CHASE CORP
Form 10-K
November 27, 2018
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, 2018

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 ($0.10 Par Value)	NYSE American

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

Indicate by check mark if the registrant is a well known seasoned issuer (as defined in Rule 405 of the Securities Act). YES 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 every Interactive Data File required to be submitted 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 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", "smaller reporting company" and "emerging growth company" in Rule 12b 2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by 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 28, 2018 (the last business day of the registrant's second quarter of fiscal 2018), was approximately $608,967,000.

As of October 31, 2018, the Company had outstanding 9,402,134 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, 2018, 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, 2018

		Page No.
Cautionary Note Concerning Forward-Looking Statements		2
PART I		
Item 1	Business	3
Item 1A	Risk Factors	9
Item 1B	Unresolved Staff Comments	12
Item 2	Properties	13
Item 3	Legal Proceedings	14
Item 4	Mine Safety Disclosures	14
Item 4A	Executive Officers of the Registrant	14
PART II		
Item 5	Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	15
Item 6	Selected Financial Data	17
Item 7	Management's Discussion and Analysis of Financial Condition and Results of Operations	18
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	36
Item 8	Financial Statements and Supplementary Data	37
Item 9	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	94
Item 9A	Controls and Procedures	94
Item 9B	Other Information	95
PART III		
Item 10	Directors, Executive Officers and Corporate Governance	96
Item 11	Executive Compensation	96
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	96
Item 13	Certain Relationships and Related Transactions, and Director Independence	96
Item 14	Principal Accountant Fees and Services	96
PART IV		
Item 15	Exhibits and Financial Statement Schedules	97
Item 16	Form 10-K Summary	100
SIGNATURES		101

1

Table of Contents

Cautionary Note Concerning Forward-Looking Statements

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements, including without limitation forward-looking statements made under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” involve risks and uncertainties. Any statements contained in this Annual Report that are not statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements include, without limitation, statements as to our future operating results; seasonality expectations; plans for the development, utilization or disposal of manufacturing facilities; future economic conditions; our expectations as to legal proceedings; the effect of our market and product development efforts; and expectations or plans relating to the implementation or realization of our strategic goals and future growth, including through potential future acquisitions. Forward-looking statements may also include, among other things, statements relating to future sales, earnings, cash flow, results of operations, use of cash and other measures of financial performance, as well as statements relating to future dividend payments. Other forward-looking statements may be identified through the use of words such as “believes,” “anticipates,” “may,” “should,” “will,” “plans,” “projects,” “expects,” “expectations,” “estimates,” “predicts,” “targ “strategy,” and other words of similar meaning in connection with the discussion of future operating or financial performance. These statements are based on current expectations, estimates and projections about the industries in which we operate, and the beliefs and assumptions made by management. Because forward-looking statements relate to the future, they are subject to inherent risks, uncertainties and changes in circumstances that are difficult to predict. Accordingly, the Company’s actual results may differ materially from those contemplated by the forward-looking statements. Investors, therefore, are cautioned against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Readers should refer to the discussions under Item 1A “Risk Factors” of this Annual Report on Form 10-K.

Table of Contents

PART I

Item 1 – Business

Primary Operating Divisions and Facilities and Industry Segments

Chase Corporation, a global specialty chemicals company 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 reportable 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, 2018 is as follows:

INDUSTRIAL MATERIALS SEGMENT

Key Products	Primary Manufacturing Locations	Background/History
Specialty tapes and related products for the electronic and telecommunications industries using the brand name Chase & Sons®.	Oxford, MA	In August 2011, we relocated 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 relocated 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.
		We acquired the Paper Tyger, LLC assets in 2003.
PaperTyger®, a trademark for laminated durable papers sold to the envelope converting and commercial printing industries.		

Chase BLH2OCK®, a water-blocking compound sold to the wire and cable industry.	Blawnox, PA	In September 2012, we relocated 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, industrial controls and home appliances.	O'Hara Township, PA	The HumiSeal business and product lines were acquired in the early 1970's.
Advanced adhesives, sealants, and coatings for automotive and industrial applications that require specialized bonding, encapsulating, environmental protection, or thermal management functionality.	Woburn, MA Newark, CA	In September 2016, we acquired certain assets and the operations of Resin Designs, LLC, and entered leases in their existing manufacturing facilities in Massachusetts and California.
Laminated film foils for the electronics and cable industries and cover tapes essential to delivering semiconductor components via tape and reel packaging. 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.	Pawtucket, RI Lenoir, NC Granite Falls, NC Suzhou, China	In June 2012, we acquired all of the capital stock of NEPTCO Incorporated, which operated facilities in Rhode Island, North Carolina and China. 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.

Table of Contents

Key Products & Services	Primary Manufacturing Locations	Background/History
Protective conformal coatings under the brand name HumiSeal®, moisture protective electronic coatings sold to the electronics industry including circuitry used in automobiles, industrial controls and home appliances.	Winnersh, Wokingham, England	In October 2005, we acquired all of the capital stock of Concoat Holdings Ltd. and its subsidiaries. In 2006 Concoat was renamed HumiSeal Europe. 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. In June 2016, we further 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. In December 2016, Spray Products (India) Private Limited was renamed HumiSeal India Private Limited.
Polymeric microspheres, sold under the Dualite® brand, which are utilized for weight and density reduction and sound dampening across varied industries. Water-based polyurethane dispersions utilized for various coating products.	Greenville, SC	In January 2015, we acquired two product lines from Henkel Corporation. They, along with the Superabsorbents business acquired in December 2017, comprise our specialty chemical intermediates product line. The Company currently contracts with manufacturing partners to produce its water-based polyurethane dispersions.
Superabsorbent polymers, sold through our Zappa Stewart division, which are utilized for water and liquid management, remediation and	Hickory, NC McLeansville, NC	In December 2017, we acquired Stewart Superabsorbents, LLC ("SSA, LLC") and its Zappa-Tec business (collectively “Zappa Stewart”).

protection in diverse markets including wire and cable, medical, environmental, infrastructure, energy and consumer products.

Table of Contents

CONSTRUCTION MATERIALS SEGMENT

Key Products	Primary Manufacturing Locations	Background/History
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.	Blawnox, PA	The Royston business was acquired in the early 1970's.
Rosphalt50® 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.		
Waterproofing sealants, expansion joints and accessories for the transportation, industrial and architectural markets.	O'Hara Township, PA	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 business.
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.	Evanston, IL	In November 2001, we acquired substantially all of the assets of Tapecoat, previously a division of T.C. Manufacturing Inc.
Specialized high-performance coating and lining systems used worldwide in liquid storage and containment applications.	Houston, TX	In September 2009, we acquired all of the outstanding capital stock of C.I.M. Industries Inc. (“CIM”).
Waterproofing and corrosion protection systems for oil, gas and water pipelines, and a supplier to Europe, the Middle East	Rye, East Sussex, England	In September 2007, we purchased certain product lines and a related manufacturing facility in Rye, East Sussex, England through our wholly-owned subsidiary,

and Southeast Asia.

Chase Protective Coatings Ltd. This facility joins Chase's North American-based Tapecoat® and Royston® brands to broaden the protective pipeline coatings product line and better address global demand.

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

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

Other Business Developments

On June 25, 2018, the Company announced to its employees the planned closing of its Pawtucket, RI manufacturing facility effective August 31, 2018. This is in line with the Company’s ongoing efforts to consolidate its manufacturing plants and streamline its existing processes. The manufacturing of products previously produced in the Pawtucket, RI facility was moved to Company facilities in Oxford, MA and Lenoir, NC during a two-month transition period. The Company expensed $1,272,000 in the fourth quarter of fiscal 2018 related to the closure, including: (a) cash-related employee-related, logistics and uncapitalized facilities improvement costs of $590,000; and (b) non-cash-related accelerated depreciation expense of $682,000. Future costs related to this move are not anticipated to be significant to the Consolidated Financial Statements.

On April 20, 2018, Chase finalized an agreement with an unrelated party to sell all inventory, operational machinery and equipment and intangible assets of the Company’s structural composites rod business, as well as a license related to the production and sale of rod, for proceeds of $2,232,000, net of transaction costs and following certain working capital adjustments. This business, which was part of the structural composites product line within the Industrial Materials segment, had limited growth and profitability prospects as part of the Company, and was outside the areas Chase has identified for strategic emphasis. The resulting pre-tax gain on sale of $1,480,000 was recognized in the third quarter of fiscal 2018 as a gain on sale of businesses within the consolidated statement of operations. Chase received $2,075,000, net of transaction costs, in the third quarter of fiscal 2018, with the remaining $157,000 received in the fourth quarter of

Table of Contents

fiscal 2018 as a result of a working capital true-up. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services. The purchaser also entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on future sales of certain structural composite material manufactured by the purchaser.

On December 29, 2017, Chase entered an agreement to acquire Stewart Superabsorbents, LLC ("SSA, LLC"), an advanced superabsorbent polymer (SAP) formulator and solutions provider, with operations located in Hickory and McLeansville, NC. The transaction closed on December 31, 2017. In the most recently completed fiscal year, SSA, LLC, and its recently-acquired Zappa-Tec business (collectively "Zappa Stewart") had combined revenue in excess of $24,000,000. This acquisition proved to be immediately accretive to the Company's earnings in the period of acquisition, after adjusting for nonrecurring costs associated with the transaction and financing cost. The business was acquired for a purchase price of $73,469,000 after final working capital adjustments and excluding acquisition-related costs. As part of this transaction, Chase acquired all assets of the business, and entered multiyear leases at both locations. The Company expensed $393,000 of acquisition-related costs during the second quarter of fiscal 2018. The purchase was funded from a combination of Chase's existing revolving credit facility and available cash on hand. Zappa Stewart's protective materials technology complements Chase's current specialty chemicals offerings. This acquisition is aligned with the Company's core strategies and extends its reach into growing medical, environmental and consumer applications. The Company is currently in the process of finalizing purchase accounting, with regard to a final allocation of the purchase price to tangible and identifiable intangible assets assumed and anticipates completion within the first quarter of fiscal 2019. Following the effective date of the acquisition the financial results of Zappa Stewart's operations have been included in the Company's financial statements in the specialty chemical intermediates product line, contained within the Industrial Materials operating segment.

On April 3, 2017, Chase executed an agreement with an unrelated party to sell all inventory, machinery and equipment and intangible assets of the Company's fiber optic cable components product line for proceeds of $3,858,000 net of transaction costs and following certain working capital adjustments. The resulting pre-tax gain on sale of $2,013,000 was recognized in the third quarter of fiscal 2017 as gain on sale of businesses within the consolidated statement of operations. Further, the purchaser entered a multiyear lease for a portion of the manufacturing space at the Company's Granite Falls, NC facility. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services. The Company's fiber optic cable components product line was formerly a part of the Company's Industrial Materials operating segment.

On September 30, 2016, 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 $30,270,000 after final working capital adjustments and excluding acquisition-related costs. As part of this transaction, Chase acquired all working capital and fixed assets of the business, and entered multiyear leases at both locations. The Company expensed $584,000 of acquisition-related costs during the first quarter of fiscal 2017 associated with this acquisition. 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 acquisition broadens the Company's adhesives and sealants product offering and manufacturing capabilities, and expands its market reach. Since the effective date of the acquisition, the financial results of Resin Designs' operations have been included in the Company's financial statements within the electronic and industrial 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® coating 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 Industrial Materials operating segment in the electronic and industrial coatings product line. Effective December 2016, Spray Products (India) Private Limited was renamed HumiSeal India Private Limited.

Table of Contents

In November 2015, the Company sold its RodPack® wind energy business, contained within its structural composites product line, to an otherwise unrelated party for proceeds of $2,186,000. The Company's structural composites product line is a part of the Company's Industrial Materials operating segment.

Products and Markets

Our principal products are specialty tapes, laminates, adhesives, sealants, coatings and chemical intermediates which 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 and local area network (LAN) cables;

(iii) moisture protective coatings, which are sold to the electronics industry for circuitry manufacturing, including circuitry used in automobiles, industrial controls 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) advanced adhesives, sealants, and coatings for automotive and industrial applications that require specialized bonding, encapsulating, environmental protection, or thermal management functionality;

(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) superabsorbent polymers, which are utilized for water and liquid management, remediation and protection in diverse markets including wire and cable, medical, environmental, infrastructure, energy and consumer products.

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) waterproofing membranes for highway bridge deck metal-supported surfaces, and high-performance polymeric asphalt additives, 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). Other than the acquisition of Zappa Stewart, we did not introduce any new products requiring an investment of a material amount of our assets during fiscal year 2018.

Employees

As of September 30, 2018, we employed approximately 769 people (including union employees). We consider our employee relations to be good. In the U.S., 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 U.S., we offer benefits that may vary from those offered to our U.S. employees due to customary local practices and statutory requirements.

Backlog, Customers and Competition

As of October 31, 2018, the backlog of customer orders believed to be firm was approximately $21,825,000. This compared with a backlog of $19,719,000 as of October 31, 2017. The increase in backlog from the prior year amount is primarily due to current period inclusion of the fiscal 2018 acquired Zappa Stewart business. During fiscal 2018, 2017 and 2016, 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 preventive 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 a 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 telecommunications and water and gas utilities industries; Dualite®, a trademark for polymeric microspheres utilized for density and weight reduction and sound dampening by various industries; 4EvaSeal®, a trademark for adhesive-backed tape utilized in various industries; Resin Designs®, a trademark for adhesives and sealants sold into the microelectronics and semiconductor industries; SlickTape®, a trademark for a lubricated shielding tape sold to the wire and cable industry; and HighDraw®, a trademark for a highly extensible shielding tape sold to the wire and cable

Table of Contents

industry. 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.

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 additional borrowings and financing agreements with our bank lenders.

Research and Development

Approximately $3,940,000, $3,696,000 and $2,792,000 was expensed for Company-sponsored research and development during fiscal 2018, 2017 and 2016, respectively, and recorded within selling, general and administrative expenses. Research and development increased by $244,000 in fiscal 2018 due to continued focused development work on strategic product lines, including eight months of operations related to the established research and development department of Zappa Stewart, acquired in second quarter of fiscal 2018, and twelve months of operations related to the established research and development department of Resin Designs, acquired in the first quarter of fiscal 2017.

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 and at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operations of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

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.

Table of Contents

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.

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 or foreign and domestic trade policy 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 and changes and application/enforcement practices of federal, state, local and international tax law) 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 and climate change, 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

Table of Contents

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 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 U.S. 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, domestic and international tariffs and trade policies 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.

Table of Contents

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 in order to reduce overhead costs. Despite our planning, we may be unable to effectively leverage assets, personnel, and business processes in the transition of production among manufacturing facilities. Uncertainty is inherent within the facility redesign and consolidation process, and unforeseen circumstances could offset the anticipated benefits of these streamlining projects, 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 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.

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.

Table of Contents

Item 2 – Properties

The principal properties of the Company as of August 31, 2018 are situated at the following locations and have the following characteristics:

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
Blawnox, PA	44,000	Owned	Manufacture and sale of protective coatings and tape products
Evanston, IL	100,000	Owned	Manufacture and sale of protective coatings and tape products
Granite Falls, NC	108,000	Owned	Manufacture and sale of pulling and detection tapes, as well as research and development services
Greenville, SC	34,600	Leased	Manufacture and sale of polymeric microspheres, as well as research and development
Hickory, NC	180,000	Leased	Manufacture and sale of superabsorbent polymer products, as well as research and development
Houston, TX	45,000	Owned	Manufacture of coating and lining systems for use in liquid storage and containment applications
Lenoir, NC	110,000	Owned	Manufacture and sale of laminated film foils and cover tapes
McLeansville, NC	41,000	Leased	Sales/technical service office and warehouse for superabsorbent polymer products
Mississauga, Canada	2,500	Leased	Distribution center
Newark, CA	32,500	Leased	Manufacture and sale of sealant systems
O'Hara Township, PA	109,000	Owned	Manufacture and sale of protective electronic coatings, expansion joints and accessories
Oxford, MA	73,600	Owned	Manufacture of tape and related products for the electronic and telecommunications industries, as well as laminated durable papers
Paris, France	1,900	Leased	Sales/technical service office and warehouse allowing direct sales and service to the French market
Pawtucket, RI	70,400	Owned	Manufacture and sale of laminated film foils for the electronics and cable industries (through August 2018, when operations were relocated to Oxford, MA and Lenoir, NC facilities), and offices for sales and administrative services
Pune, India	4,650	Owned	Packaging and sale of protective electronic coatings
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

Rotterdam, Netherlands	2,500	Leased	Distribution center
Rye, East Sussex, England	36,600	Owned	Manufacture and sale of protective coatings and tape products
Suzhou, China	48,000	Leased	Manufacture of packaging tape products for the electronics industries
Winnersh, Wokingham, England	18,800	Leased	Manufacture and sale of protective electronic coatings, as well as research and development
Woburn, MA	34,000	Leased	Manufacture and sale of adhesive systems, as well as research and development

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

The Company is involved from time to time in litigation incidental to the conduct of its business. Although the Company does not expect that the outcome in any of these matters, individually or collectively, will have a material adverse effect on its 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 the Company's operating results or cash flows in a particular period. The Company routinely assesses all its litigation and threatened litigation as to the probability of ultimately incurring a liability and records its 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, 2018. 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	46	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	70	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	63	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.
Christian J. Talma	45	Chief Accounting Officer of the Company since August 2018. Previously, Vice President Operations Finance and Strategy for Haemonetics Corp. from 2016 to 2018. Prior to that, Mr. Talma was employed at Siemens A.G., since 2002, most recently as Head of North America Service Sales Finance.

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 American under the symbol CCF. As of October 31, 2018, there were 303 shareholders of record of our Common Stock and we believe there were approximately 4,775 beneficial shareholders who held shares in nominee name. On that date, the closing price of our common stock was $107.84 per share as reported by the NYSE American.

The following table sets forth the high and low daily sales prices for our common stock as reported by the NYSE American (formerly the NYSE MKT) for each quarter in the fiscal years ended August 31, 2018 and 2017:

	Fiscal 2018		Fiscal 2017	
	High	Low	High	Low
First Quarter	$ 129.55	$ 91.95	$ 82.10	$ 61.75
Second Quarter	126.75	95.01	93.75	76.55
Third Quarter	122.90	101.65	108.35	90.40
Fourth Quarter	131.70	115.70	116.15	83.35

Single annual cash dividend payments were declared and scheduled to be paid subsequent to year end in the amounts of $0.80, $0.80, and $0.70 per common share, for the years ended August 31, 2018, 2017 and 2016, respectively. Our revolving credit facility contains 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 a composite peer index that is weighted by market equity capitalization (the “Peer Group Index”). The companies included in the Peer Group Index are Henkel AG & Co KGaA, H.B. Fuller Company, Intertape Polymer Group, Rogers Corporation and RPM International, Inc. Cumulative total returns are calculated assuming that $100 was invested on August 31, 2013 in each of the Common Stock, the S&P 500 Index and the Peer Group Index, and that all dividends were reinvested.

	2013	2014	2015	2016	2017	2018
Chase Corp	$ 100	$ 121	$ 137	$ 227	$ 333	$ 445
S&P 500 Index	$ 100	$ 125	$ 126	$ 142	$ 165	$ 197
Peer Group Index	$ 100	$ 114	$ 112	$ 143	$ 148	$ 152

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,				
	2018	2017	2016	2015	2014
	(In thousands, except per share amounts)				
Statement of Operations Data					
Revenue	$ 284,188	$ 252,560	$ 238,094	$ 238,046	$ 224,006
Net income	$ 43,143	$ 42,014	$ 32,807	$ 26,413	$ 26,523
Add: net (gain) loss attributable to noncontrolling interest	—	—	—	(95)	108
Net income attributable to Chase Corporation	$ 43,143	$ 42,014	$ 32,807	$ 26,318	$ 26,631
Net income available to common shareholders, per common and common equivalent share:					
Basic:					
Net income per common and common equivalent share	$ 4.60	$ 4.49	$ 3.55	$ 2.87	$ 2.92
Diluted:					
Net income per common and common equivalent share	$ 4.56	$ 4.44	$ 3.50	$ 2.82	$ 2.86
Balance Sheet Data					
Total assets	$ 316,469	$ 254,738	$ 262,819	$ 255,642	$ 245,545
Long-term debt, including current portion	25,000	—	43,400	51,800	58,800
Total stockholders' equity	246,756	210,929	174,089	154,342	137,490
Cash dividends paid per common and common equivalent share	$ 0.80	$ 0.70	$ 0.65	$ 0.60	$ 0.45

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,					
	2018		2017		2016	
	(Dollars in thousands)					
Revenue	$ 284,188		$ 252,560		$ 238,094	
Net income	$ 43,143		$ 42,014		$ 32,807	
Increase in revenue from prior year						
Amount	$ 31,628		$ 14,466		$ 48	
Percentage	13	%	6	%	*	%
Increase in net income from prior year						
Amount	$ 1,129		$ 9,207		$ 6,394	
Percentage	3	%	28	%	24	%
Percentage of revenue:						
Revenue	100	%	100	%	100	%
Cost of products and services sold	62		58		61	
Selling, general and administrative expenses	18		19		19	
Other (income) expense, net	(*)		(1)		(*)	
Income before income taxes	20	%	24	%	21	%
Income taxes	5		7		7	
Net income	15	%	17	%	14	%

* denotes less than one percent

Overview

While revenue growth, both organic and inorganic, has helped to define fiscal 2018, so too have rising raw material costs and a less favorable sales mix as compared to the prior year. Sales price increases have gone into effect for many impacted product lines, with additional future increases possible, as we address increasing inflationary pressures from higher commodity prices, supply and demand imbalances and tariffs across the business. The Company has remained committed to its core strategies: growing through both acquisition and market and product development efforts, and making major steps forward in its facility consolidation and rationalization initiative and in its divesting of non-core businesses.

In December 2017, we completed the acquisition of Zappa Stewart, an advanced superabsorbent polymer (SAP) formulator and solutions provider. This acquisition proved to be immediately accretive to the Company's earnings in the period of acquisition, after adjusting for nonrecurring costs associated with the transaction and financing cost. In April 2018, the Company divested its structural composites rod business, which operated outside the areas Chase has identified for strategic emphasis. In June 2018, we announced the closure of our cable materials-focused Pawtucket, RI facility, effective August 31, 2018, with operations housed there moving to our Oxford, MA and Lenoir, NC plants.

Revenue from the Industrial Materials segment increased over the prior year on greater demand for our pulling and detection, electronic and industrial coatings, specialty products, structural composites, specialty chemical intermediates, and electronic materials product lines. The segment's organic increases in these legacy product lines were complemented by the December 2017 acquisition of Zappa Stewart, which is now included within the specialty chemical intermediates product line. Fiscal 2018 also benefited from an additional month of sales from the operations of Resin Designs,

Table of Contents

obtained in the first quarter of the prior year. The segment's overall revenue increase was negatively impacted by decreased sales of our cable materials products and the divestiture of our fiber optic cable components product line in the third quarter of the prior year.

Our Construction Materials segment obtained revenue growth over the prior year, primarily on increased demand for both our U.K.- and U.S.-produced pipeline coatings products, as well as our bridge and highway products. The overall increase in sales experienced by the segment was partially offset by decreased sales of our coating and lining systems and building envelope products.

Through mergers, acquisitions and divestitures, our marketing and product development efforts and our ability to rationalize and consolidate our operations to lower fixed costs, the Company remains focused on its core strategies for sustainable growth. At August 31, 2018, the Company's cash on hand was $34,828,000 and there was a $25,000,000 balance outstanding under the Company's $150,000,000 revolving debt facility.

The Company has two reportable operating segments summarized below:

Segment	Product Lines	Manufacturing Focus and Products
Industrial Materials	Cable Materials Electronic and Industrial Coatings Specialty Products Pulling and Detection Electronic Materials Structural Composites (1) Fiber Optic Cable Components (2) Specialty Chemical Intermediates	Protective coatings and tape products, including insulating and conducting materials for wire and cable manufacturers; moisture protective coatings and customized sealant and adhesive systems for electronics; laminated durable papers, packaging and industrial laminate products and custom manufacturing services; 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; polyurethane dispersions, polymeric microspheres and superabsorbent polymers.
Construction Materials	Coating and Lining Systems Pipeline Coatings	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;

Building Envelope Bridge and Highway	high-performance polymeric asphalt additives and expansion and control joint systems for use in the transportation and architectural markets.

(1) Product line was substantially divested with the sale of the structural composites rod business on April 20, 2018. Custom manufacturing performed for the purchaser of the structural composites rod business subsequent to the sale is included within the specialty products product line.

(2) Results of product line included for period prior to its April 3, 2017 sale by the Company.

Table of Contents

Results of Operations

Revenue and Income Before Income Taxes by Segment are as follows:

	Revenue	Income Before Income Taxes		% of Revenue
	(Dollars in thousands)			
Fiscal 2018				
Industrial Materials	$ 232,288	$ 66,076	(a)	28 %
Construction Materials	51,900	18,178		35 %
	$ 284,188	84,254		30 %
Less corporate and common costs		(27,289)	(b)	
Income before income taxes		$ 56,965		
Fiscal 2017				
Industrial Materials	$ 202,956	$ 67,561	(c)	33 %
Construction Materials	49,604	18,205		37 %
	$ 252,560	85,766		34 %
Less corporate and common costs		(24,874)	(d)	
Income before income taxes		$ 60,892		
Fiscal 2016				
Industrial Materials	$ 181,728	$ 53,530	(e)	29 %
Construction Materials	56,366	19,967		35 %
	$ 238,094	73,497		31 %
Less corporate and common costs		(23,387)	(f)	
Income before income taxes		$ 50,110		

(a) Includes $1,070 of expense related to inventory step-up in fair value attributable to the December 2017 acquisition of Zappa Stewart, $1,085 gain on sale of license related to the structural composites product line recorded in the second quarter of fiscal 2018, $1,480 gain on sale of business related to the April 2018 sale of the structural composites rod business and $1,272 of expense related to the exit of our Pawtucket, RI location in the fourth quarter of fiscal 2018

(b) Includes $393 in acquisition-related expense attributable to the December 2017 acquisition of Zappa Stewart

(c) Includes a $2,013 gain on sale of our fiber optic cable components business and $190 of expense related to inventory step-up in fair value attributable to the September 2016 acquisition of certain assets of Resin Designs

(d) Includes $584 in acquisition-related expense attributable to the September 2016 acquisition of certain assets of Resin Designs, facility exit and demolition costs of $70 related to the Company’s Randolph, MA location, a $792 gain related to the November 2016 sale of the Company’s Paterson, NJ location, a $68 gain related to the December 2016 sale of the Company’s former corporate headquarters in Bridgewater, MA and $14 of pension-related settlement costs due to the timing of lump-sum distributions

(e)

Includes 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

(f) 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

Table of Contents

Total Revenue

Total revenue in fiscal 2018 increased $31,628,000 or 13% to $284,188,000 from $252,560,000 in the prior year.

Revenue in our Industrial Materials segment increased $29,332,000 or 14% to $232,288,000 for the year ended August 31, 2018 compared to $202,956,000 in fiscal 2017. The increase in revenue from our Industrial Materials segment in fiscal 2018 was primarily due to: (a) increases in revenue from our specialty chemical intermediates product line totaling $17,383,000, which included sales of $16,324,000 related to the first eight months of operations from the acquired Zappa Stewart business; (b) sales increases of $6,510,000, predominantly on volume, from our pulling and detection products, with large scale infrastructure build and repair work from the utility and telecommunication industries fueling growth; (c) sales increases of $5,374,000 for our electronic and industrial coatings product line reflecting mainly sales volume increases, with some positive growth related to price, from the automotive, industrial controls and appliance manufacturing industries, along with increased sales from the Resin Designs business acquired in early fiscal 2017, and with an increased royalty received from our licensed manufacturer in Asia; (d) sales volume increases of $3,902,000 for our specialty products, which, subsequent to the sale of our fiber optic cable components business in April 2017 and our structural composites rod business in April 2018, includes revenue from the manufacturing services provided by the Company to the common purchaser of the divested businesses (totaled $2,186,000 for fiscal 2018); (e) sales volume increases of $1,998,000 from our structural composite products, on sales into the wind energy market (following the Company’s divestiture of the structural composites rod business in April 2018, product sales revenue for wind energy products is anticipated to be significantly lower, since post-third-quarter-2018 the Company began recognizing wind-energy-related revenue, including royalty revenue and revenue for transitional custom manufacturing services performed for the buyer, in our specialty products product line); and (f) an entirely volume-driven sales increase of $472,000 in our electronic materials product line. These increases were negatively impacted by: (a) decreased sales of $4,340,000 from our fiber optic cable components product line, which the Company sold in April 2017 (no revenue was recorded within the fiber optic cable components product line following its divestiture early in the third quarter of 2017, including all of fiscal 2018); and (b) a net decrease in revenue from our cable materials products of $1,967,000, with decreases in sales volume more than offsetting pricing increases obtained.

Revenue from our Construction Materials segment increased $2,296,000 or 5% to $51,900,000 for the year ended August 31, 2018 compared to $49,604,000 for fiscal 2017. The increased revenue for our Construction Materials segment in fiscal 2018 was primarily due to an increase in sales volume and prices totaling $2,853,000 in our pipeline coatings products, with both our U.K.-produced water and wastewater pipeline products and U.S.-produced oil and gas pipeline products achieving increases over the prior year. Our bridge and highway products achieved a year-over-year increase in sales totaling $145,000, on both volume and price, with large bridge infrastructure work in the eastern U.S. continuing in fiscal 2018. Partially countering the overall increase in revenue for the segment were: (a) a $629,000 decrease in our building envelope product sales, driven predominantly by a decrease in sales volume; and (b) coating and lining systems products, which had a net revenue decrease of $73,000 on decreased sales volume offsetting increased sales prices.

Royalties and commissions in the Industrial Materials segment were $5,226,000, $4,683,000 and $3,664,000 for the years ended August 31, 2018, 2017 and 2016, respectively. The increase in royalties and commissions in fiscal 2018 over both fiscal 2017 and 2016 was primarily due to increased sales of electronic and industrial coatings products by our licensed manufacturer in Asia. Chase also began earning two additional royalty streams in 2018 both related to the licensing of our structural composites rod technology; future growth of these additional royalty streams is dependent on the future performance of the third parties we entered into the arrangements with.

Export sales from domestic operations to unaffiliated third parties were $42,883,000, $36,719,000 and $28,826,000 for the years ended August 31, 2018, 2017 and 2016, respectively. The increase in export sales in fiscal 2018 against both fiscal 2017 and 2016 resulted from increased export sales into China and Europe.

In fiscal 2017, total revenue increased $14,466,000 or 6% to $252,560,000 from $238,094,000 in fiscal 2016. Revenue in our Industrial Materials segment increased $21,228,000 or 12% to $202,956,000 for the year ended August 31, 2017 compared to $181,728,000 in fiscal 2016. The increase in revenue from our Industrial Materials segment in fiscal 2017 was primarily due to: (a) our electronic and industrial coatings product line having total increases in revenue of

Table of Contents

$20,108,000, which included sales of $14,868,000 related to the acquired Resin Designs operations and reflected increased sales volume from the automotive and appliance manufacturing industries, along with an increased royalty received from our licensed manufacturer in Asia; (b) sales volume increases of $2,674,000 for our specialty products, which, subsequent to the sale of our fiber optic cable components business on April 3, 2017, includes revenue from the manufacturing services provided by the Company to the purchaser of the fiber optic cable components product line (totaling $740,000 for fiscal 2017); (c) sales volume increases of $2,072,000 from our structural composite products, on sales into the wind energy market; (d) sales volume increases of $1,056,000 from our pulling and detection products, as we continued to meet the utility and telecommunication industries' high demand for our products; (e) a sales volume increase of $450,000 for our electronic materials; (f) sales growth of $321,000 for our cable materials products on strong demand from manufacturers of communication and server cables in the third and fourth quarters of fiscal 2017; and (g) our specialty chemical intermediates product line, which had $24,000 in increased sales volume. These increases were partially offset by decreased sales of $5,477,000 from our fiber optic cable components product line, which the Company sold in April 20l7. No revenue was recorded within the fiber optic cable components product line following its divestiture early in the third quarter. Revenue from our Construction Materials segment decreased $6,762,000 or 12% to $49,604,000 for the year ended August 31, 2017 compared to $56,366,000 for fiscal 2016. The decreased sales from our Construction Materials segment in fiscal 2017 was primarily due to a net decrease in sales volume of $7,409,000 in pipeline coatings products. Delayed project work and general weakness in the region continued to affect Middle East water infrastructure project demand for pipeline coatings products produced at our Rye, U.K. facility. Conversely, sales for our domestically-produced pipeline products, which sell predominantly into the North American oil and gas markets, increased compared to fiscal 2016. Our building envelope products saw a year-over-year sales volume decrease of $382,000. Partially offsetting the overall decrease in sales for the segment, were: (a) a $974,000 increase in our bridge and highway products sales volume, resulting from increased bridge work in the New York metro region; and (b) coating and lining systems products, whose sales volume increased by $55,000 over fiscal 2016.

Cost of Products and Services Sold

Cost of products and services sold increased $29,100,000 or 20% to $175,136,000 for the fiscal year ended August 31, 2018 compared to $146,036,000 in fiscal 2017. As a percentage of revenue, cost of products and services sold increased to 62% in fiscal 2018 compared to 58% for fiscal 2017.

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	2018	2017	2016
Industrial Materials	63 %	59 %	61 %
Construction Materials	57 %	54 %	59 %
Total	62 %	58 %	61 %

Cost of products and services sold in our Industrial Materials segment was $145,742,000 for the fiscal year ended August 31, 2018 compared to $119,109,000 in fiscal 2017. As a percentage of revenue, cost of products and services sold in this segment increased to 63% for fiscal 2018 compared to 59% in fiscal 2017. Cost of products and services sold in our Construction Materials segment was $29,394,000 for the fiscal year ended August 31, 2018 compared to $26,927,000 in fiscal 2017. As a percentage of revenue, cost of products and services sold in this segment increased to 57% in fiscal 2018 compared to 54% for fiscal 2017. As a percentage of revenue, cost of products and services sold in both segments increased primarily due to: (a) the effects of international and domestic trade policy on raw material costs, which most acutely rose in the latter half of fiscal 2018; (b) the rising costs of petroleum-based inputs; (c) an unfavorable product mix, most prominently in our Construction Materials segment, as our lower margin products constituted a comparatively higher portion of total sales in the current year; and (d) in the case of our Industrial Materials segment the inclusion of $1,070,000 in cost of sale of inventory step-up, related to inventory purchased as part of our second quarter acquisition of Zappa Stewart. We purchase a wide variety of commodity items, including petroleum-based solvents, films, yarns, polymers and nonwovens, along with base metals (aluminum and copper), as well as many other substrates. To facilitate control of our margins, we closely monitor the pricing of our commodities-based raw materials across all product lines, as their price volatility can have short- and long-term effects on both our customers' demand for our products and the margins at which we are able to sell them.

Table of Contents

In fiscal 2017, cost of products and services sold in our Industrial Materials segment was $119,109,000 for the fiscal year ended August 31, 2017 compared to $111,424,000 in fiscal 2016. As a percentage of revenue, cost of products and services sold in this segment decreased to 59% for fiscal 2017 compared to 61% in fiscal 2016. Cost of products and services sold in our Construction Materials segment was $26,927,000 for the fiscal year ended August 31, 2017 compared to $33,014,000 in fiscal 2016. As a percentage of revenue, cost of products and services sold in this segment decreased to 54% in fiscal 2017 compared to 59% for fiscal 2016. As a percentage of revenue, cost of products and services sold in both segments decreased primarily due to product mix, as our lower margin products constituted a comparatively lower portion of total sales in fiscal 2017 compared to fiscal 2016.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased $4,561,000 or 10% to $52,297,000 during fiscal 2018 compared to $47,736,000 in fiscal 2017. As a percentage of revenue, however, selling, general and administrative expenses decreased to 18% of total revenue in fiscal 2018 compared to 19% for fiscal 2017. The year-over-year increase in expenses is primarily attributable to: (a) increased amortization expense of $2,680,000, primarily related to intangible assets acquired in our December 31, 2017 acquisition of Zappa Stewart, and a full twelve months of amortization related to our September 30, 2016 acquisition of certain assets of Resin Designs; (b) increased selling and commission expense of $773,000, principally related to sales growth on our highest commissionable products in the current year, coupled with the addition of the established sales force of Zappa Stewart and a full twelve months of the established sales force of Resin Designs; and (c) increased research and development expense of $244,000, principally related to the current year addition of the established research and development department of Zappa Stewart and a full twelve months of operation of the established research and development department of Resin Designs. The Company continues to closely monitor spend with an emphasis on controlling costs and leveraging existing resources.

During fiscal 2017, selling, general and administrative expenses increased $3,162,000 or 7% to $47,736,000 compared to $44,574,000 in fiscal 2016. As a percentage of revenue, selling, general and administrative expenses were consistent at 19% of total revenue in both fiscal 2017 and fiscal 2016. The year-over-year increase in expenses was primarily attributable to: (a) increased amortization expense of $1,291,000, primarily related to intangible assets acquired in our September 30, 2016 acquisition of certain assets of Resin Designs; (b) increased research and development expense of $904,000, principally related to the addition of the established research and development department of Resin Designs; (c) increase of $879,000 in stock-based compensation expenses; and (d) the fiscal 2016 $877,000 gain on the write-down of an annuity previously owed to a related party which did not recur in fiscal 2017. Partially offsetting these increases was a $1,200,000 reduction in cash incentive compensation expense, predominantly based on the fiscal 2017 change in our Executive Chairman’s compensation plan.

Table of Contents

Exit Costs Related to Idle Facility

On June 25, 2018, the Company announced the planned closing of its Pawtucket, RI manufacturing facility effective August 31, 2018. This is in line with the Company's ongoing efforts to consolidate its manufacturing plants and streamline its existing processes. The manufacturing of products previously produced in the Pawtucket, RI facility was moved to Company facilities in Oxford, MA and Lenoir, NC during a two-month transition period. The Company expensed $1,272,000 in the fourth quarter of fiscal 2018 related to the closure, including: (a) cash-related employee-related, logistics and uncapitalized facility improvement costs of $590,000; and (b) non-cash-related accelerated depreciation expense of $682,000. Future costs related to this move are not anticipated to be significant to the Consolidated Financial Statements.

In fiscal 2017 and 2016, the Company recognized $70,000 and $935,000, respectively, in expenses to raze its Randolph, MA facility, which had been idle regarding production for several years. No expense related to this project was recognized in fiscal 2018. The Company began marketing the site for sale during the second quarter of fiscal 2016. The carrying value of the property is not material, and is included within Prepaid expense and other current assets on the Consolidated Balance Sheets at both August 31, 2018 and 2017. These actions were taken as part of the Company's on-going facility consolidation and rationalization initiative. The Company substantially completed the demolition of the structure in the fourth fiscal quarter of 2016, and completed other environmental aspects of the project during fiscal 2017. The sale of the property is anticipated to follow in a subsequent period, and any future expenses related to the project are not anticipated to be material.

Acquisition-Related Costs

In fiscal 2018, the Company incurred $393,000 of costs related to our acquisition of Zappa Stewart. This acquisition was accounted for as a business combination in accordance with applicable accounting standards, and all related professional service fees (including banking, legal, accounting and actuarial fees) were expensed as incurred within the second fiscal quarter of 2018.

In fiscal 2017, the Company incurred $584,000 of costs related to our acquisition of certain assets of Resin Designs. This acquisition was accounted for as a business combination in accordance with applicable accounting standards, and all related professional service fees (including banking, legal, accounting, and actuarial fees) were expensed as incurred during the year ended August 31, 2017.

Write-down of Certain Assets Under Construction

In fiscal 2016, the Company recorded a $365,000 charge related to the full write-down of certain structural composites tangible assets (construction in progress) located in its Granite Falls, NC facility. The fiscal 2016 sale of our RodPack wind energy business (and related intangible assets), contained within the structural composites product line, placed a limitation on the Company's ability to sell certain other goods produced for the same product line, resulting in our determination to fully write-down certain assets under construction during the year.

Interest Expense

Interest expense increased $333,000 or 40% to $1,172,000 in fiscal 2018 compared to $839,000 in fiscal 2017. Interest expense decreased $215,000 or 20% to $839,000 in fiscal 2017 compared to $1,054,000 in fiscal 2016. The increase in interest expense in fiscal 2018 is the result of the increased average outstanding balance of Chase's revolving debt facility, following the $65,000,000 draw on the facility in December 2017 to substantially fund the Company's acquisition of Zappa Stewart.

In the second, third and fourth quarters of 2018, subsequent to the December 2017 borrowing, the Company made a total of $40,000,000 in payments against the principal, bringing the balance to $25,000,000 at August 31, 2018. In September 2018, subsequent to fiscal 2018, Chase made an additional $10,000,000 principal payment.

Table of Contents

Gain on Sale of Real Estate

In November 2016, the Company finalized the sale of its Paterson, NJ property for proceeds of $1,382,000. This transaction resulted in a gain of $792,000 which was recorded during the year ended August 31, 2017.

In October 2016, Chase entered an agreement to sell its former corporate headquarters and executive offices in Bridgewater, MA. In December 2016, the sale was finalized for gross proceeds of $740,000, resulting in a gain on sale of $68,000 recognized during the year ended August 31, 2017.

Gain on Sale of License

In November 2017, the Company entered an agreement with an unrelated party to sell a license, including certain intellectual property, and sell certain construction in process assets, both related to the manufacturing of certain structural composite materials. In the second fiscal quarter of 2018, the transaction was finalized for gross consideration of $1,111,000 comprising cash proceeds of $1,000,000 and foreign tax consideration paid by the purchaser on Chase's behalf of $111,000. This transaction resulted in a gain of $1,085,000, which was recorded as a gain on sale of license during the fiscal quarter ended February 28, 2018.

In relation to this transaction, the purchaser also entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on the volume of future sales of certain structural composite material manufactured by the purchaser. Royalty revenue recognized in 2018 related to this agreement was not material.

Gain on Sale of Businesses

On April 20, 2018, Chase finalized an agreement with an unrelated party to sell all inventory, operational machinery and equipment and intangible assets of the Company's structural composites rod business, as well as a license related to the production and sale of rod, for proceeds of $2,232,000, net of transaction costs and following all working capital adjustments. This business, which was part of the structural composites product line within the Industrial Materials segment, had limited growth and profitability prospects as part of the Company, and was outside the areas Chase has identified for strategic emphasis. The resulting pre-tax gain on sale of $1,480,000 was recognized in the third quarter of fiscal 2018 as a gain on sale of businesses. Chase received $2,075,000, net of transaction costs, in the third quarter of fiscal 2018, with the remaining $157,000 received in the fourth quarter of fiscal 2018 as a result of a working capital true-up. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services.

In relation to this transaction, the purchaser entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on future sales of certain structural composite material manufactured by the purchaser. Royalty revenue recognized in 2018 related to this agreement was not material.

On April 3, 2017, Chase executed an agreement with an unrelated party to sell all inventory, machinery and equipment and intangible assets of its fiber optic cable components product line for proceeds of $3,858,000, net of

transaction costs and following all working capital adjustments. The fiber optic cable components product line had been a part of our Industrial Materials segment. Given its low-growth and low-margin prospects, and a customer, supplier and equipment base separate from our other businesses, the product line was determined to not be part of Chase's long-term strategy. The resulting pre-tax gain on sale of $2,013,000 was recognized during the year ended August 31, 2017. Further, the purchaser entered a multiyear lease for a portion of the manufacturing space at the Company's Granite Falls, NC facility. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services.

In the first quarter of fiscal 2016, the Company sold the RodPack wind energy business formerly contained within its structural composites product line, part of the Industrial Materials segment. This transaction resulted in a pre-tax book gain of $1,031,000, which was recorded in fiscal 2016.

Table of Contents

Other Income (Expense)

Other income was $482,000 in fiscal 2018 compared to other income of $724,000 in fiscal 2017, a decrease of $242,000. Other income (expense) primarily includes foreign exchange gains (losses) caused by changes in exchange rates on transactions or balances denominated in currencies other than the functional currency of our subsidiaries, interest income, rental income and other non-trade/non-royalty/non-commission receipts. The decrease in total other income (expense) in fiscal 2018 compared to fiscal 2017 was largely due to the decrease in foreign exchange gains seen year-over-year, from $307,000 in fiscal 2017 to $85,000 in fiscal 2018.

Other income was $724,000 in fiscal 2017 compared to other income of $2,351,000 in fiscal 2016, a decrease of $1,627,000. Other income (expense) in 2017 was largely net foreign exchange gains resulting from sales made from our U.K.-based operations and denominated in U.S. dollars and euros. British pound exchange volatility was lower in 2017 than that observed in 2016, ultimately resulting in lower net foreign exchange gains recognized. Also included in fiscal 2017 was a $300,000 gain on the settlement of a claim and the release of an escrow related to a prior acquisition.

Income Taxes

Our effective tax rate for fiscal 2018 was 24.3% as compared to 31.0% and 34.5% in fiscal 2017 and 2016, respectively.

The current year effective tax rate was most prominently affected by: (a) the passage of the Tax Cuts and Jobs Act (the “Tax Act”) in December 2017, including provisional and reasonable adjustments recorded in the second, third and fourth quarters of fiscal 2018 to account for the new rules and a Federal corporate tax rate of 21% enacted by the Tax Act; and (b) our early adoption of Accounting Standards Update (“ASU”) No. 2016-09 at the beginning of the prior year.

As a result of the new 21% Federal tax rate enacted by the Tax Act, Chase has adjusted its Federal statutory rate for fiscal 2018 to be a blended rate of 25.7%, based on a combination of four months of operations under the old 35% corporate income tax rate, and eight months at the new 21% rate. Provisional transitional adjustments were made in the second, third and fourth fiscal quarters of fiscal 2018 to revalue, and in certain cases reclassify, our existing net U.S deferred tax assets and uncertain tax positions resulting in a net tax expense of $681,000 for the year ended August 31, 2018. See Note 7 — “Income Taxes” to the Consolidated Financial Statements for further discussion of the effects of the Tax Act.

The Company early adopted ASU No. 2016-09, “Compensation – Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting”, during the first fiscal quarter of 2017 (the prior year). During the fiscal years ended August 31, 2018 and 2017, the Company recognized excess tax benefits from stock-based compensation of $1,921,000 and $1,917,000, respectively (with no such excess benefit recognized in the year ended August 31, 2016), within income tax expense on the Consolidated Statements of Operations. The Company anticipates the potential for increased periodic volatility in future effective tax rates based on the continued application of ASU No. 2016-09. See Note 1 – “Summary of Significant Accounting Policies” to the Consolidated Financial Statements for further discussion of the effects of ASU No. 2016-09.

Table of Contents

Net Income

Net income in fiscal 2018 increased $1,129,000 or 3% to $43,143,000 compared to $42,014,000 in fiscal 2017. The increase in net income in 2018 was primarily due to: (a) increase in gross profit on sales, positively impacted by our second quarter acquisition of Zappa Stewart, along with increased royalties and commissions revenue; (b) a gain on sale of license and a gain on sale of business, both related to the structural composites rod business; (c) the recognition of a lower Federal statutory tax rate; and (d) the excess tax benefit recognized related to our early adoption of ASU No. 2016-09. These gains were negatively impacted by increased amortization expense, as well as one-time acquisition-related and inventory step-up costs, recognized in fiscal 2018, related to our December 2017 acquisition of Zappa Stewart.

Net income in fiscal 2017 increased $9,207,000 or 28% to $42,014,000 compared to $32,807,000 in fiscal 2016. The increase in net income in 2017 was primarily due to: (a) an increased sales volume, including increases in revenue and earnings provided by the acquired operations of Resin Designs; (b) gains on the sales of our fiber optic cable components product line and our Paterson, NJ and Bridgewater, MA real estate; and (c) the recognition of excess tax benefit related to our early adoption of ASU No. 2016-09. These gains were partially offset by increased amortization expense recognized related to our September 30, 2016 acquisition of certain assets of Resin Designs.

Table of Contents

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 also useful to investors. EBITDA is useful in comparing the core operations of the business from period to period by removing the impact of the Company's capital structure (through interest expense), asset base (through depreciation and amortization) and tax rate, and in evaluating operating performance relative to others in the industry. Adjusted EBITDA allows for comparison to the Company's performance in prior periods without the effect of items that, by their nature, tend to obscure the Company's core operating results due to the potential variability across periods based on their timing, frequency and magnitude. Free Cash Flow provides a means for measuring the cash generated from operations that is available for mandatory obligations, including interest payments and debt repayment, and discretionary investment opportunities such as funding acquisitions, product and market development and paying dividends. As a result, management believes these metrics, which are commonly used by financial analysts and others in the industries in which the Company operates, enhance the ability of investors to analyze trends in the Company's business and evaluate the Company's performance relative to peer companies and the past performance of the Company itself. EBITDA, Adjusted EBITDA and Free Cash Flow are non-U.S. GAAP financial measures.

We define EBITDA as net income 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, U.S. 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 solely 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, the most directly comparable financial measure presented in accordance with U.S. GAAP, to EBITDA and Adjusted EBITDA for the periods presented (dollars in thousands):

	Years Ended August 31,		
	2018	2017	2016
Net income	$ 43,143	$ 42,014	$ 32,807
Interest expense	1,172	839	1,054
Income taxes	13,822	18,878	17,303
Depreciation expense	5,817	5,130	5,606
Amortization expense	11,807	9,127	7,836
EBITDA	$ 75,761	$ 75,988	$ 64,606
Gain on sale of businesses (a)	(1,480)	(2,013)	(1,031)
Cost of sale of inventory step-up (b)	1,070	190	—
Acquisition-related costs (c)	393	584	—
Gain on sale of license (d)	(1,085)	—	—
Exit costs related to idle facility (excluding depreciation) (e)	590	70	935
Gain on sale of real estate (f)	—	(860)	—
Pension settlement costs (g)	—	14	13
Annuity settlement (h)	—	—	(877)
Write-down of certain assets under construction (i)	—	—	365
Adjusted EBITDA	$ 75,249	$ 73,973	$ 64,011

(a) Represents gain on sale of the structural composites rod business in April 2018 (fiscal 2018), the fiber optic cable components product line in April 2017 (fiscal 2017) and the RodPack wind energy business contained within the structural composites product line in November 2015 (fiscal 2016)

(b) Represents expenses related to inventory step-up in fair value related to the December 2017 (fiscal 2018) acquisition of Zappa Stewart and the September 2016 (fiscal 2017) acquisition of certain assets of Resin Designs

(c) Represents costs related to the December 2017 (fiscal 2018) acquisition of Zappa Stewart and the September 2016 (fiscal 2017) acquisition of certain assets of Resin Designs

(d) Represents fiscal 2018 second quarter gain on sale of a license related to the structural composites product line

(e) Represents Pawtucket, RI facility closure costs in the fourth quarter of fiscal 2018, excluding accelerated depreciation expense recognized, and the Randolph, MA facility exit and demolition costs incurred in both 2017 and 2016

(f) Represents gain on November 2016 sale of the Company’s Paterson, NJ location, and December 2016 sale of the Company’s former corporate headquarters in Bridgewater, MA

(g) Represents pension-related settlement costs due to the timing of lump sum distributions

(h) Represents the gain recognized on write-down of an accrued annuity previously owed by the Company

(i) 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

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

	Years Ended August 31,		
	2018	2017	2016
Net cash provided by operating activities	$ 46,071	$ 51,932	$ 48,833
Purchases of property, plant and equipment	(3,488)	(3,199)	(2,046)
Free Cash Flow	$ 42,583	$ 48,733	$ 46,787

Table of Contents

The following table provides a summary of net cash used in investing activities and net cash provided by (used in) financing activities, presented in accordance with U.S. GAAP, for the periods presented (dollars in thousands):

	Years Ended August 31,		
	2018	2017	2016
Net cash used in investing activities	$ (73,766)	$ (25,102)	$ (612)
Net cash provided by (used in) financing activities	$ 14,423	$ (52,796)	$ (15,299)

Liquidity and Sources of Capital

Our cash balance decreased $12,526,000 to $34,828,000 at August 31, 2018 from $47,354,000 at August 31, 2017. The decreased cash balance is primarily attributable to: (a) the $73,469,000 acquisition of Zappa Stewart, partially offset by a $65,000,000 utilization of our all-revolving debt facility; (b) $40,000,000 in subsequent debt repayments; (c) cash dividend payment of $7,497,000; and (d) $3,488,000 in purchases of machinery and equipment throughout fiscal 2018. The overall decrease was positively impacted by: (a) cash from operations of $46,071,000; (b) cash proceeds from the sale of our structural composites rod business of $2,232,000; and (c) cash proceeds from the sale of a license related to our structural composites business of $1,000,000. Of the above noted amounts, $28,521,000 and $31,756,000 were held outside the U.S. by Chase Corporation and our foreign subsidiaries as of August 31, 2018 and 2017, respectively. Given our cash position and borrowing capability in the United States and the potential for increased investment and acquisitions in foreign jurisdictions, prior to the second quarter of fiscal 2018, we did not have a history of repatriating a significant portion of our foreign cash. With the passage of the Tax Cuts and Jobs Act (the “Tax Act”) in the second fiscal quarter, significant changes in the Internal Revenue Tax Code (the “IRC”) were enacted, changing the U.S. taxable nature of previously unrepatriated foreign earnings. In fiscal 2018 and subsequent to December 2017, the Company repatriated a total of $10,499,000 in U.K. foreign earnings. Consistent to prior to the passage of the Tax Act, we do not currently take the position that undistributed foreign subsidiaries’ earnings are considered to be permanently reinvested. See Note 7 — “Income Taxes” to the Consolidated Financial Statements included in this Report for further discussion of the effects of the Tax Act.

Our cash balance decreased $26,057,000 to $47,354,000 at August 31, 2017 from $73,411,000 at August 31, 2016. The decreased cash balance was primarily attributable to: (a) the repayment of $43,400,000 of debt principal, (b) the $30,270,000 in net cash paid for the September 2016 acquisition of certain assets of Resin Designs, LLC; and (c) the payment of our annual dividend totaling $6,532,000. The overall decrease was positively impacted by: (a) cash from operations of $51,932,000; (b) cash proceeds from the sale of our fiber optic cable components product line of $3,458,000; (c) cash proceeds from the sale of our Paterson, NJ and Bridgewater, MA real estate totaling $2,122,000; and (d) cash reimbursement related to the release of claims to a life insurance policy of $1,504,000.

Cash provided by operations was $46,071,000 for the year ended August 31, 2018 compared to $51,932,000 in fiscal 2017. Cash provided by operations during fiscal 2018 was primarily due to operating income and increased accounts payable, which rose on increased inventory balances. Partially offsetting the overall amount of cash provided by

operations were increased inventory (as the Company made opportunistic purchases on non-perishable materials to take advantage of current costs, which were believed to be lower than future costs), increased accounts receivable (following a stronger fourth quarter sales in fiscal 2018) and decreases in accrued income taxes (as cash payments for taxes exceeded the amount of income tax expense recognized during the period).

Cash provided by operations was $51,932,000 for the year ended August 31, 2017 compared to $48,833,000 in fiscal 2016. Cash provided by operations during fiscal 2017 was primarily due to operating income and increased accounts payable. Increased accounts payable resulted from the timing of payments. Partially offsetting the overall amount of cash provided by operations were increased accounts receivable (based on increased fourth quarter sales) and decreased accrued compensation and other expenses (based on certain payouts from the Company's non-qualified deferred savings plan in fiscal 2017 totaling $1,131,000).

The ratio of current assets to current liabilities was 4.4 as of August 31, 2018 compared to 4.2 as of August 31, 2017. The increase in our current ratio in fiscal 2018 was primarily attributable to increased inventory and accounts receivable; this was partially offset by the decrease in cash and cash equivalents during fiscal 2018.

Table of Contents

Cash used in investing activities was $73,766,000 for the year ended August 31, 2018 compared to $25,102,000 in fiscal 2017. During fiscal 2018, cash used in investing activities was primarily due to the acquisition of Zappa Stewart in December 2017 and our purchases of machinery and equipment throughout fiscal 2018. Partially offsetting these uses of cash were; (a) cash proceeds from the sale of our structural composites rod business; and (b) cash proceeds from the sale of a license related to our structural composites business of $1,000,000.

During fiscal 2017, cash used in investing activities was $25,102,000 compared to $612,000 in fiscal 2016. During fiscal 2017, cash used in investing activities was primarily due to our acquisition of certain assets of Resin Designs, LLC in September 2016, in addition to cash paid for purchases of machinery and equipment at our manufacturing locations. These uses were partially offset by cash received from the sale of our fiber optic cable components business and both our Paterson, NJ location and our former corporate headquarters in Bridgewater, MA, as well as in relation to a life insurance policy.

Cash provided by (used in) financing activities was $14,423,000 provided by financing activities for the year ended August 31, 2018 compared to $52,796,000 used in financing activities in fiscal 2017 and $15,299,000 used in financing activities in fiscal 2016. During fiscal 2018, Chase borrowed $65,000,000 on its revolving debt facility to substantially fund its purchase of Zappa Stewart, and subsequently made $40,000,000 in payments against the loan principal. Chase also paid an annual dividend of $7,497,000 in 2018. During fiscal 2017 and 2016 cash used in financing activities was primarily due to our annual dividend payment, payments made on the term debt used to finance our fiscal 2012 acquisition of NEPTCO and, after December 15, 2016, payments made on the Company’s revolving credit facility, described in more detail below.

On November 13, 2018, we announced a cash dividend of $0.80 per share (totaling approximately $7,520,000) to shareholders of record on November 23, 2018 and payable on December 5, 2018.

On October 30, 2017, we announced a cash dividend of $0.80 per share (resulting in payment of $7,497,000) to shareholders of record on November 9, 2017 and payable on December 6, 2017.

On November 1, 2016, we announced a cash dividend of $0.70 per share (resulting in payment of $6,532,000) to shareholders of record on November 11, 2016 and payable on December 7, 2016.

On December 15, 2016, we entered an Amended and Restated Credit Agreement (the “Credit Agreement”) with Bank of America, acting as administrative agent, and with participation from Citizens Bank and JPMorgan Chase Bank (collectively with Bank of America, the “Lenders”). The Credit Agreement is initially an all-revolving credit facility with a borrowing capacity of $150,000,000, which can be increased by an additional $50,000,000 at the request of the Company and the individual or collective option of any of the Lenders. The Credit Agreement contains customary affirmative and negative covenants that, among other things, restrict our ability to incur additional indebtedness and require certain lender approval for acquisitions by us and our subsidiaries over a certain size. It also requires us to maintain certain financial ratios on a consolidated basis, including a consolidated net leverage ratio (as defined in the facility) of no more than 3.25 to 1.00, and a consolidated fixed charge coverage ratio (as defined in the facility) of at least 1.25 to 1.00. We were in compliance with our debt covenants as of August 31, 2018. The applicable interest rate

for the Credit Agreement is based on the effective LIBOR plus an additional amount in the range of 1.00% to 1.75%, depending on our consolidated net leverage ratio or, at our option, at the bank's base lending rate. At August 31, 2018, the applicable interest rate was 3.25% per annum and the outstanding principal amount was $25,000,000. The Credit Agreement was used to refinance our previously existing credit facility, which consisted of a $70,000,000 five-year term loan entered into in June 2012 in connection with our acquisition of NEPTCO, together with a $15,000,000 revolving line of credit, each bearing interest at LIBOR plus an additional amount in the range of 1.75% to 2.25%, depending on our leverage ratio. The Credit Agreement also provides for additional liquidity to finance potential acquisitions, working capital, capital expenditures, and other general corporate purposes.

We have several on-going capital projects, as well as our facility rationalization and consolidation 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.

Table of Contents

During fiscal 2018, the Company announced the planned closing of its Pawtucket, RI manufacturing facility effective August 31, 2018. This is in line with the Company's ongoing efforts to consolidate its manufacturing plants and streamline its existing processes. The manufacturing of products previously produced in the Pawtucket, RI facility has been moved to Company facilities in Oxford, MA and Lenoir, NC. This was done as part of our continued facility rationalization and consolidation plan.

We may acquire companies or other assets in future periods which are complementary to our business. We believe that our existing resources, including cash on hand and the Credit Agreement, 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. However, there can be no assurance that additional financing, if needed, will be available on favorable terms, 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.

We have no material off-balance sheet arrangements.

Contractual Obligations

The following table summarizes our contractual cash obligations at August 31, 2018 and the effect such obligations are expected to have on our liquidity and cash flow in future periods (dollars in thousands):

Contractual Obligations	Total	Payments Due Less than 1 Year	Payments Due 1 - 3 Years	Payments Due 3 - 5 Years	Payments After 5 Years
Long-term debt including estimated interest	$ 27,857	$ 825	$ 1,732	$ 25,300	$ —
Operating leases	11,777	2,144	3,919	2,412	3,302
Purchase obligations	18,835	18,835	—	—	—
Total (1) (2)	$ 58,469	$ 21,804	$ 5,651	$ 27,712	$ 3,302

(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 $1,889,000 as of August 31, 2018 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, 2018, we had recognized an accrued benefit plan liability of $12,306,000 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

For discussion of the newly issued accounting pronouncements see “Recently Issued Accounting Standards” and “Recently Adopted Accounting Standards” in Note 1 — “Summary of Significant Accounting Policies” to the Consolidated Financial Statements included in this Report.

Table of Contents

Critical Accounting Policies, Judgments, and Estimates

The U.S. 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.

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.

Table of Contents

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 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. In fiscal 2017, we early adopted Accounting Standards Update ("ASU") No. 2017-04 "Intangibles - Goodwill and Other Topics (Topic 350): Simplifying the Test for Goodwill Impairment." We assess goodwill for impairment by comparing the fair value of the reporting unit to its carrying amount. If the fair value of a reporting unit is less than its carrying value, an impairment loss, limited to the amount of goodwill allocated to that reporting unit, is recorded. Fair values for reporting units are determined based on the income approach (discounted cash flow method).

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, and revenue is typically recognized in the period that the consigned inventory is consumed. 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.

For discussion of ASU No. 2014-09, "Revenue from Contracts with Customers," which will replace most of the existing revenue recognition guidance under U.S. GAAP and the Company's planned adoption of the ASU in fiscal 2019 see "Recently Issued Accounting Standards" in Note 1 — "Summary of Significant Accounting Policies" to the Consolidated Financial Statements included in this Report.

Uncertain Tax Positions

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.

Table of Contents

Stock-Based Compensation

We measure compensation cost for share-based compensation at fair value 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. Historically, in determining the amount of expense to be recorded, we were required to estimate forfeiture rates for awards, based on the probability that employees will complete the required service period. We estimated the forfeiture rate based on historical experience. In fiscal 2017, we early adopted ASU No. 2016-09, "Compensation – Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting." Following the adoption of the new standard, the Company has elected to account for forfeitures as they occur.

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 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.

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, 2018, 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 U.S. dollars. However, our European and Asian 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 U.S. dollars. The effect of an immediate hypothetical 10% change in the exchange rate between the British pound and the U.S. dollar would not have a material effect on the Company's overall liquidity. As of August 31, 2018, the Company had cash balances in the following foreign currencies (with USD equivalents):

Currency Code	Currency Name	USD Equivalent at August 31, 2018
GBP	British Pound	$ 17,407,000
EUR	Euro	$ 4,440,000
INR	Indian Rupee	$ 402,000
CNY	Chinese Yuan	$ 373,000
CAD	Canadian Dollar	$ 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 gain for the year ended August 31, 2018 in the amount of $743,000 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 U.S. 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 $25,000,000 at August 31, 2018. See "Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Sources of Capital, " Note 6 — "Long-Term Debt" 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.
Report of Independent Registered Public Accounting Firm	38
Consolidated Balance Sheets as of August 31, 2018 and 2017	40
Consolidated Statements of Operations for each of the three fiscal years in the period ended August 31, 2018	41
Consolidated Statements of Comprehensive Income for each of the three fiscal years in the period ended August 31, 2018	42
Consolidated Statements of Equity for each of the three fiscal years in the period ended August 31, 2018	43
Consolidated Statements of Cash Flows for each of the three fiscal years in the period ended August 31, 2018	44
Notes to Consolidated Financial Statements	45

Table of Contents

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Chase Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Chase Corporation and its subsidiaries (the "Company") as of August 31, 2018 and 2017, and the related consolidated statements of operations, of comprehensive income, of equity and of cash flows for each of the three years in the period ended August 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of August 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of August 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended August 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of August 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO because a material weakness in internal control over financial reporting existed as of that date related to the review of cash flow forecasts used in the valuation of customer relationship intangible assets acquired in a business combination.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the 2018 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for stock-based compensation in 2017.

Basis for Opinions

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

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

Table of Contents

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

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Zappa Stewart from its assessment of internal control over financial reporting as of August 31, 2018 because it was acquired by the Company in a purchase business combination during 2018. We have also excluded Zappa Stewart from our audit of internal control over financial reporting. Zappa Stewart is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 5% and 6%, respectively, of the related consolidated financial statement amounts as of and for the year ended August 31, 2018.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (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

Boston, Massachusetts

November 27, 2018

We have served as the Company’s auditor since 2003.

Table of Contents

CHASE CORPORATION

CONSOLIDATED BALANCE SHEETS

In thousands, except share and per share amounts

	August 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	$ 34,828	$ 47,354
Accounts receivable, less allowance for doubtful accounts of $559 and $456	44,610	38,051
Inventory	39,699	25,618
Prepaid expenses and other current assets	2,595	3,112
Due from sale of businesses	400	—
Prepaid income taxes	4,100	—
Total current assets	126,232	114,135
Property, plant and equipment, less accumulated depreciation of $49,212 and $44,277	32,845	34,760
Other Assets		
Goodwill	84,696	50,784
Intangible assets, less accumulated amortization of $54,039 and $42,206	65,330	46,846
Cash surrender value of life insurance	4,530	4,530
Restricted investments	1,090	964
Funded pension plan	301	566
Deferred income taxes	1,347	1,614
Other assets	98	539
Total assets	$ 316,469	$ 254,738
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	$ 17,810	$ 14,455
Accrued payroll and other compensation	6,639	6,500
Accrued expenses	4,486	4,052
Accrued income taxes	—	2,333
Total current liabilities	28,935	27,340
Long-term debt	25,000	—
Deferred compensation	1,105	979
Accumulated pension obligation	10,736	12,666
Other liabilities	283	1,567
Accrued income taxes	3,654	1,257
Commitments and Contingencies (Notes 6, 8, 21)		
Equity		

First Serial Preferred Stock, $1.00 par value: Authorized 100,000 shares; none issued	—	—
Common stock, $.10 par value: Authorized 20,000,000 shares; 9,396,947 shares at August 31, 2018 and 9,354,136 shares at August 31, 2017 issued and outstanding	939	935
Additional paid-in capital	13,104	14,060
Accumulated other comprehensive loss	(12,336)	(13,469)
Retained earnings	245,049	209,403
Total equity	246,756	210,929
Total liabilities and equity	$ 316,469	$ 254,738

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,		
	2018	2017	2016
Revenue			
Sales	$ 278,962	$ 247,877	$ 234,450
Royalties and commissions	5,226	4,683	3,644
	284,188	252,560	238,094
Costs and Expenses			
Cost of products and services sold	175,136	146,036	144,438
Selling, general and administrative expenses	52,297	47,736	44,574
Exit costs related to idle facility (Note 20)	1,272	70	935
Acquisition-related costs (Note 14)	393	584	—
Write-down of certain assets under construction (Note 18)	—	—	365
Operating income	55,090	58,134	47,782
Interest expense	(1,172)	(839)	(1,054)
Gain on sale of real estate (Note 19)	—	860	—
Gain on sale of license (Note 15)	1,085	—	—
Gain on sale of businesses (Note 18)	1,480	2,013	1,031
Other income (expense)	482	724	2,351
Income before income taxes	56,965	60,892	50,110
Income taxes (Note 7)	13,822	18,878	17,303
Net income	$ 43,143	$ 42,014	$ 32,807
Net income available to common shareholders, per common and common equivalent share (Note 17)			
Basic	$ 4.60	$ 4.49	$ 3.55
Diluted	$ 4.56	$ 4.44	$ 3.50
Weighted average shares outstanding			
Basic	9,296,648	9,249,343	9,167,333
Diluted	9,366,071	9,357,414	9,294,077
Annual cash dividends declared per share	$ 0.80	$ 0.70	$ 0.65

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,		
	2018	2017	2016
Net income	$ 43,143	$ 42,014	$ 32,807
Other comprehensive income (loss):			
Net unrealized gain on restricted investments, net of tax of $2, $30 and $4	5	67	7
Change in funded status of pension plans, net of tax $130, $519 and ($738)	385	1,155	(1,402)
Foreign currency translation adjustment	743	788	(6,098)
Total other comprehensive income (loss)	1,133	2,010	(7,493)
Comprehensive income	$ 44,276	$ 44,024	$ 25,314

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 Shares	Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
Balance at August 31, 2015	9,191,958	$ 919	$ 14,296	$ (7,986)	$ 147,113	$ 154,342
Restricted stock grants, net of forfeitures	29,884	3	(3)			—
Amortization of restricted stock grants			1,049			1,049
Amortization of stock option grants			283			283
Exercise of stock options	140,113	14	2,125			2,139
Common stock received for payment of stock option exercises	(35,932)	(3)	(2,012)			(2,015)
Excess tax benefit from stock-based compensation			1,784			1,784
Common stock retained to pay statutory minimum withholding taxes on common stock	(47,537)	(5)	(2,803)			(2,808)
Cash dividend paid, $0.65 per share					(5,999)	(5,999)
Change in funded status of pension plans, net of tax ($738)				(1,402)		(1,402)
Foreign currency translation adjustment				(6,098)		(6,098)
Net unrealized gain on restricted investments, net of tax $4				7		7
Net income					32,807	32,807
Balance at August 31, 2016	9,278,486	$ 928	$ 14,719	$ (15,479)	$ 173,921	$ 174,089
Restricted stock grants, net of forfeitures	44,567	4	(4)			—
Amortization of restricted stock grants			1,712			1,712
Amortization of stock option grants			500			500

Exercise of stock options	80,168	8	1,245			1,253
Common stock received for payment of stock option exercises	(15,079)	(2)	(1,156)			(1,158)
Common stock retained to pay statutory minimum withholding taxes on common stock	(34,006)	(3)	(2,956)			(2,959)
Cash dividend paid, $0.70 per share					(6,532)	(6,532)
Change in funded status of pension plans, net of tax $519				1,155		1,155
Foreign currency translation adjustment				788		788
Net unrealized gain on restricted investments, net of tax $30				67		67
Net income					42,014	42,014
Balance at August 31, 2017	9,354,136	$ 935	$ 14,060	$ (13,469)	$ 209,403	$ 210,929
Restricted stock grants, net of forfeitures	16,701	2	(2)			—
Amortization of restricted stock grants			1,669			1,669
Amortization of stock option grants			459			459
Exercise of stock options	64,012	6	1,214			1,220
Common stock received for payment of stock option exercises	(9,693)	(1)	(1,027)			(1,028)
Common stock retained to pay statutory minimum withholding taxes on common stock	(28,209)	(3)	(3,269)			(3,272)
Cash dividend paid, $0.80 per share					(7,497)	(7,497)
Change in funded status of pension plans, net of tax $130				385		385
Foreign currency translation adjustment				743		743
Net unrealized gain on restricted investments, net of tax $2				5		5
Net income					43,143	43,143
Balance at August 31, 2018	9,396,947	$ 939	$ 13,104	$ (12,336)	$ 245,049	$ 246,756

See accompanying notes to the Consolidated Financial Statements.

43

Table of Contents

CHASE CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

In thousands

	Years Ended August 31,		
	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$ 43,143	$ 42,014	$ 32,807
Adjustments to reconcile net income to net cash provided by operating activities			
Gain on sale of real estate	—	(860)	—
Gain on sale of license	(1,085)	—	—
Loss on write-down of certain assets under construction	—	—	365
Gain on sale of businesses	(1,480)	(2,013)	(1,031)
Depreciation	5,817	5,130	5,606
Amortization	11,807	9,127	7,836
Cost of sale of inventory step-up	1,070	190	—
Provision (recovery) of allowance for doubtful accounts	101	(359)	169
Stock-based compensation	2,128	2,212	1,333
Realized gain on restricted investments	(97)	(127)	(67)
Decrease in cash surrender value of life insurance	—	—	103
Pension curtailment and settlement loss	—	14	13
Excess tax expense from stock-based compensation	—	—	(1,784)
Deferred taxes	(2,473)	(2,263)	(2,590)
Increase (decrease) from changes in assets and liabilities			
Accounts receivable	(2,968)	(1,003)	3,312
Inventory	(8,845)	116	3,124
Prepaid expenses and other assets	569	(878)	(475)
Accounts payable	2,847	1,420	(2,821)
Accrued compensation and other expenses	(501)	(825)	1,490
Accrued income taxes	(3,962)	37	1,443
Net cash provided by operating activities	46,071	51,932	48,833
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property, plant and equipment	(3,488)	(3,199)	(2,046)
Cost to acquire intangible assets	(18)	(71)	(64)
Payments for acquisitions	(73,469)	(30,270)	(1,161)
Proceeds from sale of real estate	—	2,122	—
Proceeds from sale of license	1,000	—	—
Proceeds from sale of businesses	2,232	3,915	1,729
Changes in restricted investments	(23)	897	(149)
Proceeds from settlement of life insurance policies	—	1,504	1,238
Payments for cash surrender value life insurance	—	—	(159)
Net cash used in investing activities	(73,766)	(25,102)	(612)
CASH FLOWS FROM FINANCING ACTIVITIES			

Borrowings on debt	65,000	—	—
Payments of principal on debt	(40,000)	(43,400)	(8,400)
Dividend paid	(7,497)	(6,532)	(5,999)
Proceeds from exercise of common stock options	192	95	124
Payments of taxes on stock options and restricted stock	(3,272)	(2,959)	(2,808)
Excess tax benefit from stock-based compensation	—	—	1,784
Net cash provided by (used in) financing activities	14,423	(52,796)	(15,299)
INCREASE (DECREASE) IN CASH & CASH EQUIVALENTS	(13,272)	(25,966)	32,922
Effect of foreign exchange rates on cash	746	(91)	(3,330)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	47,354	73,411	43,819
CASH AND CASH EQUIVALENTS, END OF PERIOD	$ 34,828	$ 47,354	$ 73,411

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

Our principal products are specialty tapes, laminates, adhesives, 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 and local area network (LAN) cables;

(iii) moisture protective coatings, which are sold to the electronics industry for circuitry manufacturing, including circuitry used in automobiles, industrial controls 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) advanced adhesives, sealants, and coatings for automotive and industrial applications that require specialized bonding, encapsulating, environmental protection, or thermal management functionality;

(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) superabsorbent polymers, which are utilized for water and liquid management, remediation and protection in diverse markets including wire and cable, medical, environmental, infrastructure, energy and consumer products.

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) waterproofing membranes for highway bridge deck metal supported surfaces, which are sold to municipal transportation authorities, and high-performance polymeric asphalt additives;

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

(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.

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 U.S. 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.

On June 25, 2018, the Company announced to its employees the planned closing of its Pawtucket, RI manufacturing facility effective August 31, 2018. This is in line with the Company's ongoing efforts to consolidate its manufacturing plants and streamline its existing processes. The manufacturing of products previously produced in the Pawtucket, RI facility was moved to Company facilities in Oxford, MA and Lenoir, NC during a two-month transition period. Company expensed $1,272 in the fourth quarter of fiscal 2018 related to the closure, including: (a) cash-related employee-related, logistics and uncapitalized facility improvement costs of $590; and (b) non-cash-related accelerated depreciation expense of $682. Future costs related to this move are not anticipated to be significant to the consolidated financial statements.

On April 20, 2018, Chase finalized an agreement with an unrelated party to sell all inventory, operational machinery and equipment and intangible assets of the Company's structural composites rod business, as well as a license related to the production and sale of rod, for proceeds of $2,232, net of transaction costs and following certain working capital adjustments. This business, which was part of the structural composites product line within the Industrial Materials segment, had limited growth and profitability prospects as part of the Company, and was outside the areas Chase has identified for strategic emphasis. The resulting pre-tax gain on sale of $1,480 was recognized in the third quarter of fiscal 2018 as a gain on sale of businesses within the consolidated statement of operations. Chase received $2,075, net of transaction costs, in the third quarter of fiscal 2018, with the remaining $157 received in the fourth quarter of fiscal 2018 as a result of a working capital true-up. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services. The purchaser also entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on future sales of certain structural composite material manufactured by the

purchaser.

On December 29, 2017, Chase entered an agreement to acquire Stewart Superabsorbents, LLC (“SSA, LLC”), an advanced superabsorbent polymer (SAP) formulator and solutions provider, with operations located in Hickory and McLeansville, NC. The transaction closed on December 31, 2017. In the most recently completed fiscal year, SSA, LLC, and its recently-acquired Zappa-Tec business (collectively “Zappa Stewart”) had combined revenue in excess of $24,000. This acquisition proved to be immediately accretive to its earnings, after adjusting for nonrecurring costs associated with the transaction and financing cost. The business was acquired for a purchase price of $73,469, after final working capital adjustments and excluding acquisition-related costs. As part of this transaction, Chase acquired all assets of the business, and entered multiyear leases at both locations. The Company expensed $393 of acquisition-related costs associated with this acquisition during the second quarter of fiscal 2018. The purchase was funded from a combination of Chase’s existing revolving credit facility and available cash on hand. Zappa Stewart’s protective materials technology complements Chase’s current specialty chemicals offerings. This acquisition is aligned with the Company’s core strategies and extends its reach into growing medical, environmental and consumer applications. The Company is currently in the process of finalizing purchase accounting, with regard to a final allocation of the purchase price to tangible and identifiable intangible assets assumed, and anticipates completion within the first quarter of fiscal

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

2019. Following the effective date of the acquisition the financial results of Zappa Stewart's operations have been included in the Company's financial statements in the specialty chemical intermediates product line, contained within the Industrial Materials operating segment.

On April 3, 2017, Chase executed an agreement with an unrelated party to sell all inventory, machinery and equipment and intangible assets of the Company's fiber optic cable components product line for proceeds of $3,858 net of transaction costs and following certain working capital adjustments. The resulting pre-tax gain on sale of $2,013 was recognized in the third quarter of fiscal 2017 as gain on sale of businesses within the consolidated statement of operations. Further, the purchaser entered a multiyear lease for a portion of the manufacturing space at the Company's Granite Falls, NC facility. Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services. The Company's fiber optic cable components product line was formerly a part of the Company's Industrial Materials operating segment.

On September 30, 2016, 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 $30,270 after final working capital adjustments and excluding acquisition-related costs. As part of this transaction, Chase acquired all working capital and fixed assets of the business, and entered multiyear leases at both locations. The Company expensed $584 of acquisition-related costs during the first quarter of fiscal 2017 associated with this acquisition. 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 acquisition broadens the Company's adhesives and sealants product offering and manufacturing capabilities, and expands its market reach. Since the effective date of the acquisition, the financial results of Resin Designs' operations have been included in the Company's financial statements within the electronic and industrial coatings product line, contained within the Industrial Materials operating segment. Purchase accounting was completed in the fourth quarter of fiscal 2017 with no material adjustments made to the initial amounts recorded.

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 for 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 and industrial coatings product line. Purchase accounting was completed in the quarter ended August 31, 2016. Effective December 2016, Spray Products (India) Private Limited was renamed HumiSeal India Private Limited.

In November 2015, the Company sold its RodPack® wind energy business, contained within its structural composites product line, to an otherwise unrelated party for proceeds of $2,186. The Company's structural composites product line is a part of the Company's Industrial Materials operating segment.

The Company has evaluated events and transactions subsequent to the balance sheet date. Based on this evaluation, and other than: (a) the cash dividend announced on November 13, 2018 of $0.80 per share to shareholders of record on November 23, 2018 payable on December 5, 2018; (b) the September 2018 payment of $10,000 against the outstanding balance of our revolving debt facility; and (c) the October 2018 collection of the $400 escrow related to the April 2017 sale of the fiber optics cable components business, 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.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) 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 a total of twelve reporting units within its two operating segments. The reporting units are evaluated for possible impairment of goodwill annually each fourth quarter and whenever events or circumstances indicate the carrying value of goodwill may not be recoverable. In fiscal 2017, the Company early adopted ASU No. 2017-04 “Intangibles - Goodwill and Other Topics (Topic 350): Simplifying the Test for Goodwill Impairment.” We assess goodwill for impairment by comparing the fair value of the reporting unit to its carrying amount. If the fair value of a reporting unit is less than its carrying value, an impairment loss, limited to the amount of goodwill allocated to that reporting unit, is recorded. Fair values for reporting units are determined based on 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

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 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 $1,090 and $964 at August 31, 2018 and 2017, 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.

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, 2018 and 2017, the Company did not recognize a liability related to these postretirement obligations as no future premium payments were anticipated.

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. 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. Royalty revenue is recognized based on licensee production statements received

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

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.

For discussion of Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which will replace most of the existing revenue recognition guidance under U.S. GAAP and the Company's planned adoption of the ASU in fiscal 2019 see "Recently Issued Accounting Standards" below.

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 $3,940, $3,696 and $2,792 for the years ended August 31, 2018, 2017 and 2016, 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.

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.

Stock based compensation expense recognized in fiscal years 2018, 2017 and 2016 was $2,128, $2,212 and $1,333, respectively.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

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, 2018, 2017 and 2016:

	2018	2017	2016
Expected dividend yield	0.9 %	1.5 %	1.7 %
Expected life	6.0 years	6.0 years	6.0 years
Expected volatility	34.7 %	38.7 %	41.2 %
Risk-free interest rate	1.9 %	1.3 %	1.7 %

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 HumiSeal 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 U.S. 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 gains of $85, $307 and $2,152 for the fiscal years ended August 31, 2018, 2017 and 2016, 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.

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, including information on the effects of the Tax Cuts and Jobs Act of 2017 (the “Tax Act”) on our financial position and results of operations, including adjustments that were recorded during fiscal 2018 related to the Tax Act.

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.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

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.

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 reportable 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. Industrial Materials products include insulating and conducting materials for wire and cable manufacturers, moisture protective coatings and customized sealant and adhesive systems for electronics, laminated durable papers, laminates for the packaging and industrial laminate markets, custom manufacturing services, 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 and elements, polymeric microspheres, polyurethane dispersions and superabsorbent polymers. Beginning June 23, 2016, September 30, 2016 and December 31, 2017, the Industrial Materials segment includes the acquired operations of HumiSeal India Private Limited, Resin Designs, LLC and Zappa Stewart, respectively. Each were obtained through acquisition. The operations of both HumiSeal India Private Limited and Resin Designs, LLC are included in the Company’s electronic and industrial coatings product line and the operations of Zappa Stewart are included in the Company’s specialty chemicals intermediates product line. Prior to the April 3, 2017 sale of the business, the segment’s products also included glass-based strength elements, designed to allow fiber optic cables to withstand mechanical and environmental strain and stress. Following the April 20, 2018 sale of the structural composites rod business, future product sales of composite materials and elements are not anticipated to be significant to the consolidated financial statements.

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 waterproofing 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 U.S. 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.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Given the scope of work required to implement the recognition and disclosure requirements under the ASU, we began our assessment process during fiscal 2017. Chase continues to evaluate the impact of ASU No. 2014-09 on our consolidated financial statements and anticipates the new disclosure requirements and changes to process and controls will be significant. We expect revenue recognition for most of our products, which are shipments to OEMs based on individual purchase orders received, to remain largely unchanged. From a timing of revenue recognition standpoint (point in time versus over time), it is anticipated that certain products will be more affected than other products sold, since these certain products contain assets that a customer controls. Chase has considered customized products sold to customers having no alternative use and enforceable right to payment relating to those sales, and expects minimal impact on these types of orders. Guided by our scoping and risk assessment, we continue to conduct an ongoing comprehensive contract review in applying the guidance in Topic 606 focusing on the major steps in the five-step model outlined in the ASU. Chase will continue assessing system impacts, enhancing internal controls and financial reporting policies to address this standard's requirements and risks, and finalizing our understanding of the financial impact of this standard on our consolidated financial statements, including the cumulative effect adjustment to be recorded upon implementation of this standard.

The Company will utilize the modified retrospective method of adoption, coinciding with the start of fiscal 2019. At the adoption date, Chase anticipates the cumulative impact of revenue that would have been recognized over time will not be material to the consolidated financial statements, nor is the effect on retained earnings anticipated to be material to the consolidated financial statements. We will finalize the evaluation, quantify the impact and incorporate the disclosure requirements of ASU No. 2014-09 in our reporting process in the first fiscal quarter of 2019, for inclusion in our Quarterly Report on Form 10-Q for the period ending November 30, 2018.

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 represents the lessee's right to use, or control the use of, a specified asset for the lease term. The ASU will be effective for the Company beginning September 1, 2019 (fiscal 2020). Early application is permitted. 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 Company is currently evaluating the impact of the application of this ASU on our consolidated financial statements and disclosures thereto.

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230)." This ASU provides 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 will be our fiscal year beginning September

1, 2018 (fiscal 2019), with early adoption permitted. The Company is currently evaluating the effect that ASU No. 2016-15 will have on its financial statements and related disclosures.

In January 2017, the FASB issued ASU No. 2017-01, “Business Combinations (Topic 805): Clarifying the Definition of a Business.” The new guidance dictates that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, it should be treated as an acquisition or disposal of an asset. The guidance will be effective for the fiscal year beginning on September 1, 2018 (fiscal 2019), including interim periods within that year, with early adoption permitted. The impact of the application of this ASU on our consolidated financial statements and disclosures thereto will be dependent on the nature of acquisitions the Company may enter in fiscal 2019, and beyond.

In March 2017, the FASB issued ASU No. 2017-07, “Compensation — Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.” This ASU applies to all employers that offer to their employees defined benefit pension plans, other postretirement benefit plans, or

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

other types of benefits accounted for under Topic 715, Compensation — Retirement Benefits. The ASU requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. If a separate line item or items are used to present the other components of net benefit cost, that line item or items must be appropriately described. If a separate line item or items are not used, the line item or items used in the income statement to present the other components of net benefit cost must be disclosed. The ASU also allows only the service cost component to be eligible for capitalization when applicable (e.g., as a cost of internally manufactured inventory or a self-constructed asset). The required effective date for adoption of this guidance for the Company will be our fiscal year beginning September 1, 2018 (fiscal 2019), including interim periods within that annual period. The Company currently estimates that upon adoption in fiscal 2019, operating income will increase by $654 and $1,065 for the years ended August 31, 2018 and 2017, respectively, with offsetting expenses recorded to Other income (expense). The adoption of ASU 2017-07 is not anticipated to have any effect on the historically stated consolidated balance sheets or consolidated statement of cash flows.

In May 2017, the FASB issued ASU No. 2017-09, "Scope of Modification Accounting." This ASU provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. ASU 2017-09 is effective for fiscal years beginning after December 15, 2017 (our fiscal year 2019), including interim periods within that reporting period. The impact of this ASU will be dependent on the nature and occurrence of such changes to the terms or conditions of a share-based payment award during the future effective period.

In February 2018, the FASB issued ASU No. 2018-02, “Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.” Under previously existing U.S. GAAP, the effects of changes in tax rates and laws on deferred tax balances are recorded as a component of income tax expense in the period in which the law was enacted. When deferred tax balances related to items originally recorded in accumulated other comprehensive income are adjusted, certain tax effects become stranded in accumulated other comprehensive income. The amendments in ASU 2018-02 allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act of 2017 (the “Tax Act”). The amendments in this ASU also require certain disclosures about stranded tax effects. The guidance is required for fiscal years beginning after December 15, 2018 (our fiscal year 2020), and interim periods within those fiscal years. Early adoption in any period is permitted. The Company is currently evaluating the effect that ASU No. 2018-02 will have on its financial statements and related disclosures. See Note 7 for additional information on the effects of the Tax Act on our financial position and result of operations, including adjustments that were recorded during fiscal 2018 related to the Tax Act.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Recently Adopted Accounting Standards

In March 2016, the FASB issued ASU No. 2016-09, “Compensation – Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting.” This ASU simplifies the accounting for stock-based payment transactions including the accounting for income taxes, forfeitures, statutory tax withholding requirements and classification in the statement of cash flows. The required effective date for adoption of this guidance was our fiscal year beginning September 1, 2017 (fiscal 2018), with early adoption allowed. The updated standard no longer requires cash flows related to excess tax benefits to be presented as a financing activity separate from other income tax cash flows. The update also allows entities to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting, clarifies that all cash payments to taxing authorities made on an employee's behalf for withheld shares should be presented as a financing activity on the statement of cash flows, and provides for an accounting policy election to account for forfeitures as they occur. The Company early adopted this standard as of September 1, 2016 and during the years ended August 31, 2018 and 2017 recognized an excess tax benefit from stock-based compensation of $1,921 and $1,917, respectively, within income tax expense on the consolidated statement of operations (adopted prospectively). The adoption did not impact the existing classification of the awards. Excess tax benefits from stock-based compensation are now classified in net income in the statement of cash flows instead of being separately stated in financing activities for fiscal 2017 and 2018 (adopted prospectively). Given the Company’s historical practice of including employee withholding taxes paid within financing activities in the statement of cash flows, no prior period reclassifications are required by the clarifications on classification provided by ASU No. 2016-09. The Company anticipates the potential for increased periodic volatility in future effective tax rates based on the continued application of ASU No. 2016-09. Following the adoption of the new standard, the Company has elected to account for forfeitures as they occur.

The Company did not adopt any new accounting standards in fiscal 2018.

Note 2—Inventories

Inventories consist of the following as of August 31, 2018 and 2017:

	2018	2017

Raw materials	$ 21,998	$ 11,636
Work in process	7,653	6,877
Finished goods	10,048	7,105
Total Inventory	$ 39,699	$ 25,618

Note 3—Property, Plant and Equipment

Property, plant and equipment consist of the following as of August 31, 2018 and 2017:

	2018	2017
Land and improvements	$ 6,499	$ 6,478
Buildings	19,484	19,447
Machinery and equipment	52,259	49,211
Leasehold improvements	1,612	1,049
Construction in progress	2,203	2,852
	82,057	79,037
Accumulated depreciation	(49,212)	(44,277)
Property, plant and equipment, net	$ 32,845	$ 34,760

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

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, 2016	$ 32,880	$ 10,696	$ 43,576
Acquisition of Resin Designs, LLC	7,592	—	7,592
Sale of the fiber optic cable components business	(409)	—	(409)
Foreign currency translation adjustment	28	(3)	25
Balance at August 31, 2017	$ 40,091	$ 10,693	$ 50,784
Acquisition of Zappa Stewart	34,138	—	34,138
Sale of structural composites rod business	(230)	—	(230)
Foreign currency translation adjustment	3	1	4
Balance at August 31, 2018	$ 74,002	$ 10,694	$ 84,696

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 twelve reporting units in total within its two reportable operating segments that are used to evaluate the possible impairment of goodwill. Goodwill 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 2018, the Company’s review indicated no impairment of goodwill, or at-risk reporting units.

As of August 31, 2018, the Company had a total goodwill balance of $84,696 related to its acquisitions, of which $35,055 remains deductible for income taxes.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Intangible assets subject to amortization consist of the following as of August 31, 2018 and 2017:

	Weighted Average Amortization Period		Gross Carrying Value	Accumulated Amortization	Net Carrying Value
August 31, 2018					
Patents and agreements	14.4	years	$ 1,863	$ 1,681	$ 182
Formulas and technology	7.8	years	10,225	6,690	3,535
Trade names	5.8	years	8,554	6,866	1,688
Customer lists and relationships	9.1	years	98,727	38,802	59,925
			$ 119,369	$ 54,039	$ 65,330
August 31, 2017					
Patents and agreements	14.4	years	$ 1,845	$ 1,671	$ 174
Formulas and technology	7.8	years	9,318	5,387	3,931
Trade names	6.0	years	7,709	5,813	1,896
Customer lists and relationships	9.6	years	70,180	29,335	40,845
			$ 89,052	$ 42,206	$ 46,846

Aggregate amortization expense related to intangible assets for the years ended August 31, 2018, 2017 and 2016 was $11,807, $9,127 and $7,836, respectively. As of August 31, 2018 estimated amortization expense for the next five fiscal years is as follows:

Years ending August 31,	
2019	12,451
2020	11,583
2021	11,054
2022	10,032
2023	6,768

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 recognized cash surrender value of life insurance policies, net of loans of $5 at August 31, 2018 and 2017, secured by the policies, with the following carriers as of August 31, 2018 and 2017:

	2018	2017
John Hancock	$ 4,450	$ 4,450
Other life insurance carriers	80	80
Cash surrender value of life insurance policies	$ 4,530	$ 4,530

All policies are subject to periodic review. The Company currently intends to maintain the existing policies through the lives or retirements of the insureds. See Note 22 for related party information on the cash surrender value of certain life insurance policies held by the Company during the first quarter of fiscal 2017.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 6—Long-Term Debt

Long term debt consists of the following at August 31, 2018 and 2017:

	2018	2017
All-revolving credit facility with a borrowing capacity of $150,000	$ 25,000	$ —
Long-term debt	$ 25,000	$ —

On December 15, 2016, the Company entered an Amended and Restated Credit Agreement (the “Credit Agreement”) with Bank of America, acting as administrative agent, and with participation from Citizens Bank and JPMorgan Chase Bank (collectively with Bank of America, the “Lenders”). The Credit Agreement is initially an all-revolving credit facility with a borrowing capacity of $150,000, which can be increased by an additional $50,000 at the request of the Company and the individual or collective option of any of the Lenders. The Credit Agreement contains customary affirmative and negative covenants that, among other things, restrict our ability to incur additional indebtedness and require certain lender approval for acquisitions by the Company and its subsidiaries over a certain size. It also requires us to maintain certain financial ratios on a consolidated basis, including a consolidated net leverage ratio (as defined in the facility) of no more than 3.25 to 1.00, and a consolidated fixed charge coverage ratio (as defined in the facility) of at least 1.25 to 1.00. We were in compliance with our debt covenants as of August 31, 2018. The Credit Agreement is guaranteed by all of Chase’s direct and indirect domestic subsidiaries, including NEPTCO, which collectively had a carrying value of $203,622 at August 31, 2018. The Credit Agreement was entered both to refinance our previously existing term loan and revolving line of credit, and to provide for additional liquidity to finance potential acquisitions, working capital, capital expenditures, and for other general corporate purposes.

The applicable interest rate for the revolver portion of the Credit Agreement (the “Revolving Facility”) and any Term Loan (defined below) is based on the effective London Interbank Offered Rate (LIBOR) plus an additional amount in the range of 1.00% to 1.75%, depending on the consolidated net leverage ratio of Chase and its subsidiaries. At August 31, 2018, the applicable interest rate was 3.25% per annum and the outstanding principal amount was $25,000. The Credit Agreement has a five-year term with interest payments due at the end of the applicable LIBOR period (but in no event less frequently than the three-month anniversary of the commencement of such LIBOR period) and principal payment due at the expiration of the agreement, December 15, 2021 (as such no portion of the debt is classified as short-term as of August 31, 2018 or 2017). In addition, the Company may elect a base rate option for all or a portion of the Revolving Facility, in which case, interest payments shall be due with respect to such portion of the Revolving Facility on the last business day of each quarter.

Subject to certain conditions set forth in the Credit Agreement, the Company may elect to convert all or a portion of the outstanding Revolving Facility into a term loan (each, a "Term Loan"), which shall be payable quarterly in equal installments sufficient to amortize the original principal amount of such Term Loan on a seven year amortization schedule; provided, however, that the final principal repayment installment shall be repaid on December 15, 2021 and in any event shall be in an amount equal to the aggregate principal amount of all Term Loans outstanding on such date. Prepayment is allowed by the Credit Agreement at any time during the term of the agreement, subject to customary notice requirements.

In connection with entry into the Credit Agreement, Chase applied proceeds to refinance in full the outstanding principal balance of its preexisting term debt, simultaneously terminating both our previously existing term loan agreement and the previously existing revolving line of credit, which was fully available as of December 15, 2016.

In December 2017, the Company utilized $65,000 of the Credit Agreement to finance the majority of the acquisition cost of Zappa Stewart. See Note 14 for additional information on this acquisition. Subsequent to December 2017 and during fiscal 2018, the Company paid down $40,000 of the outstanding balance, resulting in a principal debt

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

balance of $25,000 at August 31, 2018. In September 2018, subsequent to fiscal 2018, the Company made an additional principal payment of $10,000.

Note 7—Income Taxes

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The Tax Act impacted the U.S. statutory Federal tax rate that the Company will use going forward, reducing it from 35% to 21%. As the Company has an August 31 fiscal year-end, the lower corporate income tax rate will be phased in, resulting in a U.S. statutory Federal rate of 25.7% for our fiscal year ending August 31, 2018, and 21% for subsequent fiscal years.

The Tax Act also includes items that the Company expects could increase its tax expense in future periods such as the elimination of the domestic production deduction (Section 199) and increased limitations on expensing executive compensation for tax purposes (Section 162(m)). In addition, the actual effective tax rate may be materially different than the statutory Federal tax rate (including being higher) based on the availability and impact of various other adjustments such as state taxes, Federal research and development credits, discrete tax benefits related to stock compensation, and the inclusion or exclusion of various items in taxable income which may differ from U.S. GAAP income.

To transition to the reduced U.S. corporate tax rate, an adjustment was required to be made to our net U.S. deferred tax assets. During fiscal 2018, predominately in the three months ended February 28, 2018 (the second fiscal quarter of 2018) and with further adjustments in the third and fourth quarters, the Company recorded initial provisional adjustments to the U.S. deferred tax assets and liabilities and uncertain tax position resulting in a net tax expense of $681 recorded to the consolidated statement of operations. This net discrete tax expense is the result of the following: (a) a $379 tax benefit resulting from the remeasurement and reclassification of our existing deferred tax liability related to unrepatriated foreign earnings to accrued income tax balance (discussed in more detail below); (b) a $917 tax expense for the remeasurement of the remaining net U.S. deferred tax assets in recognition of the new lower Federal rate; and (c) a $143 tax expense recorded as the result of remeasuring the Federal benefit on our uncertain tax positions.

The Tax Act includes a transition tax or “toll charge”, which is a one-time tax charge on unrepatriated foreign earnings. The calculation of accumulated foreign earnings requires an analysis of each foreign entity’s financial results going back to 1986. During fiscal 2018, the Company recorded a transition tax adjustment associated with its accumulated

unrepatriated foreign earnings reducing long-term deferred tax liabilities by $2,298 and increasing short- and long-term accrued income taxes by $153 and $1,766, respectively (the short-term payable representing eight percent of the total amount due, the amount payable within the first year as per the Tax Act). The difference between the decrease in the deferred tax liabilities for unrepatriated foreign earnings and the increase in accrued income taxes, $379, was recorded as a discrete tax benefit in fiscal 2018.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Under the guidance set forth in the SEC's Staff Accounting Bulletin No. 118 (“SAB 118”), the Company recorded provisional amounts for the impact of the Tax Act in fiscal 2018. For the second quarter of fiscal 2018, the Company made a provisional and reasonable estimate of the effects of the Tax Act on its existing deferred tax balances, including a provisional adjustment for the toll charge, and made provisional adjustments to these initially recorded amounts in the third and fourth quarters. The Company anticipates making complete and final adjustments during the quarter ending February 28, 2019 (the second quarter of fiscal 2019), which may differ from the initially recorded amounts, due to, among other things, changes in interpretations and assumptions the Company has made and subsequent guidance that may be issued. In accordance with SAB 118, adjustments to the provisional numbers recorded in the third and fourth quarter were treated as discrete adjustments to income tax expense in the period in which those adjustments become estimable and finalized.

The Company continues to examine the potential impact of certain other provisions of the Tax Act that will become applicable in fiscal year 2019, including tax on global intangible low-taxed income (“GILTI”) and Base Erosion and Anti Abuse Tax (“BEAT”) that could affect its effective tax rate in the future. The Company is still evaluating whether to make a policy election to treat the GILTI tax as a period expense or to provide U.S. deferred taxes on foreign temporary differences that are expected to generate GILTI income when they reverse in future years.

During the second quarter of fiscal 2018, the Company provisionally recorded all known and estimable impacts of the Tax Act that are effective for fiscal year 2018 and no material adjustments were made to these provisionally recorded amounts during the third and fourth fiscal quarters of 2018.

Domestic and foreign pre tax income for the years ended August 31, 2018, 2017 and 2016 was:

	Year Ended August 31,		
	2018	2017	2016
United States	$ 48,962	$ 52,723	$ 40,928
Foreign	8,003	8,169	9,182
	$ 56,965	$ 60,892	$ 50,110

The provision (benefit) for income taxes for the years ended August 31, 2018, 2017 and 2016 was:

	Year Ended August 31,		
	2018	2017	2016
Current:			
Federal	$ 12,872	$ 17,714	$ 14,777
State	1,662	1,872	1,821
Foreign	1,761	1,555	2,023
Total current income tax provision	16,295	21,141	18,621
Deferred:			
Federal	(2,214)	(1,984)	(879)
State	(263)	(453)	(324)
Foreign	4	174	(115)
Total deferred income tax benefit	(2,473)	(2,263)	(1,318)
Total income tax provision	$ 13,822	$ 18,878	$ 17,303

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 2018, 2017 and 2016, net of offsets generated by federal, state and foreign tax benefits, was 24.3%, 31.0% and 34.5%, respectively. The following is a reconciliation of the effective income tax rate with the U.S. Federal statutory income tax rate for the years ended August 31, 2018, 2017 and 2016:

	Year Ended August 31,		
	2018	2017	2016
Federal statutory rates	25.7 %	35.0 %	35.0 %
Adjustment resulting from the tax effect of:			
State and local taxes, net of federal benefit	1.9 %	1.5 %	1.9 %
Domestic production deduction	(1.6) %	(2.5) %	(2.9) %
Foreign tax rate differential	(0.3) %	(1.4) %	(2.5) %
Adjustment to uncertain tax position	1.1 %	0.0 %	0.0 %
Research credit generated	(0.2) %	(0.3) %	(0.3) %
Stock Compensation	(3.4) %	(3.1) %	0.0 %
Permanent items	0.9 %	1.6 %	0.0 %
Tax effect of undistributed earnings	(0.8) %	1.4 %	2.7 %
Other	(0.8) %	(1.2) %	0.6 %
Change in valuation allowance	0.1 %	0.0 %	0.0 %
Deferred income tax remeasurement	1.7 %	0.0 %	0.0 %
Effective income tax rate	24.3 %	31.0 %	34.5 %

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

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

	Year Ended August 31,		
	2018	2017	2016
Current income tax provision	$ 16,295	$ 21,141	$ 18,621
Deferred provision (benefit):			
Allowance for doubtful accounts	74	8	34
Inventories	390	139	(80)
Pension expense	2,358	(39)	(542)
Deferred compensation	98	250	272
Loan finance costs	—	5	5
Accruals	216	(270)	(95)
Warranty reserve	70	(89)	19
Depreciation and amortization	(3,726)	(2,714)	(2,166)
Restricted stock grant	244	(214)	(8)
Unrepatriated earnings	(2,395)	832	1,338
Valuation allowance	60	24	—
Foreign amortization	17	(2)	(21)
Other accrued expenses	121	(193)	(74)
Total deferred income tax benefit	(2,473)	(2,263)	(1,318)
Total income tax provision	$ 13,822	$ 18,878	$ 17,303

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following table summarizes the tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities:

	As of August 31,	
	2018	2017
Deferred tax assets:		
Allowance for doubtful accounts	$ 154	$ 228
Inventories	982	1,462
Accruals	584	800
Warranty reserve	50	120
Pension accrual	2,567	5,078
Deferred compensation	260	358
Deferred revenue	—	334
Foreign currency loss on previously taxed income	96	—
Loan finance costs	27	27
Restricted stock grants	547	792
Non-qualified stock options	94	26
Other	296	280
	5,657	9,505
Deferred tax liabilities:		
Prepaid liabilities	(25)	(29)
Unrepatriated earnings	—	(2,298)
Unrealized gain/loss on restricted investments	(112)	(177)
Depreciation and amortization	(4,173)	(5,362)
Other	—	(25)
	(4,310)	(7,891)
Net deferred tax assets (liabilities)	$ 1,347	$ 1,614

During fiscal 2018, the Company recorded a transition tax adjustment associated with its accumulated unrepatriated foreign earnings reducing long-term deferred tax liabilities by $2,298 and increasing short- and long-term accrued income taxes by $153 and $1,766, respectively. Consistent to prior to the passage of the Tax Act, we do not currently take the position that undistributed foreign subsidiaries' earnings are considered to be permanently reinvested.

A summary of the Company's adjustments to its uncertain tax positions in fiscal years ended August 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Balance, at beginning of the year	$ 1,257	$ 1,229	$ 1,249
Increase for tax positions related to the current year	47	65	37
Increase for tax positions related to prior years	595	16	98
Increase for interest and penalties	71	6	102
Decreases for lapses of statute of limitations	(81)	(59)	(257)
Balance, at end of year	$ 1,889	$ 1,257	$ 1,229

The unrecognized tax benefits mentioned above include an aggregate of $751 of accrued interest and penalty balances related to uncertain tax positions. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. An increase in accrued interest and penalty charges of approximately $71, net of Federal tax expense, was recorded as a tax expense during the current fiscal year. The Company does not anticipate that its accrual for uncertain tax positions will change by a material amount over the next twelve-month period, as it does not

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

expect to settle any potential disputed items with the appropriate taxing authorities nor does it expect the statute of limitations to expire for any items.

The Company is subject to U.S. Federal income tax, as well as to income tax of multiple state, local and foreign tax jurisdictions. The statute of limitations for all material U.S. Federal, state, and local tax filings remains open for fiscal years subsequent to 2014. For foreign jurisdictions, the statute of limitations remains open in the U.K. for fiscal years subsequent to 2014 and in France for fiscal years subsequent to 2017.

Note 8—Operating Leases

The Company is obligated under various operating leases, primarily for real property and equipment. Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of August 31, 2018, are as follows:

Year ending August 31,	Future Operating Lease Payments
2019	$ 2,144
2020	2,054
2021	1,865
2022	1,284
2023	1,128
2024 and thereafter	3,302
Total future minimum lease payments	$ 11,777

Total rental expense for all operating leases amounted to $3,114, $2,516 and $1,631 for the years ended August 31, 2018, 2017 and 2016, respectively.

Note 9—Benefits and Pension Plans

401(k) Plans

The Company has a defined contribution plan adopted pursuant to section 401(k) of the Internal Revenue Code of 1986 (the "Chase 401(k) Plan"). Any qualified employee who has attained age 21 and has been employed by the Company for at least six months may contribute a portion of his or her salary to the plan and the Company will match 100% of the first one percent of salary contributed and 50% thereafter, up to an amount equal to three and one-half percent of such employee's annual salary.

Through our wholly-owned subsidiary NEPTCO, the Company has two additional 401(k) savings plans, one for union employees and one for nonunion employees (the nonunion plan was merged into the Chase 401(k) Plan effective January 1, 2018). Under these plans, substantially all employees of NEPTCO are eligible to participate by making pre tax contributions to these plans. Participants may elect to defer between 1% and 10% of their annual compensation. The Company may contribute $0.75 for each $1.00 of participant deferrals up to 6% of the non union participant's compensation. The Company may match union employee contributions by $0.50 for each $1.00 of participant deferrals up to 6% of the participant's compensation.

The Company's contribution expense for all 401(k) plans was $702, $519 and $571 for the years ended August 31, 2018, 2017 and 2016, respectively.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Non-Qualified Deferred Savings Plans

The Company has a non-qualified deferred savings plan covering the Board of Directors and a separate plan covering selected employees. Participants may elect to defer a portion of their compensation for future payment. 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 liability under the plans was $1,105 and $979 at August 31, 2018 and 2017, respectively.

Pension Plans

The Company has noncontributory defined benefit pension plans covering employees of certain divisions of the Company. The Company has a funded, qualified plan ("Qualified Plan") and an unfunded supplemental plan ("Supplemental Plan") designed to maintain benefits for certain employees at the plan formula level. The plans provide for pension benefits determined by a participant's years of service and final average compensation. The Qualified Plan assets consist of separate pooled investment accounts with a trust company. The measurement date for the plans is August 31, 2018.

Effective December 1, 2008, a "soft freeze" in the Qualified Plan was adopted whereby no new employees hired will be admitted to the Qualified Plan, with the exception of employees who are members of the International Association of Machinists and Aerospace Workers Union whose contract was amended in June 2012 to include a soft freeze with an effective date of July 15, 2012. All eligible participants who were 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, the Company has a third defined benefit pension plan ("NEPTCO Pension Plan") covering our union employees at our Pawtucket facility. 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 based on years of service and the employee's average compensation during the earlier of five years before retirement, or October 31, 2006. The NEPTCO Pension Plan assets consist of separate pooled investment accounts with a trust company. The measurement date for the NEPTCO Pension Plan is August 31, 2018.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following tables reflect the status of the Company's pension plans for the years ended August 31, 2018, 2017 and 2016:

	Year Ended August 31,		
	2018	2017	2016
Change in benefit obligation			
Projected benefit obligation at beginning of year	$ 22,673	$ 23,636	$ 20,401
Service cost	283	288	295
Interest cost	629	681	728
Actuarial (gain) loss	17	(533)	2,636
Settlements	—	(313)	(376)
Benefits paid	(1,742)	(1,086)	(48)
Projected benefit obligation at end of year	$ 21,860	$ 22,673	$ 23,636
Change in plan assets			
Fair value of plan assets at beginning of year	$ 9,003	$ 8,440	$ 8,120
Actual return on plan assets	509	757	422
Employer contribution	2,085	1,205	322
Settlements	—	(313)	(376)
Benefits paid	(1,742)	(1,086)	(48)
Fair value of plan assets at end of year	$ 9,855	$ 9,003	$ 8,440
Funded status at end of year	$ (12,005)	$ (13,670)	$ (15,196)

	Year Ended August 31,		
	2018	2017	2016
Amounts recognized in consolidated balance sheets			
Noncurrent assets	$ 301	$ 566	$ 382
Current liabilities	(1,570)	(1,570)	(15)
Noncurrent liabilities	(10,736)	(12,666)	(15,563)
Net amount recognized in consolidated balance sheets	$ (12,005)	$ (13,670)	$ (15,196)
Actuarial present value of benefit obligation and funded status			
Accumulated benefit obligations	$ 20,075	$ 21,007	$ 22,023
Projected benefit obligations	$ 21,858	$ 22,673	$ 23,636
Plan assets at fair value	$ 9,855	$ 9,003	$ 8,440

Amounts recognized in accumulated other comprehensive income

Prior service cost	$ 54	$ 54	$ 57
Net actuarial loss	9,377	9,890	11,561
Adjustment to pre-tax accumulated other comprehensive income	$ 9,431	$ 9,944	$ 11,618

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

	Year Ended August 31,		
	2018	2017	2016
Other changes in plan assets and benefit obligations recognized in other comprehensive income			
Net (gain)/loss	$ (704)	$ 1,277	$ 511
Amortization of loss	(484)	(895)	(574)
Supplemental plan assumption change	676	(2,038)	2,219
Amortization of prior service cost	(3)	(3)	(3)
Effect of settlement on accumulated other comprehensive income	—	(14)	(13)
Total recognized in other comprehensive income	(515)	(1,673)	2,140
Net periodic pension cost	937	1,353	1,097
Total recognized in net periodic pension cost and other comprehensive income	$ 422	$ (320)	$ 3,237
Estimated amounts that will be amortized from accumulated comprehensive income over the next fiscal year			
Prior service cost	$ 3	$ 3	$ 3
Net actuarial loss	475	485	895

Prior service cost arose from the amendment of the plan’s benefit schedules to comply with the Tax Reform Act of 1986 and adoption of the unfunded supplemental pension plan.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Components of net periodic pension cost for the fiscal years ended August 31, 2018, 2017 and 2016 included the following:

	2018	2017	2016
Components of net periodic benefit cost			
Service cost	$ 283	$ 288	$ 295
Interest cost	629	681	728
Expected return on plan assets	(462)	(528)	(516)
Amortization of prior service cost	3	3	3
Amortization of accumulated loss	484	895	574
Settlement and curtailment loss	—	14	13
Net periodic benefit cost	$ 937	$ 1,353	$ 1,097

Weighted average assumptions used to determine benefit obligations as of August 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Discount rate			
Qualified plan	3.80 %	3.30 %	2.90 %
Supplemental plan	3.57 %	2.73 %	2.97 %
NEPTCO plan	3.59 %	2.95 %	2.55 %
Rate of compensation increase			
Qualified and Supplemental plan	3.50 %	3.50 %	3.50 %
NEPTCO plan	— %	— %	— %

Weighted average assumptions used to determine net periodic benefit cost for the years ended August 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Discount rate			
Qualified plan	3.30 %	2.90 %	4.16 %
Supplemental plan	2.73 %	2.97 %	3.22 %
NEPTCO plan	2.95 %	2.55 %	4.30 %

Expected long-term return on plan assets						
Qualified plan	5.40	%	6.50	%	6.50	%
Supplemental plan	—	%	—	%	—	%
NEPTCO plan	5.20	%	6.50	%	6.50	%
Rate of compensation increase						
Qualified and Supplemental plan	3.50	%	3.50	%	3.50	%
NEPTCO plan	—	%	—	%	—	%

It is the Company’s policy to evaluate, on an annual basis, the discount rate used to determine the projected benefit obligation to approximate rates on high quality, long-term obligations. The Moody’s Corporate Aa Bond index has generally been used as a benchmark for this purpose, with adjustments made if the duration of the index differed from that of the plan. For periods since August 31, 2008, the discount rate has been determined by matching the expected payouts from the respective plans to the spot rates inherent in the Citigroup Pension Discount Curve. A single rate is then developed, that when applied to the expected cash flows, results in the same present value as determined using the various spot rates. The Company believes that this approach produces the most appropriate approximation of the plan liability.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The Company estimates that each 100-basis point reduction in the discount rate would result in additional net periodic pension cost, the Company's primary pension obligation, of approximately $42 for the Qualified Plan and $69 for the Supplemental Plan. For the current fiscal year, the NEPTCO Pension Plan expense is insignificant so sensitivity disclosure is not presented. The expected return on plan assets is derived from a periodic study of long-term historical rates of return on the various asset classes included in the Company's targeted pension plan asset allocation. The Company estimates that each 100-basis point reduction in the expected return on plan assets would result in additional net periodic pension cost of approximately $73 for the Qualified Plan. No rate of return is assumed for the Supplemental Plan since that plan is currently not funded. The rate of compensation increase is also evaluated and is adjusted by the Company, if necessary, periodically.

Qualified Plan Assets

The investment policy for the Qualified Plan is based on ERISA standards for prudent investing. The fundamental goal underlying the investment policy is to ensure that the assets of the plans are invested in a prudent manner to meet the obligations of the plans as these obligations come due. The primary investment objectives include providing a total return which will promote the goal of benefit security by attaining an appropriate ratio of plan assets to plan obligations, to provide for real asset growth while also tracking plan obligations, to diversify investments across and within asset classes, to reduce the impact of losses in single investments, and to follow investment practices that comply with applicable laws and regulations.

The primary policy objectives will be met by investing assets to achieve a reasonable tradeoff between return and risk relative to the plan's obligations. This includes investing a portion of the assets in funds selected in part to hedge the interest rate sensitivity to plan obligations.

The Qualified Plan assets are invested in a diversified mix of both domestic and foreign equity investments and fixed income securities. Asset manager performance is reviewed at least annually and benchmarked against the peer universe for the given investment style. The Company's expected return for the Qualified Plan is 5.4%. To determine the expected long term rate of return on the assets for the Qualified Plan, the Company considered the historical and expected return on the plan assets, as well as the current and expected allocation of the plan assets.

Asset allocation is monitored on an ongoing basis relative to the established asset class targets. The interaction between plan assets and benefit obligations is periodically studied to assist in the establishment of strategic asset allocation targets. The investment policy permits variances from the targets within certain parameters. Asset

rebalancing occurs when the underlying asset class allocations move outside these parameters, at which time the asset allocation is rebalanced back to the policy target weight.

The Qualified Plan has the following target allocation and weighted average asset allocations as of August 31, 2018, 2017 and 2016:

	Target							
			Percentage of Plan Assets					
	Allocation		as of August 31,					
Asset Category	Range		2018		2017		2016	
Equity securities	10-80	%	46	%	39	%	46	%
Debt securities	20-70	%	54	%	61	%	54	%
Other	0-100	%	—	%	—	%	—	%
Total	100	%	100	%	100	%	100	%

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

NEPTCO Pension Plan Assets

The investment policy for the NEPTCO Pension Plan is based on ERISA standards for prudent investing. The fundamental goal underlying the investment policy is to ensure that the assets of the plans are invested in a prudent manner to meet the obligations of the plan as these obligations come due. The primary investment objectives include maximization of return within reasonable and prudent levels of risk, provision of returns comparable to returns for similar investment options, provision of exposure to a wide range of investment opportunities in various asset classes and vehicles, control administrative and management costs, provision of appropriate diversification within investment vehicles, and govern investment manager's adherence to stated investment objectives and style.

The primary policy objectives will be met by investing assets to achieve a reasonable tradeoff between return and risk relative to the plan's obligations. This includes investing a portion of the assets in funds selected in part to hedge the interest rate sensitivity to plan obligations.

The NEPTCO Pension Plan assets are invested in a diversified mix of fixed income, and both domestic and foreign equity investments. The ongoing monitoring of investments is a regular and disciplined process and confirms that the criteria remain satisfied. The process of monitoring investment performance relative to specified guidelines is consistently applied.

The Company's expected return for the NEPTCO Pension Plan is 5.2%. To determine the expected long term rate of return on the assets for the NEPTCO Pension Plan, the Company considered the historical and expected return on the plan assets, as well as the current and expected allocation of the plan assets.

The NEPTCO Pension Plan has the following target allocation and weighted average asset allocations as of August 31, 2018, 2017 and 2016:

	Target			
		Percentage of Plan Assets		
	Allocation	as of August 31,		
Asset Category	Range	2018	2017	2016

Equity securities	10-80	%	46	%	43	%	43	%
Debt securities	20-70	%	54	%	51	%	50	%
Other	0-100	%	—	%	6	%	7	%
Total	100	%	100	%	100	%	100	%

Fair Market Value of Pension Plan Assets

The Company is required to categorize pension plan assets using a three tier fair value hierarchy, which classifies the inputs used in measuring fair values. These tiers include: Level 1, defined as observable inputs such as quoted prices for identical instruments in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following table presents the Company's pension plan assets at August 31, 2018 and 2017 by asset category:

		Fair value measurements at August 31, 2018				Fair value measurements at August 31, 2017		
	August 31, 2018	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	August 31, 2017	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Asset Category								
Equity securities	$ 4,533	$ 4,533	$ —	$ —	$ 3,589	$ 3,589	$ —	$ —
Debt securities	5,322	5,322	—	—	5,336	5,336	—	—
Other	—	—	—	—	78	78	—	—
Total	$ 9,855	$ 9,855	$ —	$ —	$ 9,003	$ 9,003	$ —	$ —

Level 1 Assets: The fair values of the common stocks, corporate bonds and U.S. Government securities included in this tier are based on the closing price reported on the active market where the individual securities are traded.

Estimated Future Benefit Payments

The following pension benefit payments (which include expected future service) are assumed to be paid in each of the following fiscal years based on the participants' normal retirement age:

Year ending August 31,	Pension Benefits
2019	$ 4,724
2020	2,132
2021	1,773
2022	1,751
2023	2,524

2024-2028	$ 7,647

The Company contributed $2,085, $1,205 and $322 to fund its obligations under the pension plans for the years ended August 31, 2018, 2017 and 2016, respectively. The Company plans to make the necessary contributions during fiscal 2019 to ensure its pension plans continue to be adequately funded given the current market conditions and does not anticipate a material change from amounts contributed during the current fiscal year.

Note 10—Stockholders' Equity

2013 Equity Incentive Plan

In October 2012, the Company adopted, and the stockholders subsequently approved, the 2013 Equity Incentive Plan (the "2013 Plan"). The 2013 Plan permits the grant of restricted stock, stock options, deferred stock, stock payments or other awards to employees, participating officers, directors, consultants and advisors who are linked directly to increases in shareholder value. The aggregate number of shares available for grant under the 2013 Plan was initially 1,200,000. Additional shares may become available in connection with share splits, share dividends or similar transactions. As of August 31, 2018, 1,063,370 shares remained available for future grant under the 2013 Plan.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

2005 Incentive Plan

In November 2005, the Company adopted, and the stockholders subsequently approved, the 2005 Incentive Plan (the "2005 Plan"). The 2005 Plan permits the grant of restricted stock, stock options, deferred stock, stock payments or other awards to employees, participating officers, directors, consultants and advisors who are linked directly to increases in shareholder value. The aggregate number of shares available for grant under the 2005 Plan was initially 1,000,000. The Company is no longer granting equity awards under the 2005 Plan.

Restricted Stock

Employees and Executive Management

In September 2013, the Board of Directors of the Company approved the fiscal year 2014 LTIP for the executive officers and other members of management. The 2014 LTIP was an equity-based plan with a grant date of September 1, 2013. In addition to the stock option component described below, the plan contained the following restricted stock components: (a) performance and service-based restricted stock grant of 7,529 shares in the aggregate, subject to adjustment, with a vesting date of August 31, 2016, for which compensation expense is recognized on a ratable basis over the vesting period based on quarterly probability assessments; and (b) a time-based restricted stock grant of 8,323 and 1,040 shares in the aggregate, with vesting dates of August 31, 2016 and August 31, 2014, respectively. Compensation expense was recognized on a ratable basis over the vesting period.

Based on the fiscal year 2014 financial results, 5,485 additional shares of restricted stock (total of 13,014 shares) were earned and granted subsequent to the end of fiscal year 2014 in accordance with the performance measurement criteria. No further performance-based measurements apply to this award.

In August 2014, the Board of Directors of the Company approved the fiscal year 2015 LTIP for the executive officers and other members of management. The 2015 LTIP was an equity-based plan with a grant date of September 1, 2014. In addition to the stock option component described below, the plan contained the following restricted stock components: (a) a performance and service-based restricted stock grant of 6,993 shares in the aggregate, subject to adjustment based on fiscal 2015 results, with a vesting date of August 31, 2017, for which compensation expense is recognized on a ratable basis over the vesting period based on quarterly probability assessments; and (b) a

time-based restricted stock grant of 7,005 and 1,127 shares (total of 8,132 shares) in the aggregate, with vesting dates of August 31, 2017 and September 1, 2014, respectively. Compensation expense was being recognized on a ratable basis over the vesting period.

Based on the fiscal year 2015 financial results, 5,685 additional shares of restricted stock (total of 12,678 shares) were earned and granted subsequent to the end of fiscal year 2015 in accordance with the performance measurement criteria. No further performance-based measurements apply to this award.

During the third quarter of fiscal 2015, an additional 16,000 restricted shares were issued to non-executive members of management; 15,000 with a vesting date of April 16, 2020 and 1,000 with a vesting date of January 31, 2018. Compensation expense is being recognized on a ratable basis over the vesting period.

In August 2015, the Board of Directors of the Company approved the fiscal year 2016 LTIP for the executive officers and other members of management. The 2016 LTIP was an equity-based plan with a grant date of September 1, 2015. In addition to the stock option component described below, the plan contains the following restricted stock components: (a) a performance and service-based restricted stock grant of 6,962 shares in the aggregate, subject to adjustment based on fiscal 2016 results, with a vesting date of August 31, 2018 for which compensation expense is recognized on a ratable basis over the vesting period based on quarterly probability assessments; and (b) a time-based

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

restricted stock grant of 7,683 shares in the aggregate, with a vesting date of August 31, 2018. Compensation expense was recognized on a ratable basis over the vesting period.

Based on the fiscal year 2016 financial results, 6,277 additional shares of restricted stock (total of 13,239 shares) were earned and granted subsequent to the end of fiscal year 2016 in accordance with the performance measurement criteria. No further performance-based measurements apply to this award.

During the first quarter of fiscal 2016, an additional grant of 5,000 restricted shares was made to a non-executive member of management with a vesting date of October 20, 2020. Compensation expense is being recognized on a ratable basis over the vesting period.

In August 2016, the Board of Directors of the Company approved the fiscal year 2017 LTIP for the executive officers and other members of management. The 2017 LTIP is an equity-based plan with a grant date of September 1, 2016. In addition to the stock option component described below, the plan contains the following restricted stock components: (a) a performance and service-based restricted stock grant of 5,399 shares in the aggregate, subject to adjustment based on fiscal 2017 results, with a vesting date of August 31, 2019, for which compensation expense being is recognized on a ratable basis over the vesting period based on quarterly probability assessments; and (b) a time-based restricted stock grant of 5,367 shares in the aggregate, with a vesting date of August 31, 2019. Compensation expense is being recognized on a ratable basis over the vesting period.

Based on the fiscal year 2017 financial results, 5,399 additional shares of restricted stock (total of 10,798 shares) were earned and granted subsequent to the end of fiscal year 2017 in accordance with the performance measurement criteria. No further performance-based measurements apply to this award.

In August 2016, the Board of Directors of the Company approved equity retention agreements with certain executive officers. The equity-based retention agreements have a grant date of September 1, 2016. In addition to the stock option component described below, the equity retention agreements contain a time-based restricted stock grant of 16,312 shares in the aggregate, with 7,768 shares having a vesting date of August 31, 2019, and 8,544 shares initially having a vesting date of August 31, 2021, which was amended in August 2017 to vest in five equal annual installments over the five-year period following the grant date. Compensation expense is being recognized on a ratable basis over the vesting period.

During the first quarter of fiscal 2017, additional grants totaling 8,805 shares of restricted stock were issued to non-executive members of management with a vesting date of August 31, 2021. Compensation expense is being recognized on a ratable basis over the vesting period.

In August 2017, the Board of Directors of the Company approved the fiscal year 2018 LTIP for the executive officers and other members of management. The 2018 LTIP is an equity-based plan with a grant date of September 1, 2017. In addition to the stock option component described below, the plan contains the following restricted stock components: (a) a performance and service-based restricted stock grant of 4,249 shares in the aggregate, subject to adjustment based on fiscal 2018 results, with a vesting date of August 31, 2020, for which compensation expense is being recognized on a ratable basis over the vesting period based on quarterly probability assessments; and (b) a time-based restricted stock grant of 3,473 shares in the aggregate, with a vesting date of August 31, 2020. Compensation expense is being recognized on a ratable basis over the vesting period.

During the third quarter of fiscal 2018, an additional grant totaling 192 shares of restricted stock was issued to a non-executive member of management with a vesting date of August 31, 2020. Compensation expense is being recognized on a ratable basis over the vesting period.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

During the fourth quarter of fiscal 2018, an additional grant totaling 609 shares of restricted stock was issued to an executive member of management with a vesting date of August 20, 2019. Compensation expense is being recognized on a ratable basis over the vesting period.

Non-employee Board of Directors

In February 2015, as part of their standard compensation for board service, non-employee members of the Board received a total grant of 5,361 shares of restricted stock for service for the period from January 31, 2015 through January 31, 2016. The shares of restricted stock vested at the conclusion of this service period. Compensation expense was recognized on a ratable basis over the twelve-month vesting period.

In February 2016, as part of their standard compensation for board service, non-employee members of the Board received a total grant of 4,554 shares of restricted stock for service for the period from January 31, 2016 through January 31, 2017. The shares of restricted stock vested at the conclusion of this service period. Compensation expense was recognized on a ratable basis over the twelve-month vesting period.

In February 2017, as part of their standard compensation for board service, non-employee members of the Board received a total grant of 2,407 shares of restricted stock for service for the period from January 31, 2017 through January 31, 2018. The shares of restricted stock vested at the conclusion of this service period. Compensation expense was recognized on a ratable basis over the twelve-month vesting period.

In February 2018, as part of their standard compensation for board service, non-employee members of the Board received a total grant of 2,779 shares of restricted stock for service for the period from January 31, 2018 through January 31, 2019. The shares of restricted stock will vest at the conclusion of this service period. Compensation is recognized on a ratable basis over the twelve-month vesting period.

A summary of the transactions of the Company’s restricted stock plans for the years ended August 31, 2018, 2017 and 2016 is presented below:

	Non Employee Directors	Weighted Average Grant Date Fair Value	Officers and Employees	Weighted Average Grant Date Fair Value
Unvested restricted stock at August 31, 2015	5,361	$ 36.19	48,269	$ 35.68
Granted	4,554	$ 48.12	25,330	$ 39.07
Vested	(5,361)	$ 36.19	(18,271)	$ 29.72
Forfeited or cancelled	—		—	
Unvested restricted stock at August 31, 2016	4,554	$ 48.12	55,328	$ 39.20
Granted	2,407	$ 91.05	42,160	$ 60.67
Vested	(4,554)	$ 48.12	(23,516)	$ 38.81
Forfeited or cancelled	—		—	
Unvested restricted stock at August 31, 2017	2,407	$ 91.05	73,972	$ 51.56
Granted	2,779	$ 101.05	13,922	$ 83.65
Vested	(2,407)	$ 91.05	(22,315)	$ 41.35
Forfeited or cancelled	—		—	
Unvested restricted stock at August 31, 2018	2,779	$ 101.05	65,579	$ 61.85

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Stock Options

In September 2013, the Board of Directors of the Company approved the fiscal year 2014 LTIP for the executive officers and other members of management. The 2014 LTIP was an equity-based plan with a grant date of September 1, 2013 and included options to purchase 25,969 shares of common stock in the aggregate with an exercise price of $29.72 per share. The options vested in three equal annual allotments ending on August 31, 2016. The options will expire on August 31, 2023. Compensation expense was recognized over the period of the award on an annual basis consistent with the vesting terms.

In August 2014, the Board of Directors of the Company approved the fiscal year 2015 LTIP for the executive officers and other members of management. The 2015 LTIP was an equity-based plan with a grant date of September 1, 2014 and included options to purchase 22,750 shares of common stock in the aggregate with an exercise price of $35.50 per share. The options vested in three equal annual installments ending on August 31, 2017. Of the options granted, 7,438 will expire on August 31, 2024 and 15,312 will expire on September 1, 2024. Compensation expense was recognized over the period of the award on an annual basis consistent with the vesting terms.

In August 2015, the Board of Directors of the Company approved the fiscal year 2016 LTIP for the executive officers and other members of management. The 2016 LTIP was an equity-based plan with a grant date of September 1, 2015 and included options to purchase 21,275 shares of common stock in the aggregate with an exercise price of $39.50 per share. The options vest in three equal annual installments ending on August 31, 2018. The options granted will expire on September 1, 2025. Compensation expense was recognized over the period of the award consistent with the vesting terms.

In August 2016, the Board of Directors of the Company approved the fiscal year 2017 LTIP for the executive officers and other members of management. The 2017 LTIP is an equity-based plan with a grant date of September 1, 2016 and included options to purchase 15,028 shares of common stock in the aggregate with an exercise price of $64.37 per share. The options vest in three equal annual installments ending on August 31, 2019. Of the options granted, 5,596 options will expire on August 31, 2026, and 9,432 options will expire on September 1, 2026. Compensation expense is recognized over the period of the award consistent with the vesting terms.

In August 2016, the Board of Directors of the Company approved equity retention agreements with certain executive officers. The equity-based retention agreements have a grant date of September 1, 2016 and included options to purchase 23,563 shares of common stock in the aggregate with an exercise price of $64.37 per share. These options will cliff vest on August 31, 2019 and will expire on August 31, 2026. Compensation expense is recognized over the period of the award consistent with the vesting terms.

In August 2017, the Board of Directors of the Company approved the fiscal year 2018 LTIP for the executive officers and other members of management. The 2018 LTIP is an equity-based plan with a grant date of September 1, 2017 and included options to purchase 9,622 shares of common stock in the aggregate with an exercise price of $93.50 per share. The options vest in three equal annual installments ending on August 31, 2020. Of the options granted, 4,591 options will expire on August 31, 2027, and 5,031 options will expire on September 1, 2027. Compensation expense is recognized over the period of the award consistent with the vesting terms.

During the third quarter of fiscal 2018, an additional grant of options to purchase 606 shares of common stock in the aggregate with an exercise price of $104.00 was issued to a non-executive member of management. The options vest in three equal annual installments ending on August 31, 2020 and will expire on March 1, 2028. Compensation expense is being recognized on a ratable basis over the vesting period.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following table summarizes information about stock options outstanding as of August 31, 2018:

	Options Outstanding				Options Exercisable		
Exercise Prices	Number Outstanding	Weighted Avg. Remaining Contractual Life	Weighted Average Exercise Price	Aggregate Intrinsic Value	Number Exercisable	Weighted Average Exercise Price	Aggregate Intrinsic Value
$ 16.00	7,597	4.1	$ 16.00	$ 820	7,597	$ 16.00	$ 820
$ 29.72	14,609	5.0	$ 29.72	$ 1,377	14,609	$ 29.72	$ 1,377
$ 35.50	15,571	6.0	$ 35.50	$ 1,377	15,571	$ 35.50	$ 1,377
$ 39.50	15,671	7.0	$ 39.50	$ 1,323	15,671	$ 39.50	$ 1,323
$ 64.37	35,514	8.0	$ 64.37	$ 2,116	7,756	$ 64.37	$ 462
$ 93.50	9,622	9.0	$ 93.50	$ 293	3,206	$ 93.50	$ 98
$ 104.00	606	9.5	$ 104.00	$ 12	202	$ 104.00	$ 4
	99,190	6.9	$ 50.17	$ 7,318	64,612	$ 39.43	$ 5,461

Options are granted with an exercise price that is equal to the closing market value of the Company’s common stock on the day preceding the grant date, which is determined not to be materially different from the opening market value on the date of grant.

A summary of the transactions of the Company’s stock option plans for the years ended August 31, 2018, 2017 and 2016 is presented below:

	Officers and Employees	Weighted Average Exercise Price
Options outstanding at August 31, 2015	313,389	$ 16.92
Granted	21,275	$ 39.50
Exercised	(140,113)	$ 15.27

Forfeited or cancelled	—	
Options outstanding at August 31, 2016	194,551	$ 20.57
Granted	38,591	$ 64.37
Exercised	(80,168)	$ 15.62
Forfeited or cancelled	—	
Options outstanding at August 31, 2017	152,974	$ 34.21
Granted	10,228	$ 94.12
Exercised	(64,012)	$ 19.06
Forfeited or cancelled	—	
Options outstanding at August 31, 2018	99,190	$ 50.17
Options exercisable at August 31, 2018	64,612	$ 39.43

The weighted average grant date fair value of options granted in the years ended August 31, 2018, 2017 and 2016 was $30.99, $21.22 and $13.80 per share, respectively.

The total pretax intrinsic value of stock options exercised was $6,714, $6,243 and $6,880 for the years ended August 31, 2018, 2017, and 2016, respectively.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Excluding the common stock reserved for issuance upon exercise of the 99,190 outstanding options, there were 1,063,370 shares of common stock available for future issuance under the Company's 2013 Equity Incentive Plan on August 31, 2018. Based on historic experience, management estimates all outstanding stock options will vest.

The income tax benefit realized from stock options exercised, vesting of restricted stock and issuance of stock pursuant to grants of restricted stock units was $1,921, $1,917 and $1,784 for the years ended August 31, 2018, 2017 and 2016, respectively.

As of August 31, 2018, unrecognized expense related to all stock-based compensation described above was $2,504 (including $2,182 for restricted stock and $322 for stock options), which will be recognized over the next three fiscal years.

Note 11—Segment Data

The Company is organized into two reportable 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. Industrial Materials products include insulating and conducting materials for wire and cable manufacturers, moisture protective coatings and customized sealant and adhesive systems for electronics, laminated durable papers, laminates for the packaging and industrial laminate markets, custom manufacturing services, 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 and elements, polymeric microspheres, polyurethane dispersions and superabsorbent polymers. Beginning June 23, 2016, September 30, 2016 and December 31, 2017, the Industrial Materials segment includes the acquired operations of HumiSeal India Private Limited, Resin Designs, LLC and Zappa Stewart, respectively. The operations of both HumiSeal India Private Limited and Resin Designs, LLC are included in the Company's electronic and industrial coatings product line and the operations of Zappa Stewart are included in the Company's specialty chemicals intermediates product line. Prior to the April 3, 2017 sale of the business, the segment's products also included glass-based strength elements, designed to allow fiber optic cables to withstand mechanical and environmental strain and stress. Following the April 20, 2018 sale of the structural composites rod business, future product sales of composite materials and elements are not anticipated to be significant

to the consolidated financial statements.

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 waterproofing applications, high-performance polymeric asphalt additives, and expansion and control joint systems for use in the transportation and architectural markets.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following tables summarize information about the Company's segments:

	Years Ended August 31,		
	2018	2017	2016
Revenue			
Industrial Materials	$ 232,288	$ 202,956	$ 181,728
Construction Materials	51,900	49,604	56,366
Total	$ 284,188	$ 252,560	$ 238,094
Income before taxes			
Industrial Materials	$ 66,076 (a)	$ 67,561 (c)	$ 53,530 (e)
Construction Materials	18,178	18,205	19,967
Total for reportable segments	84,254	85,766	73,497
Corporate and common costs	(27,289) (b)	(24,874) (d)	(23,387) (f)
Total	$ 56,965	$ 60,892	$ 50,110
Includes the following costs by segment:			
Industrial Materials			
Interest	$ 938	$ 629	$ 791
Depreciation	4,033	3,423	3,918
Amortization	10,499	7,839	6,427
Construction Materials			
Interest	$ 234	$ 210	$ 263
Depreciation	753	718	761
Amortization	1,308	1,288	1,409

(a) Includes $1,070 of expenses related to inventory step-up in fair value attributable to the December 2017 acquisition of Zappa Stewart, $1,085 on the gain on sale of license related to the structural composites product line recorded in the second quarter of fiscal 2018, $1,480 gain on sale of business related to the April 2018 sale of the structural composites rod business and $1,272 of expense related to the closure and exit of our Pawtucket, RI location in the fourth quarter of fiscal 2018

(b) Includes $393 in acquisition-related expenses attributable to the December 2017 acquisition of Zappa Stewart

(c) Includes a $2,013 gain on sale of our fiber optic cable components business and $190 of expenses related to inventory step-up in fair value attributable to the September 2016 acquisition of certain assets of Resin Designs

(d) Includes $584 in acquisition-related expenses attributable to the September 2016 acquisition of certain assets of Resin Designs, facility exit and demolition costs of $70 related to the Company's Randolph, MA location, a $792 gain related to the November 2016 sale of the Company's Paterson, NJ location, a $68 gain related to the December 2016 sale of the Company's former corporate headquarters in Bridgewater, MA and $14 of pension-related settlement costs due to the timing of lump sum distributions

(e) Includes 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

(f) 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

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

	As of August 31,	
	2018	2017
Total Assets		
Industrial Materials	$ 229,559	$ 156,263
Construction Materials	36,757	38,162
Total for reportable segments	266,316	194,425
Corporate and common assets	50,153	60,313
Total	$ 316,469	$ 254,738

Note 12—Export Sales and Foreign Operations

Export sales from continuing domestic operations to unaffiliated third parties were $42,883, $36,719 and $28,826 for the years ended August 31, 2018, 2017 and 2016, respectively. The increase in export sales in fiscal 2018 against both fiscal 2017 and 2016 resulted from increased export sales into China and Europe.

The Company’s products are sold worldwide. Revenue for the years ended August 31, 2018, 2017 and 2016, are attributed to operations located in the following countries:

	Years Ended August 31,		
	2018	2017	2016
Revenue			
United States	$ 244,225	$ 217,745	$ 197,776
United Kingdom	20,598	16,691	24,048
All other foreign (1)	19,365	18,124	16,270
Total	$ 284,188	$ 252,560	$ 238,094

(1) Inclusive of sales originated from our Paris, France location, royalty revenue attributable to our licensed manufacturer in Asia, and Chase foreign manufacturing operations.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

As of August 31, 2018 and 2017, the Company had long lived assets (defined as tangible assets providing the Company with a future economic benefit beyond the current year or operating period, including buildings, equipment and leasehold improvements) and goodwill and intangible assets, less accumulated amortization in the following countries:

	As of August 31,	
	2018	2017
Long-Lived Assets		
United States		
Property, plant and equipment, net	$ 28,770	$ 30,253
Goodwill and Intangible assets, less accumulated amortization	143,539	90,673
United Kingdom		
Property, plant and equipment, net	2,911	3,184
Goodwill and Intangible assets, less accumulated amortization	5,239	5,685
All other foreign		
Property, plant and equipment, net	1,164	1,323
Goodwill and Intangible assets, less accumulated amortization	1,248	1,272
Total		
Property, plant and equipment, net	$ 32,845	$ 34,760
Goodwill and Intangible assets, less accumulated amortization	$ 150,026	$ 97,630

Note 13—Supplemental Cash Flow Data

Supplemental cash flow information for the years ended August 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
Income taxes paid	$ 20,142	$ 21,025	$ 17,550

Interest paid	$ 915	$ 786	$ 1,059
Noncash Investing and Financing Activities			
Common stock received for payment of stock option exercises	$ 1,028	$ 1,158	$ 2,015
Property, plant and equipment additions included in accounts payable	$ 197	$ 220	$ 22

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Supplemental cash flow information as related to acquisitions and divestitures for the years ended August 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
Acquisition of Zappa Stewart			
Current assets	$ 10,478		
Property, plant & equipment	1,872		
Goodwill and Intangible assets	64,378		
Deferred tax liability	(2,626)		
Accounts payable and accrued liabilities	(633)		
Payments for acquisitions	(73,469)		
Sale of Structural Composites Rod Business			
Inventory	$ (522)		
Goodwill	(230)		
Gain on sale of business	(1,480)		
Cash received from sale of business, net of transaction costs	2,232		
Sale of Structural Composites License			
Property and equipment	$ (26)		
Gain on sale of license	(1,085)		
Accrued income taxes	111		
Cash received from sale of license	1,000		
Acquisition of Resin Designs			
Current assets		$ 3,240	
Property, plant & equipment		623	
Goodwill and Intangible assets		27,042	
Accounts payable and accrued liabilities		(635)	
Payments for acquisitions		(30,270)	
Sale of Fiber Optic Cable Components product line			
Inventory		$ (1,167)	
Property, plant and equipment		(166)	
Goodwill and Intangible assets		(512)	
Gain on sale of business		(2,013)	
Due from sale of business		400	
Cash received from sale of product line, net of transaction costs		3,458	
Acquisition of HumiSeal India Private Limited			
Current assets (excluding cash)			$ 55
Property, equipment and goodwill			1,134

Accounts payable and accrued liabilities		(28)
Payments for acquisitions, net of cash acquired		(1,161)
Sale of RodPack Business		
Property, plant and equipment		$ (846)
Intangible assets		(309)
Gain on sale of business		(1,031)
Due from sale of business	$ (457)	457
Cash received from sale of business	457	1,729

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 14—Acquisitions

Acquisition of Zappa Stewart

On December 31, 2017, the Company acquired Zappa Stewart, an advanced superabsorbent polymer (SAP) formulator and solutions provider, with operations located in Hickory and McLeansville, NC. The business was acquired for a purchase price of $73,469, after final working capital adjustments and excluding acquisition-related costs. Chase acquired all equity of the business and entered multiyear leases at both locations. The purchase was funded by a combination of a $65,000 draw on Chase's existing revolving credit facility and available cash on hand. Zappa Stewart's protective materials technology is complementary to Chase's current specialty chemicals offerings. This acquisition is in line with our core strategies and extends our reach into growing medical and consumer applications.

Since the effective date for this acquisition, December 31, 2017, the financial results of the acquired business have been included in the Company's financial statements within the Industrial Materials operating segment, in the specialty chemicals intermediates product line. The acquisition was accounted for as a business combination under ASC Topic 805, "Business Combinations." In accordance with this accounting standard, the Company expensed $393 of acquisition-related costs during the second quarter of 2018 to acquisition-related costs.

The Company is currently in the process of finalizing purchase accounting, with regard to a final allocation of the purchase price to tangible and identifiable intangible assets assumed and anticipates completion within the first quarter of fiscal 2019. In the third quarter of fiscal 2018, an adjustment to increase goodwill by $2,035 was made to the initial amounts recorded at the end of the second fiscal quarter; the increase relates to additional consideration paid by the Company to the seller as part of the final working capital adjustment. In the fourth quarter of fiscal 2018, a net adjustment to decrease goodwill by $1,214 was made to the amount recorded at the end of the third fiscal quarter; the net decrease relates to: (a) the recording of a $2,626 deferred tax liability associated with the acquired company (of which $311 related to an error in the initial amounts recorded); (b) the allocation of a net additional $4,300 of the purchase price to the customer relationships intangible assets (comprising a $4,800 increase in intangible assets based on information available as of the acquisition date, and as such representing an error, and a $500 reduction based on a change in estimate during the measurement period); and (c) the reduction of the purchase price allocated to inventory step-up costs totaling $460 (comprising a $360 decrease based on information available as of the acquisition date, and

as such representing an error, and a $100 reduction based on a change in estimate during the measurement period). The impact of the noted errors was not material to the consolidated financial statements and the Company did not consider the amount material to prior periods. See Item 9A - Management's Report on Internal Control over Financial Reporting of this current report on Form 10-K for additional information and considerations related to these fourth quarter business combination adjustments representing errors.

Giving effect to these adjustments, the purchase price has been preliminarily allocated to the acquired tangible and identifiable intangible assets assumed, based on their fair values as of the date of the acquisition:

Assets & Liabilities	Amount
Accounts receivable	$ 3,670
Inventory	6,796
Prepaid expenses and other current assets	12
Property, plant & equipment	1,872
Goodwill	34,138
Intangible assets	30,240
Deferred tax liability	(2,626)
Accounts payable and accrued liabilities	(633)
Total purchase price	$ 73,469

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The excess of the purchase price over the net tangible and intangible assets acquired resulted in goodwill of $34,138 that is largely attributable to the synergies and economies of scale from combining the operations, technologies and research and development capabilities of Zappa Stewart and Chase, particularly as it pertains to the expansion of the Company's product and service offerings, the established workforce and marketing efforts. A portion of this goodwill, $23,990, is deductible for income tax purposes.

All assets, including goodwill, acquired as part of the Zappa Stewart acquisition are included in the Industrial Materials operating segment. Identifiable intangible assets purchased with this transaction are as follows:

Intangible Asset	Amount	Weighted Average Useful life
Customer relationships	$ 28,500	7.9 years
Technology	900	7 years
Trade names	840	4 years
Total intangible assets	$ 30,240	

Supplemental Pro Forma Data (unaudited)

The following table presents the pro forma results of the Company for the years ended August 31, 2018 and 2017 as though the Zappa Stewart acquisition described above occurred on September 1, 2016 (the first day of fiscal 2017). The actual revenue and expenses for the acquired business are included in the Company’s consolidated results beginning on December 31, 2017. From the date of acquisition (December 31, 2017) through August 31, 2018, revenue and net income for the Zappa Stewart operations included in the consolidated statement of operations were $16,324 and $578, respectively, with results inclusive of sale of $1,070 in inventory step-up cost, $393 in acquisition-related costs and amortization expense of $2,672 recognized related to intangible assets recorded as part of the transaction, but not inclusive of any interest or financing costs. The pro forma results include adjustments for the estimated amortization of intangibles, acquisition-related costs, sale of inventory step-up cost, interest expense assuming the entire $65,000 draw remained outstanding through December 31, 2017 (at the interest rate effective at the date of borrowing) and the income tax impact of the pro forma adjustments at the statutory rate of 35% for fiscal

2017 and 26% for fiscal 2018. The following pro forma information is not necessarily indicative of the results that would have been achieved if the acquisition had been effective on September 1, 2016.

	Years Ended August 31,	
	2018	2017
Revenue	$ 292,609	$ 276,646
Net income	44,508	41,603
Net income available to common shareholders, per common and common equivalent share		
Basic earnings per share	$ 4.75	$ 4.45
Diluted earnings per share	$ 4.70	$ 4.40

Acquisition of Resin Designs, LLC

On September 30, 2016, the Company acquired certain assets of Resin Designs, LLC, an advanced adhesives and sealants manufacturer, with locations in Woburn, MA and Newark, CA. This business was acquired for a purchase price of $30,270, after final working capital adjustments and excluding acquisition-related costs. As part of this

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

transaction, Chase acquired all working capital and fixed assets of the business, and entered into multiyear leases at both locations. Resin Designs is a formulator of customized adhesive and sealant systems used in high-reliability electronic applications. The acquisition broadens the Company’s adhesives and sealants product offering and manufacturing capabilities, and expands its market reach. The purchase was funded entirely with available cash on hand.

Since the effective date for this acquisition, September 30, 2016, the financial results of the acquired business have been included in the Company’s financial statements within the Industrial Materials operating segment, within the electronic and industrial coatings product line. The acquisition was accounted for as a business combination under ASC Topic 805, “Business Combinations.” In accordance with this accounting standard, the Company expensed $584 of acquisition-related costs during the first fiscal quarter of 2017 to acquisition-related costs.

Purchase accounting was completed in the fourth quarter of fiscal 2017 with no material adjustments made to the initial amounts recorded. The purchase price has been allocated to the acquired tangible and identifiable intangible assets assumed, based on their fair values as of the date of the acquisition:

Assets & Liabilities	Amount
Accounts receivable	$ 1,877
Inventory	1,300
Prepaid expenses and other current assets	63
Property, plant & equipment	623
Goodwill	7,592
Intangible assets	19,450
Accounts payable and accrued liabilities	(635)
Total purchase price	$ 30,270

The excess of the purchase price over the net tangible and intangible assets acquired resulted in goodwill of $7,592 that is largely attributable to the synergies and economies of scale from combining the operations, technologies and research and development capabilities of Resin Designs and Chase, particularly as it pertains to the expansion of the Company's product and service offerings, the established workforce and marketing efforts. This goodwill is deductible for income tax purposes.

All assets, including goodwill, acquired as part of the Resin Designs acquisition are included in the Industrial Materials operating segment. Identifiable intangible assets purchased with this transaction are as follows:

Intangible Asset	Amount	Useful life
Customer relationships	$ 17,500	10 years
Technology	1,200	4 years
Trade names	750	7 years
Total intangible assets	$ 19,450	

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Supplemental Pro Forma Data (unaudited)

The following table presents the pro forma results of the Company for the year ended August 31, 2017 as though the Resin Designs acquisition described above occurred on September 1, 2015 (the first day of fiscal 2016). The actual revenue and expenses for the acquired business are included in the Company's fiscal 2017 consolidated results beginning on September 30, 2016. From the date of acquisition (September 30, 2016) through August 31, 2017, revenue and net income for the Resin Designs operations included in the consolidated statement of operations were $14,868 and $669, respectively, including the effects of $584 in acquisition-related costs, $190 in sale of inventory step-up cost, and additional amortization expense recognized related to intangible assets recorded as part of the transaction. The pro forma results include adjustments for the estimated amortization of intangibles, acquisition-related costs, sale of inventory step-up cost and the income tax impact of the pro forma adjustments at the statutory rate of 35%. The following pro forma information is not necessarily indicative of the results that would have been achieved if the acquisition had been effective on September 1, 2015.

	Year Ended August 31, 2017
Revenue	$ 254,145
Net income	42,685
Net income available to common shareholders, per common and common equivalent share	
Basic earnings per share	$ 4.56
Diluted earnings per share	$ 4.51

Acquisition of HumiSeal India Private Limited

On June 23, 2016, the Company acquired all the capital stock of Spray Products (India) Private Limited for $1,161, 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 Industrial Materials operating segment in the electronic and industrial coatings product line. Purchase accounting was completed in the quarter ended August 31, 2016. Effective December 2016, Spray Products (India) Private Limited

was renamed HumiSeal India Private Limited.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 15—Sale of License

In November 2017, the Company entered a license agreement with an unrelated party to sell a license, including intellectual property, and certain construction in process assets, with a net book value of $26 and all related to the manufacturing of certain structural composite materials. In the second fiscal quarter of 2018, the transaction was finalized for gross consideration of $1,111 comprising cash proceeds of $1,000 and $111 in foreign tax consideration paid by the buyer on Chase's behalf. This transaction resulted in a gain of $1,085, which was recorded in the Company's consolidated statement of operations as a gain on sale of license during the fiscal quarter ended February 28, 2018.

In relation to this license agreement, the purchaser also entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on the volume of future sales of certain structural composite material manufactured by the purchaser. Revenue recognized related to this royalty agreement was not material in fiscal 2018.

Note 16—Fair Value Measurements

The Company defines fair value as the price that would be received to sell an asset or paid to transfer a liability (exit price) in an orderly transaction between market participants at the measurement date. The Company uses a three tier fair value hierarchy, which classifies the inputs used in measuring fair values. These tiers include: Level 1, defined as observable inputs such as quoted prices for identical instruments in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company has determined that it does not have any financial liabilities measured at fair value other than long term debt and that its financial assets are currently all classified within Level 1 or Level 2 in the fair value hierarchy. The financial assets classified as Level 1 and Level 2 as of August 31, 2018 and 2017 represent investments which are restricted for use in non-qualified retirement savings plans for certain key employees and directors.

The following table sets forth the Company's financial assets that were accounted for at fair value on a recurring basis as of August 31, 2018 and 2017:

			Fair value measurement category		
	Fair value measurement date	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets:					
Restricted investments	August 31, 2018	$ 1,090	$ 961	129	—
Restricted investments	August 31, 2017	$ 964	$ 926	38	—

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

The following table presents the fair values of the Company's long term debt as of August 31, 2018 and 2017 which is recorded at its carrying amount:

			Fair value measurement category		
	Fair value measurement date	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Liabilities:					
Long-term debt	August 31, 2018	$ 25,000	$ —	25,000	—
Long-term debt	August 31, 2017	$ —	$ —	—	—

The carrying value of the long-term debt approximates its fair value, as the interest rate is set based on the movement of the underlying market rates. In December 2016, Chase refinanced its term debt with a new credit agreement. See Note 6 for additional information on long-term debt.

Note 17—Net Income Per Share

The determination of earnings per share under the two class method is as follows:

	Years Ended August 31,		
	2018	2017	2016
Net income attributable to Chase Corporation	$ 43,143	$ 42,014	$ 32,807
Less: Allocated to participating securities	410	454	266
Available to common shareholders	$ 42,733	$ 41,560	$ 32,541
Basic weighted average shares outstanding	9,296,648	9,249,343	9,167,333

Additional dilutive common stock equivalents	69,423	108,071	126,744
Diluted weighted average shares outstanding	9,366,071	9,357,414	9,294,077
Net income available to common shareholders, per common and common equivalent share			
Basic	$ 4.60	$ 4.49	$ 3.55
Diluted	$ 4.56	$ 4.44	$ 3.50

For the year ended August 31, 2018 and 2016, stock options to purchase 404 and 9,354 shares of common stock were outstanding but were not included in the calculation of diluted net income per share because their inclusion would be antidilutive. No stock options were excluded from the calculation for the year ended August 31, 2017. Included in the calculation of dilutive common stock equivalents are the unvested portion of restricted stock and stock options.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 18—Sale of Businesses

Sale of Structural Composites Rod Business

On April 20, 2018, Chase finalized an agreement with an unrelated party to sell all inventory, operational machinery and equipment and intangible assets of the Company's structural composites rod business, as well as a license related to the production and sale of rod, for proceeds of $2,232, net of transaction costs and following all working capital adjustments. This business, which was part of the structural composites product line within the Industrial Materials segment, had limited growth and profitability prospects as part of the Company, and was outside the areas Chase has identified for strategic emphasis. The divestiture was accounted for under ASC Topic 360, "Disclosure - Impairment or Disposal of Long-Lived Assets." In accordance with this accounting standard, the resulting pre-tax gain on sale of $1,480 was recognized in the third quarter of fiscal 2018 as a gain on sale of businesses within the consolidated statement of operations. Chase received $2,075, net of transaction costs, in the third quarter of fiscal 2018, with the remaining $157 received in the fourth quarter of fiscal 2018 as a result of a working capital true-up.

Related to this transaction, the purchaser entered into a royalty agreement with the Company. The purchaser will make royalty payments to Chase based on future sales of certain structural composite material manufactured by the purchaser. Royalty revenue recognized in the second half of fiscal 2018 related to this agreement was not material.

The sale of the structural components rod business follows the Company's sale of the RodPack® wind blade components business in November 2015 (as further discussed below), and the licensing of certain composite technologies during the second quarter of fiscal 2018 (see further discussion in Note 15 to the consolidated financial statements). Subsequent to the third quarter of fiscal 2018, Chase will include the results of its remaining structural composites wind energy business (inclusive of the royalties and the custom manufacturing services further discussed below) within the specialty products product line.

Sale of Fiber Optic Cable Components Product Line

On April 3, 2017, Chase executed an agreement with an unrelated party, to sell all inventory, machinery and equipment and intangible assets of the Company's fiber optic cable components product line for proceeds of $3,858, net of transaction costs and following certain working capital adjustments. Given its low-growth and low-margin

prospects, and a customer, supplier and equipment base separate from the Company's other businesses, the fiber optic cable components product line, which was formerly part of the Company's Industrial Materials segment, was determined to not be part of Chase's long-term strategy. The divesture was accounted for under ASC Topic 360, "Disclosure - Impairment or Disposal of Long-Lived Assets." In accordance with this accounting standard, the resulting pre-tax gain on sale of $2,013 was recognized in fiscal 2017 as gain on sale of businesses within the consolidated statement of operations. Chase received $3,458, net of transaction costs, in the third quarter of fiscal 2017, with the remaining $400 placed in escrow; the portion of the sale price held in escrow was recorded as a non-current asset within other assets as of August 31, 2017, and as a current asset (Due from sale of business) as of August 31, 2018, and was available to resolve any submitted claims or adjustments up to 18 months from the closing date of the sale. Chase collected the full $400 escrow amount in October 2018, subsequent to fiscal 2018.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Post-Sale Services Provided to the Buyer of the Structural Composites Rod Business and the Fiber Optic Cable Components Product Line

The structural composites rod business and the fiber optic cable components product line, which both operated out of the Company's Granite Falls, NC facility, were both sold to the same otherwise unrelated purchaser. Subsequent to the sales, Chase will provide certain transitional manufacturing and administrative support to the purchaser for which the Company will receive additional consideration upon the performance of services. In the year ended August 31, 2018, Chase charged the purchaser $2,186 for manufacturing services, which the Company recognized as revenue within the Industrial Materials segment, and $275 for selling and administrative services, which the Company recognized as an offset to selling, general and administrative expenses. In the year ended August 31, 2017, Chase charged the purchaser $740 for manufacturing services, and $100 for selling and administrative services. Further, the purchaser entered a multiyear lease for a portion of the manufacturing space at the Company's Granite Falls, NC facility. Chase received $130 and $54, respectively, in rental income during the years ended August 31, 2018 and 2017 related to this lease, which the Company recognized within other income (expense) on the consolidated statements of operations

Sale of RodPack Business

In November 2015, the Company sold its RodPack wind energy business, contained within its structural composites product line, to an otherwise unrelated party for proceeds of $2,186. The Company's structural composites product line is a part of the Company's Industrial Materials segment.

The sale resulted in a pre-tax book gain of $1,031, which was recorded within the consolidated statement of operations as gain on sale of businesses in fiscal 2016. The Company received $1,500 of the proceeds in the first quarter of fiscal 2016, and received three additional payments each for $229 during the quarters ended May 31, 2016, November 30, 2016 and August 31, 2017.

The sale of this business prompted the Company to perform a review of other long-lived assets within the structural composites product line, as the sale of the related intangible assets resulted in a limitation of the Company's capacity to sell certain other goods produced by the product line. This review resulted in the identification of construction in progress assets with a net book value of $365, which the Company fully wrote down. This charge was recorded within the consolidated statement of operations as write-down of certain assets under construction during the first quarter of

fiscal 2016.

Note 19—Sale of Real Estate

Sale of Paterson, NJ Location

In November 2016, the Company finalized the sale of its Paterson, NJ property for cash proceeds in the amount of $1,382. This transaction resulted in a gain of $792, which was recorded in the Company's consolidated statement of operations as a gain on sale of real estate during the fiscal quarter ended November 30, 2016.

During the second quarter of fiscal 2016, as part of its ongoing facility consolidation and rationalization initiative, the Company committed to a plan to actively market the Paterson, NJ property for sale. At that time, Chase owned the building and leased the land from the landowner. Prior to the sale in fiscal 2017, the building was being leased to a tenant and the land was being sub-leased. Upon commitment to a plan to sell the property, the Company reclassified the net book value of the related assets to assets held for sale.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Sale of Former Corporate Headquarters in Bridgewater, MA

In October 2016, Chase entered into an agreement to sell its former corporate headquarters and executive offices in Bridgewater, MA. In December 2016, during the second fiscal quarter of 2017, the sale was finalized for gross cash proceeds in the amount of $740, resulting in a gain on sale of $68. See Note 22 of the consolidated financial statements for additional information on the sale of the Bridgewater, MA location.

Note 20—Exit Costs Related to Idle Facility

Closure of Pawtucket, RI Facility

On June 25, 2018, the Company announced to its employees the planned closing of its Pawtucket, RI manufacturing facility effective August 31, 2018. This is in line with the Company's ongoing efforts to consolidate its manufacturing plants and streamline its existing processes. The manufacturing of products previously produced in the Pawtucket, RI facility was moved to Company facilities in Oxford, MA and Lenoir, NC during a two-month transition period. The Company expensed $1,272 in the fourth quarter of fiscal 2018 related to the closure, including: (a) cash-related employee-related, logistics and uncapitalized facilities improvement costs of $590; and (b) non-cash-related accelerated depreciation expense of $682. Future costs related to this move are not anticipated to be significant to the consolidated financial statements.

Demolition of Idle Randolph, MA Facility

In fiscal 2017 and 2016, the Company recognized $70 and $935, respectively, in expenses to raze its Randolph, MA facility, which has been idle regarding production for several years. The Company began marketing the site for sale during the second quarter of fiscal 2016. These actions were taken as part of the Company's on-going facility consolidation and rationalization initiative. The Company substantially completed the demolition of the structure in the fourth fiscal quarter of 2016, and completed other environmental aspects of the project during fiscal 2017. The sale of the property is anticipated to follow in a subsequent period, and any future expenses related to the project are not anticipated to be material.

Note 21—Commitments and Contingencies

The Company is involved from time to time in litigation incidental to the conduct of its business. Although the Company does not expect that the outcome in any of these matters, individually or collectively, will have a material adverse effect on its 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 the Company's operating results or cash flows in a particular period. The Company routinely assesses all its litigation and threatened litigation as to the probability of ultimately incurring a liability and records its best estimate of the ultimate loss in situations

where we assess the likelihood of loss as probable.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 22—Related Party Agreements

Reimbursements Related to Life Insurance Policies

The Edward L. Chase Trust (the “Trust”), owners of two insurance policies on the life of Claire E. Chase, reimbursed the Company for premiums paid on the policies in exchange for the Company’s release of any claims on them. In August 2016 (fiscal 2016), the Company received $1,238 related to the John Hancock (formerly Manufacturers’ Life Insurance Company) policy, the full value of premiums paid to date by the Company. In September 2016 (fiscal 2017), the Company received $1,504 related to the Metropolitan Life Insurance policy, its then cash surrender value, plus an additional prepaid related to the policy. Claire E. Chase is the spouse of a former executive of the Company, Edward L. Chase (deceased), and who in each case are the parents of Peter R. Chase (the Executive Chairman of the Company) and Mary Claire Chase (Director) and the grandparents of Adam P. Chase (the President and CEO of the Company). The Trust is the beneficial owner of more than 5% of the Company’s common stock. Terms and conditions of these transactions were reviewed and approved by the independent members of the Company's Board of Directors in advance. See Note 5 of the consolidated financial statements for additional information on the cash surrender value of life insurance policies held by the Company at August 31, 2018 and 2017.

Settlement of a Life Annuity

During the fourth quarter of fiscal 2016, the Company recognized a gain of $877 to selling, general and administrative expenses related to a life annuity payable to Barbara A. Chase (deceased). Upon Ms. Chase’s passing in August 2016, the Company’s payment obligation ceased, and the previously recorded liability was written down. Barbara A. Chase is the spouse of a former executive of the Company, Francis M. Chase (deceased) and who are in each case the respective aunt and uncle of Peter R. Chase and Mary Claire Chase and respective great-aunt and great-uncle of Adam P. Chase.

Sale of Former Corporate Headquarters in Bridgewater, MA

In October 2016, Chase entered an agreement to sell its former corporate headquarters and executive offices in Bridgewater, MA. In December 2016, the sale was finalized for gross proceeds of $740, resulting in a gain on sale of $68, which was recognized in the second quarter of fiscal 2017. The buyer, Bridgewater State University Foundation,

Inc., was deemed a related party because of previously existing professional connections between it and two members of the Company’s Board of Directors, Peter R. Chase and Dana Mohler-Faria (Director). The terms and conditions of the proposed transaction were reviewed and approved by all members of the Company's Board of Directors who were not parties related to the potential buyer, prior to entering the October 2016 agreement. They concluded that the sale price was appropriate, after considering a recent market appraisal of the land and building performed by an independent third-party valuation firm.

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 23—Selected Quarterly Financial Data (Unaudited)

The following table presents unaudited operating results for each of the Company's quarters in the years ended August 31, 2018 and 2017:

	Fiscal Year 2018 Quarters				
	First	Second	Third	Fourth	Year
Net Sales	$ 60,577	$ 64,735	$ 77,653	$ 75,997	$ 278,962
Gross Profit on Sales	23,682	22,744	29,401	27,999	103,826
Net income	$ 8,315	$ 10,122	$ 13,543	$ 11,163	$ 43,143
Net income available to common shareholders, per common and common equivalent share:					
Basic	$ 0.89	$ 1.08	$ 1.44	$ 1.19	$ 4.60
Diluted	$ 0.88	$ 1.07	$ 1.43	$ 1.18	$ 4.56

	Fiscal Year 2017 Quarters				
	First	Second	Third	Fourth	Year
Net Sales	$ 60,269	$ 56,288	$ 63,641	$ 67,679	$ 247,877
Gross Profit on Sales	24,980	23,430	26,130	27,301	101,841
Net income	$ 10,363	$ 8,383	$ 11,855	$ 11,413	$ 42,014
Net income available to common shareholders, per common and common equivalent share:					
Basic	$ 1.11	$ 0.90	$ 1.27	$ 1.22	$ 4.49
Diluted	$ 1.10	$ 0.89	$ 1.26	$ 1.21	$ 4.44

Note: Quarterly earnings per share amounts may not sum to earnings per share for the year due to rounding.

Note 24—Valuation and Qualifying Accounts

The following table sets forth activity in the Company's accounts receivable and sales return reserve:

Year ended	Balance at Beginning of Year	Charges to Operations	Deductions to Reserves	Balance at End of Year
August 31, 2018	$ 456	$ 1,138	$ (1,035)	$ 559
August 31, 2017	$ 830	$ 197	$ (571)	$ 456
August 31, 2016	$ 705	$ 196	$ (71)	$ 830

The following table sets forth activity in the Company's warranty reserve:

Year ended	Balance at Beginning of Year	Charges to Operations	Deductions to Reserves	Balance at End of Year
August 31, 2018	$ 220	$ —	$ (220)	$ —
August 31, 2017	$ —	$ 220	$ —	$ 220
August 31, 2016	$ 230	$ 143	$ (373)	$ —

Table of Contents

CHASE CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In thousands, except share and per share amounts

Note 25—Accumulated Other Comprehensive Income

The changes in accumulated other comprehensive income (loss), net of tax, were as follows:

	Restricted Investments	Change in Funded Status of Pension Plans	Foreign Currency Translation Adjustment	Total
Balance at August 31, 2016	$ 54	$ (7,336)	$ (8,197)	$ (15,479)
Other comprehensive gains (losses) before reclassifications	155	221	788	1,164
Reclassifications to net income of previously deferred (gains) losses	(88)	934	—	846
Other comprehensive income (loss)	67	1,155	788	2,010
Balance at August 31, 2017	$ 121	$ (6,181)	$ (7,409)	$ (13,469)
Other comprehensive gains (losses) before reclassifications	77	(314)	743	506
Reclassifications to net income of previously deferred (gains) losses	(72)	699	—	627
Other comprehensive income (loss)	5	385	743	1,133
Balance at August 31, 2018	$ 126	$ (5,796)	$ (6,666)	$ (12,336)

The following table summarizes the reclassifications from accumulated other comprehensive income (loss) to the consolidated statements of income:

	Amount of Gain (Loss) Reclassified from

Accumulated Other Comprehensive Income (Loss) into Income		
Year Ended August 31, 2018	Year Ended August 31, 2017	Location of Gain (Loss) Reclassified from Accumulated Other Comprehensive Income (Loss) into Income
Gains on Restricted Investments:		
Realized gain on sale of restricted investments	$ (97)	$ (127)	Selling, general and administrative expenses
Tax expense (benefit)	25	39	
Gain net of tax	$ (72)	$ (88)	
Loss on Funded Pension Plan adjustments:		
Change in funded status of pension plans	$ 117	$ 98	Cost of products and services sold
Change in funded status of pension plans	$ 820	$ 1,255	Selling, general and administrative expenses
Tax expense (benefit)	(238)	(419)	
Loss net of tax	$ 699	$ 934	
Total net loss reclassified for the period	$ 627	$ 846	

Table of Contents

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

None.

Item 9a – Controls and Procedures

Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to provide reasonable assurance that information required to be disclosed in the Company's reports under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

The Company carries out a variety of ongoing procedures, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, to evaluate the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were not effective at a reasonable assurance level as of the end of the period covered by this report because of the material weakness in our internal control over financial reporting described below.

As disclosed in the Quarterly Report on Form 10-Q for the quarterly periods ended February 28, 2018 and May 31, 2018, management of the Company, including the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures. At the time of the filing of the Quarterly Report on Form 10-Q for the quarterly periods ended February 28, 2018 and May 31, 2018, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at a reasonable assurance level as of February 28, 2018 and May 31, 2018.

Subsequent to the evaluation made in connection with the filing of the Quarterly Report on Form 10-Q for the quarterly periods ended February 28, 2018 and May 31, 2018, the Company's Chief Executive Officer and Chief

Financial Officer concluded that the disclosure controls and procedures were not effective as of February 28, 2018 and May 31, 2018 because of the material weakness in our internal control over financial reporting described below.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers, or persons performing similar functions, and effected by our Board of Directors, management and other personnel, 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.

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.

Under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer, the Company conducted an evaluation of the effectiveness of the Company's internal control over financial reporting based on the framework in "Internal Control — Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management

Table of Contents

has concluded that the internal control over financial reporting was not effective as of August 31, 2018 due to the existence of a material weakness described below.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

We did not design and maintain effective internal controls over the review of the cash flow forecasts used in the valuation of customer relationship intangible assets acquired in a business combination. Specifically, the review of certain assumptions, including those related to revenue and gross margin, related to the development of the cash flow forecasts used in valuing the customer relationship intangible assets was not designed to operate at an appropriate level of precision. This control deficiency resulted in immaterial audit adjustments to intangible assets and related amortization expense, goodwill, inventory, costs of products and services sold, and income taxes in the Company’s consolidated financial statements for the year ended August 31, 2018. Additionally, this control deficiency could result in a misstatement of the aforementioned account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, our management has determined that this control deficiency constitutes a material weakness.

Zappa Stewart was acquired by the Company in a business combination during the year ended August 31, 2018. Subsequent to the acquisition, the Company applied certain corporate-level controls to elements of the acquired company's internal control over financial reporting. Management has excluded from its assessment of internal control over financial reporting those elements that were not subject to those corporate-level internal controls. The excluded elements represent controls over accounts that are 5% and 6% of consolidated total assets and consolidated total revenues, respectively, as of and for the fiscal year ended August 31, 2018.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, audited the effectiveness of our internal control over financial reporting as of August 31, 2018, as stated in their report, which appears under Item 8.

Plan for Remediation

We are currently taking actions to remediate the material weakness in our internal control over financial reporting and are implementing additional processes and controls designed to address the underlying causes associated with the above mentioned material weakness. We are in the process of reassessing the design of our review control over certain assumptions in the cash flows forecasts used in the valuation of customer relationship intangible assets acquired in a business combination to add greater level of precision to detect and prevent potential material misstatements, including the establishment of processes and controls to evaluate adequate review and evidence over assumptions for cash flow forecasts.

As the Company continues to evaluate and work to improve internal control over financial reporting, the Company may determine to take additional measures to address the material weakness or determine to modify the remediation efforts described above. Until the remediation efforts discussed above, including any additional remediation efforts that the Company identifies as necessary, are implemented, tested and deemed to be operating effectively, the material weakness described above will continue to exist.

Changes in Internal Control Over Financial Reporting

During the quarter ended August 31, 2018, the Company continued the process of implementing its worldwide ERP computer system, and other applicable shared services, on operations associated with Zappa Stewart acquired in December 2017, which was determined to represent a change in internal control over financial reporting that has affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9b – Other Information

Not applicable.

Table of Contents

PART III

Item 10 – Directors, Executive Officers and Corporate Governance

The information required by Item 10 of Form 10-K, relating to Directors of the Company, compliance with the reporting obligations under Section 16(a) of the Exchange Act, the Company's code of ethics applicable to senior management, procedures for shareholder nominations to the Company's Board of Directors, and the Company's Audit Committee is incorporated by reference from the information contained in the Definitive Proxy Statement for the Annual Meeting of Stockholders, which is expected to be filed within 120 days after the Company's fiscal year ended August 31, 2018. Information regarding the Company's executive officers found in the section captioned "Executive Officers of the Registrant" in Item 4A of Part I hereof is also incorporated by reference into this Item 10.

Item 11 – Executive Compensation

The information required by Item 11 of Form 10-K, relating to executive and director compensation and certain matters relating to the Company's Compensation and Management Development Committee, is incorporated by reference from the information contained in the Definitive Proxy Statement for the Annual Meeting of Stockholders, which is expected to be filed within 120 days after the Company's fiscal year ended August 31, 2018.

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

The information required by Item 12 of Form 10-K, relating to the stock ownership of certain beneficial owners and management, is incorporated by reference from the information contained in the Definitive Proxy Statement for the Annual Meeting of Stockholders, which is expected to be filed within 120 days after the Company's fiscal year ended August 31, 2018.

The following table summarizes the Company's equity compensation plans as of August 31, 2018. Further details on the Company's equity compensation plans are discussed in the notes to the Consolidated Financial Statements. The adoption of each of the Company's equity compensation plans was approved by its shareholders.

	Number of shares of Chase common	Weighted	Number of shares of

	stock to be issued upon the exercise of outstanding options	average exercise price of outstanding options	Chase common stock remaining available for future issuance
2005 Incentive Plan	45,023	$ 30.98	—
2013 Equity Incentive Plan	54,167	66.12	1,063,370
Total	99,190	$ 50.17	1,063,370

Item 13 – Certain Relationships and Related Transactions, and director independence

The information required by Item 13 of Form 10-K, relating to transactions with related persons and the independence of members of the Company's Board of Directors, is incorporated by reference from the information contained in the Definitive Proxy Statement for the Annual Meeting of Stockholders, which is expected to be filed within 120 days after the Company's fiscal year ended August 31, 2018.

Item 14 – Principal Accountant Fees and Services

The information required by Item 14 of Form 10-K, relating to fees paid to the Company's independent registered public accounting firm and pre-approval policies of the Company's Audit Committee, is incorporated by reference from the information contained in the Definitive Proxy Statement for the Annual Meeting of Stockholders, which is expected to be filed within 120 days after the Company's fiscal year ended August 31, 2018.

Table of Contents

PART IV

Item 15 – Exhibits and Financial Statement Schedules

(a)(1) and (2)Financial Statements and Schedules:

The financial statements are set forth under Item 8 of this Annual Report on Form 10-K. Financial statement schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.

(a)(3)Exhibit Index:

Exhibit Number	Description
3.1.1	Articles of Organization of Chase Corporation (incorporated by reference from Exhibit 3.1 to the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2004, filed on November 24, 2004 (the "2004 Form 10-K")).
3.1.2	Articles of Amendment to Articles of Organization of Chase Corporation (incorporated by reference from Exhibit 3.1 to the Company's Quarterly Report on

	Form 10-Q for the fiscal quarter ended February 29, 2008, filed on April 9, 2008).
3.2	Amended and Restated By-Laws (incorporated by reference from Exhibit 3.1 to the Company's current report on Form 8-K filed on April 12, 2016).
10.1	Amended and Restated Stock Agreement dated as of August 31, 2004, between the Company and Peter R. Chase (incorporated by reference to Exhibit 10 to the Company's current report on Form 8-K filed on September 2, 2004).*
10.2	Chase Corporation Employee's Supplemental Pension Plan effective January 1, 2008 (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended May 31, 2008, filed on July 10, 2008). *
10.3	Chase Corporation Employee's Supplemental Savings Plan effective January 1, 2008 (incorporated by reference from Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended

	May 31, 2008, filed on July 10, 2008). *
10.4	Chase Corporation Non-Qualified Retirement Savings Plan for the Board of Directors, amended and restated effective January 1, 2009 (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended February 28, 2009, filed on April 9, 2009). *
10.5	Severance Agreement between the Company and Peter R. Chase dated July 10, 2006 (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended May 31, 2006, filed on July 17, 2006).*
10.6	Amended and Restated Severance Agreement between the Company and Adam P. Chase dated January 2, 2018 (incorporated by reference from Exhibit 10.1 to the Company's current report on Form 8-K on January 8, 2018). *
10.7.1	Offer letter dated August 19, 2014 by and between Chase Corporation and Kenneth J.

	Feroldi (incorporated by reference from Exhibit 10.5.4 to the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2014, filed on November 14, 2014 (the "2014 Form 10-K"). *
10.7.2	Severance Agreement between the Company and Kenneth J. Feroldi dated February 15, 2018 (incorporated by reference from Exhibit 10.1 to the Company's current report on Form 8-K on February 16, 2018). *

Table of Contents

10.8.1	Offer letter dated August 1, 2018 by and between Chase Corporation and Christian J. Talma (incorporated by reference from Exhibit 10.1 to the Company's current report on Form 8-K on August 24, 2018).*
10.8.2	Severance Agreement between the Company and Christian J. Talma dated August 17, 2018 (incorporated by reference from Exhibit 10.2 to the Company's current report on Form 8-K on August 24, 2018).*
10.9.1	2005 Equity Incentive Plan of Chase Corporation (incorporated by reference from Exhibit 10.1 to the Company's current report on Form 8-K filed on February 9,

	2006).*
10.9.2	2013 Equity Incentive Plan of Chase Corporation (incorporated by reference from Exhibit A to the Company's 2012 Proxy Statement filed on December 21, 2012).*
10.9.3	Form of restricted stock unit award issued for non-executive members of the Board of Directors (incorporated by reference from Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended February 28, 2007, filed on April 16, 2007).*
10.9.4	Form of restricted stock unit award issued for members of Executive Management (incorporated by reference from Exhibit

		10.5 to the Company's Quarterly Report on Form 10-Q for the period ended February 28, 2007, filed on April 16, 2007).*
10.9.5		Form of restricted stock agreement issued for non-executive members of the Board of Directors (incorporated by reference from Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the period ended February 29, 2008, filed on April 9, 2008).*
10.9.6		Form of restricted stock agreement issued for members of Executive Management (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on

	Form 10-Q for the period ended November 30, 2007, filed on January 9, 2008).*
10.9.7	Form of stock option award issued (incorporated by reference from Exhibit 10.11.6 to the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2009, filed on November 16, 2009). *
10.10.1	Split Dollar Agreement between Chase Corporation and Peter R. Chase dated January 10, 2005 (incorporated by reference from Exhibit 10.2 to the Company's current report on Form 8-K filed on January 14, 2005).*
10.10.2	Split Dollar Endorsement dated January 10, 2005 (incorporated by reference

	from Exhibit 10.3 to the Company's current report on Form 8-K filed on January 14, 2005).*
10.11.1	FY 2018 Chase Corporation Annual Incentive Plan (incorporated by reference from Exhibit 99.1 to the Company's current report on Form 8-K filed on September 6, 2017).*
10.11.2	FY 2018 Chase Corporation Long Term Incentive Plan (incorporated by reference from Exhibit 99.2 to the Company's current report on Form 8-K filed on September 6, 2017).*
10.11.3	FY 2019 Chase Corporation Annual Incentive Plan (incorporated by reference from Exhibit 99.1 to the Company's

	current report on Form 8-K filed on September 5, 2018).*
10.11.4	FY 2019 Chase Corporation Long Term Incentive Plan (incorporated by reference from Exhibit 99.2 to the Company's current report on Form 8-K filed on September 5, 2018).*

Table of Contents

10.11.5	Restricted Stock Agreement (equity retention agreement) between Chase Corporation and Adam P. Chase dated September 1, 2016 (incorporated by reference from Exhibit 10.10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended November 30, 2016, filed on January 6, 2017).*
10.11.6	Stock Option Agreement (equity retention agreement) between Chase Corporation and Adam P. Chase dated September 1, 2016 (incorporated by reference from Exhibit 10.10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended November 30, 2016, filed on January 6, 2017).*
10.11.7	Restricted Stock Agreement (equity retention agreement) between Chase

	Corporation and Kenneth J. Feroldi dated September 1, 2016 (incorporated by reference from Exhibit 10.10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended November 30, 2016, filed on January 6, 2017).*
10.11.8	Modification of Restricted Stock Agreement (equity retention agreement) between Chase Corporation and Kenneth J. Feroldi dated August 23, 2017 (incorporated by reference from Exhibit 10.10.8 to the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 2017, filed on November 9, 2017). *
10.12.1	Endorsement Split-Dollar Agreement among the Company, Edward L. Chase, and Sarah Chase as trustee of the ELC Irrevocable

		Life Insurance Trust (incorporated by reference from Exhibit 10.25 to the Company's Annual Report on Form 10-K for the fiscal year ended August 31, 1998, filed on November 27, 1998).
10.12.2		Amendment to Endorsement Split-Dollar Agreement between the Company and Sarah Chase as trustee of the ELC Irrevocable Life Insurance Trust (incorporated by reference from Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended February 28, 2009, filed on April 9, 2009).
10.13.1		Amended and Restated Credit Agreement dated as of December 15, 2016 by and among Chase Corporation, NEPTCO Incorporated, the Guarantors named therein, Bank of America, N.A., as administrative agent, and the Lenders party thereto (incorporated by reference from Exhibit 10.1 to the Company's current report on Form 8-K filed December 20, 2016)
10.13.2		

	First Amendment to Amended and Restated Credit Agreement, dated as of February 6, 2017 by and among Chase Corporation, NEPTCO Incorporated, the Guarantors, the Lenders party thereto and Bank of America, N.A., as administrative agent (incorporated by reference from Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended February 28, 2017, filed on April 7, 2017).
10.14	Asset Purchase Agreement, dated September 30, 2016, between Chase Corporation and Resin Designs, LLC (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended November 30, 2016, filed on January 6, 2017).
10.15	Membership Interest and Stock Purchase Agreement by and among Chase Corporation, The Stewart Group Limited, Explortec, Inc., Zappa-Tec, LLC, Stewart Superabsorbents, LLC, Stewart SA, Inc. and William Morris. (incorporated by reference from Exhibit 10.2 to the Company's current report on Form 8-K/A filed on March 9,

	2018).
21	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm – PricewaterhouseCoopers LLP
31.1	Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Table of Contents

31.2	Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of principal financial officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase

	Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

* Identifies management plan or compensatory plan or arrangement.

(b) See (a)(3) above.

(c) None.

ITEM 16 – FORM 10-K SUMMARY

None.

Table of Contents

SIGNATURES

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

Chase Corporation

By: /s/ Adam P. Chase
Adam P. Chase
President and Chief Executive Officer
November 27, 2018

By: /s/ Kenneth J. Feroldi
Kenneth J. Feroldi
Treasurer and Chief Financial Officer
November 27, 2018

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

Signature	Title	Date
/s/ Peter R. Chase	Executive Chairman	November 27, 2018

Peter R. Chase		
/s/ Adam P. Chase	Director, President and Chief Executive Officer	November 27, 2018
Adam P. Chase	(Principal Executive Officer)	
/s/ Kenneth J. Feroldi Kenneth J. Feroldi	Treasurer and Chief Financial Officer (Principal Financial Officer)	November 27, 2018
/s/ Christian J. Talma Christian J. Talma	Chief Accounting Officer (Principal Accounting Officer)	November 27, 2018
/s/ Mary Claire Chase Mary Claire Chase	Director	November 27, 2018
/s/ John H. Derby III John H. Derby III	Director	November 27, 2018
/s/ Lewis P. Gack Lewis P. Gack	Director	November 27, 2018
/s/ Chad A. McDaniel Chad A. McDaniel	Director	November 27, 2018
/s/Dana Mohler-Faria Dana Mohler-Faria	Director	November 27, 2018
/s/ Thomas Wroe, Jr Thomas Wroe, Jr.	Director	November 27, 2018

g