reported financial condition and results of operations. See Note 7 to the Consolidated Financial Statements included in this Report for more information on our accounting for uncertain tax positions.

Deferred Income Taxes

We evaluate the need for a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. We have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for a valuation allowance. Should we determine that we would not be able to realize all or part of our net deferred tax asset in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made.

Stock-Based Compensation

We measure compensation cost for share-based compensation at fair value, including estimated forfeitures, and recognize the expense over the period that the recipient is required to provide service in exchange for the award, which generally is the vesting period. We use the Black-Scholes option pricing model to measure the fair value of stock options. This model requires significant estimates related to the award's expected life and future stock price volatility of the underlying equity security. In determining the amount of expense to be recorded, we are also required to estimate forfeiture rates for awards, based on the probability that employees will complete the required service period. We estimate the forfeiture rate based on historical experience. If actual forfeitures differ significantly from our estimates, additional adjustments to compensation expense may be required in future periods.

Pension Benefits

We sponsor a non-contributory defined benefit pension plan covering employees of certain divisions of the Company. In calculating our retirement plan obligations and related expense, we make various assumptions and estimates. These assumptions include discount rates, benefits earned, expected return on plan assets, mortality rates, and other factors. While we believe that the assumptions used are appropriate, differences in actual experience or changes in assumptions may affect our pension obligations and future expense.

Effective December 1, 2008, the Chase defined benefit pension plan was amended to include a “soft freeze” whereby any employee hired after the effective date of December 1, 2008 will not be admitted to the plan. The only exception related to employees who are members of the International Association of Machinists and Aerospace Workers Union whose contract was amended to include a soft freeze whereby any employees hired after the effective date of July 15, 2012 will not be admitted to the plan. All eligible participants who were previously admitted to the plan prior to the applicable soft freeze dates will continue to accrue benefits as detailed in the plan agreements.

Through our wholly-owned subsidiary NEPTCO, we have another defined benefit pension plan covering substantially all of our union employees at our Pawtucket, RI plant. This plan was frozen effective October 31, 2006, and as a result, no new participants can enter the plan and the benefits of current participants were frozen as of that date. The benefits are

Table of Contents

based on years of service and the employee's average compensation during the earlier of five years before retirement, or October 31, 2006.

We account for our pension plans following the requirements of ASC Topic 715, "Compensation – Retirement Benefits" ("ASC 715"). ASC 715 requires an employer to: (a) recognize in its statement of financial position the funded status of a benefit plan; (b) measure defined benefit plan assets and obligations as of the end of the employer's fiscal year (with limited exceptions); and (c) recognize as a component of other comprehensive income, net of tax, the gains or losses and prior service costs or credits that arise but are not recognized as components of net periodic benefit costs pursuant to prior existing guidance.

Impact of Inflation

Inflation has not had a significant long-term impact on our earnings. In the event of significant inflation, our efforts to recover cost increases would be hampered as a result of the competitive nature of the industries in which we operate.

Forward-Looking Information

From time to time, we may publish, verbally or in written form, forward-looking statements relating to such matters as anticipated financial performance, business prospects, technological developments, new products, acquisition or consolidation strategies, anticipated sources of capital, research and development activities and similar matters. In fact, this Form 10-K (or any other periodic reporting documents required by the Securities Exchange Act of 1934, as amended) may contain forward-looking statements reflecting our current views concerning potential or anticipated future events or developments, including our strategic goals for future fiscal periods. The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements. We caution investors that any forward-looking statements made by us are not guarantees of future performance and that a variety of factors could cause our actual results and experience to differ materially from the anticipated results or other expectations expressed in our forward-looking statements. The risks and uncertainties which may affect the operations, performance, development and results of our business include, but are not limited to, the following: uncertainties relating to economic conditions; uncertainties relating to customer plans and commitments; the pricing and availability of equipment, materials and inventories; the impact of acquisitions on our business and results of operations; technological developments; performance issues with suppliers and subcontractors; our ability to renew existing credit facilities or to obtain new or additional financing as needed; economic growth; delays in testing of new products; our ability to comply with new regulatory requirements without undue expense or other difficulties; the impact of changes in accounting standards; rapid technology changes and the highly competitive environment in which we operate. These risks and uncertainties also include those risks outlined under Item 1A (Risk Factors) of this Annual Report on Form 10-K. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statement was made.

Table of Contents

Item 7a – Quantitative and Qualitative Disclosures about Market Risk

We limit the amount of credit exposure to any one issuer. At August 31, 2016, other than our restricted investments (which are restricted for use in a non-qualified retirement savings plan for certain key employees and members of the Board of Directors), all of our funds were either in demand deposit accounts or investment instruments that meet high credit quality standards such as money market funds, government securities, or commercial paper.

Our domestic operations have limited currency exposure since substantially all transactions are denominated in US dollars. However, our European and Indian operations are subject to currency exchange fluctuations. We continue to review our policies and procedures to control this exposure while maintaining the benefit from these operations and sales not denominated in US dollars. The effect of an immediate hypothetical 10% change in the exchange rate between the British pound and the US dollar would not have a material effect on the Company's overall liquidity. As of August 31, 2016, the Company had cash balances in the following foreign currencies (with USD equivalents):

Currency Code	Currency Name	USD Equivalent at August 31, 2016
GBP	British Pound	\$ 13,629,000
EUR	Euro	\$ 6,308,000
CAD	Canadian Dollar	\$ 404,000
CNY	Chinese Yuan	\$ 289,000
INR	Indian Rupee	\$ 127,000

We will continue to review our current cash balances denominated in foreign currency in light of current tax guidelines and potential acquisitions.

We recognized a foreign currency translation loss for the year ended August 31, 2016 in the amount of \$6,098,000 related to our European and Indian operations, which is recorded in accumulated other comprehensive income (loss) within our Statement of Equity. The functional currency for all our other operations is the US Dollar. We do not have or utilize any derivative financial instruments.

We pay interest on our outstanding long-term debt at interest rates that fluctuate based upon changes in various base interest rates. The carrying value of our long-term debt, including the current portion, was \$43,400,000 at August 31, 2016. See "Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Sources of Capital" and Note 16 — "Fair Value Measurements" to the Consolidated Financial Statements for additional information regarding our outstanding long-term debt. The effect of an immediate hypothetical 10% change in variable interest rates would not have a material effect on our Consolidated Financial Statements.

Table of Contents

Item 8 – Financial Statements and Supplementary Data

The following Consolidated Financial Statements of Chase Corporation are filed as part of this Annual Report on Form 10-K:

Index to Consolidated Financial Statements:

	Page No.
<u>Report of Independent Registered Public Accounting Firm</u>	34
<u>Consolidated Balance Sheets as of August 31, 2016 and 2015</u>	35
<u>Consolidated Statements of Operations for each of the three fiscal years in the period ended August 31, 2016</u>	36
<u>Consolidated Statements of Comprehensive Income for each of the three fiscal years in the period ended August 31, 2016</u>	37
<u>Consolidated Statements of Equity for each of the three fiscal years in the period ended August 31, 2016</u>	38
<u>Consolidated Statements of Cash Flows for each of the three fiscal years in the period ended August 31, 2016</u>	39
<u>Notes to Consolidated Financial Statements</u>	40

Table of Contents

Report of Independent Registered Public Accounting Firm

To The Board of Directors and Shareholders of Chase Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income, equity and cash flows present fairly, in all material respects, the financial position of Chase Corporation and its subsidiaries at August 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended August 31, 2016 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 August 31, 2016, based on criteria established in Internal Control - Integrated Framework 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these 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 on 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.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Boston, Massachusetts

November 14, 2016

34

Table of Contents

CHASE CORPORATION

CONSOLIDATED BALANCE SHEETS

In thousands, except share and per share amounts

	August 31, 2016	2015
ASSETS		
Current Assets		
Cash & cash equivalents	\$ 73,411	\$ 43,819
Accounts receivable, less allowance for doubtful accounts of \$830 and \$705	34,835	39,488
Inventories	25,814	29,476
Prepaid expenses and other current assets	3,728	2,174
Due from sale of business	457	—
Assets held for sale	604	1,089
Total current assets	138,849	116,046
Property, plant and equipment, net	36,742	40,921
Other Assets		
Goodwill	43,576	44,123
Intangible assets, less accumulated amortization of \$33,352 and \$28,882	36,580	44,852
Cash surrender value of life insurance, less current portion	4,530	7,133
Restricted investments	1,637	1,410
Funded pension plan	382	634
Deferred income taxes	441	390
Other assets	82	133
	\$ 262,819	\$ 255,642
LIABILITIES AND EQUITY		
Current Liabilities		
Current portion of long-term debt	\$ 43,400	\$ 8,400
Accounts payable	12,352	15,599
Accrued payroll and other compensation	6,553	6,286
Accrued expenses	3,892	4,448
Accrued income taxes	2,317	2,783
Total current liabilities	68,514	37,516
Long-term debt, less current portion	—	43,400
Deferred compensation	1,649	2,230
Accumulated pension obligation	15,563	12,901
Other liabilities	328	85
Accrued income taxes	1,229	1,249
Deferred income taxes	1,447	3,919

Commitments and Contingencies (Note 6, 8, 21)

Equity

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First Serial Preferred Stock, \$1.00 par value: Authorized 100,000 shares; none issued		
Common stock, \$.10 par value: Authorized 20,000,000 shares; 9,278,486 shares at August 31, 2016 and 9,191,958 shares at August 31, 2015 issued and outstanding	928	919
Additional paid-in capital	14,719	14,296
Accumulated other comprehensive loss	(15,479)	(7,986)
Retained earnings	173,921	147,113
Total equity	174,089	154,342
Total liabilities and equity	\$ 262,819	\$ 255,642

See accompanying notes to the consolidated financial statements.

Table of Contents

CHASE CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

In thousands, except share and per share amounts

	Years Ended August 31,		
	2016	2015	2014
Revenue			
Sales	\$ 234,450	\$ 234,890	\$ 221,034
Royalties and commissions	3,644	3,156	2,972
	238,094	238,046	224,006
Costs and Expenses			
Cost of products and services sold	144,438	149,202	145,193
Selling, general and administrative expenses	44,574	46,015	42,640
Exit costs related to idle facility (Note 19)	935	—	—
Write-down of certain assets under construction (Note 18)	365	—	—
Acquisition-related costs (Note 14)	—	584	—
Operating income	47,782	42,245	36,173
Interest expense	(1,054)	(1,063)	(1,143)
Gain on sale of business (Note 18)	1,031	—	5,706
Other income (expense)	2,351	44	(246)
Income before income taxes	50,110	41,226	40,490
Income taxes	17,303	14,813	13,967
Net income	\$ 32,807	\$ 26,413	\$ 26,523
Add: net (income) loss attributable to noncontrolling interest	—	(95)	108
Net income attributable to Chase Corporation	\$ 32,807	\$ 26,318	\$ 26,631
Net income available to common shareholders, per common and common equivalent share			
Basic	\$ 3.55	\$ 2.87	\$ 2.92
Diluted	\$ 3.50	\$ 2.82	\$ 2.86
Weighted average shares outstanding			
Basic	9,167,333	9,086,043	8,952,026
Diluted	9,294,077	9,254,054	9,165,666

See accompanying notes to the consolidated financial statements.

Table of Contents

CHASE CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

In thousands, except share and per share amounts

	Years Ended August 31,		
	2016	2015	2014
Net income	\$ 32,807	\$ 26,413	\$ 26,523
Other comprehensive income:			
Net unrealized gain (loss) on restricted investments, net of tax of \$4, (\$77) and \$38, respectively	7	(162)	65
Change in funded status of pension plans, net of tax of (\$738), (\$697) and (\$796), respectively	(1,402)	(1,149)	(1,207)
Foreign currency translation adjustment	(6,098)	(2,425)	2,055
Total other comprehensive (loss) income	(7,493)	(3,736)	913
Comprehensive income	25,314	22,677	27,436
Comprehensive net (income) loss attributable to noncontrolling interest	—	(95)	108
Comprehensive income attributable to Chase Corporation	\$ 25,314	\$ 22,582	\$ 27,544

See accompanying notes to the consolidated financial statements.

Table of Contents

CHASE CORPORATION

CONSOLIDATED STATEMENTS OF EQUITY

In thousands, except share and per share amounts

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (loss)	Retained Earnings	Chase Stockholders' Equity	Noncontrolling Interest	Total Stockholder Equity
	Shares	Amount						
Balance at August 31, 2013	9,066,115	\$ 907	\$ 13,336	\$ (5,163)	\$ 103,734	\$ 112,814	\$ 1,046	\$ 113,860
Restricted stock grants, net of forfeitures	32,851	3	(3)			—		—
Amortization of restricted stock grants			857			857		857
Amortization of stock option grants			239			239		239
Exercise of stock options	114,872	11	1,604			1,615		1,615
Common stock received for payment of stock option exercises	(47,121)	(5)	(1,545)			(1,550)		(1,550)
Excess tax benefit (expense) from stock-based compensation			1,324			1,324		1,324
Common stock retained to pay statutory minimum withholding taxes on common stock	(63,425)	(6)	(2,192)			(2,198)		(2,198)
Cash dividend paid, \$0.45 per share					(4,093)	(4,093)		(4,093)
Change in funded status of pension plan, net of tax \$796				(1,207)		(1,207)		(1,207)
Foreign currency translation				2,055		2,055		2,055

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adjustment								
Net unrealized gain on restricted investments, net of tax \$38				65		65		65
Net income					26,631	26,631	(108)	26,523
Balance at August 31, 2014	9,103,292	\$ 910	\$ 13,620	\$ (4,250)	\$ 126,272	\$ 136,552	\$ 938	\$ 137,490
Restricted stock grants, net of forfeitures	29,785	3	(3)			—		—
Amortization of restricted stock grants			866			866		866
Amortization of stock option grants			254			254		254
Exercise of stock options	169,038	17	2,554			2,571		2,571
Common stock received for payment of stock option exercises	(58,332)	(6)	(2,174)			(2,180)		(2,180)
Excess tax benefit (expense) from stock-based compensation			1,088			1,088		1,088
Common stock retained to pay statutory minimum withholding taxes on common stock	(51,825)	(5)	(1,995)			(2,000)		(2,000)
Cash dividend paid, \$0.60 per share					(5,477)	(5,477)		(5,477)
Purchase of outstanding noncontrolling interest			86			86	(1,033)	(947)
Change in funded status of pension plan, net of tax \$697				(1,149)		(1,149)		(1,149)
Foreign currency translation adjustment				(2,425)		(2,425)		(2,425)
Net unrealized (loss) on restricted				(162)		(162)		(162)

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investments, net of tax \$77								
Net income					26,318	26,318	95	26,413
Balance at August 31, 2015	9,191,958	\$ 919	\$ 14,296	\$ (7,986)	\$ 147,113	\$ 154,342	\$ —	\$ 154,342
Restricted stock grants, net of forfeitures	29,884	3	(3)			—		—
Amortization of restricted stock grants			1,049			1,049		1,049
Amortization of stock option grants			283			283		283
Exercise of stock options	140,113	14	2,125			2,139		2,139
Common stock received for payment of stock option exercises	(35,932)	(3)	(2,012)			(2,015)		(2,015)
Excess tax benefit from stock-based compensation			1,784			1,784		1,784
Common stock retained to pay statutory minimum withholding taxes on common stock	(47,537)	(5)	(2,803)			(2,808)		(2,808)
Cash dividend paid, \$0.65 per share					(5,999)	(5,999)		(5,999)
Change in funded status of pension plan, net of tax \$738				(1,402)		(1,402)		(1,402)
Foreign currency translation adjustment				(6,098)		(6,098)		(6,098)
Net unrealized gain on restricted investments, net of tax \$4				7		7		7
Net income					32,807	32,807	—	32,807
Balance at August 31, 2016	9,278,486	\$ 928	\$ 14,719	\$ (15,479)	\$ 173,921	\$ 174,089	\$ —	\$ 174,089

See accompanying notes to the consolidated financial statements.

Table of Contents

CHASE CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

Dollars in thousands

	Years Ended August 31,		
	2016	2015	2014
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 32,807	\$ 26,413	\$ 26,523
Adjustments to reconcile net income to net cash provided by operating activities			
Loss on disposal/sale of fixed assets	—	—	2
Loss on write-down of certain assets under construction	365	—	—
Gain on sale of business	(1,031)	—	(5,706)
Depreciation	5,606	5,810	5,692
Amortization	7,836	6,762	4,822
Cost of sale of inventory step-up	—	65	—
Provision for allowance for doubtful accounts	169	57	28
Stock-based compensation	1,333	1,120	1,096
Realized gain on restricted investments	(67)	(86)	(63)
Decrease in cash surrender value life insurance	103	326	202
Pension curtailment and settlement loss	13	188	348
Excess tax expense from stock-based compensation	(1,784)	(1,088)	(1,324)
Deferred taxes	(2,590)	(1,222)	(2,529)
Increase (decrease) from changes in assets and liabilities			
Accounts receivable	3,312	(4,534)	(3,335)
Inventories	3,124	2,284	(1,550)
Prepaid expenses & other assets	(475)	388	(297)
Accounts payable	(2,821)	687	2,578
Accrued compensation and other expenses	2,071	(280)	1,351
Accrued income taxes	1,443	3,876	627
Deferred compensation	(581)	193	141
Net cash provided by operating activities	48,833	40,959	28,606
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property, plant and equipment	(2,046)	(2,642)	(4,290)
Cost to acquire intangible assets	(64)	(34)	(123)
Contingent purchase price paid for acquisition	—	—	(160)
Payments for acquisitions	(1,161)	(33,285)	—
Proceeds from sale of fixed assets	—	—	17
Net proceeds from sale of business	1,729	739	9,179
(Increase) decrease in restricted investments	(149)	(308)	3
Proceeds from settlement of life insurance policies	1,238	—	—
Payments for cash surrender value life insurance	(159)	(183)	(183)
Net cash (used in) provided by investing activities	(612)	(35,713)	4,443
CASH FLOWS FROM FINANCING ACTIVITIES			

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Borrowings on debt	—	2,000	2,104
Payments of principal on debt	(8,400)	(9,000)	(7,704)
Dividend paid	(5,999)	(5,477)	(4,093)
Proceeds from exercise of common stock options	124	391	66
Payments of taxes on stock options and restricted stock	(2,808)	(2,000)	(2,198)
Excess tax benefit from stock-based compensation	1,784	1,088	1,324
Payment for acquisition of noncontrolling interest	—	(500)	—
Net cash used in financing activities	(15,299)	(13,498)	(10,501)
INCREASE (DECREASE) IN CASH & CASH EQUIVALENTS	32,922	(8,252)	22,548
Effect of foreign exchange rates on cash	(3,330)	(1,151)	677
CASH & CASH EQUIVALENTS, BEGINNING OF PERIOD	43,819	53,222	29,997
CASH & CASH EQUIVALENTS, END OF PERIOD	\$ 73,411	\$ 43,819	\$ 53,222

See Note 13 for supplemental cash flow information including non-cash financing and investing activities

See accompanying notes to the consolidated financial statements.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 1—Summary of Significant Accounting Policies

The principal accounting policies of Chase Corporation (the “Company”) and its subsidiaries are as follows:

Products and Markets

The Company’s principal products are specialty tapes, laminates, sealants, coatings and chemical intermediates that are sold by Company salespeople, manufacturers’ representatives and distributors. In the Company’s Industrial Materials segment, these products consist of:

- (i) insulating and conducting materials for the manufacture of electrical and telephone wire and cable, electrical splicing, and terminating and repair tapes, which are marketed to wire and cable manufacturers;
- (ii) laminated film foils, including EMI/RFI shielding tapes used in communication cables;
- (iii) moisture protective coatings, which are sold to the electronics industry for circuitry manufacturing, including circuitry used in automobiles and home appliances;
- (iv) laminated durable papers, including laminated paper with an inner security barrier used in personal and mail stream privacy protection, which are sold primarily to the envelope converting and commercial printing industries;
- (v) pulling and detection tapes used in the installation, measurement and location of fiber optic cables, water and natural gas lines, and power, data and video cables for commercial buildings;
- (vi) cover tapes with reliable adhesive and anti static properties essential to delivering semiconductor components via tape and reel packaging;
- (vii)

flexible, rigid and semi rigid fiber optic strength elements designed to allow fiber optic cables to withstand mechanical and environmental strain and stress;

- (viii) polymeric microspheres utilized by various industries to allow for weight and density reduction and sound dampening;
- (ix) water-based polyurethane dispersions utilized for various coating products; and
- (x) composite strength elements.

In the Company's Construction Materials segment, these products consist of:

- (i) protective pipe coating tapes and other protectants for valves, regulators, casings, joints, metals, concrete and wood, which are sold to oil companies, gas utilities, and pipeline companies for utilization in both the construction and maintenance of oil and gas, water and wastewater pipelines;
- (ii) protectants for highway bridge deck metal supported surfaces, which are sold to municipal transportation authorities;
- (iii) fluid applied coating and lining systems for use in the water and wastewater industry; and

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

(iv) expansion and control joint systems designed for roads, bridges, stadiums and airport runways.

Basis of Presentation

The financial statements include the accounts of the Company and its wholly owned subsidiaries. Investments in unconsolidated companies which are at least 20% owned are carried under the equity method since acquisition or investment. All intercompany transactions and balances have been eliminated in consolidation. The Company uses the US dollar as the functional currency for financial reporting. Certain reclassifications have been made to the prior year amounts to conform to the current year's presentation, including balance sheet reclassifications for certain deferred income tax assets and liabilities in relation to the Company's retrospective adoption of Accounting Standard Update ("ASU") No. 2015-17, "Income Taxes – Balance Sheet Classification of Deferred Taxes."

On June 23, 2016, the Company acquired all the capital stock of Spray Products (India) Private Limited for \$1,161, net of cash acquired. The acquired business works closely with our HumiSeal manufacturing operation in Winnersh, Wokingham, England. The acquisition in India enhances the Company's ability to provide technical, sales, manufacturing, chemical handling, and packaging services in the region. Since the effective date of this acquisition, the financial results of the business have been included in the Company's financial statements within the Company's Industrial Materials operating segment in the electronic coatings product line. Purchase accounting was completed in the quarter ended August 31, 2016.

On January 30, 2015, the Company acquired two product lines from Henkel Corporation (the "Seller") for a purchase price of \$33,285, after working capital adjustments and excluding any acquisition-related costs. As part of this transaction, Chase acquired the Seller's microspheres product line, sold under the Dualite® brand, located in Greenville, SC, and obtained exclusive distribution rights and intellectual property related to the Seller's polyurethane dispersions product line, operating in Elgin, IL. We refer to these collectively as our specialty chemical intermediates product line. Under the agreement, Chase entered into a ten-year facility operating lease at the Seller's Greenville, SC location. The Seller will perform certain manufacturing and application services for Chase at the Seller's Elgin, IL location for three years following the acquisition. The purchase was funded entirely with available cash on hand. Since the effective date of this acquisition, the financial results of the specialty chemical intermediates product line have been included in the Company's financial statements within the Company's Industrial Materials operating segment. Purchase accounting was completed in the third quarter of fiscal 2015 with no material adjustments made to the initial amounts recorded in the prior fiscal quarter.

As part of the Company's purchase of NEPTCO in June 2012, it also acquired NEPTCO's 50% ownership stake in its financially controlled joint venture, NEPTCO JV LLC (the "JV"). Because of the Company's controlling financial interest, the JV's assets, liabilities and results of operations have been consolidated within the Company's consolidated financial statements since the date of acquisition. An offsetting amount equal to 50% of net assets and net (income) loss of the JV was also recorded within the Company's consolidated financial statements to noncontrolling interest, representing the joint venture partner's 50% ownership stake and pro rata share in the net results of the JV. On October 31, 2014, the Company purchased the 50% noncontrolling membership interest of the JV owned by its otherwise unrelated joint venture partner. The Company continues to fully consolidate the assets, liabilities and results of operations of the JV, but no longer records an offsetting amount for a noncontrolling interest after October 31, 2014. The (\$95) recorded in the Consolidated Statement of Operations as Net (income) loss attributable to noncontrolling interest for the year ended August 31, 2015, represents the now-former joint venture partner's share of the results of operations of the JV for the period from September 1, 2014 through October 31, 2014.

The Company has evaluated events and transactions subsequent to the balance sheet date. Based on this evaluation, and other than: (a) the September 30, 2016 acquisition of certain assets of Resin Designs, LLC ("Resin Designs"); (b) the settlement of the Metropolitan Life Insurance policy in September 2016; (c) entry into an agreement to sell its now former corporate headquarters and executive office in Bridgewater, MA and (d) the cash dividend announced

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

on November 1, 2016 of \$0.70 per share to shareholders of record on November 11, 2016 payable on December 7, 2016, the Company is not aware of any other events or transactions that occurred subsequent to the balance sheet date, but prior to filing, that would require recognition or disclosure in its consolidated financial statements.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents consist primarily of demand deposit accounts or investment instruments that meet high credit quality standards such as money market funds, government securities, or commercial paper. The Company considers all highly liquid debt instruments purchased with a maturity of three months or less from date of purchase to be cash equivalents.

Accounts Receivable

The Company evaluates the collectability of accounts receivable balances based on a combination of factors. In cases where the Company is aware of circumstances that may impair a specific customer's ability to meet its financial obligations to it, a specific allowance against amounts due to the Company is recorded, and thereby reduces the net recognized receivable to the amount the Company reasonably believes will be collected. For all other customers, the Company recognizes allowances for doubtful accounts based on the length of time the receivables are past due, industry and geographic factors, the current business environment and its historical experience. Receivables are written off against these reserves in the period they are determined to be uncollectable.

Inventory

The Company values inventory at the lower of cost or net realizable value using the first in, first out (FIFO) method. Management assesses the recoverability of inventory based on types and levels of inventory held, forecasted demand and changes in technology. These assessments require management judgments and estimates, and valuation adjustments for excess and obsolete inventory may be recorded based on these assessments. The Company estimates excess and obsolescence exposures based upon assumptions about future demand, product transitions and market conditions, and records reserves to reduce inventories to their estimated net realizable value. The failure to accurately forecast demand may lead to additional excess and obsolete inventory and future charges.

Goodwill

The Company accounts for goodwill in accordance with ASC Topic 350, “Intangibles — Goodwill and Other.” The Company identified several reporting units within each of its two operating segments. These are used to evaluate the possible impairment of goodwill annually each fourth quarter and whenever events or circumstances indicate the carrying value of goodwill may not be recoverable. When evaluating the potential impairment of goodwill, the Company will first assess a range of qualitative factors, including but not limited to, industry conditions, the competitive environment, changes in the market for our products and services, entity-specific factors such as strategy and changes in key personnel, and the overall financial performance for each of our reporting units relative to expected, historical or projected future operating results. If after completing this assessment, it is determined that it is more likely than not that the fair value of a reporting unit is less than its carrying value, the Company will then proceed to a two step impairment testing methodology using the income approach (discounted cash flow method).

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

In the first step of this testing methodology, we compare the carrying value of the reporting unit, including goodwill, with its fair value, as determined by its estimated discounted cash flows. If the carrying value of a reporting unit exceeds its fair value, we then complete the second step of the impairment test to determine the amount of impairment to be recognized. In the second step, we estimate an implied fair value of the reporting unit's goodwill by allocating the fair value of the reporting unit to all of the assets and liabilities other than goodwill (including intangible assets). If the carrying value of a reporting unit's goodwill exceeds its implied fair value, we record an impairment loss equal to the difference in that period. The key assumptions incorporated in the discounted cash flow approach include projected operating income, changes in working capital, projected capital expenditures, estimated terminal sales value and a discount rate equal to the assumed long term cost of capital. Cash flows may be adjusted to exclude certain non-recurring or unusual items. The cash flow estimates used to determine impairment, if any, contain management's best estimates, using appropriate and customary assumptions and projections at the time.

Intangible Assets

Intangible assets consist of patents, agreements, formulas, trade names, customer relationships and trademarks. The Company capitalizes costs related to patent applications and technology agreements. The costs of these assets are amortized using the straight line method over the lesser of the useful life of the asset or its statutory life. Capitalized costs are periodically reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable.

Property, Plant and Equipment

Property, plant and equipment are stated at cost and depreciated using the straight line method over the assets' estimated useful lives. Expenditures for maintenance repairs and minor renewals are charged to expense as incurred. Betterments and major renewals are capitalized. Upon retirement or other disposition of assets, related allowances for depreciation and amortization are eliminated from the accounts and any resulting gain or loss is included in the determination of income or loss. The estimated useful lives of property, plant and equipment are as follows:

Buildings and improvements	15 to 40	years
Machinery and equipment	3 to 10	years

Leasehold improvements are depreciated over the lesser of the useful life or the term of the lease.

Restricted Investments and Deferred Compensation

The Company has a non-qualified deferred savings plan that covers its Board of Directors and a separate plan covering selected employees. Participants may elect to defer a portion of their compensation for payment in a future tax year. The plans are funded by trusteed assets that are restricted to the payment of deferred compensation or satisfaction of the Company's general creditors. The Company's restricted investments and corresponding deferred compensation liability under the plans were \$1,637 and \$1,410 at August 31, 2016 and 2015, respectively. The Company accounts for the restricted investments as available for sale by recording unrealized gains or losses in other comprehensive income as a component of stockholders' equity.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Split-Dollar Life Insurance Arrangements

The liability related to these postretirement benefits was calculated as the present value of future premiums to be paid by the Company reduced by the present value of the expected proceeds to be returned to the Company upon the insured's death. For August 31, 2016, the Company recorded a liability related to these postretirement obligations of \$0, given known settlement in the first quarter of fiscal 2017. For August 31, 2015, the Company prepared its calculation by using mortality assumptions based on the RP-2014 Mortality Table, and a discount rate of 1.54% and recorded a liability related to these postretirement obligations of \$46.

Revenue

The Company recognizes revenue when persuasive evidence of an arrangement exists, performance of its obligation is complete, its price to the buyer is fixed or determinable, and the Company is reasonably assured of collecting. These four transaction elements are typically met at the time of shipment or upon receipt by the customer, based on contractual terms. If a loss is anticipated on any contract, a provision for the entire loss is made immediately. Revenue recognition involves judgments and assessments of expected returns, and the likelihood of nonpayment by customers. The Company analyzes various factors, including a review of specific customer contracts and shipment terms, historical experience, creditworthiness of customers and current market and economic conditions in determining when to recognize revenue. Changes in judgments on these factors could impact the timing and amount of revenue recognized with a resulting impact on the timing and amount of operating income. For certain products, consigned inventory is maintained at customer locations, and revenue is typically recognized in the period that the consigned inventory is consumed. Commissions are recognized when earned and payments are received from the manufacturers represented. Royalty revenue is recognized based on licensee production statements received from the authorized manufacturers. Billed shipping and handling fees are recorded as sales revenue with the associated costs recorded within cost of products and services sold.

The Company's warranty policy provides that the products (or materials) delivered will meet its standard specifications for the products or any other specifications as may be expressly agreed to at time of purchase. All warranty claims must be received within 90 days from the date of delivery, unless some other period has been expressly agreed to within the terms of the sales agreement. The Company's warranty costs have historically been insignificant. The Company records a current liability for estimated warranty claims with a corresponding charge to cost of products and services sold based upon current and historical experience and upon specific claims issues as they arise.

In addition, the Company offers certain sales incentives based on sales levels as they are earned.

Research and Product Development Costs

Research and product development costs are expensed as incurred and include primarily engineering salaries, overhead and materials used in connection with research and development projects. Research and development expense amounted to \$2,792, \$2,690 and \$2,599 for the years ended August 31, 2016, 2015 and 2014, respectively, and was recorded within selling, general and administrative expenses.

Pension Plan

The Company accounts for its pension plans following the requirements of ASC Topic 715, “Compensation — Retirement Benefits” (“ASC 715”). ASC 715 requires an employer to: (a) recognize in its statement of financial position the funded status of a benefit plan; (b) measure defined benefit plan assets and obligations as of the end of the employer’s fiscal year (with limited exceptions); and (c) recognize as a component of other comprehensive income, net of tax, the gains or losses and prior service costs or credits that arise but are not recognized as components of net periodic benefit costs pursuant to prior existing guidance.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Stock Based Compensation

In accordance with the accounting for stock based compensation guidance, ASC Topic 718 “Compensation – Stock Compensation” (“ASC 718”), the Company measures and recognizes compensation expense for all share based payment awards made to employees and directors based on estimated fair values. This includes restricted stock, restricted stock units and stock options. The guidance allows for the continued use of the simplified method as the Company has concluded that its historical share option exercise experience does not provide a reasonable basis for estimating expected term. The Company uses the shortcut method to calculate the historical windfall tax pool.

Stock based compensation expense recognized in fiscal years 2016, 2015 and 2014 was \$1,333, \$1,120 and \$1,096, respectively.

The fair value of options granted was estimated on the date of grant using the Black Scholes option pricing model with the following weighted average assumptions for the years ending August 31, 2016, 2015 and 2014:

	2016	2015	2014
Expected Dividend yield	1.7 %	1.8 %	2.0 %
Expected life	6.0 years	6.0 years	6.0 years
Expected volatility	41.2 %	39.0%	41.0%
Risk-free interest rate	1.7 %	2.5 %	2.8 %

Expected volatility is determined by looking at a combination of historical volatility over the past six years as well as implied future volatility.

Translation of Foreign Currency

The financial position and results of operations of the Company's HumiSeal Europe Ltd and Chase Protective Coatings Ltd businesses are measured using the British pound as the functional currency. The financial position and results of operations of the Company's HumiSeal Europe SARL business in France are measured using euros as the functional currency. The financial position and results of the Company's Spray Products (India) Private Limited business in India are measured using the Indian rupee as the functional currency. The functional currency for all our other operations is the US dollar. Revenue and expenses of these international businesses have been translated at average exchange rates. Foreign currency translation gains and losses are determined using current exchange rates for monetary items and historical exchange rates for other balance sheet items, and are recorded as a change in other comprehensive income (a component of shareholders' equity). Transaction gains and losses generated from the remeasurement of assets and liabilities denominated in currencies other than the functional currency of these international operations are included in other income (expense) on the consolidated statements of operations and were \$2,152, (\$134) and (\$442) for the fiscal years ended August 31, 2016, 2015 and 2014, respectively.

Income Taxes

The Company accounts for income taxes under the asset and liability method. Under this method, a deferred tax asset or liability is determined based upon the differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates that will be in effect when these differences reverse. Tax credits are recorded as a reduction in income taxes. Valuation allowances are provided if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The Company estimates contingent income tax liabilities based on the guidance for accounting for uncertain tax positions as prescribed in ASC Topic 740, "Income Taxes." See Note 7 for more information on the Company's income taxes.

Net Income Per Share

The Company has unvested share based payment awards with a right to receive nonforfeitable dividends, which are considered participating securities under ASC Topic 260, "Earnings Per Share" ("ASC 260"). The Company allocates earnings to participating securities and computes earnings per share using the two class method.

Comprehensive Income

Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non owner sources, including foreign currency translation adjustments, unrealized gains and losses on marketable securities and adjustments related to the change in the funded status of the pension plans.

Noncontrolling Interest

A legal entity is subject to the consolidation rules of ASC Topic 810, "Consolidations" ("ASC 810") if the total equity investment at risk is not sufficient to permit the legal entity to finance its activities without additional subordinated financial support or the equity investors lack certain specified characteristics of a controlling financial interest. Based on the criteria in ASC 810, the Company determined that its joint venture agreement qualified as a variable interest entity ("VIE") prior to the purchase of its former joint venture partner's 50% noncontrolling membership interest. The purpose of the joint venture was to combine the elements of NEPTCO's and the otherwise unrelated joint venture partner's fiber optic strength element businesses. Under ASC 810, a reporting entity shall consolidate a VIE when that reporting entity has a variable interest (or combination of variable interests) that provides the reporting entity with a controlling financial interest. The reporting entity shall be deemed to have a controlling financial interest in a VIE if it has both of the following characteristics: a) the power to direct the activities of a VIE that most significantly impact the VIE's economic performance; and b) the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. The reporting entity that consolidates a VIE is called the "primary

beneficiary” of that VIE. The Company determined that it was the primary beneficiary of the VIE primarily due to Chase directing the activities that most significantly impact the VIE’s economic performance, which is the actual management and operation of the joint venture and having the obligation to absorb losses and the right to receive benefits from the VIE that could potentially be significant to the VIE through our equity investment in the VIE. As a result, the Company has consolidated the operations of the joint venture in its consolidated financial statements. On October 31, 2014, the Company purchased the 50% noncontrolling membership interest of the JV owned by its joint venture partner, thus making the JV a wholly-owned entity.

Segments

ASC Topic 280 “Segment Reporting” of the Financial Accounting Standards Board (“FASB”) codification establishes standards for reporting information about operating segments. The Company is organized into two operating segments, an Industrial Materials segment and a Construction Materials segment. The segments are distinguished by the nature of the products and how they are delivered to their respective markets.

The Industrial Materials segment includes specified products that are used in or integrated into another company’s product, with demand typically dependent upon general economic conditions. Industrial Materials products include insulating and conducting materials for wire and cable manufacturers, moisture protective coatings for electronics, laminated durable papers, laminates for the packaging and industrial laminate markets, pulling and detection

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

tapes used in the installation, measurement and location of fiber optic cables, water and natural gas lines, cover tapes essential to delivering semiconductor components via tape and reel packaging, and composite materials and elements. This segment also includes glass-based strength elements products designed to allow fiber optic cables to withstand mechanical and environmental strain and stress and which we operated as a joint venture prior to October 31, 2014. Further, beginning January 30, 2015, the Industrial Materials segment includes microspheres, sold under the Dualite brand, and polyurethane dispersions, both obtained through acquisition, and included in the Company's specialty chemical intermediates product line and beginning June 23, 2016, the segment included the acquired operations of Spray Products (India) Limited.

The Construction Materials segment is principally composed of project-oriented product offerings that are primarily sold and used as "Chase" branded products. Construction Materials products include protective coatings for pipeline applications, coating and lining systems for use in liquid storage and containment applications, adhesives and sealants used in architectural and building envelope water proofing applications, high performance polymeric asphalt additives, and expansion and control joint systems for use in the transportation and architectural markets.

Recently Issued Accounting Standards

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which will replace most of the existing revenue recognition guidance under US Generally Accepted Accounting Principles ("GAAP"). The core principle of the ASU is that an entity should recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled to receive for those goods or services. The ASU requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments. In March, April and May 2016, the FASB issued ASU 2016-08 "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," ASU 2016-10 "Identifying Performance Obligations and Licensing," and ASU 2016-12, "Revenue from Contracts with Customers (Topic 606), Narrow-Scope Improvements and Practical Expedients" all of which provide further clarification to be considered when implementing ASU 2014-09. The ASU will be effective for the Company beginning September 1, 2018 (fiscal 2019), including interim periods in its fiscal year 2019, and allows for either retrospective or modified retrospective methods of adoption. The Company is in the process of determining the method of adoption and assessing the impact of this ASU on the Company's consolidated financial position, results of operations and cash flows.

In August 2014, the FASB issued ASU No. 2014-15 "Presentation of Financial Statements: Going Concern (Subtopic 205-40)," which provides guidance on determining when and how to disclose going-concern uncertainties in the financial statements. The new standard requires management to perform interim and annual assessments of an entity's

ability to continue as a going concern within one year of the date the financial statements are issued. An entity must provide certain disclosures if “conditions or events raise substantial doubt about the entity’s ability to continue as a going concern.” The guidance applies to all entities and is effective for annual periods ending after December 15, 2016, and interim periods thereafter (fiscal year 2017 for the Company). The adoption of ASU 2014-15, which will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company’s consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs," which requires that debt issue costs related to a recognized debt liability be presented on the balance sheet as a direct deduction from the amount of the debt liability, consistent with debt discounts and premiums. Amortization of such costs is still reported as interest expense. ASU 2015-03 is effective for fiscal years, and interim periods therein, beginning after December 15, 2015 (fiscal year 2017 for the Company). In August 2015, the FASB issued ASU 2015-15, "Presentation and Subsequent Measurement of Debt Issue Costs Associated with Line-of-Credit Arrangements." ASU 2015-15 supplements the requirements of ASU 2015-03 by allowing an entity to defer and present debt issue costs related to a line of credit arrangement as an asset and subsequently amortize the deferred costs ratably over the term of the line of credit arrangement. The adoption of ASU 2015-03, which will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company’s consolidated financial statements.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

In July 2015, the FASB issued ASU No. 2015-11, “Inventory (Topic 330): Simplifying the Measurement of Inventory.” Under this accounting guidance, inventory will be measured at the lower of cost and net realizable value and other options that currently exist for market value will be eliminated. ASU No. 2015-11 defines net realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. No other changes were made to the current guidance on inventory measurement. The Company adopted this standard, prospectively, as of August 31, 2016. The adoption’s effects on our consolidated financial position, results of operations and cash flows were not significant.

In November 2015, the FASB issued ASU No. 2015-17, “Income Taxes – Balance Sheet Classification of Deferred Taxes.” The purpose of the standard is to simplify the presentation of deferred taxes on a classified balance sheet. Under current GAAP, deferred income tax assets and liabilities are separated into current and noncurrent amounts in the balance sheet. The amendments in ASU 2015-17 require that all deferred tax assets and liabilities be classified as noncurrent in the balance sheet. The Company adopted this standard, retrospectively, as of August 31, 2016. The changes in the effected income tax related balance sheet accounts at August 31, 2015 (the prior year end), were as follows (the adoption had no effect on the consolidated statement of operations, other comprehensive income, equity or cash flows):

	August 31, 2015		
	Previously Reported	Effects of Adoption	As Adopted
Assets			
Current Assets			
Deferred income taxes	\$ 2,255	\$ (2,255)	\$ —
Other Assets			
Deferred income taxes	\$ 390	\$ —	\$ 390
Liabilities			
Deferred income taxes	\$ 6,174	\$ (2,255)	\$ 3,919

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842).” Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (a) a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis; and (b) a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. Changes were made to align lessor accounting with the lessee accounting model and ASU No. 2014-09, “Revenue from Contracts with Customers.” The new lease guidance simplifies the accounting for sale and leaseback transactions primarily because lessees must recognize lease assets and lease liabilities. The ASU will be effective for the Company beginning September 1, 2019 (fiscal 2020). Early application is

permitted for all public business entities upon issuance. Lessees must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees may not apply a full retrospective transition approach. We are currently evaluating the impact of the application of this accounting standard update on our consolidated financial statements, results of operations and cash flows.

In March 2016, the FASB issued ASU No. 2016-09, "Compensation - Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting." This ASU provides simplification in the accounting for share-based payment transactions including the accounting for income taxes, forfeitures, statutory tax withholding requirements and classification in the statement of cash flows. The effective date for adoption of this guidance would be our fiscal year beginning September 1, 2017 (fiscal 2018), but with early adoption allowed. The adoption of ASU 2016-09, which we anticipate will occur in the first quarter of fiscal 2017, is not expected to have a material effect on the Company's

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230)." This ASU will provide guidance on the presentation and classification of specific cash flow items to improve consistency within the statement of cash flows. The effective date for adoption of this guidance would be our fiscal year beginning September 1, 2018 (fiscal 2019) with early adoption permitted. The Company is currently evaluating the effect that ASU 2016-15 will have on its financial statements and related disclosures.

Note 2—Inventories

Inventories consist of the following as of August 31, 2016 and 2015:

	2016	2015
Raw materials	\$ 12,879	\$ 12,937
Work in process	6,019	6,539
Finished goods	6,916	10,000
Total Inventories	\$ 25,814	\$ 29,476

Note 3—Property, Plant and Equipment

Property, plant and equipment consist of the following as of August 31, 2016 and 2015:

	2016	2015
Land and improvements	\$ 6,561	\$ 5,714

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Buildings	20,364	21,109
Machinery and equipment	48,374	51,318
Leasehold improvements	945	2,092
Construction in progress	1,907	1,870
	78,151	82,103
Accumulated depreciation	(41,409)	(41,182)
Property, plant and equipment, net	\$ 36,742	\$ 40,921

Note 4—Goodwill and Intangible Assets

The changes in the carrying value of goodwill, by operating segment, are as follows:

	Industrial Materials	Construction Materials	Consolidated
Balance at August 31, 2014	\$ 27,528	\$ 10,752	\$ 38,280
Acquisition of specialty chemical intermediates product line	6,371	—	6,371
Foreign currency translation adjustment	(509)	(19)	(528)
Balance at August 31, 2015	\$ 33,390	\$ 10,733	\$ 44,123
Acquisition of Spray Products (India) Private Limited	107	—	107
Foreign currency translation adjustment	(617)	(37)	(654)
Balance at August 31, 2016	\$ 32,880	\$ 10,696	\$ 43,576

The Company's goodwill is allocated to each reporting unit based on the nature of the products manufactured by the respective business combinations that originally created the goodwill. The Company has identified ten reporting units within its two operating segments that are used to evaluate the possible impairment of goodwill. Goodwill

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

impairment exists when the carrying amount of goodwill exceeds its fair value. Assessments of possible impairment of goodwill are made when events or changes in circumstances indicate that the carrying value of the asset may not be recoverable through future operations. Additionally, testing for possible impairment of recorded goodwill and certain intangible asset balances is required annually. The amount and timing of any impairment charges based on these assessments require the estimation of future cash flows and the fair market value of the related assets based on management's best estimates of certain key factors, including future selling prices and volumes; operating, raw material and energy costs; and various other projected operating and economic factors. When testing, fair values of the reporting units and the related implied fair values of their respective goodwill are established using discounted cash flows.

The Company performs impairment reviews annually each fourth quarter and whenever events or circumstances indicate the carrying value of goodwill may not be recoverable. For fiscal 2016, the Company's review indicated no impairment of goodwill, or at-risk reporting units.

As of August 31, 2016, the Company had a total goodwill balance of \$43,576 related to its acquisitions, of which \$7,005 remains deductible for income taxes.

Intangible assets subject to amortization consist of the following as of August 31, 2016 and 2015:

	Weighted Average Amortization Period		Gross Carrying Value	Accumulated Amortization	Net Carrying Value
August 31, 2016					
Patents and agreements	14.5	years	\$ 1,805	\$ 1,663	\$ 142
Formulas and technology	8.4	years	8,248	4,310	3,938
Trade names	5.9	years	7,137	4,909	2,228
Customer lists and relationships	9.4	years	52,742	22,470	30,272
			\$ 69,932	\$ 33,352	\$ 36,580
August 31, 2015					
Patents and agreements	12.5	years	\$ 2,568	\$ 2,267	\$ 301
Formulas and technology	8.4	years	8,415	3,513	4,902
Trade names	5.9	years	7,278	4,088	3,190

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Customer lists and relationships	9.3	years	55,473	19,014	36,459
			\$ 73,734	\$ 28,882	\$ 44,852

Aggregate amortization expense related to intangible assets for the years ended August 31, 2016, 2015 and 2014 was \$7,836, \$6,762 and \$4,822, respectively. As of August 31, 2016 estimated amortization expense for the next five fiscal years is as follows:

Years ending August 31,	
2017	\$ 7,239
2018	7,044
2019	6,352
2020	5,483
2021	5,220

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 5—Cash Surrender Value of Life Insurance

Life insurance is provided under split dollar life insurance agreements whereby the Company will recover the premiums paid from the proceeds of the policies. The Company recognizes an offset to expense for the growth in the cash surrender value of the policies.

The Company recognized cash surrender value of life insurance policies, net of loans of \$5 at August 31, 2016 and 2015, secured by the policies, with the following carriers as of August 31, 2016 and 2015:

	2016	2015
John Hancock	\$ 4,450	\$ 4,450
John Hancock (formerly Manufacturers' Life Insurance Company)	—	1,136
Metropolitan Life Insurance	1,096	1,467
Other life insurance carriers	80	80
	\$ 5,626	\$ 7,133
Less portion classified as current	(1,096)	—
Cash surrender value of life insurance policies, less current portion	\$ 4,530	\$ 7,133

All policies are subject to periodic review. The Company settled the John Hancock (formerly Manufacturers' Life Insurance Company) policy within fiscal year 2016. Additionally, the Company settled the Metropolitan Life Insurance policy within the first quarter of fiscal 2017, subsequent to the balance sheet date, and as such has classified this policy within current assets as of August 31, 2016 (included in prepaid expenses and other current assets). The Company currently intends to maintain all other policies through the lives or retirements of the insureds. Please see Note 22 to the Company's consolidated financial statements for related party information on the cash surrender value of certain life insurance policies held by the Company during fiscal 2016 and at August 31, 2016.

Note 6—Long-Term Debt

Long term debt consists of the following at August 31, 2016 and 2015:

	2016	2015
Term note payable to bank in 19 quarterly installments that began in September 2012. The principal amount of the quarterly installments was \$1,400 through June 2014, increased to \$1,750 per quarter through June 2015, and increased to \$2,100 per quarter thereafter through March 2017. Interest is payable monthly at LIBOR rate plus 175 to 225 basis points, based upon the Company's consolidated leverage ratios (effective interest rate of 2.27% at August 31, 2016). The remaining principal balance, plus any interest, is due on the term note's maturity date of June 27, 2017 (fourth quarter of fiscal 2017).	\$ 43,400	\$ 51,800
	43,400	51,800
Less portion payable within one year classified as current	(43,400)	(8,400)
Long-term debt, less current portion	\$ —	\$ 43,400

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The Company has a revolving line of credit totaling \$15,000 with Bank of America that bears interest at the London Interbank Offered Rate (LIBOR) plus a range of 1.75% to 2.25%, depending on the consolidated leverage ratio of Chase Corporation, or, at our option, at the bank's base lending rate. As of August 31, 2016, the entire amount of \$15,000 was available for use. The revolving line of credit is scheduled to mature in June 2017 (the fourth quarter of fiscal 2017). This revolving line of credit allows for increased flexibility for working capital requirements going forward, and we plan to use this availability to help finance our cash needs, including potential acquisitions, in future periods.

Our credit agreement with Bank of America, which outlines the terms of both the term note payable and the revolving line of credit, contains customary affirmative and negative covenants that, among other things, restrict our ability to incur additional indebtedness. It also requires the Company to maintain a ratio of consolidated indebtedness to consolidated EBITDA (each as defined in the agreement) of no more than 3.00 to 1.00, and to maintain a consolidated fixed charge coverage ratio (as calculated in the agreement) of at least 1.25 to 1.00. The Company was in compliance with its debt covenants as of August 31, 2016.

Note 7—Income Taxes

Domestic and foreign pre tax income for the years ended August 31, 2016, 2015 and 2014 was:

	Year Ended August 31,		
	2016	2015	2014
United States	\$ 40,928	\$ 31,168	\$ 35,480
Foreign	9,182	10,058	5,010
	\$ 50,110	\$ 41,226	\$ 40,490

The provision (benefit) for income taxes for the years ended August 31, 2016, 2015 and 2014 was:

	Year Ended August 31,		
	2016	2015	2014
Current:			

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Federal	\$ 14,777	\$ 11,831	\$ 13,012
State	1,821	1,475	1,437
Foreign	2,023	2,077	1,149
Total current income tax provision	18,621	15,383	15,598
Deferred:			
Federal	(879)	(405)	(1,446)
State	(324)	(188)	(168)
Foreign	(115)	23	(17)
Total deferred income tax benefit	(1,318)	(570)	(1,631)
Total income tax provision	\$ 17,303	\$ 14,813	\$ 13,967

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The provision (benefit) for income taxes differs from the amount computed by applying the federal statutory income tax rate to income before income taxes. The Company's combined federal, state and foreign effective tax rate as a percentage of income before taxes for fiscal 2016, 2015 and 2014, net of offsets generated by federal, state and foreign tax benefits, was 34.5%, 35.9% and 34.5%, respectively. The following is a reconciliation of the effective income tax rate with the US federal statutory income tax rate for the years ended August 31, 2016, 2015 and 2014:

	Year Ended August 31,					
	2016		2015		2014	
Federal statutory rates	35.0	%	35.0	%	35.0	%
Adjustment resulting from the tax effect of:						
State and local taxes, net of federal benefit	1.9	%	2.0	%	1.8	%
Domestic production deduction	(2.9)	%	(2.0)	%	(3.1)	%
Foreign tax rate differential	(2.5)	%	(3.2)	%	(1.3)	%
Adjustment to uncertain tax position	0.0	%	0.5	%	0.3	%
Research credit generated	(0.3)	%	(0.3)	%	(0.2)	%
Noncontrolling partnership interest	0.0	%	(0.1)	%	0.1	%
Tax effect of undistributed earnings	2.7	%	3.4	%	1.8	%
Other	0.6	%	0.6	%	0.1	%
Effective income tax rate	34.5	%	35.9	%	34.5	%

The following table summarizes the tax effect of temporary differences on the Company's income tax provision:

	Year Ended August 31,		
	2016	2015	2014
Current income tax provision	\$ 18,621	\$ 15,383	\$ 15,598
Deferred provision (benefit):			