



G L A T F E L T E R

2019

ANNUAL
REPORT



G L A T F E L T E R

Glatfelter is a leading global supplier of engineered materials. The Company's high-quality, innovative and customizable solutions are found in tea and single-serve coffee filtration, personal hygiene and packaging products as well as home improvement and industrial applications. Headquartered in York, PA and transitioning to new headquarters in Charlotte, NC, the Company's annual net sales approximate \$925 million with customers in over 100 countries and approximately 2,600 employees worldwide. Operations include eleven manufacturing facilities located in the United States, Canada, Germany, France, the United Kingdom and the Philippines. Additional information about Glatfelter may be found at www.glatfelter.com.

FORWARD-LOOKING STATEMENTS

Certain statements made in this annual report which pertain to future financial performance or business conditions and other financial and business matters are "forward-looking statements" within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and are subject to numerous risks, uncertainties and other unpredictable or uncontrollable factors which may cause actual results or performance to differ materially from management's expectations. Some of the risks, uncertainties and other factors that could cause actual results to differ materially from those expressed in the forward-looking statements are detailed on page 13 of the accompanying 2019 Annual Report on Form 10-K included herein and in other filings with the SEC.



DEAR SHAREHOLDERS,

As we entered 2019, we embarked upon a major strategic transformation to recast Glatfelter as a growth-oriented, higher-margin engineered materials company. The Specialty Papers divestiture in late 2018 was the catalyst for the creation of a new Glatfelter – a growing enterprise with more stable and predictable financial performance. With dedication and passion, and while achieving best-ever safety performance, Glatfelter PEOPLE worked diligently on critical initiatives that reshaped our business portfolio, reduced costs, increased profitability, and strengthened our balance sheet.

- Airlaid Materials achieved record EBITDA of \$62 million driven by 11% shipment growth from its legacy business and a strong performance from our purchase of Georgia-Pacific's European nonwovens business in Steinfurt, Germany. This acquisition was successfully integrated with our existing Airlaid business and helped to optimize our product mix in Europe. The new Fort Smith, Arkansas facility was a key element driving double-digit legacy volume growth as we ramped up to full commercial production, further increasing capacity utilization.
- Following the sale of Specialty Papers, we committed to significantly reduce corporate expenses to match our smaller Company footprint. Our cost reduction goal of \$14 - \$16 million was achieved ahead of schedule, while successfully completing the transition services associated with the divestiture.
- The Company refinanced its debt in the first quarter saving approximately \$7 million in interest expense during 2019.
- Glatfelter's qualified defined benefit pension plan was terminated, successfully settling its U.S. pension liabilities. The transaction reverted about \$32 million of unrestricted surplus cash to the Company. This event, combined with our debt refinancing and strong earnings stream, significantly lowered our financial leverage during 2019.
- The Company entered into a consent decree with government authorities that resolved its liability for the Fox River environmental matter in Wisconsin.



Dante C. Parrini, Chairman and Chief Executive Officer

- A new operating model was implemented worldwide to create a leaner, flatter, and more agile organization. Designed for speed and efficiency, the model emphasizes greater functional expertise, cost control, and process improvement and standardization. A new executive team was appointed with the skills and leadership qualities that can drive our new organizational structure to accelerate and sustain growth.

Through the best efforts of Glatfelter PEOPLE, these noteworthy accomplishments are building a more focused, less capital-intensive company that can generate steady earnings growth and greater cash flow over time.

Throughout 2019, we began realizing the benefits of our transformation by performing more consistently and delivering on expectations in all four quarters. As a result, adjusted annual earnings rose dramatically to \$33.2 million or \$0.75 per share compared with \$9.2 million or \$0.21 per share in 2018. Net sales of \$927.7 million increased 7% over 2018. Adjusted free cash flow was \$56 million higher than the previous year and we reduced debt. Our share price responded to this strong financial performance by climbing 88% during the year, and we distributed a dividend of \$0.52 per share.

2020: A YEAR FOCUSED ON CONTINUED TRANSFORMATION

As we entered 2020, Glatfelter PEOPLE were energized and prepared to execute the next phase of our transformation. While great strides were made during 2019, more work is planned to enhance our organization, further improve performance, and maintain financial discipline in times of uncertainty.

- **Composite Fibers** will focus on reducing its cost structure, enhancing productivity, solidifying market shares, and introducing new higher-value products. We were encouraged to see the segment's performance rebound in the fourth quarter of 2019 as rigorous cost control and process improvement countered market and economic headwinds. To better balance production with demand, we will shut down metalized manufacturing at our Gernsbach, Germany, facility, eliminating about 100 positions, and consolidate all metalized operations at Caerphilly, U.K. In addition, we announced new cost optimization actions including the elimination of one production shift at our nonwoven wallcovering facility in Dresden, Germany.
- **Airlaid Materials** will focus on growing at market levels or better as we continue to support our customers and segments while further improving overall asset utilization and profitability for this important growth platform.
- **Corporate expenses** will be held at the \$28 million to \$30 million level. This will complete our corporate cost reduction program that was initiated after the sale of the Specialty Papers business in 2018.
- **Our new operating model** will be utilized to drive greater functional expertise and operational excellence across the Company. We will continue to rebuild and retool the organization to focus on sustainable growth. Leadership development and change management programs will focus on developing employees to reach their full potential, ingraining a culture of safety and compliance, and attracting and retaining critical talent.
- **New Product Development** will target more breakthrough innovation. Future products will increase exposure to growing markets where Glatfelter holds leading positions and strong customer relationships. We will find new ways to leverage our competencies in plant-based, natural fibers.
- **Global Supply Chain** will focus on driving continuous improvement and process optimization initiatives at all our facilities, leveraging our global spend to deliver greater savings while strengthening our supplier base, and enhancing customer service levels and overall satisfaction.

- **Relocating our headquarters** from York, Pennsylvania to Charlotte, North Carolina represents another important step in the Company's ongoing transformation. The Carolinas are a leading hub for the broader nonwovens industry, and Charlotte provides access to larger talent and resource pools essential for future growth. Having access to a major international airport in Charlotte also offers easier and more efficient business travel to Glatfelter's global operations. The transition to the new headquarters will occur in a phased approach beginning in mid-2020.

These actions will position Glatfelter with a higher-value portfolio, leaner cost structure, and a more agile and efficient operating model. We will also continue evaluating options to invest in our growth in a thoughtful and prudent manner.

Our success in 2019 was due to the commitment of Glatfelter PEOPLE around the world who worked tirelessly to transform the Company for higher, more consistent performance. There is a new energy flowing through our organization, powered by quiet confidence and optimism about the future, while at the same time being extremely mindful of the developing global health crisis related to the coronavirus.

As we are faced with the COVID-19 pandemic, the health and safety of Glatfelter PEOPLE, their families, and communities are our primary concerns and we are taking precautions and measures to protect them. In addition, we are proactively working to identify and mitigate risks to our business continuity to ensure we are best positioned to continue to supply our products, many of which play a very important role in providing our local communities and the world with critical health, hygiene, surface cleaning, and food and beverage products.

We are optimistic about the future and believe in the resiliency of our Company, PEOPLE, customers, suppliers, and the communities where we live and work.

Sincerely,



Dante C. Parrini
Chairman and Chief Executive Officer

March 12, 2020

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2019

or

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from to



G L A T F E L T E R

96 South George Street, Suite 520
York, Pennsylvania 17401

(Address of principal executive offices)

(717) 850 0170

(Registrant's telephone number, including area code)

Commission file number

1-03560

Exact name of registrant as
specified in its charter

P. H. Glatfelter Company

IRS Employer
Identification No.

23-0628360

State or other jurisdiction of
incorporation or organization

Pennsylvania

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

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Each Exchange on which registered</u>
Common Stock, par value \$.01 per share	GLT	New York Stock Exchange

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 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 (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes 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 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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a small reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large accelerated filer Accelerated filer Non-accelerated filer Small reporting company Emerging Growth Company

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

Based on the closing price as of June 30, 2019, the aggregate market value of the Common Stock of the Registrant held by non-affiliates was \$728.0 million.

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.

Common Stock outstanding on February 25, 2020 totaled 44,308,031 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following documents are incorporated by reference in this Annual Report on Form 10-K:

Portions of the registrant's Proxy Statement to be dated on or about March 30, 2020 are incorporated by reference to Part III.

P. H. GLATFELTER COMPANY
ANNUAL REPORT ON FORM 10-K
For the Year Ended
DECEMBER 31, 2019
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PART I

P. H. Glatfelter Company makes regular filings with the Securities and Exchange Commission (“SEC”), including this Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. These filings are available, free of charge, on our website, www.glatfelter.com, and the SEC’s website at www.sec.gov. We also provide copies of our SEC filings at no charge upon request to Investor Relations at (717) 225-2746, ir@glatfelter.com, or by mail to Investor Relations, 96 South George Street, Suite 520, York, PA, 17401. In this filing, unless the context indicates otherwise, the terms “we,” “our,” “us,” “the Company,” or “Glatfelter” refer to P. H. Glatfelter Company and subsidiaries.

ITEM 1 BUSINESS

Overview Glatfelter is a leading global supplier of engineered materials. Our high-quality, innovative and customizable solutions are found in tea and single-serve coffee filtration, personal hygiene as well as in many diverse packaging, home improvement and industrial applications. We are headquartered in York, PA, and our annual net sales approximate \$928 million with customers in over 100 countries and approximately 2,600 employees worldwide. We own and operate eleven manufacturing facilities located in the United States, Canada, Germany, France, the United Kingdom and the Philippines. Our eleven manufacturing facilities have a combined production capacity of approximately 293,000 metric tons of composite fibers and airlaid materials used in a wide array of applications. In addition, we operate sales and distribution offices in Russia, Italy, China, and the United States.

We manage our business and make investment decisions under a functional operating model with two distinct reporting segments: Composite Fibers and Airlaid Materials. These segments serve growing global customers and markets providing innovative and customizable solutions, ultimately delivering high-quality engineered materials. As a leading global supplier of engineered materials for consumer and industrial applications, we maintain leading positions in key segments serving markets that are growing commensurate with or in excess of gross domestic product (“GDP”). We partner with leading consumer product companies and other market leaders to provide innovative solutions delivering outstanding performance to meet market requirements. Over the past several years, we have divested of non-strategic assets and made investments to increase production capacity and improve our technical capabilities to ensure we are best positioned to serve the market demands and grow our revenue. We are committed to growing in our key markets and will make appropriate investments to support our customers and satisfy market demands.

In 2018, we exited the uncoated freesheet market by divesting our former Specialty Papers business. We completed the sale of the Specialty Papers business to Pixelle Specialty Solutions, LLC, an affiliate of Lindsay Goldberg, for \$360 million. For financial reporting purposes, Specialty Papers is presented as a discontinued operation.

In 2018, we began commercial shipments of Airlaid product from our new \$90 million facility in Arkansas. This 20,000 metric-ton facility was built to meet the growing demands of the North American market. Throughout 2018 and 2019, we continued to ramp up production and shipments of wipes and table top products from this facility.

On October 1, 2018, we acquired Georgia-Pacific’s European nonwovens business located in Steinfurt, Germany, (“Steinfurt”) along with its sales offices for \$181 million. Steinfurt is a state-of-the-art, 32,000-metric-ton-capacity manufacturing facility that employs approximately 220 people. These investments increased our total global airlaid materials capacity to approximately 150,000 metric tons.

Our growth strategy is focused on expanding our engineered materials business with new product and business development, organic investment acquisitions, and continually optimizing our cost structure to deliver on expectations of our stakeholders.

Our strategy focuses on:

Expanding our engineered materials business	<ul style="list-style-type: none"> Investing in organic growth and strategic acquisitions to expand capabilities and broaden scale Driving innovation and growth by leveraging market-leading capabilities
Driving continuous improvement and cost optimization initiatives	<ul style="list-style-type: none"> Achieving more consistent operational excellence across the Company through robust continuous improvement Managing cost structure to increase margins and improve cash flow
Maintaining a healthy balance sheet and financial flexibility	<ul style="list-style-type: none"> Applying a disciplined capital spending mindset Funding organic and inorganic growth opportunities

Segments Consolidated net sales and the relative net sales contribution of each of our two segments for the past three years are summarized below:

<i>Dollars in thousands</i>	2019		2018		2017	
Net sales	\$	927,673	\$	866,286	\$	800,362
<i>Operating segment contribution</i>						
Composite Fibers		56.2%		64.1%		68.0%
Airlaid Materials		43.8		35.9		32.0
Total		100.0%		100.0%		100.0%

Net tons sold by each segment for the past three years were as follows:

<i>Metric tons</i>	2019		2018		2017	
Composite Fibers		133,473		143,777		150,388
Airlaid Materials		137,595		104,774		92,633
Total		271,068		248,551		243,021

COMPOSITE FIBERS Our Composite Fibers segment serves customers globally and focuses on higher value-added products in the following markets:

- Food & Beverage** filtration paper primarily used for single-serve coffee and tea products;
- Wallcover** base materials used by the world's largest wallpaper manufacturers;
- Technical Specialties** a diverse line of specialty papers used in commercial and industrial applications such as electrical energy storage, homecare, hygiene, and other highly-engineered fiber-based applications;
- Metallized products** used in labels, packaging liners, gift wrap, and other consumer product applications; and
- Composite Laminates** paper used in production of decorative laminates, furniture, and flooring applications.

We believe Composite Fibers maintains market leadership positions in the single-serve coffee and tea filtration markets, wallcover base material and many other products it produces. We believe many of the markets served by Composite Fibers present attractive growth opportunities due to evolving consumer preferences, new or emerging geographic markets, new product innovation and increased market share through superior products and quality.

This segment's revenue composition by market consisted of the following for the years indicated:

<i>In thousands</i>	2019		2018		2017	
Food & beverage	\$	278,786	\$	279,515	\$	268,474
Wallcovering		81,679		103,686		103,011
Technical specialties		79,535		81,281		76,991
Metallized		46,392		52,174		57,088
Composite laminates		35,274		38,213		38,696
Total	\$	521,666	\$	554,869	\$	544,260

A significant portion of Composite Fibers' revenue is transacted in currencies other than the U.S. dollar and therefore the comparison from period to period reflects the impact of changes in currency exchange rates. Changes in exchange rates unfavorably affected the comparison of 2019 to 2018 by \$22.8 million and favorably affected the comparison of 2018 to 2017 by \$18.9 million.

Composite Fibers is comprised of five paper making facilities (Germany (3), France and England), two metallizing operations (Wales and Germany) and a pulp mill (the Philippines). The combined attributes of the facilities are summarized as follows (in metric tons):

Production Capacity	Principal Raw Material ("PRM")	Estimated Annual Quantity of PRM
143,000 lightweight and other paper	Abaca pulp	15,000
	Wood pulp	99,000
	Synthetic fiber	24,000
21,600 metallized	Base stock	20,100
15,000 abaca pulp	Abaca fiber	23,400

Composite Fibers' lightweight products are produced using highly specialized inclined wire paper machine technology.

The primary raw materials used in the production of our lightweight papers are softwood pulps, abaca pulp, and other specialty fibers. Enough quantities of abaca pulp and its source material, abaca fiber, are important to support growth in this segment. Abaca pulp, a specialized pulp with limited sources of availability globally, is produced by our Philippine pulp mill, providing a unique advantage to our Composite Fibers segment. As the supply of abaca fiber becomes constrained or when production demands exceed the capacity of the Philippines mill, alternative sources and/or substitute fibers are used to meet customer demands.

In addition to critical raw materials, Composite Fibers' production cost is influenced by the price of electricity and natural gas. The segment generates all the steam needed for production by burning natural gas. However, in 2019 it purchased approximately 75% of its electricity needs, the cost of which is influenced by the natural gas markets.

In Composite Fibers' markets, competition is product line specific as the necessity for technical expertise and specialized manufacturing equipment limits the number of companies offering multiple product lines. The following chart summarizes key competitors by market segment:

Market segment	Competitor
Single serve coffee & tea	Ahlstrom, Purico, Miquel y Costas and Zhejiang Kan
Wallcovering	Mayak & Technocell JV, Neu Kaliss, Goznak, Kämmerer and Ahlstrom
Technical specialties	Nippon Kodoshi Corp ("NKK"), Kan Kyo Technology, Burrows and Suominen Oyj
Composite laminates	Schweitzer-Maudit, Purico, Miquel y Costas and Oi Feng
Metallized	AR Metallizing, Torras Papel Novelis, Vaassen, Galileo Nanotech, and Wenzhou Protec Vacuum Metallizing Co.

Our strategy in Composite Fibers is focused on:

- optimizing our product portfolio and capitalizing on growing global markets in beverage filtration, electrical storage and consumer products trends;
- leveraging innovation resources to drive plastic free applications, and new product and new business development;
- maximize continuous improvement methodologies to increase productivity, reduce costs and expand capacity; and
- ensuring readily available access to specialized raw material requirements or suitable alternatives to support projected growth.

In early 2020, we announced a restructuring at our Gernsbach, Germany facility, including the discontinuation of its metalized production, which will be concentrated at our Caerphilly, Wales facility during 2020.

AIRLAID MATERIALS Airlaid Materials is a leading global supplier of highly absorbent and very thin profile cellulose-based airlaid nonwoven materials primarily used to manufacture consumer products for growing global end-user markets. The markets served by Airlaid Materials include:

- feminine hygiene;
- specialty wipes;
- table top;
- adult incontinence;
- home care; and
- other consumer products.

Airlaid Materials' customers are industry leading consumer product companies as well as private label converters. We believe this business holds leading market share positions in the majority of the markets it serves. Airlaid Materials has developed long-term customer relationships through superior quality, customer service, and a reputation for quickly bringing product and process innovations to market.

Airlaid Materials' revenue composition by market consisted of the following for the years indicated:

<i>In thousands</i>	2019		2018		2017	
Feminine hygiene	\$	207,301	\$	195,686	\$	179,671
Specialty wipes		70,149		45,375		29,519
Table top		66,486		21,600		6,707
Adult incontinence		25,233		19,734		14,425
Home care		17,266		16,010		13,029
Other		19,572		13,012		12,751
Total	\$	406,007	\$	311,417	\$	256,102

A significant portion of Airlaid Materials' revenue is transacted in currencies other than the U.S. dollar and therefore the comparison from period to period reflects the impact of changes in currency exchange rates. Changes in exchange rates unfavorably affected the comparison of 2019 to 2018 by \$8.6 million and favorably affected 2018 to 2017 by \$6.5 million.

The feminine hygiene category accounted for 51% and 63% of Airlaid Material's revenue in 2019 and 2018, respectively, reflecting continued diversification in our products due to growth in wipes and table top products from the Steinfurt acquisition, and additional capacity at the Fort Smith facility. Most feminine hygiene sales are to a group of large, leading global consumer products companies. We believe these markets are growth oriented due to population growth in certain geographic regions and changing consumer preferences. In developing regions, demand is also influenced by increases in disposable income and cultural preferences.

Airlaid Materials operates state-of-the-art facilities in Falkenhagen and Steinfurt, Germany, Gatineau, Canada and Fort Smith, Arkansas. During 2018, this segment's capacity increased by a combined 52,000 metric tons from the Steinfurt acquisition and the start-up of the Fort Smith facility. Steinfurt produces high-quality airlaid products for the table-top, wipes, hygiene, food pad, and other nonwoven materials markets, competing in the marketplace with nonwoven technologies and substrates, as well as other materials focused primarily on consumer based end-use applications. The state-of-the art facility has 32,000-metric-ton-capacity.

Airlaid Materials' four facilities operate with the following combined attributes (in metric tons):

Airlaid Production Capacity (metric tons)	Principal Raw Material ("PRM")	Estimated Annual Quantity of PRM (short tons)
150,000	Fluff pulp	120,000

Key raw material inputs other than fluff pulp include synthetic fibers, super absorbent polymers and latex. The cost to produce is influenced by the cost of critical raw materials and energy prices. Airlaid Materials purchases substantially all the electricity and natural gas used in its operations. Approximately 73% of this segment's revenue is earned under contracts with pass-through provisions directly related to the cost of key raw materials.

Airlaid Materials continues to be a technology and product innovation leader in technically demanding segments of the airlaid market. It's airlaid material production employs multi-bonded and thermal-bonded airlaid technologies as opposed to other methods such as hydrogen-bonding. We believe that its facilities are among the most modern and flexible airlaid facilities in the world, allowing it to produce at industry leading operating rates. Its proprietary single-lane festooning technology provides converting and product packaging capabilities which supports efficiency in the customers converting processes. Airlaid Materials' in-house technical expertise combined with significant capital investment requirements and rigorous customer expectations creates large barriers to entry for new competitors.

The following summarizes Airlaid Materials' key competitors:

Market segment	Competitor
Hygiene and other absorbent products	Fitesa, McAirlaid's GmbH, Domtar, Georgia-Pacific
Table top	Georgia-Pacific, SharpCell, Duni AB, Ascutech
Wipes	Jacob Holm, Suominen Oyj, Georgia-Pacific, Kimberly Clark

The global markets served by Airlaid Materials are characterized by attractive growth opportunities. To take advantage of this, our strategy is focused on:

- maintaining and expanding relationships with customers that are market-leading consumer product companies as well as companies distributing through private label arrangements;
- capitalizing on our product and process innovation capabilities;
- expanding geographic reach of markets served;
- optimizing the use of existing production capacity; and
- employing continuous improvement methodologies and initiatives to reduce costs, improve efficiencies and create additional capacity.

Additional financial information for each of our segments, including geographic revenue and amounts of long-lived asset, is included in Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations and in Item 8 – Financial Statements and Supplementary Data, Note 23.

Concentration of Customers Approximately 16% of our consolidated net revenue in each of the past three years was from sales to Procter & Gamble Company, a customer in the Airlaid Materials segment.

Capital Expenditures Our business requires expenditures for equipment enhancements to support growth strategies, research and development initiatives, and for normal upgrades or replacements. Most recently, we incurred significant expenditures for Airlaid Materials' capacity expansion project completed in early 2018. Capital expenditures totaled \$27.8 million, \$42.1 million and \$80.8 million in 2019, 2018 and 2017, respectively. Capital expenditures in 2020 are estimated to total between approximately \$30 million and \$35 million.

Environmental Matters We are subject to various federal, state and local laws and regulations intended to protect the environment as well as human health and safety. At various times, we have incurred costs to comply with these regulations and we could incur additional costs as new regulations are developed or regulatory priorities change.

During 2019, we substantially resolved our exposure to liabilities at the Fox River environmental site, a complex and significant matter. For a more complete discussion of this matter and our exposure to potential additional costs, see Item 8 – Financial Statements and Supplementary Data – Note 22.

Employees As of December 31, 2019, we employed 2,557 people worldwide, of whom approximately 64% are represented by labor works councils. We consider the overall relationship with our employees to be satisfactory.

Other Available Information The Corporate Governance page of our website includes our Governance Principles, Code of Business Conduct, and biographies of our Board of Directors and Executive Officers. In addition, the website includes charters of the Audit, Compensation, and Nominating and Corporate Governance Committees of the Board of Directors. The Corporate Governance page also includes the Code of Business Ethics for the CEO and Senior Financial Officers of Glatfelter, our "whistle-blower" policy and other related material. We satisfy the disclosure requirement for any future amendments to, or waivers from, our Code of Business Conduct or Code of Business Ethics for the CEO and Senior Financial Officers by posting such information on our website. We will provide a copy of these documents, without charge, to any person who requests one by contacting Investor Relations at (717) 225-2746, ir@glatfelter.com or by mail to 96 South George Street, Suite 520, York, PA, 17401.

ITEM 1A RISK FACTORS

Our business and financial performance may be adversely affected by a weak global economic environment or downturns in the target markets that we serve.

Adverse global economic conditions could impact our target markets resulting in decreased demand for our products. Our results could be adversely affected if economic conditions weaken. In the event of significant currency weakening in the countries into which our products are sold, demand for or pricing of our products could be adversely impacted. Also, there may be periods during which demand for our products is insufficient to enable us to operate our production facilities in an economical manner. As a result, we may be forced to take machine downtime to curtail production to match demand. The economic environment may also cause customer insolvencies which may result in their inability to satisfy their financial obligations to us. These conditions are beyond our control and may have a significant impact on our sales and results of operations.

Approximately \$68 million of our revenue in 2019, was earned from customers located in Ukraine, Russia and members of the Commonwealth of Independent States (also known as “CIS”). Uncertain geo-political conditions, this region’s economic environment and volatile currencies may cause demand for our products to be volatile and cause abrupt changes in our customers buying patterns.

Approximately 56% of our revenue in 2019 was from shipments to customers in Europe, the demand for which is dependent on economic conditions in this area, or to the extent such customers do business outside of Europe, in other regions of the world. Uncertain economic conditions in this region may cause weakness in demand for our products as well as volatility in our customers buying patterns.

Foreign currency exchange rate fluctuations could adversely affect our results of operations.

A significant proportion of our revenue and earnings is generated from operations outside of the United States. In addition, we own and operate manufacturing facilities in Canada, Germany, France, the United Kingdom and the Philippines. A significant portion of our business is transacted in currencies other than the U.S. dollar including the euro, British pound, Canadian dollar and Philippine peso, among others. Our euro denominated revenue exceeds euro expenses by an estimated €140 million. With respect to the British pound, Canadian dollar and Philippine peso, we have greater outflows than inflows of these currencies, although to a lesser degree than the euro. As a result, we are exposed to changes in currency exchange rates and such changes could be significant.

Our ability to maintain our products' price competitiveness is reliant, in part, on the relative strength of the currency in which the product is denominated compared to the currency of the market into which it is sold and the functional currency of our competitors. Changes in the rate of exchange of foreign currencies in relation to the U.S. dollar, and other currencies, may adversely impact our results of operations and our ability to offer products in certain markets at acceptable prices. For example, approximately \$68 million of our revenue in 2019 was earned from shipments to customers located in Ukraine, Russia and members of the CIS. Although the majority of these sales are denominated in euros, a significant weakening of the customers’ local currencies may adversely affect our revenue, our customers’ credit risk and our results of operation.

The cost of raw materials and energy used to manufacture our products could increase or the availability of certain raw materials could become constrained.

We require access to sufficient, and reasonably priced, quantities of pulps, pulp substitutes, abaca fiber, synthetic fibers, and certain other raw materials, as well as access to reliable and abundant supplies of water to support many of our production facilities. We require significant quantities of wood pulps and, therefore, the volatility of wood pulp prices can have a significant impact on our results of operations.

Our Philippine mill purchases abaca fiber to produce abaca pulp, a key material used to manufacture paper for single-serve coffee, tea and technical specialty products at Composite Fibers’ facilities. At certain times, the supply of abaca fiber has been constrained or the quality diminished due to factors such as weather-related damage to the source crop as well as decisions by land owners to produce alternative crops in lieu of those used to produce abaca fiber. These factors have contributed to volatility in fiber prices or limited available supply.

Airlaid Materials requires access to sufficient quantities of fluff pulp, the supply of which is subject to availability of certain softwoods.

The cost of many of our production materials, including petroleum-based chemicals and freight charges, are influenced by the cost of oil. Natural gas is the principal source of fuel for each of our facilities worldwide and has historically been more volatile than other fuels.

Government rules, regulations and policies have an impact on the cost of certain energy sources, particularly for our European operations. In Europe, we currently benefit from a number of government-sponsored programs related to, among others, green energy or renewable energy initiatives designed to mitigate the cost of electricity to larger industrial consumers of power. Any reduction in the extent of government sponsored incentives may adversely affect the cost ultimately borne by our operations.

Although we have contractual arrangements with certain Airlaid Materials customers pursuant to which our product's selling price is adjusted for changes in the cost of certain raw materials, we may not be able to fully pass increased raw materials or energy costs on to all customers if the market will not bear the higher price or if existing agreements limit price increases. If price adjustments significantly trail increases in raw materials or energy prices, our operating results could be adversely affected.

Our industry is highly competitive and increased competition could reduce our sales and profitability.

The global markets in which we compete are served by a variety of competitors and a variety of substrates. As a result, our ability to compete is sensitive to, and may be adversely impacted by:

- the entry of new competitors into the markets we serve;
- the aggressiveness of our competitors' pricing strategies, which could force us to decrease prices in order to maintain market share;
- our failure to anticipate and respond to changing customer preferences; and
- technological advances or changes that impact production or cost competitiveness of our products.

The impact of any significant changes may result in our inability to effectively compete in the markets in which we operate, and as a result our sales and operating results would be adversely affected.

We may not be able to develop new products acceptable to our existing or potential customers.

Our business strategy is market focused and includes investments in developing new products to meet the changing needs of our customers, serve new customers and to maintain our market share. Our success will depend, in part, on our ability to develop and introduce new and enhanced products that keep pace with introductions by our competitors and changing customer preferences. If we fail to anticipate or respond adequately to these factors, we may lose opportunities for business with both current and potential customers. The success of our new product offerings will depend on several factors, including our ability to:

- anticipate and properly identify our customers' needs and industry trends;
- develop and commercialize new products and applications in a timely manner;
- price our products competitively;
- differentiate our products from our competitors' products; and
- invest efficiently in research and development activities.

Our inability to develop new products or new business opportunities could adversely impact our business and ultimately harm our profitability.

We are subject to substantial costs and potential liability for environmental matters.

We are subject to various environmental laws and regulations that govern our operations, including discharges into the environment, and the handling and disposal of hazardous substances and wastes. We are also subject to laws and regulations that impose liability and clean-up responsibility for releases of hazardous substances. To comply with environmental laws and regulations, we have incurred, and will continue to incur, substantial expenditures.

We may incur obligations to remove or mitigate any adverse effects on the environment, such as air and water quality, resulting from mills we operate or have operated. Potential obligations include costs for government oversight of the remediation activities, the restoration of natural resources, and/or personal injury and property damages.

Airlaid Materials generates a substantial portion of its revenue from one customer serving the hygiene products market, the loss of which could have a material adverse effect on our results of operations.

Airlaid Materials' derives approximately 79% of its net sales from sales of hygiene and home care products. In addition, sales to the feminine hygiene market accounted for 51% of Airlaid Materials' net sales. One customer accounted for 37% of this segment's sales, and the balance is concentrated with a small group of large customers. The loss of the large

customer or a decline in sales of hygiene products could have a material adverse effect on this business's operating results. Our ability to effectively compete could be affected by technological production alternatives which could provide substitute products into this market segment. Customers in the airlaid nonwoven fabric material market, including the hygiene market, may also switch to less expensive products, change preferences or otherwise reduce demand for Airlaid Materials' products, thus reducing the size of the markets in which it currently sells its products. Any of the foregoing could have a material adverse effect on our financial performance and business prospects.

Our operations may be impaired, and we may be exposed to potential losses and liability as a result of natural disasters, acts of terrorism or sabotage or similar events.

If we have a catastrophic loss or unforeseen operational disruption at any of our facilities, we could suffer significant lost production which could impair our ability to satisfy customer demands.

Natural disasters, such as earthquakes, hurricanes, typhoons, flooding or fire, and acts of terrorism or sabotage affecting our operating activities and major facilities could materially and adversely affect our operations, operating results and financial condition.

In addition, many of our operations require a reliable and abundant supply of water. Such mills rely on a local water body or water source for their water needs and, therefore, are particularly sensitive to drought conditions or other natural or manmade interruptions to water supplies. Any interruption or curtailment of operations at any of our production facilities due to drought or low flow conditions at the principal water source or another cause could materially and adversely affect our operating results and financial condition.

Our pulp mill in Lanao del Norte on the Island of Mindanao in the Republic of the Philippines is located along the Pacific Rim, one of the world's hazard belts. By virtue of its geographic location, this mill is subject to similar types of natural disasters discussed above, cyclones, typhoons, and volcanic activity. Moreover, the area of Lanao del Norte has been a target of suspected terrorist activities. Our pulp mill in Mindanao is located in a rural portion of the island and is susceptible to attacks and/or power interruptions. The Mindanao mill supplies the abaca pulp used by Composite Fibers to manufacture paper for single serve coffee and tea products and certain technical specialties products. Any interruption, loss or extended curtailment of operations at our Mindanao mill could affect our ability to meet customer demands for our products and materially affect our operating results and financial condition.

We have operations in a potentially politically and economically unstable location.

Our pulp mill in the Philippines is located in a region that is unstable and subject to political unrest. As discussed above, our Philippine pulp mill produces abaca pulp, a significant raw material used by Composite Fibers and is currently our main source of abaca pulp. There are limited suitable alternative sources of readily available abaca pulp in the world. In the event of a disruption in supply from our Philippine mill, there is no guarantee that we could obtain adequate amounts of abaca pulp, if at all, from alternative sources at a reasonable price. Further, there is no assurance the performance of such alternative materials will satisfy customer performance requirements. As a consequence, any civil disturbance, unrest, political instability or other event that causes a disruption in supply could limit the availability of abaca pulp and would increase our cost of obtaining abaca pulp. Such occurrences could adversely impact our sales volumes, revenues and operating results.

Our international operations pose certain risks that may adversely impact sales and earnings.

We have significant operations and assets located in Canada, Germany, France, the United Kingdom, and the Philippines. Our international sales and operations are subject to a number of unique risks, in addition to the risks in our domestic sales and operations, including, but not limited to, economic and trade disruptions resulting from geopolitical developments, differing protections of intellectual property, trade barriers, labor unrest, exchange controls, regional economic uncertainty, differing (and possibly more stringent) labor regulation, risk of governmental expropriation, domestic and foreign customs and tariffs, differing regulatory environments, difficulty in managing widespread operations and political instability. These factors may adversely affect our future profits. Also, in some foreign jurisdictions, we may be subject to laws limiting the right and ability of entities organized or operating therein to pay dividends or remit earnings to affiliated companies unless specified conditions are met. Any such limitations would restrict our flexibility in using funds generated in those jurisdictions.

We are subject to cyber-security risks related to unauthorized or malicious access to sensitive customer, vendor, company or employee information as well as to the technology that supports our operations and other business processes.

Our business operations rely upon secure systems for mill operations, and data capture, processing, storage and reporting. Although we maintain appropriate data security and controls, our information technology systems, and those of our third-party providers, could become subject to cyberattacks. Systems such as ours are inherently exposed to cyber-security risks and potential attacks. The result of such attacks could result in a breach of data security and controls. Such a breach of our network, systems, applications or data could result in operational disruptions or damage or information misappropriation including, but not limited to, interruption to systems availability, denial of access to and misuse of applications required by our customers to conduct business with us, denial of access to the applications we use to plan our operations, procure materials, manufacture and ship products and account for orders, theft of intellectual knowhow and trade secrets, and inappropriate disclosure of confidential company, employee, customer or vendor information, could stem from such incidents.

Any of these operational disruptions and/or misappropriation of information could adversely affect our results of operations, create negative publicity and could have a material effect on our business.

We operate in and are subject to taxation from numerous U.S. and foreign jurisdictions.

The multinational nature of our business subjects us to taxation in the U.S and numerous foreign jurisdictions. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant change. Our effective tax rates could be affected by changes in tax laws or their interpretation or changes in the mix of earnings in jurisdictions with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities. For example, the European Commission has opened formal investigations to examine whether decisions by the tax authorities in certain European countries comply with European Union rules on state aid. The outcome of the European Commission's investigations could require changes to existing tax rulings that, in turn, could have an impact on our income taxes and results of operations.

In the event any of the above risk factors impact our business in a material way or in combination during the same period, we may be unable to generate enough cash flow to simultaneously fund our operations, finance capital expenditures, satisfy obligations and make dividend payments on our common stock.

In addition to debt service obligations, our business requires expenditures to support growth strategies, research and development initiatives, and for normal upgrades or replacements. We expect to meet all our near and long-term cash needs from a combination of operating cash flow, cash and cash equivalents, availability under our credit facility or other long-term debt. If we are unable to generate enough cash flow from these sources, we could be unable to fund our operations, finance capital expenditures, satisfy our near and long-term cash needs or make dividend payments.

ITEM 1B UNRESOLVED STAFF COMMENTS

None.

ITEM 2 PROPERTIES

We own substantially all the land and buildings comprising our manufacturing facilities located in Arkansas; Canada; the United Kingdom; Germany; France; and the Philippines; as well as substantially all of the equipment used in our manufacturing and related operations. Certain of our operations are under lease arrangements including our metallized paper production facility located in Caerphilly, Wales, office and warehouse space in the United States, Moscow, Russia, Suzhou, China and our corporate offices in York, Pennsylvania. All our properties, other than those that are leased, are free from any material liens or encumbrances. We consider all our buildings to be in good structural condition and well maintained and our properties to be suitable and adequate for present operations.

ITEM 3 LEGAL PROCEEDINGS

We are involved in various lawsuits that we consider to be ordinary and incidental to our business. The ultimate outcome of these lawsuits cannot be predicted with certainty; however, we do not expect such lawsuits, individually or in the aggregate, will have a material adverse effect on our consolidated financial position, liquidity or results of operations.

EXECUTIVE OFFICERS

The following table sets forth certain information with respect to our executive officers and other senior management members of February 25, 2020

Name	Age	Office with the Company
Dante C. Parrini	55	Chairman and Chief Executive Officer
Christopher W. Astley	47	Senior Vice President, Chief Commercial Officer
Samuel L. Hillard	38	Senior Vice President, Chief Financial Officer
Wolfgang Laures	50	Senior Vice President, Global Supply Chain
Eileen L. Beck	57	Vice President, Human Resources and Administration
David C. Elder	51	Vice President, Finance and Chief Accounting Officer
Philippe Sevoz	52	Vice President, Global Operation
Jill L. Urey	53	Vice President, Deputy General Counsel & Corporate Secretary
Joseph J. Zakutney	57	Vice President, Global Business Services & Chief Information Officer

Dante C. Parrini became Chief Executive Officer effective January 1, 2011 and Chairman of the Board in May 2011. Prior to this, he was Executive Vice President and Chief Operating Officer, a position he held since February 2005. Mr. Parrini joined us in 1997 and previously served as Senior Vice President and General Manager, a position he held beginning in January 2003 and prior to that as Vice President responsible for Sales and Marketing.

Christopher W. Astley was named Senior Vice President, Chief Commercial Officer in September 2019. Previously he was Senior Vice President & Business Unit President, Airlaid Materials a position he held since January 2015. He joined us in August 2010 as Vice President, Corporate Strategy and was promoted to Senior Vice President in February 2014. Prior to joining us, he was an entrepreneur leading a privately held business from 2004 until 2010. Prior to that Mr. Astley held positions with Accenture, a global management consulting firm, and The Coca-Cola Company.

Samuel L. Hillard was promoted to Senior Vice President, Chief Financial Officer in March of 2019. He joined us in March 2016 as Vice President, Corporate Development & Strategy. Prior to joining us, Mr. Hillard was Vice President – Business Development for Dover Corporation from July 2014 until 2016 where he was responsible for strategy and mergers & acquisitions within the Fluids Business Segment. From February 2011 to 2014, he served as Vice President – Business Development for SPX Corporation where he was responsible for all M&A related strategy activity within the Flow Technology Segment. Additionally, he previously worked for Blackstone in their M&A group.

Wolfgang Laures joined us in September 2019 as Senior Vice President, Global Supply Chain. Prior to this, Mr. Laures served as Executive Vice President, Global Supply Chain and Digital Transformation from 2014 to 2019 for Perstorp Group, a private equity-owned specialty chemicals innovator. Prior to joining Perstorp, he held supply chain and operations-related roles at Avery Dennison, McKinsey & Company and Procter & Gamble.

Eileen L. Beck was promoted to Vice President Human Resources & Administration in April 2017. She joined us in 2012 as Director, Global Compensation and Benefits and was promoted to Vice President in September 2015. Ms. Beck previously held various Human Resources roles at Armstrong World Industries.

David C. Elder was named Vice President, Finance in December 2011 and serves as our Chief Accounting Officer. Prior to his promotion, he was our Vice President, Corporate Controller, a position held since joining Glatfelter in January 2006. Mr. Elder was previously Corporate Controller for YORK International Corporation.

Philippe Sevoz was promoted to Vice President, Global Operations in September 2019. Previously, Mr. Sevoz has held various leadership positions in Composite Fibers including Vice President, Operations and Director, New Product Development since 2017. From 2013 until 2017, he was responsible for our facilities in Dresden and Oberschmitten, Germany. He joined Glatfelter in 2013 as General Mill Manager for Scaër, France. Before joining Glatfelter, Mr. Sevoz held mill manager positions with specialty paper companies Arjowiggins and Hahnemühle.

Jill L. Urey was promoted to Vice President, Deputy General Counsel & Corporate Secretary in July 2019 and has led our legal function since December 2018. She joined Glatfelter in January 2013 as Assistant General Counsel and assumed the additional role of Chief Compliance Officer in the beginning of 2016. Prior to joining us, Ms. Urey was Corporate Counsel and later Interim General Counsel for Graham Packaging Company from 2007 to 2012.

Joseph J. Zakutney joined us in September 2015 as Vice President and Chief Information Officer. Prior to joining Glatfelter, he spent 17 years with The Hershey Company where he held a broad spectrum of IT roles including Vice President and CIO.

ITEM 4 MINE SAFETY DISCLOSURES

Not Applicable

PART II

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

Our common stock is traded on the New York Stock Exchange under the symbol "GLT"

Our Board of Directors declared quarterly cash dividends of \$0.13 per common share in each of the four quarters of both 2019 and 2018.

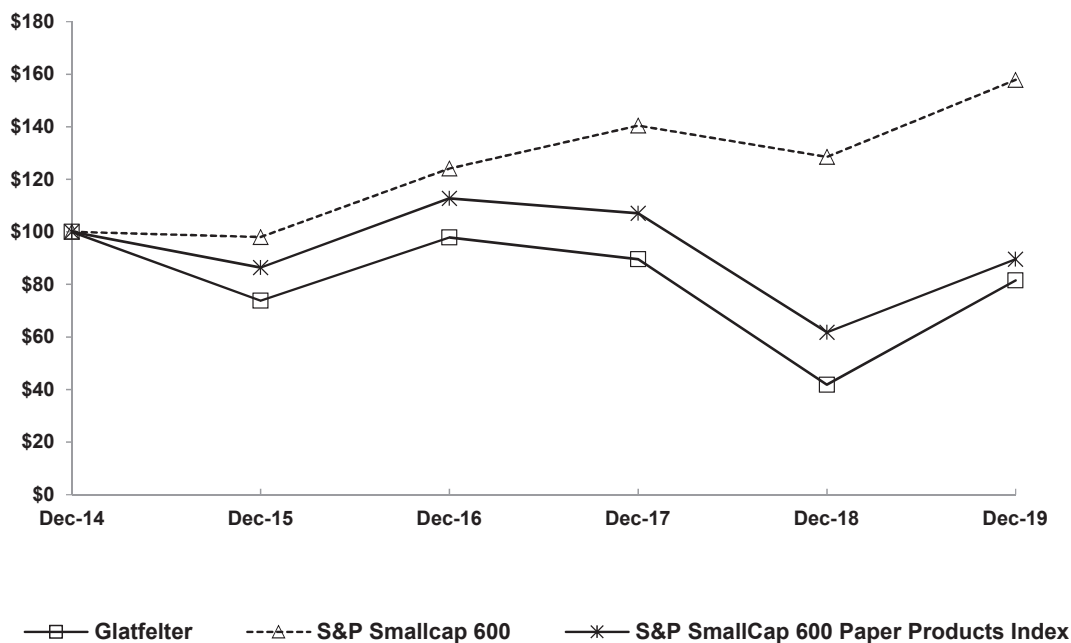
As of February 20, 2020, we had 938 shareholders of record.

STOCK PERFORMANCE GRAPH

The following stock performance graph compares the cumulative 5-year total return of our common stock with the cumulative total returns of both a broad market index and a peer group. We compare our stock performance to the S&P Small Cap 600 index and to the S&P Small Cap 600 Paper Products index comprised of us, Clearwater Paper Corp., Neenah Paper Inc., and Schweitzer-Mauduit International.

The following graph assumes \$100 was invested in our common stock, in each index, and in the peer group (including reinvestment of dividends) on December 31, 2014 and charts the performance through December 31, 2019.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN



ITEM 6 SELECTED FINANCIAL DATA*As of or for the year ended December 31**Dollars in thousands, except per share*

	2019	2018	2017	2016	2015
Net sales	\$ 927,673	\$ 866,286	\$ 800,362	\$ 761,216	\$ 786,058
Income (loss) from continuing operations	(25,211)	(448)	(5,612)	(14,177)	30,406
Income (loss) from discontinued operations	3,670	(177,156)	13,526	35,731	34,170
Net income (loss)	(21,541)	(177,604)	7,914	21,554	64,576
Earnings (loss) per share from continuing operations					
Basic	\$ (0.57)	\$ (0.01)	\$ (0.13)	\$ (0.33)	\$ 0.70
Diluted	(0.57)	(0.01)	(0.13)	(0.33)	0.69
Total assets	\$1,283,794	\$1,339,754	\$1,730,795	\$1,521,259	\$1,500,416
Total debt	359,859	411,747	481,396	372,608	360,662
Shareholders' equity	555,959	538,898	708,928	653,826	663,247
Cash dividends declared per common share	0.52	0.52	0.52	0.50	0.48
Depreciation, depletion and amortization	50,820	47,525	42,078	39,287	37,284
Capital expenditures	27,765	42,129	80,783	61,162	36,387
Net tons sold	271,068	248,551	243,021	227,527	226,546
Number of employees	2,557	2,600	2,360	2,355	2,345

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

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes thereto included elsewhere in this annual report. Our discussion and analysis of 2019 compared to 2018 is included herein. For discussion and analysis of 2018 compared to 2017, please refer to Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which was filed with the United States Securities and Exchange Commission on February 25, 2019 and is incorporated herein by reference.

Forward-Looking Statements This Annual Report on Form 10-K includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact, including statements regarding industry prospects and future consolidated financial position or results of operations, made in this Report on Form 10-K are forward looking. We use words such as "anticipates", "believes", "expects", "future", "intends" and similar expressions to identify forward-looking statements. Forward-looking statements reflect management's current expectations and are inherently uncertain. Our actual results may differ significantly from such expectations. The following discussion includes forward-looking statements regarding expectations of, among others, environmental costs, capital expenditures and liquidity, all of which are inherently difficult to predict. Although we make such statements based on assumptions that we believe to be reasonable, there can be no assurance that actual results will not differ materially from our expectations. Accordingly, we identify the following important factors, among others, which could cause our results to differ from any results that might be projected, forecasted or estimated in any such forward-looking statements:

- i. variations in demand for our products or the pricing thereof, product substitution or the impact of unplanned market-related downtime;
- ii. the impact of competition, both domestic and international, changes in industry production capacity, including the construction of new machines or mills, idling of machines or the closing of mills and incremental changes due to capital expenditures or productivity increases;
- iii. risks associated with our international operations, including local/regional economic and political environments and fluctuations in currency exchange rates;
- iv. geopolitical events, including Russia, Ukraine and Philippines;
- v. our ability to develop new, high value-added products;
- vi. changes in the price or availability of raw materials we use, particularly pulp, pulp substitutes, synthetic pulp, specialty fibers and abaca fiber;
- vii. changes in energy-related prices and the price of commodity raw materials with an energy component;
- viii. the impact of unplanned production interruptions at our facilities or at any of our key suppliers;
- ix. disruptions in production and/or increased costs due to labor disputes;
- x. the gain or loss of significant customers and/or on-going viability of such customers;
- xi. unfavorable outcomes or unforeseen costs with respect to our ongoing obligations for the Fox River environmental matter;
- xii. the impact of war and terrorism;
- xiii. the impact of unfavorable outcomes of audits by various state, federal or international tax authorities or changes in pre-tax income and its impact on the valuation of deferred tax assets;
- xiv. enactment of adverse state, federal or foreign tax or other legislation or changes in government policy or regulation; and
- xv. our ability to finance, consummate and integrate future acquisitions.

Introduction We manufacture a wide array of engineered materials and manage our company along two operating segments:

- *Composite Fibers* with revenue from the sale of single-serve tea and coffee filtration papers, wallcovering base materials, composite laminate papers, technical specialties including substrates for electrical applications, and metallized products; and
- *Airlaid Materials* with revenue from the sale of airlaid nonwoven fabric-like materials used in feminine hygiene, adult incontinence products, table top, specialty wipes, home care products and other airlaid applications.

Specialty Papers' results of operations and financial condition are reported as discontinued operations. The following discussion and analysis primarily focuses on the financial results of operations and financial condition of our continuing operations.

RESULTS OF OPERATIONS

2019 versus 2018

Overview For the year ended December 31, 2019 we reported a net loss of \$21.5 million, or \$0.49 per share compared with a net loss of \$177.6 million, or \$4.06 per diluted share in 2018. The results for 2019 reflect a number of significant actions we undertook including corporate cost reductions, debt refinancing and termination and settlement of our qualified pension plan. Excluding these items from reported results, adjusted earnings, a non-GAAP measure, was \$33.2 million, or \$0.75 per diluted share for 2019, compared with \$9.2 million, or \$0.21 per diluted share, a year ago.

On October 31, 2018, we completed the sale of the Specialty Papers business, and on October 1, 2018, we completed our acquisition of Georgia-Pacific's European nonwovens business based in Steinfurt, Germany ("Steinfurt"), with annual revenues of approximately \$99 million as part of our strategic transformation to becoming a leading global supplier of engineered materials. These actions are all part of our strategic transformation to becoming a leading global supplier of engineered materials.

The results discussed in the preceding paragraph are in accordance with generally accepted accounting principles in the United States ("GAAP"). These reported results reflect the impact of significant unusual and non-recurring items including, among others, the results of Specialty Papers, a discontinued operation, the cost to terminate and settle liabilities associated with our qualified pension plan, cost optimization actions, costs of strategic initiatives, capacity expansion and gains from timberland sales.

We generated \$102.8 million of cash from operations in 2019 compared with the use of \$6.0 million a year ago. The amount reported for 2019 includes \$53.4 million of cash, before tax, available to us as a result of the pension plan termination and settlement of all liabilities. During 2019 and 2018, capital expenditures totaled \$27.8 and \$42.1 million, respectively, reflecting the completion of the airlaid capacity expansion project in early 2018.

The following table sets forth summarized GAAP-based consolidated results of operations:

<i>In thousands, except per share</i>	Year ended December 31	
	2019	2018
Net sales	\$ 927,673	\$ 866,286
Gross profit	147,542	130,407
Operating income	54,635	21,942
Continuing operations		
Loss	(25,211)	(448)
Loss per share	(0.57)	(0.01)
Discontinued operations		
Income (loss) from discontinued operations	3,670	(177,156)
Earnings (loss) per share	0.08	(4.05)
Net loss	(21,541)	(177,604)
Loss per share	(0.49)	(4.06)

In addition to the results reported in accordance with GAAP, we evaluate our performance using adjusted earnings and adjusted earnings per diluted share. We disclose this information to allow investors to evaluate our performance exclusive of certain items that impact the comparability of results from period to period and we believe it is helpful in understanding

underlying operating trends and cash flow generation. Adjusted earnings consist of net income determined in accordance with GAAP adjusted to exclude the impact of the following:

Discontinued Operations. In connection with the sale of the Specialty Papers business, its results of operations, including the loss recorded in connection with the sale, are reported as discontinued operations for all periods presented. This adjustment reflects the net results of this discontinued operation.

Pension settlement charge. This adjustment reflects a charge recorded in connection with the termination of our qualified pension plan and the related actions to settle all obligations to the plan's participants. The pension settlement charge reflects the recognition of previously unrecognized losses deferred as a component of accumulated other comprehensive losses. Since the pension plan was fully funded, this action did not require the use of cash, but instead was accomplished through the use or transfer of plan assets.

Cost optimization actions. These adjustments reflect charges incurred in connection with initiatives to optimize the cost structure of the Company including costs related to the organizational change to a functional operating model. The costs are primarily related to executive separation, other headcount reductions, professional fees, asset write-offs and certain contract termination costs. These adjustments, which have occurred at various times in the past, are irregular in timing and relate to specific identified programs to reduce or optimize the cost structure of a particular operating segment or the corporate function.

Strategic initiatives. These adjustments primarily reflect one-time professional and legal fees incurred directly related to evaluating and executing certain strategic initiatives, acquisition transaction costs and, in 2018, a currency translation gain on acquisition financing.

Airlaid capacity expansion costs. This adjustment reflects non-capitalized, one-time costs incurred related to the start-up of a new airlaid production facility in Fort Smith, Arkansas and the implementation of a new business system.

Debt refinancing costs. Represents a charge to write-off unamortized debt issuance costs in connection with the redemption of the Company's \$250 million, 5.375% Notes.

Fox River environmental matter. This adjustment excludes a gain and reflects a decrease in the Company's overall reserve for the Fox River matter primarily due to the resolution of the litigation in the first quarter of 2019.

Timberland sales and related costs. This adjustment excludes gains from the sales of timberlands as these items are not considered to be part of our core business, ongoing results of operations or cash flows.

U.S. Tax Reform. This adjustment reflects amounts recorded estimating the impact of the TCJA which was signed into law on December 22, 2017. The TCJA includes, among many provisions, a tax on the mandatory repatriation of earnings of the Company's non-U.S. subsidiaries and a change in the corporate tax rate from 35% to 21%.

These adjustments are each unique and not considered to be on-going in nature. The transactions are irregular in timing and amount and may significantly impact our operating performance. As such, these items may not be indicative of our past or future performance and therefore are excluded for comparability purposes.

Adjusted earnings and adjusted earnings per diluted share are considered measures not calculated in accordance with GAAP, and therefore are non-GAAP measures. The non-GAAP financial information should not be considered in isolation from, or as a substitute for, measures of financial performance prepared in accordance with GAAP. The following table sets forth the reconciliation of net income to adjusted earnings for the years ended December 31, 2019 and 2018 :

Year ended December 31

<i>In thousands, except per share</i>	2019		2018	
	Amount	EPS	Amount	EPS
Net income	\$ (21,541)	\$ (0.49)	(177,604)	\$ (4.06)
Exclude: Net income from discontinued operations	(3,670)	(0.08)	177,156	4.05
Loss from continuing operations	(25,211)	(0.57)	(448)	(0.01)
Adjustments (<i>pre-tax</i>)				
Pension settlement charge	75,326		—	
Cost optimization actions	8,583		440	
Airlaid capacity expansion costs	1,014		7,072	
Debt refinancing	992		—	
Strategic initiatives	249		5,898	
Fox River environmental matter	(2,509)		—	
Timberland sales and related costs	(1,572)		(3,225)	
Total adjustments (<i>pre-tax</i>)	82,083		10,185	
Income taxes ⁽¹⁾	(23,722)		6	
U.S. Tax Reform	—		(545)	
Total after-tax adjustments	58,361	1.32	9,646	0.22
Adjusted earnings	\$ 33,150	\$ 0.75	\$ 9,198	\$ 0.21

(1) Tax effect on adjustments calculated based on the incremental effective tax rate of the jurisdiction in which each adjustment originated and the related impact of valuation allowances.

Segment Financial Performance

Year ended December 31

<i>Dollars in millions</i>	Composite Fibers		Airlaid Materials		Other and Unallocated		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Net sales	\$ 521.7	\$ 554.9	\$ 406.0	\$ 311.4	\$ —	\$ —	\$ 927.7	\$ 866.3
Cost of products sold	432.2	462.3	346.6	269.3	1.3	4.3	780.1	735.9
Gross profit (loss)	89.5	92.6	59.4	42.1	(1.3)	(4.3)	147.6	130.4
SG&A	41.6	44.2	18.3	12.2	35.1	55.3	95.0	111.7
Gains on dispositions of plant, equipment and timberlands, net	—	—	—	—	(2.1)	(3.3)	(2.1)	(3.3)
Total operating income (loss)	47.9	48.4	41.1	29.9	(34.3)	(56.3)	54.6	21.9
Non-operating expense	—	—	—	—	(89.1)	(14.7)	(89.1)	(14.7)
Income (loss) before income taxes	\$ 47.9	\$ 48.4	\$ 41.1	\$ 29.9	\$ (123.4)	\$ (71.0)	\$ (34.5)	\$ 7.3
Supplementary Data								
Net tons sold (<i>thousands</i>)	133.5	143.8	137.6	104.8	—	—	271.1	248.6
Depreciation, depletion and amortization	\$ 26.2	\$ 28.3	\$ 21.1	\$ 14.9	\$ 3.5	\$ 4.3	\$ 50.8	\$ 47.5
Capital expenditures	12.0	15.7	13.7	21.6	2.1	4.8	27.8	42.1

The sum of individual amounts set forth above may not agree to the consolidated financial statements included herein due to rounding.

Segments Results of individual operating segments are presented based on our management accounting practices and management structure. There is no comprehensive, authoritative body of guidance for management accounting equivalent to accounting principles generally accepted in the United States of America; therefore, the financial results of individual segments are not necessarily comparable with similar information for any other company. The management accounting process uses assumptions and allocations to measure performance of the segments. Methodologies are refined from time to time as management accounting practices are enhanced and businesses change. The costs incurred by support areas not directly aligned with the operating segment are allocated primarily based on an estimated utilization of support area services or are included in “Other and Unallocated” in the table above.

Management evaluates results of operations of the segments before certain corporate level costs and the effects of certain gains or losses not considered to be related to the core business operations. Management believes that this is a more meaningful representation of the operating performance of its core businesses, the profitability of operating segments and the extent of cash flow generated from these core operations. Such amounts are presented under the caption “Other and Unallocated.” In the evaluation of operating segment results, management does not use any measures of total assets. This presentation is aligned with the management and operating structure of our company. It is also on this basis that the Company’s performance is evaluated internally and by the Company’s Board of Directors.

Sales and Costs of Products Sold

<i>In thousands</i>	Year ended December 31		Change
	2019	2018	
Net sales	\$ 927,673	\$ 866,286	\$ 61,387
Costs of products sold	780,131	735,879	44,252
Gross profit	\$ 147,542	\$ 130,407	\$ 17,135
Gross profit as a percent of Net sales	15.9%	15.1%	

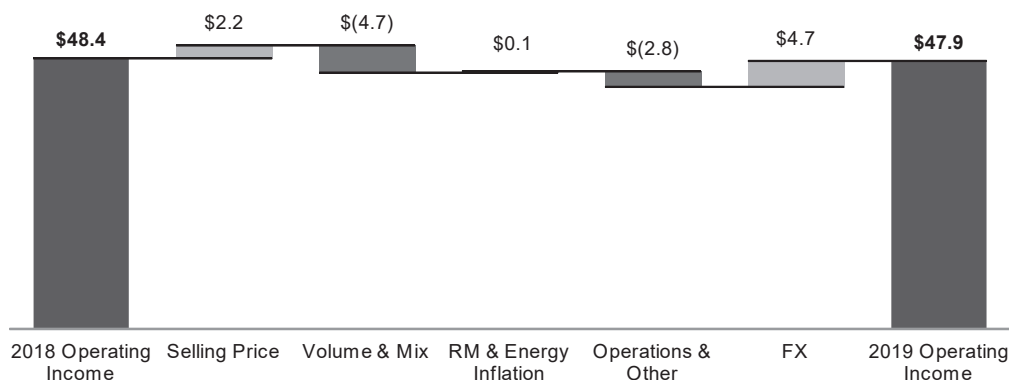
The following table sets forth the contribution to consolidated net sales by each segment:

<i>Percent of Total</i>	Year ended December 31	
	2019	2018
Segment		
Composite Fibers	56.2%	64.1%
Airlaid Materials	43.8	35.9
Total	100.0%	100.0%

Net sales on a consolidated basis totaled \$927.7 million and \$866.3 million in 2019 and 2018, respectively. The \$61.4 million increase was primarily driven by the Steinfurt acquisition, which contributed \$71.0 million in the comparison, and partially offset by \$31.4 million of unfavorable currency translation. Shipping volumes increased 9.1%.

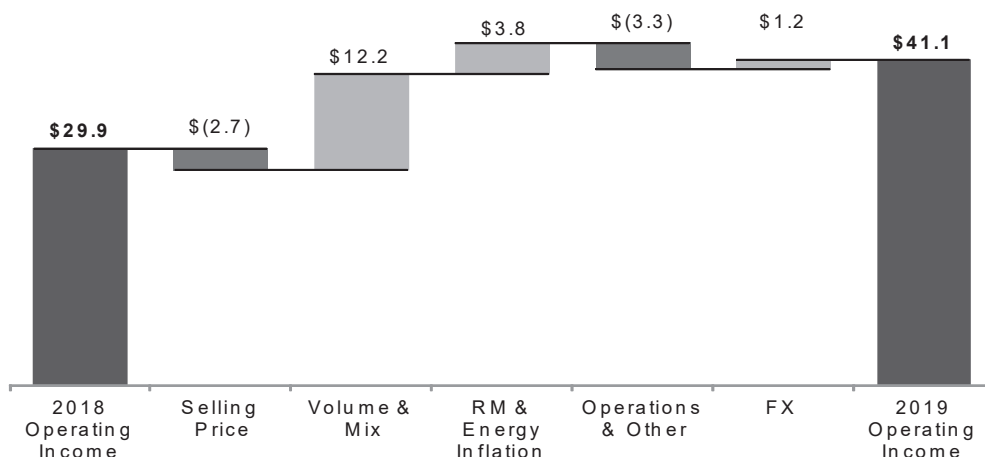
Composite Fibers' net sales decreased \$33.2 million, or 6.0%, and totaled \$521.7 million in 2019. The decrease was primarily due to \$22.8 million from unfavorable currency translation and a 7.2% decrease in shipping volumes reflecting weak demand for wallcover and metallized products. Slightly higher selling prices added \$2.2 million.

Composite Fibers' operating income for the year ended December 31, 2019 decreased \$0.5 million to \$47.9 million compared to a year ago. Lower shipping volumes impacted results by \$4.7 million and higher operating costs driven by inflationary pressure and higher freight, adversely affected the comparison by \$2.8 million. Currency was \$4.7 million favorable compared to the year-ago period reflecting hedging instruments that matured more than offsetting the impact of the lower Euro translation rate. The primary drivers are summarized in the following chart (in millions):



Airlaid Materials' net sales totaled \$406.0 million in 2019. Net sales increased \$94.6 million in the year-over-year comparison primarily due the Steinfurt acquisition which contributed \$71 million of the increase and an 11.0% increase in shipping volumes from the legacy business. Selling prices and currency translation were unfavorable by \$2.7 million and \$8.6 million, respectively.

Airlaid Materials' operating income totaled \$41.1 million, an increase of \$11.2 million, or 37.5% compared to a year ago. The increase was primarily due to higher shipping volumes related to the Steinfurt acquisition and the additional capacity added by the Fort Smith facility. Lower raw material and energy costs were partially offset by lower selling prices, primarily reflecting pass-through arrangements. The primary drivers are summarized in the following chart (in millions):



Other and Unallocated The amount of net operating expenses not allocated to an operating segment and reported as “Other and Unallocated” in our table of Segment Financial Performance, totaled \$34.3 million for 2019 compared with \$56.3 million in 2018. The amounts presented in this category include cost optimization actions, strategic initiatives, airlaid capacity expansion, Fox River reserve adjustments and gains on timberland sales, all of which are presented previously in the reconciliation of GAAP results to Adjusted earnings. Excluding these items, unallocated expenses declined \$14.8 million primarily reflecting receipt of payments for transition services, cost control and rightsizing initiatives and lower professional services.

Gain on Sales of Plant, Equipment and Timberlands, net During each of the past three years, we completed the following sales of assets:

<i>Dollars in thousands</i>	Acres	Proceeds	Gain (loss)
2019			
Timberlands	1,996	\$ 1,705	\$ 1,572
Other	n/a	493	488
Total		\$ 2,198	\$ 2,060
2018			
Timberlands	1,918	\$ 3,414	\$ 3,225
Other	n/a	48	31
Total		\$ 3,462	\$ 3,256
2017			
Timberlands	332	\$ 209	\$ 188
Other	n/a	9	9
Total		\$ 218	\$ 197

Income taxes On continuing operations, for the year ended December 31, 2019, we recorded a \$9.2 million income tax benefit on a pretax loss of \$34.5 million. The amounts for 2019 include a \$23.1 million of tax benefit recorded in connection with the \$75.3 million pension settlement charge. In addition, the income taxes in 2019 include a \$3.0 million benefit due to the completion of tax audits and the release of certain state valuation allowances. During 2018, we recorded a provision of \$7.7 million on pretax income of \$7.3 million. Our effective tax rate for 2018 was unusually high primarily due to losses from lower taxed U.S.-based operations, together with provisions of the TCJA which require us to provide for an additional U.S. tax on international earnings (Global Intangible Low Taxed Income, or GILTI).

Foreign Currency We own and operate facilities in Canada, Germany, France, the United Kingdom and the Philippines. The functional currency of our Canadian operations is the U.S. dollar. However, in Germany and France it is the Euro, in the UK, it is the British Pound Sterling, and in the Philippines the functional currency is the Peso. On an annual basis, our euro denominated revenue exceeds euro expenses by an estimated €140 million. For 2019 compared to 2018, the average currency exchange rate of the euro weakened relative to the U.S. dollar by approximately 5.2% in the year over year comparison, and the British pound sterling to the dollar weakened by approximately 4.4%. With respect to the British pound sterling, Canadian dollar, and Philippine peso, we have differing amounts of inflows and outflows of these currencies, although to a lesser degree than the euro. As a result, we are exposed to changes in currency exchange rates and such changes could be significant. The translation of the results from international operations into U.S. dollars is subject to changes in foreign currency exchange rates.

The table below summarizes the translation impact on reported results that changes in currency exchange rates had on our non-U.S. based operations from the conversion of these operation's results for the period indicated.

<i>In thousands</i>	Year ended December 31, 2019
	Favorable (unfavorable)
Net sales	\$ (31,438)
Costs of products sold	35,017
SG&A expenses	2,282
Income taxes and other	(330)
Net income	\$ 5,531

The above table only presents the financial reporting impact of foreign currency translations assuming currency exchange rates in 2019 were the same as 2018, or "constant currency." It does not present the impact of certain competitive advantages or disadvantages of operating or competing in multi-currency markets.

Discontinued Operations We completed the sale of the Specialty Papers business on October 31, 2018. Its results of operations are reported as discontinued operations for all periods presented. For 2019, we reported income from discontinued operations of \$3.7 million related to adjustments for post-closing working capital, pension, the reversal of tax reserves associated with the closure of tax matters, and other items in connection with the sale of Specialty Papers. For the year ended December 31, 2018, we reported a net loss from discontinued operations of \$177.2 million, including a \$144.1 million impairment charge recorded in connection with the sale of the business.

LIQUIDITY AND CAPITAL RESOURCES

Our business requires expenditures for new or enhanced equipment, research and development efforts, and to support our business strategy. In addition, we have mandatory debt service requirements of both principal and interest. The following table summarizes cash flow information for each of the periods presented:

<i>In thousands</i>	Year ended December 31	
	2019	2018
Cash and cash equivalents at beginning of period	\$ 142,685	\$ 116,219
Cash provided (used) by		
Operating activities	102,835	(5,952)
Investing activities	(27,113)	(217,640)
Financing activities	(72,774)	(91,426)
Effect of exchange rate changes on cash	(269)	(5,564)
Change in cash and cash equivalents from discontinued operations	(19,163)	347,048
Net cash provided (used)	(16,484)	26,466
Cash and cash equivalents at end of period	\$ 126,201	\$ 142,685

At December 31, 2019, we had \$126.2 million in cash and cash equivalents ("cash"), of which approximately 37% was held by foreign subsidiaries. Cash held by our foreign subsidiaries can be repatriated without incurring a significant amount of additional taxes. The cash held at the end of 2019 includes \$53.4 million received in connection with the termination of our overfunded qualified pension plan. In 2020, after we establish an account to fund 401(k) contributions for the next 7 years and pay excise taxes and fees, approximately \$32 million will be available for unrestricted general use.

In addition to cash, as of December 31, 2019, \$74 million was available under our existing revolving credit agreement.

Cash provided by operating activities totaled \$102.8 million in 2019 compared with a use of \$6.0 million a year ago. The improvement in cash from operations primarily reflects the \$53.4 million of cash from the pension settlement, improved earnings, reduced working capital use, predominantly inventory, as well as lower payments for interest as a result of changes in our capital debt structure in early 2019. These improvements were partially offset by the \$20.8 million payment related to the Fox River matter.

Net cash used by investing activities decreased by \$190.5 million in the year-over-year comparison as the amount for 2018 included the use of \$178.9 million, net of cash acquired for the Steinfurt acquisition. Capital expenditures totaled \$27.8 million in 2019 compared with \$42.1 million in 2018 reflecting lower spending due to the completion of Airlaid Materials' capacity expansion project in early 2018. Capital expenditures are expected to total between \$30 million and \$35 million in

2020.

Net cash used by financing activities totaled \$72.8 million in 2019 compared with \$91.4 million in 2018. The change in the year-to-year comparison primarily reflects lower repayments of amounts outstanding under our Revolving credit facility, partially offset by an increase of \$5.6 million in term loan repayments.

The following table sets forth our outstanding long-term indebtedness:

<i>In thousands</i>	December 31	
	2019	2018
Revolving credit facility, due Mar. 2020	\$ —	\$ 114,495
Revolving credit facility, due Feb. 2024	84,255	—
5.375% Notes, due Oct. 2020	—	250,000
Term loan, due Feb. 2024	240,969	—
2.40% Term Loan, due Jun. 2022	4,012	5,725
2.05% Term Loan, due Mar. 2023	19,487	25,972
1.30% Term Loan, due Jun. 2023	5,617	7,361
1.55% Term Loan, due Sep. 2025	7,915	9,470
Total long-term debt	<u>362,255</u>	<u>413,023</u>
Less current portion	(22,940)	(10,785)
Unamortized deferred issuance costs	(2,396)	(1,276)
Long-term debt, net of current portion	<u>\$ 336,919</u>	<u>\$ 400,962</u>

Our revolving credit facility due in February 2024, contains a number of customary compliance covenants, the most restrictive of which is a maximum leverage ratio of 4.0x at the end of 2019. As of December 31, 2019, the leverage ratio, as calculated in accordance with the definition in our amended credit agreement, was 2.2x, within the limits set forth in our credit agreement.

The table above sets forth our outstanding debt as of December 31, 2019. The significant terms of the debt instruments are more fully discussed in Item 8 - Financial Statements and Supplementary Data – Note 18.

In early 2019, we significantly changed our debt capital structure. In February 2019 we redeemed at par, all outstanding 5.375% Notes. In addition, on February 8, 2019, we entered into a new credit facility with a consortium of financial institutions. The new five-year facility (the “2019 Facility”) replaces our existing Revolving credit facility and consists of a \$400 million variable rate revolver and a €220 million term loan. The other terms of the 2019 Facility are substantially similar to our then existing Revolving credit facility.

Financing activities includes cash used for common stock dividends. In 2019, we used \$22.9 million of cash for dividends on our common stock compared with \$22.8 million in 2018. Our Board of Directors determines what, if any, dividends will be paid to our shareholders. Dividend payment decisions are based upon then-existing factors and conditions and, therefore, historical trends of dividend payments are not necessarily indicative of future payments.

During 2018, we sold Specialty Papers for net proceeds of \$323 million. This receipt and the net activities of the business are reflected in the summary table of cash flows under the caption “Change in cash and cash equivalents from discontinued operations.”

We are subject to various federal, state and local laws and regulations intended to protect the environment as well as human health and safety. At various times, we have incurred costs to comply with these regulations and we could incur additional costs as new regulations are developed or regulatory priorities change.

As more fully discussed in Item 8 - Financial Statements and Supplementary Data – Note 22 – Commitments, Contingencies and Legal Proceedings (“Note 21”), we are involved in the Lower Fox River in Wisconsin (the “Fox River”), an EPA Superfund site for which we remain potentially liable for certain government oversight and long-term monitoring and maintenance costs. Pursuant to a consent decree with certain government agencies entered into in January 2019, we paid \$20.5 million for past government oversight costs. Although there remains some uncertainty as to the amount we may ultimately be required to spend, primarily for government oversight costs, the consent decree specifies the nature of our future obligations.

We expect to meet all our near and long-term cash needs from a combination of operating cash flow, cash and cash equivalents, our existing credit facility and other long-term debt.

Off-Balance-Sheet Arrangements As of December 31, 2019 and 2018, we had not entered into any off-balance-sheet arrangements. Financial derivative instruments, to which we are a party, and guarantees of indebtedness, which solely consist of obligations of subsidiaries and a partnership, are reflected in the consolidated balance sheets included herein in Item 8 – Financial Statements and Supplementary Data.

Contractual Obligations The following table sets forth contractual obligations as of December 31, 2019:

<i>In millions</i>	Total	Payments due during the year ending December 31,			
		2020	2021 to 2022	2023 to 2024	2025 and beyond
Long-term debt ⁽¹⁾	\$ 381	\$ 28	\$ 54	\$ 298	\$ 1
Operating leases ⁽²⁾	18	5	7	2	4
Purchase obligations ⁽³⁾	119	87	32	—	—
Other long term obligations ^{(4), (5)}	52	4	6	5	37
Total	\$ 570	\$ 124	\$ 99	\$ 305	\$ 42

- (1) Represents contractual principal and interest payments due on long-term debt. The amounts include expected interest payments of \$19 million over the term of the underlying debt instruments based contractual or current market rates in the case of variable rate instruments.
- (2) Represents agreements for the lease of production equipment, warehouse space, facilities, automobiles, and office space.
- (3) Represents open purchase orders and other obligations, primarily for raw material and energy supply contracts. In certain situations, prices are subject to variations based on market prices. In such situations, the information above is based on prices in effect at December 31, 2019.
- (4) Primarily represents benefits estimated to be paid pursuant to retirement medical plans and nonqualified pension plans.
- (5) Since we are unable to reasonably estimate the timing of ultimate payment, the amounts set forth above do not include any payments that may be made related to uncertain tax positions, including potential interest, accounted for in accordance with ASC 740-10-20. As discussed in more detail in Item 8 – Financial Statements and Supplementary Data, Note 9, “Income Taxes,” such amounts totaled \$31 million at December 31, 2019.

Critical Accounting Policies and Estimates The preceding discussion and analysis of our consolidated financial position and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to inventories, long-lived assets, pension and post-employment obligations, environmental liabilities and income taxes. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We believe the following represent the most significant and subjective estimates used in the preparation of our consolidated financial statements.

Long- and indefinite-lived Assets We evaluate the recoverability of our long- and indefinite-lived assets, including plant, equipment, timberlands, goodwill and other intangible assets periodically or whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. Goodwill and non-amortizing tradename intangible assets are reviewed for impairment during the third quarter of each year. The fair value of our reporting units, which are also our operating segments, is determined using a market approach and a discounted cash flow model. The fair value of non-amortizing tradename intangible assets is determined using a discounted cash flow model. Our evaluations include a variety of qualitative factors and analyses based on estimates of future cash flows expected to be generated from the use of the underlying assets, trends or other determinants of fair value. If the value of an asset determined by these evaluations is less than its carrying amount, a loss is recognized for the difference between the fair value and the carrying value of the asset. Future adverse changes in market conditions or poor operating results of the related business may indicate an inability to recover the carrying value of the assets, thereby possibly requiring an impairment charge in the future.

Pension and Other Post-Employment Obligations Accounting for defined-benefit pension plans, and any curtailments or settlements thereof, requires various assumptions, including, but not limited to discount rates, expected long-term rates of return on plan assets, future compensation growth rates and mortality rates. Accounting for our retiree medical plans, and any curtailments or settlements thereof, also requires various assumptions, which include, but are not limited to, discount rates and annual rates of increase in the per capita costs of health care benefits.

The following chart summarizes the more significant assumption used in the actuarial valuation of our defined-benefit plans for each of the past three years:

	2019	2018	2017
Pension plans			
Weighted average discount rate for benefit expense for benefit obligation	4.34%	3.85%	4.44%
Expected long-term rate of return on plan assets ⁽¹⁾	2.70%	4.34%	3.85%
Rate of compensation increase	4.50%	7.25%	7.25%
	2.50%	3.00%	3.00%
Post-employment medical			
Weighted average discount rate for benefit expense for benefit obligation	4.19%	3.68%	4.18%
Health care cost trend rate assumed for next year	3.11%	4.19%	3.68%
Ultimate cost trend rate	5.60%	5.90%	6.20%
Year that the ultimate cost trend rate is reached	4.50%	4.50%	4.50%
	2037	2037	2037

(1) For 2019, the expected long-term rate of return on plan assets was reduced to 4.50% due, in part, to a change in the investment allocation of plan assets.

We evaluate these assumptions at least once each year or as facts and circumstances dictate and we make changes as conditions warrant. Changes to these assumptions will increase or decrease our reported net periodic benefit expense, which will result in changes to the recorded benefit plan assets and liabilities.

Environmental Liabilities We maintain accruals for losses associated with environmental obligations when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based on existing legislation and remediation technologies. These accruals are adjusted periodically as assessment and remediation actions continue and/or further legal or technical information develops. Such liabilities are exclusive of any insurance or other claims against third parties. Environmental costs are capitalized if the costs extend the life of the asset, increase its capacity and/or mitigate or prevent contamination from future operations. Recoveries of environmental remediation costs from other parties, including insurance carriers, are recorded as assets when their receipt is assured beyond a reasonable doubt.

Income Taxes We record the estimated future tax effects of temporary differences between the tax bases of assets and liabilities and amounts reported in our consolidated balance sheets, as well as operating loss and tax credit carry forwards. These deferred tax assets and liabilities are measured using enacted tax rates and laws that will be in effect when such amounts are expected to reverse or be utilized. We regularly review our deferred tax assets for recoverability based on historical taxable income, projected future taxable income, the expected timing of the reversals of existing temporary differences and tax planning strategies. If we are unable to generate sufficient future taxable income, or if there is a material change in the actual effective tax rates or time period within which the underlying temporary differences become taxable or deductible, we could be required to increase the valuation allowance against our deferred tax assets, which may result in a substantial increase in our effective tax rate and a material adverse impact on our reported results.

Significant judgment is required in determining our worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is less than certain. We and our subsidiaries are examined by various Federal, State and foreign tax authorities. We regularly assess the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of our provision for income taxes. We continually assess the likelihood and amount of potential adjustments and adjust the income tax provision, the current liability and deferred taxes in the period in which the facts that give rise to a revision become known.

Other significant accounting policies, not involving the same level of uncertainties as those discussed above, are nevertheless important to an understanding of the Consolidated Financial Statements. Refer to Item 8 – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements for additional accounting policies.

ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

<i>In thousands, except percentages</i>	Year Ended December 31					December 31, 2019	
	2020	2021	2022	2023	2024	Carrying Value	Fair Value
Long-term debt							
Average principal outstanding							
At fixed interest rates – Term Loans	31,741	21,158	11,178	5,198	1,721	37,031	37,439
At variable interest rates	315,956	303,599	291,241	278,884	30,632	325,224	325,224
						\$ 362,255	\$ 362,663
Weighted-average interest rate							
On fixed rate debt – Term Loans	1.85%	1.82%	1.77%	1.67%	1.55%		
On variable rate debt	1.50%	1.50%	1.50%	1.50%	1.50%		
Interest rate swap							
Pay fixed/received variable (<i>notional</i>)	€180,000	€180,000	€180,000	—	—		
Rate paid	1.540%	1.540%	1.540%	—	—		
Rate received	—	—	—	—	—		

The table above presents the average principal outstanding and related interest rates for the next five years for debt outstanding as of December 31, 2019. Fair values included herein have been determined based upon rates currently available to us for debt with similar terms and remaining maturities.

Our market risk exposure primarily results from changes in interest rates and currency exchange rates. At December 31, 2019, we had \$359.9 million of long-term debt, net of deferred debt issuance costs. After giving effect to the interest rate swap agreement, approximately 33.6% of our debt was at variable interest rates. The fixed rate Term Loans and the variable rate debt are all euro-based borrowings and thus the value of which is also subject to currency risk. Variable-rate debt outstanding represents borrowings under our revolving credit agreement that accrues interest based on one-month LIBOR plus a margin. At December 31, 2019, the contractual interest rate paid was 1.50%. A hypothetical 100 basis point increase or decrease in the interest rate on variable rate debt would increase or decrease annual interest expense by \$1.2 million.

We entered into a €180 million notional value floating-to-fixed interest rate swap agreement. Under the terms of the swap, we will pay a fixed interest rate of the applicable margin determined in accordance with our revolving credit agreement plus 0.0395% on €180 million of the underlying variable rate term loan. We will receive the greater of 0.00% or EURIBOR. As of the end of 2019, EURIBOR was 0.00%.

As part of our overall risk management practices, we enter into financial derivatives primarily designed to either i) hedge currency risks associated with forecasted transactions – “cash flow hedges”; or ii) mitigate the impact that changes in currency exchange rates have on intercompany financing transactions and foreign currency denominated receivables and payables – “foreign currency hedges.” For a more complete discussion of this activity, refer to Item 8 – Financial Statements and Supplementary Data – Note 20.

We are subject to certain risks associated with changes in foreign currency exchange rates to the extent our operations are conducted in currencies other than the U.S. Dollar. On an annual basis, our euro denominated revenue is estimated to exceed euro expenses by approximately €140 million. With respect to the British Pound Sterling, Canadian dollar, and Philippine Peso, we have greater outflows than inflows of these currencies, although to a lesser degree. As a result, particularly with respect to the euro, we are exposed to changes in currency exchange rates and such changes could be significant.

ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of P. H. Glatfelter Company (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed under the supervision of the chief executive and chief financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States.

As of December 31, 2019, management conducted an assessment of the effectiveness of the Company's internal control over financial reporting based on the framework established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Management has determined that the Company's internal control over financial reporting as of December 31, 2019, is effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States.

The Company's internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that receipts and expenditures are being made only in accordance with authorizations of management; and 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 our financial statements.

The Company's internal control over financial reporting as of December 31, 2019, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing herein which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2019.

The Company's management, including the chief executive officer and chief financial officer, does not expect that internal control over financial reporting will prevent or detect all errors and all frauds. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based, in part, on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and Board of Directors of
P. H. Glatfelter Company

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of P. H. Glatfelter Company and subsidiaries (the "Company") as of December 31, 2019, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 25, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
February 25, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and Board of Directors of
P. H. Glatfelter Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of P. H. Glatfelter Company and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income (loss), comprehensive income (loss), shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 25, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill Valuation – Composite Fibers Reporting Unit — Refer to Notes 2 and 14 to the financial statements

Critical Audit Matter Description

The Company reviews goodwill for impairment during the third quarter of each year or more frequently if impairment indicators are present. The fair value of goodwill is determined using a market approach and a discounted cash flow model. These approaches incorporate several assumptions, including estimates of future cash flows expected to be generated from the use of the underlying assets. For goodwill, impairment losses, if any, are recognized for the amount by which the carrying value of the reporting unit exceeds its fair value. The goodwill balance was \$150.8 million as of December 31, 2019, of which \$77.8 million was recorded within the Composite Fibers reporting unit, which is also an operating segment. The fair value of the Composite Fibers reporting unit exceeded its carrying value and, therefore, no impairment was recognized.

Given the significant estimates and assumptions management makes to estimate the fair value of the Composite Fibers reporting unit and the sensitivity of the reporting unit's operations to market conditions, such as geopolitical factors in Ukraine and Russia, performing audit procedures to evaluate the reasonableness of management's estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures over management's estimates of future cash flows expected to be generated from the use of the underlying assets used to value the Composite Fibers reporting unit, included the following, among others:

- We tested the effectiveness of controls over management's goodwill impairment evaluation, including those over management's development of the estimates of future cash flows used to value the reporting unit.
- We evaluated management's historical ability to accurately forecast financial results by comparing management's projections reflected in the prior period reporting unit forecast to actual results.
- We evaluated the reasonableness of management's current reporting unit forecast by comparing the forecast to:
 - Historical results.
 - Internal communications to management and the Board of Directors.
 - Forecasted information included in industry reports for the Company and certain of its peer companies.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation assumptions, including testing the underlying source information supporting the assumptions and the mathematical accuracy of the calculations.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
February 25, 2020

We have served as the Company's auditor since at least 1940; however, an earlier year could not be reliably determined.

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME (LOSS)

<i>In thousands, except per share</i>	Year ended December 31		
	2019	2018	2017
Net sales	\$ 927,673	\$ 866,286	\$ 800,362
Costs of products sold	780,131	735,879	656,773
Gross profit	147,542	130,407	143,589
Selling, general and administrative expenses	94,967	111,721	110,534
Gains on dispositions of plant, equipment and timberlands, net	(2,060)	(3,256)	(197)
Operating income	54,635	21,942	33,252
Non-operating income (expense)			
Interest expense	(10,408)	(15,609)	(13,317)
Interest income	1,123	559	237
Pension settlement	(75,326)	—	—
Other, net	(4,477)	383	(705)
Total non-operating expense	(89,088)	(14,667)	(13,785)
Income (loss) before income taxes	(34,453)	7,275	19,467
Income tax provision (benefit)	(9,242)	7,723	25,079
Loss from continuing operations	(25,211)	(448)	(5,612)
Discontinued operations:			
Income (loss) before income taxes	1,284	(207,242)	19,868
Income tax provision (benefit)	(2,386)	(30,086)	6,342
Income (loss) from discontinued operations	3,670	(177,156)	13,526
Net income (loss)	\$ (21,541)	\$ (177,604)	\$ 7,914
Basic earnings (loss) per share			
Loss from continuing operations	\$ (0.57)	\$ (0.01)	\$ (0.13)
Income (loss) from discontinued operations	0.08	(4.05)	0.31
Basic earnings (loss) per share	\$ (0.49)	\$ (4.06)	\$ 0.18
Diluted earnings (loss) per share			
Loss from continuing operations	\$ (0.57)	\$ (0.01)	\$ (0.13)
Income (loss) from discontinued operations	0.08	(4.05)	0.30
Diluted earnings (loss) per share	\$ (0.49)	\$ (4.06)	\$ 0.18
Weighted average shares outstanding			
Basic	44,132	43,768	43,609
Diluted	44,132	43,768	44,439

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

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Net income (loss)	\$ (21,541)	\$ (177,604)	\$ 7,914
Foreign currency translation adjustments	(6,724)	(27,783)	58,609
Net change in:			
Deferred gains (losses) on cash flow hedges, net of taxes of \$(737), \$(2,353) and \$1,930, respectively	2,117	6,291	(5,592)
Unrecognized retirement obligations, net of taxes of \$(22,927), \$(13,898) and \$(6,293), respectively	64,151	47,025	10,914
Other comprehensive income	59,544	25,533	63,931
Comprehensive income (loss)	<u>\$ 38,003</u>	<u>\$ (152,071)</u>	<u>\$ 71,845</u>

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

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

<i>In thousands</i>	December 31	
	2019	2018
Assets		
Cash and cash equivalents	\$ 126,201	\$ 142,685
Accounts receivable (less allowance for doubtful accounts: 2019 - \$1,682; 2018 - \$1,661)	124,442	119,772
Inventories	190,415	173,411
Prepaid expenses and other current assets	36,274	33,418
Total current assets	477,332	469,286
Plant, equipment and timberlands, net	537,421	556,044
Goodwill	150,816	153,463
Intangible assets, net	83,735	93,614
Other assets	34,490	67,347
Total assets	<u>\$ 1,283,794</u>	<u>\$ 1,339,754</u>
Liabilities and Shareholders' Equity		
Current portion of long-term debt	\$ 22,940	\$ 10,785
Accounts payable	130,039	120,701
Dividends payable	5,752	5,719
Environmental liabilities	9,000	23,000
Other current liabilities	62,772	72,597
Total current liabilities	230,503	232,802
Long-term debt	336,919	400,962
Deferred income taxes	76,374	78,651
Other long-term liabilities	84,039	88,441
Total liabilities	727,835	800,856
Commitments and contingencies	—	—
Shareholders' equity		
Common stock, \$0.01 par value; authorized - 120,000,000; issued - 54,361,980 (including treasury shares: 2019 - 10,113,504; 2018 - 10,403,296)	544	544
Capital in excess of par value	59,900	62,239
Retained earnings	725,795	770,305
Accumulated other comprehensive loss	(77,896)	(137,440)
	708,343	695,648
Less cost of common stock in treasury	(152,384)	(156,750)
Total shareholders' equity	555,959	538,898
Total liabilities and shareholders' equity	<u>\$ 1,283,794</u>	<u>\$ 1,339,754</u>

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

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Operating activities			
Net income (loss)	\$ (21,541)	\$ (177,604)	\$ 7,914
(Income) loss from discontinued operations, net of tax benefits	(3,670)	177,156	(13,526)
Adjustments to reconcile to net cash provided by operations:			
Depreciation, depletion and amortization	50,820	47,525	42,078
Amortization of debt issue costs and original issue discount	1,672	1,159	1,157
Pension settlement charge	75,326	—	—
Deferred income tax benefit (provision)	(22,971)	(7,704)	12,003
Gains on dispositions of plant, equipment and timberlands, net	(2,060)	(3,256)	(197)
Share-based compensation	3,583	6,288	5,494
Change in operating assets and liabilities			
Accounts receivable	(5,473)	(621)	(4,148)
Inventories	(17,387)	(32,138)	1,522
Prepaid and other current assets	(2,833)	(3,372)	(910)
Accounts payable	10,337	13,774	20,361
Accruals and other current liabilities	(19,536)	(23,984)	(16,690)
Pension assets received	53,401	—	—
Other	3,167	(3,175)	(1,824)
Net cash provided (used) by operating activities	102,835	(5,952)	53,234
Investing activities			
Expenditures for purchases of plant, equipment and timberlands	(27,765)	(42,129)	(80,783)
Proceeds from disposals of plant, equipment and timberlands, net	2,198	3,462	218
Acquisition, net of cash acquired	(1,383)	(178,905)	—
Other investing	(163)	(68)	(243)
Net cash used by investing activities	(27,113)	(217,640)	(80,808)
Financing activities			
Repayments of note offerings	(250,000)	—	—
Net borrowings (repayments) under revolving credit facility	(28,062)	(55,446)	109,436
Payments of borrowing costs	(2,204)	—	—
Proceeds from term loans	248,644	—	—
Repayment of term loans	(16,660)	(11,069)	(9,771)
Payments of dividends	(22,936)	(22,760)	(22,480)
Payments related to share-based compensation awards and other	(1,556)	(2,151)	(472)
Net cash provided (used) by financing activities	(72,774)	(91,426)	76,713
Effect of exchange rate changes on cash	(269)	(5,564)	7,244
Net increase (decrease) in cash and cash equivalents	2,679	(320,582)	56,383
Change in cash and cash equivalents from discontinued operations	(19,163)	347,048	4,392
Cash and cash equivalents at the beginning of period	142,685	116,219	55,444
Cash and cash equivalents at the end of period	\$ 126,201	\$ 142,685	\$ 116,219
Supplemental cash flow information			
Cash paid for:			
Interest, net of amounts capitalized	\$ 10,208	\$ 15,760	\$ 13,934
Income taxes, net	14,242	15,171	9,336

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

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
For the years ended December 31, 2019, 2018 and 2017

<i>In thousands</i>	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Shareholders' Equity
Balance at January 1, 2017	\$ 544	\$ 57,917	\$ 962,884	\$ (204,606)	\$ (162,913)	\$ 653,826
Previously unrecognized excess tax benefit on exercise of stock awards			317			317
Net income			7,914			7,914
Other comprehensive income				63,931		63,931
Comprehensive income						71,845
Cash dividends declared (\$0.52 per share)			(22,704)			(22,704)
Share-based compensation expense		6,214				6,214
Delivery of treasury shares						
RSUs and PSAs		(535)			421	(114)
Employee stock options exercised — net		(1,002)			546	(456)
Balance at December 31, 2017	544	62,594	948,411	(140,675)	(161,946)	708,928
Reclassification pursuant to ASU No. 2018-02			22,298	(22,298)		—
Net loss			(177,604)			(177,604)
Other comprehensive income				25,533		25,533
Comprehensive loss						(152,071)
Tax effect of exercise of stock awards		(7)				(7)
Cash dividends declared (\$0.52 per share)			(22,800)			(22,800)
Share-based compensation expense		7,000				7,000
Delivery of treasury shares						
RSUs and PSAs		(6,201)			4,575	(1,626)
Employee stock options exercised — net		(1,147)			621	(526)
Balance at December 31, 2018	544	62,239	770,305	(137,440)	(156,750)	538,898
Net loss			(21,541)			(21,541)
Other comprehensive income				59,544		59,544
Comprehensive income						38,003
Cash dividends declared (\$0.52 per share)			(22,969)			(22,969)
Share-based compensation expense		3,583				3,583
Delivery of treasury shares						
RSUs and PSAs		(3,625)			2,833	(792)
Employee stock options exercised — net		(2,297)			1,533	(764)
Balance at December 31, 2019	\$ 544	\$ 59,900	\$ 725,795	\$ (77,896)	\$ (152,384)	\$ 555,959

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

P. H. GLATFELTER COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION

P. H. Glatfelter Company and subsidiaries (“Glatfelter”) is a leading global supplier of engineered materials. Its high-quality, innovative and customizable solutions are found in tea and single-serve coffee filtration, personal hygiene as well as in many diverse packaging, home improvement and industrial applications. We are headquartered in York, PA, and operate facilities in the United States, Canada, Germany, France, the United Kingdom and the Philippines. We have sales and distribution offices in the U.S., Europe, Russia and China and our products are marketed worldwide, either directly to customers or through brokers and agents. The terms “we,” “us,” “our,” “the Company,” or “Glatfelter,” refer to P. H. Glatfelter Company and subsidiaries unless the context indicates otherwise.

2. ACCOUNTING POLICIES

Principles of Consolidation The consolidated financial statements include the accounts of Glatfelter and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated.

Accounting Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingencies as of the balance sheet date and the reported amounts of revenues and expenses during the reporting period. Management believes the estimates and assumptions used in the preparation of these consolidated financial statements are reasonable, based upon currently available facts and known circumstances, but recognizes that actual results may differ from those estimates and assumptions.

Discontinued Operations The results of operations for the Specialty Papers business have been classified as discontinued operations for all periods presented in the consolidated statements of income (loss).

Cash and Cash Equivalents We classify all highly liquid instruments with an original maturity of three months or less at the time of purchase as cash equivalents.

Inventories Inventories are stated at the lower of cost or market. Raw materials, in-process and finished goods inventories are valued principally using the average-cost method.

Plant, Equipment and Timberlands For financial reporting purposes, depreciation is computed using the straight-line method over the estimated useful lives of the respective assets.

The range of estimated service lives used to calculate financial reporting depreciation for principal items of plant and equipment are as follows:

Buildings	15 – 45 Years
Machinery and equipment	5 – 40 Years
Other	3 – 25 Years

Maintenance and Repairs Maintenance and repairs costs are charged to income and major renewals and betterments are capitalized. At the time property is retired or sold, the net carrying value is eliminated and any resultant gain or loss is included in income.

Valuation of Long-lived Assets, Intangible Assets and Goodwill We evaluate long-lived assets for impairment when a specific event indicates that the carrying value of an asset may not be recoverable. Recoverability is assessed based on estimates of future cash flows expected to result from the use and eventual disposition of the asset. If the sum of expected undiscounted cash flows is less than the carrying value of the asset, the asset’s fair value is estimated, and an impairment loss is recognized for the amount by which the carrying value exceeds the estimated fair value.

Goodwill and non-amortizing tradename intangible assets are reviewed for impairment during the third quarter of each year or more frequently if impairment indicators are present. The fair value of our reporting units, which are also our operating segments, is determined using a market approach and a discounted cash flow model. The fair value of non-amortizing tradename intangible assets is determined using a discounted cash flow model. For goodwill, impairment losses, if any, are recognized for the amount by which the carrying value of the reporting unit exceeds its fair value. The carrying value of a reporting unit is defined using an enterprise premise which is generally determined by the difference between the unit’s assets and operating liabilities. With respect to non-amortizing tradenames, impairment losses, if any, are recognized for the amount by which the carrying value of the tradename exceeds its fair value.

Income Taxes Income taxes are determined using the asset and liability method of accounting for income taxes in accordance with FASB ASC 740 *Income Taxes* (“ASC 740”). Under ASC 740, tax expense includes U.S. and international income taxes plus the provision for U.S. taxes on undistributed earnings of international subsidiaries not deemed to be permanently invested. Tax credits and other incentives reduce tax expense in the year the credits are claimed. Certain items of income and expense are not reported in tax returns and financial statements in the same year. The tax effect of such temporary differences is reported in deferred income taxes. Deferred tax assets are recognized if it is more likely than not that the assets will be realized in future years. We establish a valuation allowance for deferred tax assets for which realization is not more likely than not.

Significant judgment is required in determining our worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is less than certain. We and our subsidiaries are examined by various Federal, State, and foreign tax authorities. We regularly assess the potential outcomes of these examinations and any future examinations for the current or prior years in determining the adequacy of our provision for income taxes. We continually assess the likelihood and amount of potential adjustments and record any necessary adjustments in the period in which the facts that give rise to a revision become known.

Investment tax credits are accounted for by the flow-through method, which results in recognition of the benefit in the year in which the credit become available.

We account for global intangible low-taxed income (“GILTI”) tax in the period in which it is incurred. The GILTI provisions require entities to include in its U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiaries’ tangible assets.

Treasury Stock Common stock purchased for treasury is recorded at cost. At the date of subsequent reissue, the treasury stock account is reduced by the cost of such stock on the weighted-average cost basis.

Foreign Currency Translation Foreign currency translation gains and losses and the effect of exchange rate changes on transactions designated as hedges of net foreign investments are included as a component of other comprehensive income (loss). Transaction gains and losses are included in income in the period in which they occur.

Revenue Recognition We recognize revenue in accordance with ASU No. 2014-09, *Revenue from Contracts with Customers*. Our revenue is earned primarily from the manufacture and sale of engineered materials (“product sales”). Revenue is earned pursuant to contracts, supply agreements and other arrangements with a wide variety of customers. Our performance obligation is to produce a specified product according to technical specifications and, in substantially all instances, to deliver the product. Revenue from product sales is earned at a point in time. We recognize revenue on product sales when we have satisfied our performance obligation and control of the product has passed to the customer thereby entitling us to payment. With respect to substantially all arrangements for product sales, this is deemed to occur when title transfers in accordance with specified shipping terms.

Selling prices are fixed at the time the sales arrangement is entered into and payment terms are customary for similar arrangements in our industry. Many of our agreements include customary provisions for volume rebates, discounts and similar incentives. In addition, we are obligated for products that fail to meet agreed upon specification. Provisions for such items are estimated and recorded as sales deductions in the period in which the related revenue is recognized.

Refer to Note 6 for additional information about the disaggregation of our net sales.

Environmental Liabilities Accruals for losses associated with environmental obligations are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based on existing legislation and remediation technologies. These accruals are adjusted periodically as assessment and remediation actions continue and/or further legal or technical information develops. Such undiscounted liabilities are exclusive of any insurance or other claims against third parties. Environmental costs are capitalized if the costs extend the life of the asset, increase its capacity and/or mitigate or prevent contamination from future operations. Recoveries of environmental remediation costs from other parties, including insurance carriers, are recorded as assets when their receipt is assured beyond a reasonable doubt.

Earnings Per Share Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted-average common shares outstanding during the respective periods. Diluted earnings per share is computed by dividing net income by the weighted-average common shares and common share equivalents outstanding during the period. In periods in which there is a net loss, diluted loss per share is equal to basic loss per share. The dilutive effect of common share equivalents is considered in the diluted earnings per share computation using the treasury stock method.

Financial Derivatives and Hedging Activities We use financial derivatives to manage exposure to changes in foreign currencies and interest rates. In accordance with FASB ASC 815 *Derivatives and Hedging* (“ASC 815”), we record all derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether we have elected to designate a derivative in a hedging relationship and apply hedge accounting, and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting.

The gain or loss on those derivative instruments designated and qualifying as a hedge of the exposure to variability in expected future cash flows related to forecasted transactions is deferred and reported as a component of accumulated other comprehensive income (loss). Deferred gains or losses are reclassified to our results of operations at the time the hedged forecasted transaction is recorded in our results of operations. The effectiveness of cash flow hedges is assessed at inception and quarterly thereafter. If the instrument becomes ineffective or it becomes probable that the originally forecasted transaction will not occur, the related change in fair value of the derivative instrument is also reclassified from accumulated other comprehensive income (loss) and recognized in earnings.

Fair Value of Financial Instruments Under the accounting for fair value measurements and disclosures, a fair value hierarchy was established that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The three levels of the fair value hierarchy are described below:

Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

Recently Issued Accounting Pronouncements In February 2016, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2016-02, *Leases (Topic 842)* (“ASU 842”). This ASU requires organizations to recognize on its balance sheet the assets and liabilities for the rights and obligations created by leases. We adopted ASU 842 as of January 1, 2019 and elected to follow a modified retrospective method which permitted us to adopt the standard without restating previously reported periods. As a result of adopting ASU 842, we recorded a right of use asset and corresponding lease obligation of approximately \$14.1 million. Refer to Note 17 “Leases” for additional information.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815), Targeted Improvements to Accounting for Hedging Activities* (“ASU 2017-12”), which simplifies the application of hedge accounting and more closely aligns hedge accounting with an entity’s risk management strategies. ASU 2017-12 also amends the manner in which hedge effectiveness may be performed and changes the presentation of hedge ineffectiveness in the financial statements. We adopted ASU No. 2017-12 effective January 1, 2019 but it had an insignificant effect on our results of operations and financial position.

In June 2016, the FASB issued ASU No. 2016-13 *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* that changes the impairment model for most financial instruments, including trade receivables from an incurred loss method to a new forward-looking approach, based on expected losses. Under the new guidance, an allowance is recognized based on an estimate of expected credit losses. This standard is effective for us in the first quarter of 2020 and must be adopted using a modified retrospective transition approach. The adoption of this standard will not have a material impact on our results of operations or financial position.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. The update eliminates, clarifies, and modifies certain guidance related to the accounting for income taxes. ASU 2019-12 is effective for annual reporting periods beginning after December 15, 2020, with early adoption permitted. We are currently evaluating the impact this ASU will have on our financial statements and related disclosures as well as the timing of adoption.

3. ACQUISITION

On October 1, 2018, we completed the acquisition of Georgia-Pacific's European nonwovens business based in Steinfurt, Germany ("Steinfurt") for \$188 million including a working capital and post-closing purchase price adjustments. The post-closing purchase price amount was recorded as an adjustment to goodwill.

The acquisition consisted of Georgia-Pacific's operations located in Steinfurt along with sales offices located in France and Italy. The Steinfurt facility produces high-quality airlaid products for the table-top, wipes, hygiene, food pad, and other nonwoven materials markets, competing in the marketplace with nonwoven technologies and substrates, as well as other materials focused primarily on consumer based end-use applications. The facility is a state-of-the-art, 32,000-metric-ton-capacity manufacturing facility that employs approximately 220 people. Steinfurt's results are reported prospectively from the acquisition date as part of our Airlaid Materials operating segment.

We financed the transaction through a combination of cash on hand and borrowings under our revolving credit facility.

The allocation of the purchase price to assets acquired and liabilities assumed is as follows:

<i>In thousands</i>	Allocation
Assets	
Cash and cash equivalents	\$ 7,540
Accounts receivable	13,277
Inventory	11,133
Prepaid and other current assets	869
Plant, equipment and timberlands	66,167
Intangible assets	43,573
Goodwill	74,770
Total assets	<u>217,329</u>
Liabilities	
Accounts payable	8,577
Deferred tax liabilities	19,119
Other long term liabilities	1,162
Total liabilities	<u>28,858</u>
Total	188,471
less cash acquired	(7,540)
Total purchase price	<u>\$ 180,931</u>

For purposes of allocating the total purchase price, assets acquired and liabilities assumed are recorded at their estimated fair market value. The allocation set forth above is based on management's estimate of the fair value using valuation techniques such as discounted cash flow models, appraisals and similar methodologies. The amount allocated to intangible assets represents the estimated value of customer relationships, technological know-how and trade name.

In connection with the Steinfurt acquisition we recorded \$74.8 million of goodwill and \$43.6 million of intangible assets. The goodwill arising from the acquisition largely relates to strategic benefits, product and market diversification, assembled workforce, and similar factors. For tax purposes, none of the goodwill is deductible. Intangible assets consist of technology, customer relationships and tradename.

Acquired property, plant and equipment are being depreciated on a straight-line basis with estimated remaining lives ranging from 5 years to 25 years. Intangible assets are being amortized on a straight-line basis over an average estimated remaining life of 13 years reflecting the expected future value.

Revenue and operating income of Steinfurt included in our consolidated results of operations for 2018 totaled \$23.1 million and \$2.4 million, respectively. The following table summarizes annual unaudited pro forma financial information as if the acquisition occurred as of January 1, 2017:

<i>In thousands, except per share</i>	2018	2017
	(unaudited)	
Pro forma		
Net sales	\$ 937,043	\$ 904,430
Income from continuing operations	1,585	1,396
Income per share from continuing operations	0.04	0.03

During 2018, we incurred legal, professional and advisory costs directly related to the Steinfurt acquisition totaling \$5.1 million. For purposes of presenting the above pro forma financial information, such costs have been eliminated. All such costs are presented under the caption “Selling, general and administrative expenses” in the accompanying consolidated statements of income (loss).

This unaudited pro forma financial information presented in this section is not necessarily indicative of what the operating results would have been had the acquisition been completed at the beginning of the respective period nor is it indicative of future results.

4. DISCONTINUED OPERATIONS

On October 31, 2018, we completed the sale of the Specialty Papers business on a cash free and debt free basis to Pixelle Specialty Solutions LLC, an affiliate of Lindsay Goldberg (the “Purchaser”) for \$360 million. The sale of the business was in connection with the strategic focus on our more growth oriented Composite Fibers and Airlaid Materials. Cash proceeds from the sale were approximately \$323 million reflecting estimated purchase price adjustments as of the closing date and the assumption by the Purchaser of approximately \$38 million in retiree healthcare liabilities. In addition, the Purchaser assumed approximately \$210 million of pension liabilities relating to Specialty Papers’ employees and received approximately \$274 million of related assets from the Company’s qualified pension plan. We recognized a \$144.1 million pre-tax loss, presented below as an “Impairment charge” for the amount by which Specialty Papers’ carrying value exceeded net proceeds from the sale.

In connection with the sale of Specialty Papers, we entered into a Transition Services Agreement with Purchaser pursuant to which we agreed to provide various back-office and information technology support until the business is fully separated from us, which was completed in the third quarter of 2019.

The following table sets forth a summary of discontinued operations included in the consolidated statements of income (loss):

<i>In thousands</i>	2019	Year ended December 31 2018	2017
Net sales	\$ —	\$ 661,186	\$ 790,935
Energy and related sales, net	—	3,388	5,126
Total revenues	—	664,574	796,061
Costs of products sold	—	637,472	751,135
Gross profit	—	27,102	44,926
Selling, general and administrative expenses	109	32,465	22,538
(Gains) losses on dispositions of plant, equipment and timberlands, net	—	(423)	219
Operating income (loss)	(109)	(4,940)	22,169
Non-operating income (expense)			
Interest expense	—	(6,942)	(4,455)
Other, net	1,393	(51,236)	2,154
Impairment charge	—	(144,124)	—
Income (loss) before income taxes	1,284	(207,242)	19,868
Income tax provision (benefit)	(2,386)	(30,086)	6,342
Income (loss) from discontinued operations	\$ 3,670	\$ (177,156)	\$ 13,526

The amounts presented above are derived from the segment reporting for Specialty Papers adjusted to include certain retirement benefit costs and to exclude corporate shared services costs which are required to remain in continuing operations. Interest expense was allocated to discontinued operations based on borrowings under the revolving credit facility required to be repaid with proceeds from the sale of Specialty Papers. The amounts set forth above in 2018 under the caption “Other, net” include the recognition of a \$54.0 million, pre-tax, curtailment and settlement charge for pension and other post-employment benefits related to the transfer and discontinuance of future service of Specialty Papers’ employees.

The following table sets forth a summary of cash flows from discontinued operations which is included in the consolidated statements of cash flows:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Net cash (provided) used by operating activities	\$ (10,942)	\$ 38,803	\$ 51,028
Net cash (used) provided by investing activities	(8,221)	308,120	(51,511)
Net cash provided by financing activities	—	125	4,875
Change in cash and cash equivalents from discontinued operations	<u>\$ (19,163)</u>	<u>\$ 347,048</u>	<u>\$ 4,392</u>

5. GAIN ON DISPOSITIONS OF PLANT, EQUIPMENT AND TIMBERLANDS

During 2019, 2018 and 2017, we completed the following sales of assets:

<i>Dollars in thousands</i>	Acres	Proceeds	Gain (loss)
2019			
Timberlands	1,996	\$ 1,705	\$ 1,572
Other	n/a	493	488
Total		<u>\$ 2,198</u>	<u>\$ 2,060</u>
2018			
Timberlands	1,918	\$ 3,414	\$ 3,225
Other	n/a	48	31
Total		<u>\$ 3,462</u>	<u>\$ 3,256</u>
2017			
Timberlands	332	\$ 209	\$ 188
Other	n/a	9	9
Total		<u>\$ 218</u>	<u>\$ 197</u>

6. REVENUE

The following tables set forth disaggregated information pertaining to our net sales:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Composite Fibers			
Food & beverage	\$ 278,786	\$ 279,515	\$ 268,474
Wallcovering	81,679	103,686	103,011
Technical specialties and other	79,535	81,281	76,991
Metallized	46,392	52,174	57,088
Composite laminates	35,274	38,213	38,696
	<u>521,666</u>	<u>554,869</u>	<u>544,260</u>
Airlaid Materials			
Feminine hygiene	207,301	195,686	179,671
Specialty wipes	70,149	45,375	29,519
Table top	66,486	21,600	6,707
Adult incontinence	25,233	19,734	14,425
Home care	17,266	16,010	13,029
Other	19,572	13,012	12,751
	<u>406,007</u>	<u>311,417</u>	<u>256,102</u>
TOTAL	<u>\$ 927,673</u>	<u>\$ 866,286</u>	<u>\$ 800,362</u>

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Composite Fibers			
Europe, Middle East and Africa	\$ 312,218	\$ 354,978	\$ 349,336
Americas	132,845	113,546	107,064
Asia Pacific	76,603	86,345	87,860
	<u>521,666</u>	<u>554,869</u>	<u>544,260</u>
Airlaid Materials			
Europe, Middle East and Africa	220,924	163,157	132,480
Americas	179,067	144,913	122,379
Asia Pacific	6,016	3,347	1,243
	<u>406,007</u>	<u>311,417</u>	<u>256,102</u>
TOTAL	<u>\$ 927,673</u>	<u>\$ 866,286</u>	<u>\$ 800,362</u>

7. EARNINGS PER SHARE

The following table sets forth the details of basic and diluted earnings (loss) per share (EPS):

<i>In thousands, except per share</i>	Year ended December 31		
	2019	2018	2017
Net income (loss)	\$ (21,541)	\$ (177,604)	\$ 7,914
Weighted average common shares outstanding used in basic EPS	44,132	43,768	43,609
Common shares issuable upon exercise of dilutive stock options and PSAs / RSUs	—	—	830
Weighted average common shares outstanding and common share equivalents used in diluted EPS	<u>44,132</u>	<u>43,768</u>	<u>44,439</u>
Income (loss) per share			
Continuing operations	\$ (0.57)	\$ (0.01)	\$ (0.13)
Discontinued operations	0.08	(4.05)	0.30

The following table sets forth the potential common shares outstanding for stock options that were not included in the computation of diluted EPS for the period indicated, because their effect would be anti-dilutive:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Potential common shares	1,233	1,379	610

8. ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table sets forth details of the changes in accumulated other comprehensive income (losses) for the three years ended December 31, 2019, 2018 and 2017.

<i>In thousands</i>	Currency translation adjustments	Unrealized gain (loss) on cash flow hedges	Change in pensions	Change in other postretirement defined benefit plans	Total
Balance at January 1, 2019	\$ (69,622)	\$ 2,199	\$ (71,431)	\$ 1,414	\$ (137,440)
Other comprehensive income (loss) before reclassifications (net of tax)	(6,724)	6,800	8,730	826	9,632
Amounts reclassified from accumulated other comprehensive income (net of tax)	—	(4,683)	55,448	(853)	49,912
Net current period other comprehensive income (loss)	(6,724)	2,117	64,178	(27)	59,544
Balance at December 31, 2019	<u>\$ (76,346)</u>	<u>\$ 4,316</u>	<u>\$ (7,253)</u>	<u>\$ 1,387</u>	<u>\$ (77,896)</u>
Balance at January 1, 2018	\$ (41,839)	\$ (4,092)	\$ (98,295)	\$ 3,551	\$ (140,675)
Amount reclassified for adoption of ASU No. 2018-02	—	—	(23,297)	999	(22,298)
Balance as adjusted at January 1, 2019	(41,839)	(4,092)	(121,592)	4,550	(162,973)
Other comprehensive income (loss) before reclassifications (net of tax)	(27,783)	2,641	(9,267)	2,979	(31,430)
Amounts reclassified from accumulated other comprehensive income (net of tax)	—	3,650	59,428	(6,115)	56,963
Net current period other comprehensive income (loss)	(27,783)	6,291	50,161	(3,136)	25,533
Balance at December 31, 2018	<u>\$ (69,622)</u>	<u>\$ 2,199</u>	<u>\$ (71,431)</u>	<u>\$ 1,414</u>	<u>\$ (137,440)</u>
Balance at January 1, 2017	\$ (100,448)	\$ 1,500	\$ (110,656)	\$ 4,998	\$ (204,606)
Other comprehensive income (loss) before reclassifications (net of tax)	58,609	(5,182)	2,981	(1,099)	55,309
Amounts reclassified from accumulated other comprehensive income (net of tax)	—	(410)	9,380	(348)	8,622
Net current period other comprehensive income (loss)	58,609	(5,592)	12,361	(1,447)	63,931
Balance at December 31, 2017	<u>\$ (41,839)</u>	<u>\$ (4,092)</u>	<u>\$ (98,295)</u>	<u>\$ 3,551</u>	<u>\$ (140,675)</u>

The following table sets forth the amounts reclassified from accumulated other comprehensive income (losses) for the years indicated.

<i>In thousands</i>	Year ended December 31			Line Item in Statements of Income
	2019	2018	2017	
Description				
Cash flow hedges (Note 19)				
(Gains) losses on cash flow hedges	\$ (6,468)	\$ 5,020	\$ (532)	Costs of products sold
Tax expense (benefit)	1,785	(1,370)	122	Income tax provision (benefit)
Net of tax	(4,683)	3,650	(410)	
Retirement plan obligations (Note 11)				
Amortization of defined benefit pension plan items				
Prior service costs	216	39	21	Other, net
Actuarial losses	2,842	7,050	7,109	Other, net
Discontinued operations amortization of defined benefit pension plans				
Pension curtailment and settlement	—	6,990	7,975	Discontinued operations
Pension settlement	75,326	—	—	Pension settlement
	78,384	75,996	15,105	
Tax benefit	(22,936)	(16,568)	(5,725)	Income tax provision (benefit)
Net of tax	55,448	59,428	9,380	
Amortization of defined benefit other plan items				
Prior service costs	(10)	—	—	Other, net
Actuarial losses	(852)	(261)	(13)	Other, net
Discontinued operations amortization of defined benefit other plans				
Other benefit plan settlement	—	(7,949)	—	Discontinued operations
	(862)	(8,785)	(560)	
Tax expense	9	2,670	212	Income tax provision (benefit)
Net of tax	(853)	(6,115)	(348)	
Total reclassifications, net of tax	\$ 49,912	\$ 56,963	\$ 8,622	

9. INCOME TAXES

Income taxes are recognized for the amount of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. The effects of income taxes are measured based on enacted tax laws and rates.

The provision for (benefit from) income taxes from continuing operations consisted of the following:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Current taxes			
Federal	\$ (419)	\$ —	\$ (1,323)
State	134	442	107
Foreign	14,014	14,985	14,292
	13,729	15,427	13,076
Deferred taxes and other			
Federal	(20,448)	(9,242)	5,375
State	(4,105)	251	2,652
Foreign	1,582	1,287	3,976
	(22,971)	(7,704)	12,003
Income tax provision (benefit)	\$ (9,242)	\$ 7,723	\$ 25,079

The following are the domestic and foreign components of pretax income (loss) from continuing operations:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
United States	\$ (107,455)	\$ (59,264)	\$ (60,788)
Foreign	73,002	66,539	80,255
Total pretax income (loss)	\$ (34,453)	\$ 7,275	\$ 19,467

The following table sets forth a reconciliation of the statutory federal income tax rate to our actual effective tax rate for continuing operations.

	Year ended December 31		
	2019	2018	2017
Federal income tax provision at statutory rate	21.0%	21.0%	35.0%
State income taxes, net of federal income tax benefit	3.7	(15.9)	(1.8)
Foreign income tax rate differential	2.0	(18.9)	(58.0)
Tax effect of tax credits	8.2	1.3	(20.1)
Provision for (resolution of) tax matters	(8.0)	46.5	27.8
Rate changes due to enacted legislation	0.1	7.2	(1.3)
State benefit due to enacted legislation	—	—	(8.2)
Effect of U.S. tax law change ⁽¹⁾	—	(7.5)	107.5
Global Intangible Low-taxed Income	(9.4)	33.8	—
Stock-based compensation	(1.0)	10.0	(0.2)
Nondeductible officer's compensation	(0.7)	5.2	—
Valuation allowance	4.3	15.7	47.0
Pension termination, settlement and related	5.0	—	—
Other	1.6	7.8	1.1
Actual tax rate	26.8%	106.2%	128.8%

The sources of deferred income taxes were as follows at December 31:

<i>In thousands</i>	2019		2018	
Reserves	\$	991	\$	3,720
Environmental		5,696		10,795
Compensation		3,287		3,957
Post-retirement benefits		1,619		2,133
Research & development expenses		6,439		—
Inventories		(91)		(35)
Tax carryforwards		25,227		21,843
Other		1,117		3,506
Deferred tax assets		44,285		45,919
Valuation allowance		(28,485)		(30,029)
Net deferred tax assets		15,800		15,890
Property		(65,027)		(66,426)
Intangible assets		(19,355)		(22,231)
Pension		(6,198)		(3,890)
Other		(1,577)		(1,935)
Deferred tax liabilities		(92,157)		(94,482)
Net deferred tax liabilities	\$	(76,357)	\$	(78,592)

Non-current deferred tax assets and liabilities are included in the following balance sheet captions:

<i>In thousands</i>	December 31			
	2019		2018	
Other assets	\$	17	\$	59
Deferred income taxes		76,374		78,651

At December 31, 2019 we had federal, state and foreign tax net operating loss (“NOL”) carryforwards of \$62.4 million, \$199.3 million and \$3.3 million, respectively. These NOL carryforwards are available to offset future taxable income, if any. \$30.1 million of the federal NOL carryforward expires in 2037; the remainder does not expire. The state NOL carryforwards expire at various times and in various amounts beginning in 2020 and through 2039. Certain foreign NOL carryforwards begin to expire after 2023.

The federal, state and foreign NOL carryforwards on the income tax returns filed included unrecognized tax benefits taken in prior years. The NOLs for which a deferred tax asset is recognized for financial statement purposes in accordance with ASC 740 are presented net of these unrecognized tax benefits.

In addition, we had various federal tax credit carryforwards totaling \$12.5 million which begin to expire after 2036, state tax credit carryforwards totaling \$1.4 million, which begin to expire in 2020, and foreign investment tax credits of \$2.5 million which begin to expire after 2027.

As of December 31, 2019 and 2018, we had a valuation allowance of \$28.5 million and \$30.0 million, respectively, against net deferred tax assets, primarily due to uncertainty regarding the ability to utilize federal, state and foreign tax NOL carryforwards and certain state tax credits. In assessing the need for a valuation allowance, management considers all available positive and negative evidence in its analysis. Based on this analysis, we recorded a valuation allowance for the portion of deferred tax assets where the weight of available evidence indicated it is more likely than not that the deferred tax assets will not be realized.

Tax credits and other incentives reduce tax expense in the year the credits are claimed. We recorded tax credits of \$2.8 million, \$(0.1) million and \$3.9 million in 2019, 2018 and 2017, respectively, related to research and development credits.

At December 31, 2019 and 2018, unremitted earnings of subsidiaries outside the United States deemed to be indefinitely reinvested totaled \$62.0 million and \$29.0 million, respectively. Because the unremitted earnings of subsidiaries are deemed to be indefinitely reinvested as of December 31, 2019 and because we have no need for or plans to repatriate such earnings, no deferred tax liability has been recognized in our consolidated financial statements.

As of December 31, 2019, 2018 and 2017, we had \$30.5 million, \$29.6 million and \$26.9 million of gross unrecognized tax benefits, respectively. As of December 31, 2019, if such benefits were to be recognized, approximately \$19.6 million would be recorded as a component of income tax expense, thereby affecting our effective tax rate.

A reconciliation of the beginning and ending balances of the total amounts of gross unrecognized tax benefits is as follows:

<i>In millions</i>	2019	2018	2017
Balance at January 1	\$ 29.6	\$ 26.9	\$ 14.2
Increases in tax positions for prior years	2.8	0.3	1.7
Decreases in tax positions for prior years	(2.9)	(1.0)	—
Acquisition related:			
Purchase Accounting	—	0.3	—
Increases in tax positions for current year	4.6	4.0	11.9
Settlements	(0.3)	(0.2)	—
Lapse in statutes of limitation	(3.3)	(0.7)	(0.9)
Balance at December 31	\$ 30.5	\$ 29.6	\$ 26.9

We, or one of our subsidiaries, file income tax returns with the United States Internal Revenue Service, as well as various state and foreign authorities. The following table summarizes tax years that remain subject to examination by major jurisdiction:

Jurisdiction	Open Tax Years	
	Examinations not yet initiated	Examination in progress
United States		
Federal	2016 - 2019	N/A
State	2015 - 2019	2015 - 2018
Canada ⁽¹⁾	2012 - 2019	N/A
Germany ⁽¹⁾	2016 - 2019	N/A
France	2018 - 2019	N/A
United Kingdom	2018 - 2019	N/A
Philippines	2019	2016 - 2018

(1) Includes provincial or similar local jurisdictions, as applicable.

The amount of income taxes we pay is subject to ongoing audits by federal, state and foreign tax authorities, which often result in proposed assessments. Management performs a comprehensive review of its global tax positions on a quarterly basis and accrues amounts for uncertain tax positions. Based on these reviews and the result of discussions and resolutions of matters with certain tax authorities and the closure of tax years subject to tax audit, reserves are adjusted as necessary. However, future results may include favorable or unfavorable adjustments to our estimated tax liabilities in the period the assessments are determined or resolved or as such statutes are closed. Due to potential for resolution of federal, state and foreign examinations, and the expiration of various statutes of limitation, it is reasonably possible our gross unrecognized tax benefits balance may decrease within the next twelve months by a range of zero to \$1.6 million. The majority of this range relates to tax positions taken in Canada and the U.S.

We recognize interest and penalties related to uncertain tax positions as income tax expense. The following table summarizes information related to interest and penalties on uncertain tax positions:

<i>In millions</i>	As of or for the year ended December 31,					
	2019		2018		2017	
Accrued interest payable	\$	0.4	\$	1.1	\$	0.8
Interest expense (income)		(0.7)		0.3		0.3
Penalties		—		—		—

10. STOCK-BASED COMPENSATION

The P. H. Glatfelter Amended and Restated Long Term Incentive Plan (the “LTIP”) provides for the issuance of Glatfelter common stock to eligible participants in the form of restricted stock units, restricted stock awards, non-qualified stock options, performance shares, incentive stock options and performance units. As of December 31, 2019, there were 2,060,034 shares of common stock available for future issuance under the LTIP.

Pursuant to the terms of the LTIP, we have issued to eligible participants restricted stock units, performance share awards and stock only stock appreciation rights (“SOSARS”).

Restricted Stock Units (“RSUs”) and Performance Share Awards (“PSAs”) Awards of RSUs and PSAs are made under our LTIP. The vesting of RSUs is generally based on the passage of time, generally over a three-year period or in certain instances the RSUs were issued with five-year cliff vesting. PSAs are issued to members of management and vesting is based on achievement of cumulative financial performance targets covering a two year period followed by an additional one-year service period. The performance measures include a minimum, target and maximum performance level providing the grantees an opportunity to receive more or less shares than targeted depending on actual financial performance. In addition, beginning in 2018, PSA awards include a modifier based on the three-year total shareholder return relative to a broad market index. For RSUs the grant date fair value of the awards, or the closing price per common share on the date of the award, is used to determine the amount of expense to be recognized over the applicable service period. For PSAs, the grant date fair value is estimated using a lattice model. The significant inputs include the stock price, volatility, dividend yield, and risk-free rate of return. Settlement of RSUs and PSAs will be made in shares of our common stock currently held in treasury.

The following table summarizes RSU and PSA activity during the past three years:

<i>Units</i>	2019		2018		2017	
Balance at January 1,		756,786		929,386		679,038
Granted		600,820		435,542		375,435
Forfeited		(223,677)		(112,501)		(96,306)
Shares delivered		(237,466)		(495,641)		(28,781)
Balance at December 31,		896,463		756,786		929,386

	2019		2018		2017	
Compensation expense	\$	3,543	\$	5,971	\$	4,228

The amount granted in 2019, 2018 and 2017 includes 218,422, 184,834 and 163,274 PSAs, respectively, exclusive of reinvested dividends. The weighted average grant date fair value per unit for awards in 2019, 2018 and 2017 was \$15.86, \$20.20 and \$22.32, respectively. As of December 31, 2019, unrecognized compensation expense for outstanding RSUs and PSAs totaled \$6.3 million. The weighted average remaining period over which the expense will be recognized is 2.1 years.

Stock Only Stock Appreciation Rights The following table sets forth information related to outstanding SOSARS:

SOSARS	2019		2018		2017	
	Shares	Wtd Avg Exercise Price	Shares	Wtd Avg Exercise Price	Shares	Wtd Avg Exercise Price
Outstanding at January 1,	2,334,742	\$ 18.08	2,561,846	\$ 17.87	2,736,616	\$ 17.64
Granted	—	—	—	—	—	—
Exercised	(596,360)	15.56	(158,545)	13.31	(157,140)	13.76
Canceled / forfeited	(446,435)	21.06	(68,559)	21.09	(17,630)	18.46
Outstanding at December 31,	1,291,947	\$ 20.05	2,334,742	\$ 18.08	2,561,846	\$ 17.87
Exercisable at December 31,	1,291,947	20.05	2,134,297	18.13	2,011,075	17.56
Vested and expected to vest	1,291,947		2,334,742		2,561,846	

Compensation expense <i>(in thousands)</i>	\$	40	\$	317	\$	1,266
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Under terms of the SOSAR, the recipients receive the right to receive a payment in the form of shares of common stock equal to the difference, if any, in the fair market value of one share of common stock at the time of exercising the SOSAR and the exercise price. The SOSARs vest ratably over a three year period. No SOSARs were issued during 2019, 2018 or 2017. As of December 31, 2019, the intrinsic value of SOSARs vested and expected to vest totaled \$1.2 million and the remaining weighted average contractual life of outstanding SOSARs was 4.6 years.

11. RETIREMENT PLANS AND OTHER POST-RETIREMENT BENEFITS

Prior to May 2019, we provided non-contributory retirement benefits under both funded and unfunded plans to all U.S. employees and to certain non-U.S. employees in Germany. As discussed in more detail below, we terminated our qualified pension plan effective June 30, 2019 and replaced the benefits with an enhanced 401(k) defined contribution plan. Participation and benefits under the plans are based upon the employees' date of hire. U.S. benefits accrued under the terminated pension plan was based on a final average pay formula or cash balance formula for salaried employees.

We froze qualified pension plan benefits as of May 31, 2019 and terminated the plan June 30, 2019. During 2019, all plan liabilities were settled by either a lump sum distribution or assumed by a third-party in exchange for a transfer of assets from the pension plan trust fund. After giving effect to these transactions, we recorded a \$309.5 million reduction in both the projected benefit obligation and the plan assets. In addition, in accordance with pension plan settlement accounting, we recorded a \$75.3 million settlement charge reflecting the recognition of amounts previously included in accumulated other comprehensive income.

As of December 31, 2019, \$53.4 million of assets remain in the pension trust and is included in cash and cash equivalents in the accompanying consolidated balance sheet based on the nature of the underlying assets. In 2020, after a portion of the assets are transferred to a trust fund to be used to make contributions over the next seven years to the 401(k) plan and satisfying excise tax obligations, approximately \$32 million is expected to revert to us and will be available for general corporate purposes.

In December 2019, our Board of Directors approved the freezing of benefit accruals in the non-qualified pension plan for active participants effective December 31, 2019. As of January 1, 2020, each active participant's frozen non-qualified pension benefit will be transferred to a newly approved Deferred Compensation Plan non-qualified benefit plan and will earn interest credits going forward.

The Deferred Compensation Plan also provides for employer contributions and, in the future, the Plan may provide for elective employee deferrals. Under the Deferred Compensation Plan, participants will be eligible to receive annual Company contributions that such participants would have received under the P. H. Glatfelter 401(k) Savings Plan but for certain limitations imposed by the Internal Revenue Code on 401(k) plan contributions ("Company Contributions"). Unless otherwise determined by the Compensation Committee, Company Contributions under the Deferred Compensation Plan will not exceed 7% of a participant's annual eligible compensation that is in excess of the Internal Revenue Code compensation limit for 401(k) plans.

As of December 31, 2019, the remaining non-contributory pension plans are unfunded non-qualified plans.

Non-U.S. benefits are based, in the case of certain plans, on average salary and years of service and, in the case of other plans, on a fixed amount for each year of service. U.S. plan provisions and funding meet the requirements of the Employee Retirement Income Security Act of 1974. We use a December 31-measurement date for all of our defined benefit plans.

We also provide certain health care benefits to eligible U.S.-based retired employees. Participation in the plan is closed to any salaried employees hired after December 31, 2006. These benefits include a comprehensive medical plan for retirees prior to age 65 and a fixed payment to certain retirees over age 65 to help defray the costs of Medicare. Claims are paid as reported.

In connection with the sale of the Specialty Papers business, the buyer assumed \$210 million of pension liabilities for all employees active as of October 31, 2018, and we agreed to transfer pension assets of approximately \$274 million. In addition, the buyers assumed \$38 million of retiree healthcare liabilities related to employees active as of the October 31, 2018. We retained the pension retiree healthcare liabilities for all retired and deferred vested Specialty Paper employees.

All information presented in the following tables represents amounts attributable to continuing operations and all prior year data has been restated.

<i>In millions</i>	Pension Benefits		Other Benefits	
	2019	2018	2019	2018
Change in Benefit Obligation				
Balance at beginning of year	\$ 332.2	\$ 347.0	\$ 9.2	\$ 9.7
Service cost	1.3	2.3	—	0.1
Interest cost	11.5	13.3	0.3	0.5
Plan amendments	(0.2)	0.1	—	—
Participant contributions	—	—	0.9	1.2
Transfers from Discontinued Operations	4.3	25.7	—	4.3
Actuarial (gain)/loss	29.2	(10.6)	(0.3)	(3.1)
Special termination benefits	1.3	—	—	—
Benefits paid	(22.3)	(45.1)	(3.0)	(3.5)
Curtailment	(1.9)	—	(0.6)	—
Settlement/transfer	(309.5)	—	—	—
Effect of currency rate changes	(0.2)	(0.5)	—	—
Balance at end of year	\$ 45.7	\$ 332.2	\$ 6.5	\$ 9.2
Change in Plan Assets				
Fair value of plan assets at beginning of year	\$ 333.2	\$ 372.8	\$ —	\$ —
Actual return on plan assets	44.1	(22.4)	—	—
Total contributions	2.2	2.2	3.0	3.5
Transfers from Discontinued Operations	5.7	25.7	—	—
Benefits paid	(22.3)	(45.1)	(3.0)	(3.5)
Settlement/transfer	(309.5)	—	—	—
Fair value of plan assets at end of year	53.4	333.2	—	—
Funded status at end of year	\$ 7.7	\$ 1.0	\$ (6.5)	\$ (9.2)

Amounts presented under the caption “transfers from discontinued operations” represent the impact of employees changing their status from what was originally assumed for purposes of accounting for discontinued operations to the final determination in accordance with the sale agreement.

The fair value of plan assets presented above consist entirely of the amounts discussed above and remaining in the qualified plan trust account. The non-qualified plans have an unfunded projected benefit obligation of \$45.7 million.

Amounts recognized in the consolidated balance sheets consist of the following as of December 31:

<i>In millions</i>	Pension Benefits		Other Benefits	
	2019	2018	2019	2018
Cash and cash equivalents	\$ 53.4	\$ —	\$ —	\$ —
Other assets	—	43.3	—	—
Current liabilities	(2.3)	(2.1)	(1.4)	(2.4)
Other long-term liabilities	(43.4)	(40.2)	(5.1)	(6.8)
Net amount recognized	\$ 7.7	\$ 1.0	\$ (6.5)	\$ (9.2)

The components of amounts recognized as “Accumulated other comprehensive income” consist of the following on a pre-tax basis:

<i>In millions</i>	Pension Benefits		Other Benefits	
	2019	2018	2019	2018
Prior service cost/(credit)	\$ 0.1	\$ 0.5	\$ 0.6	\$ —
Net actuarial loss	4.2	90.9	1.4	1.9

The accumulated benefit obligation for all defined benefit pension plans was \$45.7 million and \$324.0 million at December 31, 2019 and 2018, respectively.

The weighted-average assumptions used in computing the benefit obligations above were as follows:

	Pension Benefits		Other Benefits	
	2019	2018	2019	2018
Discount rate – benefit obligation	2.70 %	4.34 %	3.11 %	4.19 %
Future compensation growth rate	—	2.50	—	—

The discount rates set forth above were estimated based on the modeling of expected cash flows for each of our benefit plans and selecting a portfolio of high-quality debt instruments with maturities matching the respective cash flows of each plan. The resulting discount rates as of December 31, 2019 ranged from 1.22% to 3.25% for pension plans and from 2.93% to 3.25% for other benefit plans.

Information for pension plans with an accumulated benefit obligation in excess of plan assets was as follows:

<i>In millions</i>	2019		2018	
Projected benefit obligation	\$	45.7	\$	42.2
Accumulated benefit obligation		45.7		36.6
Fair value of plan assets		—		—

Net periodic benefit cost includes the following components:

<i>In millions</i>	Year Ended December 31		
	2019	2018	2017
Pension Benefits			
Service cost	\$ 1.3	\$ 2.3	\$ 2.0
Interest cost	11.5	13.3	13.7
Expected return on plan assets	(13.7)	(21.1)	(22.2)
Amortization of prior service cost	0.2	—	—
Amortization of actuarial loss	2.8	7.1	7.1
Termination benefits	1.3	—	—
One-time settlement charge	75.3	—	—
Total net periodic benefit cost	\$ 78.7	\$ 1.6	\$ 0.6
Other Benefits			
Service cost	\$ —	\$ 0.1	\$ 0.1
Interest cost	0.3	0.5	0.4
Amortization of actuarial loss	(0.9)	(0.3)	—
Total net periodic benefit cost	\$ (0.6)	\$ 0.3	\$ 0.5

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) were as follows:

<i>In millions</i>	Year Ended December 31	
	2019	2018
Pension Benefits		
Actuarial (gain) loss	\$ (5.2)	\$ 32.9
Plan amendments	(0.2)	0.1
Recognized prior service costs	(0.2)	—
Recognized actuarial losses	(78.1)	(7.1)
Total recognized in other comprehensive (income) loss	(83.7)	25.9
Total recognized in net periodic benefit cost and other comprehensive loss	\$ (5.0)	\$ 27.5
Other Benefits		
Actuarial (gain) loss	\$ (0.3)	\$ (3.1)
Amortization of actuarial losses	0.9	0.3
Total recognized in other comprehensive (income) loss	0.6	(2.8)
Total recognized in net periodic benefit cost and other comprehensive (income) loss	\$ -	\$ (2.5)

The weighted-average assumptions used in computing the net periodic benefit cost information above were as follows:

	Year Ended December 31		
	2019	2018	2017
Pension Benefits			
Discount rate – benefit expense	4.34%	3.85%	4.44%
Future compensation growth rate	2.50	3.00	3.00
Expected long-term rate of return on plan assets	4.50	7.25	7.25
Other Benefits			
Discount rate – benefit expense	4.19%	3.68%	4.18%

To develop the expected long-term rate of return assumption, we considered the historical returns and the future expected returns for each asset class, as well as the target asset allocation of the pension portfolio.

Assumed health care cost trend rates used to determine benefit obligations at December 31 were as follows:

	2019	2018
Health care cost trend rate assumed for next year	5.60%	5.90%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.50	4.50
Year that the rate reaches the ultimate rate	2037	2037

At the end of 2019, assets held in the pension trust consisted entirely of \$53.4 million of cash and cash equivalents and were primarily a Level 1 type. The table below presents the fair values of our benefit plan assets as of December 31, 2018 by level within the fair value hierarchy, as described in Note 2:

<i>In millions</i>	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Fixed income	\$ 330.9	\$ 41.8	\$ 289.1	\$ —
Cash and equivalents	2.3	—	2.3	—
Total	\$ 333.2	\$ 41.8	\$ 291.4	\$ —

Cash Flow Benefit payments expected to be made in 2020 under our non-qualified pension plans and other benefit plans are summarized below:

<i>In thousands</i>	
Nonqualified pension plans	\$ 2,290
Other benefit plans	1,453

The following benefit payments under all pension and other benefit plans are expected to be paid:

<i>In thousands</i>	Pension Benefits	Other Benefits
2020	\$ 2,290	\$ 1,453
2021	2,190	973
2022	2,134	698
2023	2,076	538
2024	2,016	471
2025 through 2029	24,071	1,724

Defined Contribution Plans We maintain 401(k) plans for substantially all U.S. based employees. Employees may contribute up to 50% of their earnings, subject to certain restrictions. Through the end of May 2019, the Company matched a portion of the employees' contribution in cash. Beginning June 1, 2019, the Company's contribution approximated 7% of the employee's eligible earnings. The expense associated with our 401(k) plan was \$1.9 million, \$0.4 million and \$0.3 million in 2019, 2018 and 2017, respectively.

12. INVENTORIES

Inventories, net of reserves were as follows:

<i>In thousands</i>	December 31	
	2019	2018
Raw materials	\$ 59,164	\$ 50,205
In-process and finished	92,231	84,894
Supplies	39,020	38,312
Total	\$ 190,415	\$ 173,411

13. PLANT, EQUIPMENT AND TIMBERLANDS

Plant, equipment and timberlands at December 31 were as follows:

<i>In thousands</i>	2019	2018
Land and buildings	\$ 163,066	\$ 164,002
Machinery and equipment	685,081	676,501
Furniture, fixtures, and other	152,777	152,121
Accumulated depreciation	(490,032)	(458,567)
	510,892	534,057
Construction in progress	26,508	21,946
Timberlands, less depletion	21	41
Total	\$ 537,421	\$ 556,044

As of December 31, 2019 and 2018, we had \$4.4 million and \$4.8 million, respectively, of accrued capital expenditures.

The following table sets forth amounts of interest expense capitalized in connection with major capital projects:

	Year Ended December 31		
	2019	2018	2017
Interest cost incurred	\$ 10,408	\$ 16,005	\$ 15,066
Interest capitalized	—	396	1,749
Interest expense	\$ 10,408	\$ 15,609	\$ 13,317

14. GOODWILL AND INTANGIBLE ASSETS

The following table sets forth information with respect to goodwill and other intangible assets:

<i>In thousands</i>	December 31	
	2019	2018
Goodwill		
Composite Fibers	\$ 77,775	\$ 79,024
Airlaid Materials	73,041	74,439
Total Goodwill	<u>\$ 150,816</u>	<u>\$ 153,463</u>
Other Intangible Assets		
Composite Fibers		
Tradename - nonamortizing	\$ 4,470	\$ 4,556
Technology and related	38,256	38,813
Customer relationships and related	34,445	35,029
Airlaid Materials		
Tradename	3,625	4,534
Technology and related	18,406	18,014
Customer relationships and related	24,385	24,853
Total intangibles	<u>123,587</u>	<u>125,799</u>
Accumulated amortization	<u>(39,852)</u>	<u>(32,185)</u>
Net intangibles	\$ 83,735	\$ 93,614

The change in the gross value of goodwill and intangible assets was primarily due to currency translation adjustments. Other than goodwill and an indefinite-lived tradename, intangible assets are amortized on a straight-line basis. Customer relationships are amortized over periods ranging from 10 years to 14 years and technology and related intangible assets are amortized over periods ranging from 14 years to 20 years. The following table sets forth information pertaining to amortization of intangible assets:

<i>In thousands</i>	2019	2018	2017
Aggregate amortization expense:	\$ 7,986	\$ 5,860	\$ 4,773
Estimated amortization expense:			
2020	7,864		
2021	7,482		
2022	7,368		
2023	7,368		
2024	7,368		

The remaining weighted average useful life of intangible assets was 11.4 years at December 31, 2019.

15. OTHER LONG-TERM ASSETS

Other long-term assets consist of the following:

<i>In thousands</i>	December 31	
	2019	2018
Pension	\$ —	\$ 43,341
Right-of-use asset operating leases	11,701	—
Other	22,789	24,006
Total	\$ 34,490	\$ 67,347

16. OTHER CURRENT LIABILITIES

Other current liabilities consist of the following:

<i>In thousands</i>	December 31	
	2019	2018
Accrued payroll and benefits	\$ 19,369	\$ 15,898
Other accrued compensation and retirement benefits	5,826	6,064
Income taxes payable	2,075	2,147
Accrued rebates	3,852	2,889
Other accrued expenses	31,650	45,599
Total	\$ 62,772	\$ 72,597

17. LEASES

We enter into a variety of arrangements in which we are the lessee for the use of automobiles, forklifts and other production equipment, production facilities, warehouses and office space. We determine if an arrangement contains a lease at inception. All our lease arrangements are operating leases and are recorded in the condensed consolidated balance sheet under the caption "Other assets" and the lease obligation is under "Other current liabilities" and "Other long-term liabilities." We currently do not have any finance leases.

Operating lease right of use ("ROU") assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentives received. We use our incremental borrowing rate based on information available at the commencement date in determining the lease liabilities as our leases generally do not provide an implicit rate. Lease terms may include options to extend or terminate when we are reasonably certain that the option will be exercised. Lease expense is recognized on a straight-line basis over the lease term.

We also have arrangements with both lease and non-lease components. We elected the practical expedient not to separate non-lease components from lease components for our real estate and automobile leases and the lack of need to reassess classification. We elected to apply the short-term lease measurement and recognition exemption in which ROU assets and lease liabilities are not recognized for arrangements less than twelve months in duration.

At December 31, 2019, the ROU assets and corresponding lease obligation included in our consolidated balance sheet totaled \$11.7 million and had a weighted average remaining maturity of 34 months. The weighted average discount rate used to value the leases at inception was 2.92%. We recognized \$4.5 million of operating lease expense during the 2019.

The following table sets forth required minimum lease payments for the periods indicated:

<i>In thousands</i>	December 31
	2019
2020	\$ 4,897
2021	3,501
2022	2,022
2023	700
2024	292
Thereafter	67

18. LONG-TERM DEBT

Long-term debt is summarized as follows:

<i>In thousands</i>	December 31	
	2019	2018
Revolving credit facility, due Mar. 2020	\$ —	\$ 114,495
Revolving credit facility, due Feb. 2024	84,255	—
5.375% Notes, due Oct. 2020	—	250,000
Term loan, due Feb. 2024	240,969	—
2.40% Term Loan, due Jun. 2022	4,012	5,725
2.05% Term Loan, due Mar. 2023	19,487	25,972
1.30% Term Loan, due Jun. 2023	5,617	7,361
1.55% Term Loan, due Sep. 2025	7,915	9,470
Total long-term debt	362,255	413,023
Less current portion	(22,940)	(10,785)
Unamortized deferred issuance costs	(2,396)	(1,276)
Long-term debt, net of current portion	\$ 336,919	\$ 400,962

On February 8, 2019, we entered into an amended and restated \$400 million Revolving Credit Facility and a €220 million Term Loan with a consortium of banks (together, the “Credit Agreement”). The proceeds of the Term Loan due Feb. 2024 were used to redeem in its entirety the 5.375% Notes. The principal amount of the Term Loan amortizes in consecutive quarterly installments of principal, with each such quarterly installment to be in an amount equal to 1.25% of the Term Loan funded, commencing on July 1, 2019 and continuing quarterly thereafter. The €220 million Term Loan is designated as a net investment hedge of our Euro functional currency foreign subsidiaries. During 2019, we recognized a pre-tax gain of \$1.6 million from changes in currency exchange rates through Other Comprehensive Income (Loss).

For all US dollar denominated borrowings under the Revolving Credit Facility, the borrowing rate is, at our option, either, (a) the bank’s base rate which is equal to the greater of i) the prime rate; ii) the federal funds rate plus 50 basis points; or iii) the Euro-rate plus 100 basis points plus an applicable spread over either i), ii) or iii) ranging from 12.5 basis points to 100 basis points based on the Company’s leverage ratio and its corporate credit ratings determined by Standard & Poor’s Rating Services and Moody’s Investor Service, Inc. (the “Corporate Credit Rating”); or (b) the Euro-rate plus an applicable margin ranging from 112.5 basis points to 200 basis points based on the Company’s leverage ratio and the Corporate Credit Rating. For non-US dollar denominated borrowings, the borrowing rate is, at our option, based on (b) above or for Euro denominated borrowings, the Euro Interbank Offering Rate (“EURIBOR”) plus an applicable margin ranging from 112.5 basis points to 200 basis points based on the Company’s leverage ratio and the Corporate Credit Rating.

In October 2019, we entered into a €180 million notional value floating-to-fixed interest rate swap agreement with certain financial institutions. Under the terms of the swap, we will pay a fixed interest rate of the applicable margin plus 0.0395% on €180 million of the underlying variable rate term loan. We will receive the greater of 0.00% or EURIBOR.

The Credit Agreement contains a number of customary covenants for financings of this type that, among other things, restrict our ability to dispose of or create liens on assets, incur additional indebtedness, repay other indebtedness, limits certain intercompany financing arrangements, make acquisitions and engage in mergers or consolidations. We are also required to comply with specified financial tests and ratios including: i) maximum net debt to EBITDA ratio (the “leverage ratio”); and ii) a consolidated EBITDA to interest expense ratio. The most restrictive of our covenants is a maximum leverage ratio of 4.0x provided that such ratio increases to 4.5x during the period of four fiscal quarters immediately following a material acquisition such as Steinfurt. As of December 31, 2019, the leverage ratio, as calculated in accordance with the definition in our Credit Agreement, was 2.2x. A breach of these requirements would give rise to certain remedies under the Revolving Credit Facility, among which are the termination of the agreement and accelerated repayment of the outstanding borrowings plus accrued and unpaid interest under the Credit Agreement.

All remaining principal outstanding and accrued interest under the Credit Agreement will be due and payable on February 8, 2024.

Glatfelter Gernsbach GmbH & Co. KG (“Gernsbach”), a wholly-owned subsidiary of ours, entered into a series of borrowing agreements with IKB Deutsche Industriebank AG, Düsseldorf (“IKB”) as summarized below:

<i>Amounts in thousands</i>	Original Principal	Interest Rate	Maturity
Borrowing date			
Apr. 11, 2013	€ 42,700	2.05%	Mar. 2023
Sep. 4, 2014	10,000	2.40%	Jun. 2022
Oct. 10, 2015	2,608	1.55%	Sep. 2025
Apr. 26, 2016	10,000	1.30%	Jun. 2023
May 4, 2016	7,195	1.55%	Sep. 2025

Each of the borrowings require quarterly repayments of principal and interest and provide for representations, warranties and covenants customary for financings of these types. The financial covenants contained in each of the IKB loans, which relate to the minimum ratio of consolidated EBITDA to consolidated interest expense and the maximum ratio of consolidated total net debt to consolidated adjusted EBITDA, will be calculated by reference to our Credit Agreement.

Aggregated unamortized deferred debt issuance costs incurred in connection with all of our outstanding debt totaled \$2.4 million at December 31, 2019. The deferred costs are being amortized on a straight-line basis over the life of the underlying instruments. Amortization expense related to deferred debt issuance costs totaled \$1.6 million in 2019.

The following schedule sets forth the amortization of our term loan agreements together with the maturity of our other long-term debt during the indicated year.

<i>In thousands</i>	
2020	\$ 22,940
2021	22,940
2022	22,137
2023	16,035
2024	277,173
Thereafter	1,030

P. H. Glatfelter Company guarantees all debt obligations of its subsidiaries. All such obligations are recorded in these consolidated financial statements.

As of December 31, 2019 and 2018, we had \$7.3 million and \$5.2 million, respectively, of letters of credit issued to us by certain financial institutions. The letters of credit, which reduce amounts available under our revolving credit facility, provide financial assurances for the performance of long-term monitoring activities associated with the Fox River environmental matter and for the benefit of certain state workers compensation insurance agencies in conjunction with our self-insurance program. We bear the credit risk on this amount to the extent that we do not comply with the provisions of certain agreements. No amounts are outstanding under the letters of credit.

19. FAIR VALUE OF FINANCIAL INSTRUMENTS

The amounts reported on the consolidated balance sheets for cash and cash equivalents, accounts receivable and short-term debt approximate fair value. The following table sets forth the carrying value and fair value of long-term debt as of December 31:

<i>In thousands</i>	2019		2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Variable rate debt	\$ 84,255	\$ 84,255	\$ 114,495	\$ 114,495
Fixed-rate bonds	—	—	250,000	249,010
Term loan, due Feb. 2024	240,969	240,969	—	—
2.40% Term loan	4,012	4,076	5,725	5,836
2.05% Term loan	19,487	19,764	25,972	26,346
1.30% Term Loan	5,617	5,624	7361	7,341
1.55% Term loan	7,915	7,975	9,470	9,453
Total	\$ 362,255	\$ 362,663	\$ 413,023	\$ 412,481

The values set forth above are based on observable inputs and other relevant market data (Level 2). The fair value of financial derivatives is set forth below in Note 20.

20. FINANCIAL DERIVATIVES AND HEDGING ACTIVITIES

As part of our overall risk management practices, we enter into financial derivatives primarily designed to either i) hedge foreign currency risks associated with forecasted transactions – “cash flow hedges”; ii) mitigate the impact that changes in currency exchange rates have on intercompany financing transactions and foreign currency denominated receivables and payables – “foreign currency hedges”; or iii) convert variable interest rate debt to fixed rates.

Derivatives Designated as Hedging Instruments - Cash Flow Hedges We use currency forward contracts as cash flow hedges to manage our exposure to fluctuations in the currency exchange rates on certain forecasted production costs or capital expenditures expected to be incurred over a maximum of eighteen months. Currency forward contracts involve fixing the EUR-USD exchange rate or USD-CAD for delivery of a specified amount of foreign currency on a specified date.

We designate certain currency forward contracts as cash flow hedges of forecasted raw material purchases, certain production costs or capital expenditures with exposure to changes in foreign currency exchange rates. Changes in the fair value of derivatives designated and that qualify as cash flow hedges of foreign exchange risk is deferred as a component of accumulated other comprehensive income in the accompanying consolidated balance sheets. With respect to hedges of forecasted raw material purchases or production costs, the amount deferred is subsequently reclassified into costs of products sold in the period that inventory produced using the hedged transaction affects earnings. For hedged capital expenditures, deferred gains or losses are reclassified and included in the historical cost of the capital asset and subsequently affect earnings as depreciation is recognized.

We had the following outstanding derivatives that were used to hedge foreign exchange risks associated with forecasted transactions and designated as hedging instruments:

<i>In thousands</i>	December 31	
	2019	2018
Derivative		
<i>Sell/Buy - sell notional</i>		
Philippine Peso / British Pound	—	13,140
Euro / British Pound	17,702	15,250
Philippine Peso / Euro	—	16,446
U.S. Dollar / Euro	5,347	88
U.S. Dollar / Canadian Dollar	1,523	—
<i>Sell/Buy - buy notional</i>		
Euro / Philippine Peso	1,039,432	1,069,006
British Pound / Philippine Peso	1,077,871	980,137
Euro / U.S. Dollar	82,317	76,417
U.S. Dollar / Canadian Dollar	34,094	35,154
Canadian Dollar / U.S. Dollar	1,523	—
British Pound / Euro	—	216

These contracts have maturities of eighteen months or less.

Derivatives Not Designated as Hedging Instruments - Foreign Currency Hedges We also enter into forward foreign exchange contracts to mitigate the impact changes in currency exchange rates have on balance sheet monetary assets and liabilities. None of these contracts are designated as hedges for financial accounting purposes and, accordingly, changes in value of the foreign exchange forward contracts and in the offsetting underlying on-balance-sheet transactions are reflected in the accompanying consolidated statements of income (loss) under the caption “Other, net.”

<i>In thousands</i>	December 31	
	2019	2018
Derivative		
<i>Sell/Buy - sell notional</i>		
U.S. Dollar / British Pound	25,500	25,500
British Pound / Euro	3,000	2,000
<i>Sell/Buy - buy notional</i>		
Euro / U.S. Dollar	8,000	11,000
British Pound / Euro	7,000	8,000

These contracts have maturities of one month from the date originally entered into.

Fair Value Measurements

The following table summarizes the fair values of derivative instruments as of December 31 for the year indicated and the line items in the accompanying consolidated balance sheets where the instruments are recorded:

<i>In thousands</i>	December 31		December 31	
	2019	2018	2019	2018
Balance sheet caption	Prepaid Expenses and Other Current Assets		Other Current Liabilities	
Designated as hedging:				
Forward foreign currency exchange contracts	\$ 4,314	\$ 4,381	\$ 34	\$ 1,548
Not designated as hedging:				
Forward foreign currency exchange contracts	\$ 566	\$ 103	\$ 205	\$ 122

The amounts set forth in the table above represent the net asset or liability giving effect to rights of offset with each counterparty.

The following table summarizes the amount of income or loss from derivative instruments recognized in our results of operations for the periods indicated and the line items in the accompanying consolidated statements of income (loss) where the results are recorded:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Designated as hedging:			
Forward foreign currency exchange contracts:			
Effective portion – cost of products sold	\$ 6,468	\$ (5,020)	\$ 532
Ineffective portion – other – net	—	138	182
Not designated as hedging:			
Forward foreign currency exchange contracts:			
Other – net	\$ 300	\$ (1,419)	\$ 882

The impact of activity not designated as hedging was substantially all offset by the remeasurement of the underlying on-balance sheet item.

The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described in Note 2.

The fair values of the foreign exchange forward contracts are considered to be Level 2. Foreign currency forward contracts are valued using foreign currency forward and interest rate curves. The fair value of each contract is determined by comparing the contract rate to the forward rate and discounting to present value. Contracts in a gain position are recorded in the accompanying consolidated balance sheets under the caption “Prepaid expenses and other current assets” and the value of contracts in a loss position is recorded under the caption “Other current liabilities.”

A rollforward of fair value amounts recorded as a component of accumulated other comprehensive income is as follows:

<i>In thousands</i>	2019	2018
Balance at January 1,	\$ 3,004	\$ (5,640)
Deferred (losses) gains on cash flow hedges	9,323	3,624
Reclassified to earnings	(6,468)	5,020
Balance at December 31,	\$ 5,859	\$ 3,004

We expect substantially all of the amounts recorded as a component of accumulated other comprehensive income will be realized in results of operations within the next twelve to eighteen months and the amount ultimately recognized will vary depending on actual market rates.

Credit risk related to derivative activity arises in the event a counterparty fails to meet its obligations to us. This exposure is generally limited to the amounts, if any, by which the counterparty’s obligations exceed our obligation to them. Our policy is to enter into contracts only with financial institutions which meet certain minimum credit ratings.

21. SHAREHOLDERS' EQUITY

The following table summarizes outstanding shares of common stock:

<i>In thousands</i>	Year ended December 31		
	2019	2018	2017
Shares outstanding at beginning of year	43,959	43,614	43,550
Treasury shares issued for:			
Restricted stock awards	188	304	28
Employee stock options exercised	101	41	36
Shares outstanding at end of year	44,248	43,959	43,614

22. COMMITMENTS, CONTINGENCIES AND LEGAL PROCEEDINGS

Contractual Commitments The following table summarizes the minimum annual payments due on noncancelable operating leases and other similar contractual obligations having initial or remaining terms in excess of one year:

<i>In thousands</i>	Leases		Other	
2020	\$	5,236	\$	86,722
2021		4,090		17,258
2022		2,626		14,334
2023		1,320		62
2024		927		5
Thereafter		4,222		12

The amounts set forth for above includes commitments for leases that had not commenced as of December 31, 2019. Other contractual obligations primarily represent minimum purchase commitments under energy supply contracts and other purchase obligations.

At December 31, 2019, required minimum annual payments due under operating leases and other similar contractual obligations aggregated \$18.4 million and \$118.4 million, respectively.

Fox River - Neenah, Wisconsin

Background. We have previously reported that we face significant uncertainties associated with environmental claims arising out of the presence of polychlorinated biphenyls (“PCBs”) in sediments in the lower Fox River, on which our former Neenah facility was located, and in the Bay of Green Bay, Wisconsin (collectively, the “Site”). Since the early 1990s, the United States, the State of Wisconsin and two Indian tribes (collectively, the “Governments”) have pursued a cleanup of a 39-mile stretch of river from Little Lake Butte des Morts into Green Bay and natural resource damages (“NRDs”).

The United States originally notified several entities that they were potentially responsible parties (“PRPs”); however, after giving effect to settlements reached with the Governments, the remaining PRPs exposed to continuing obligations to implement the remainder of the cleanup consist of us, Georgia Pacific Consumer Products, L.P. (“Georgia Pacific”) and NCR Corporation (“NCR”).

The United States Environmental Protection Agency (“EPA”) has divided the Site into five “operable units”, including the most upstream portion of the Site on which our facility was located (“OU1”) and four downstream reaches of the river and bay (“OU2-5”).

We, with contributions of certain other PRPs, implemented the remedial action in OU1 under a consent decree with the Governments. That work is complete, other than on-going monitoring and maintenance.

For OU2-5, work has proceeded primarily under a Unilateral Administrative Order (“UAO”) issued in November 2007 by the EPA to us and seven other respondents. The majority of the work in OU 2-5 has been funded or conducted by parties other than us. Prior to the UAO, we contributed to a project in that area. Since the issuance of the UAO, we have conducted about \$13.4 million of cleanup work under the UAO in 2015 and 2016. The cleanup is expected to continue at least through 2020 and decommissioning thereafter.

In January 2019, we reached an agreement with the United States, the State of Wisconsin, and Georgia-Pacific to resolve all remaining claims among those parties. Under the Glatfelter consent decree, we settled the United States’ and Wisconsin’s claims for response costs paid by them before October 2018 and for NRDs. In addition, we are primarily responsible for long-term monitoring and maintenance in OU2-OU4a and for reimbursement of government oversight costs paid after October 2018. Finally, we remain responsible for our obligation to continue long-term monitoring and maintenance under our OU1 consent decree.

Cost estimates. Under terms of the Glatfelter consent decree, in January 2019 we paid \$20.5 million to the United States in satisfaction of the governments’ claims for costs incurred prior to October 2018, and NRDs.

We remain subject to our remaining obligations under the OU1 consent decree, which now consist of long-term monitoring and maintenance. Furthermore, we are primarily responsible for long term monitoring and maintenance in OU2-OU4a over a period of at least 30 years. The monitoring activities consist of, among others, testing fish tissue, sampling water quality and sediment, and inspections of the engineered caps. In the first quarter of 2018, we entered into a fixed-price, 30-year agreement with a third party for the performance of all of our monitoring and maintenance obligations in OU1 through OU4a with limited exceptions, such as, for extraordinary amounts of cap maintenance or replacement. Our obligation under this agreement is included in our total reserve for the Site. We are obligated to make the regular payments under that fixed-price contract until the remaining amount due is less than the OU1 escrow account balance. We are permitted to pay for this contract using the remaining balance of the escrow account established by us and WTM I Company (“WTM I”) another PRP, under the OU1 consent decree during any period that the balance in the escrow account exceeds the amount due under our fixed-price contract. As of December 31, 2019, the balance in the escrow is less than amounts due under the fixed-price contract by approximately \$2 million. We are also have secured the payment of that difference with a letter of credit.

We and WTM I executed documents for the withdrawal of WTM I from the entity we jointly formed for the performance of the OU1 work and for the release of all claims between us related to the Site. The court overseeing WTM I’s bankruptcy approved this action in May 2018. As a result, we assumed WTM I’s portion of the OU1 escrow account totaling approximately \$4.7 million, and have recorded a corresponding increase of the same amount to our Fox River reserve for potential liabilities associated with the river that we believe may ultimately be satisfied with funds from the escrow account. At December 31, 2019, the combined account balance totaled \$8.9 million which is included in the consolidated balance sheet under the caption “other assets.”

Under the consent decree, we will be responsible for reimbursement of government oversight costs paid from October 2018 and later over approximately the next 30 years. We anticipate that a significant portion of the oversight costs will be incurred until such time as remediation is completed. Once completed, costs will be an order of magnitude lower in most years during the period of long-term monitoring and maintenance.

Reserves for the Site. Our reserve for past and future government oversight costs and long-term monitoring and maintenance is set forth below:

<i>In thousands</i>	Year ended December 31	
	2019	2018
Balance at January 1,	\$ 45,001	\$ 43,144
Payments	(20,805)	(3,054)
Reserve adjustment	(2,509)	—
Assumption of WTM I escrow	—	4,746
Accretion	183	165
Balance at December 31,	\$ 21,870	\$ 45,001

The payments set forth above represent the \$20.5 million paid pursuant to the Glatfelter consent decree and for amounts due under the long-term monitoring and maintenance agreement. Of our total reserve for the Fox River, \$9.0 million is recorded in the accompanying December 31, 2019 consolidated balance sheet under the caption “Environmental liabilities” and the remaining \$12.9 million is recorded under the caption “Other long term liabilities.”

Range of Reasonably Possible Outcomes. Based on our analysis of all available information, including but not limited to decisions of the courts, official documents such as records of decision, discussions with legal counsel, cost estimates for future monitoring and maintenance and other post-remediation costs to be performed at the Site, we do not believe that our costs associated with the Fox River matter could exceed the aggregate amounts accrued by a material amount.

23. SEGMENT AND GEOGRAPHIC INFORMATION

The following tables set forth profitability and other information by segment:

For the year ended December 31, 2019 <i>In millions</i>	Composite Fibers	Airlaid Materials	Other and Unallocated	Total
Net sales	\$ 521.7	\$ 406.0	\$ —	\$ 927.7
Cost of products sold	432.2	346.6	1.3	780.1
Gross profit (loss)	89.5	59.4	(1.3)	147.5
SG&A	41.6	18.3	35.1	95.0
Gains on dispositions of plant, equipment and timberlands, net	—	—	(2.1)	(2.1)
Total operating income (loss)	47.9	41.1	(34.3)	54.6
Non-operating expense	—	—	(89.1)	(89.1)
Income (loss) before income taxes	\$ 47.9	\$ 41.1	\$ (123.4)	\$ (34.5)
Supplementary Data				
Plant, equipment and timberlands, net	\$ 222.7	\$ 293.8	\$ 20.9	\$ 537.4
Depreciation, depletion and amortization	26.2	21.1	3.5	50.8
Capital expenditures	12.0	13.7	2.1	27.8
For the year ended December 31, 2018 <i>In millions</i>	Composite Fibers	Airlaid Materials	Other and Unallocated	Total
Net sales	\$ 554.9	\$ 311.4	\$ —	\$ 866.3
Cost of products sold	462.3	269.3	4.3	735.9
Gross profit (loss)	92.6	42.1	(4.3)	130.4
SG&A	44.2	12.2	55.3	111.7
Gains on dispositions of plant, equipment and timberlands, net	—	—	(3.3)	(3.3)
Total operating income (loss)	48.4	29.9	(56.3)	21.9
Non-operating expense	—	—	(14.7)	(14.7)
Income (loss) before income taxes	\$ 48.4	\$ 29.9	\$ (71.0)	\$ 7.3
Supplementary Data				
Plant, equipment and timberlands, net	\$ 233.2	\$ 298.2	\$ 24.6	\$ 556.0
Depreciation, depletion and amortization	28.3	14.9	4.3	47.5
Capital expenditures	15.7	21.6	4.8	42.1
For the year ended December 31, 2017 <i>In millions</i>	Composite Fibers	Airlaid Materials	Other and Unallocated	Total
Net sales	\$ 544.3	\$ 256.1	\$ —	\$ 800.4
Cost of products sold	437.6	216.7	2.5	656.8
Gross profit (loss)	106.7	39.4	(2.5)	143.6
SG&A	44.4	9.3	56.8	110.5
Loss on dispositions of plant, equipment and timberlands, net	—	—	(0.2)	(0.2)
Total operating income (loss)	62.3	30.1	(59.1)	33.3
Non-operating expense	—	—	(13.8)	(13.8)
Income (loss) before income taxes	\$ 62.3	\$ 30.1	\$ (72.9)	\$ 19.5
Supplementary Data				
Plant, equipment and timberlands, net	\$ 254.0	\$ 235.6	\$ 25.6	\$ 515.2
Depreciation, depletion and amortization	28.3	9.6	4.2	42.1
Capital expenditures	15.9	50.6	14.3	80.8

The sum of individual amounts set forth above may not agree to the consolidated financial statements included herein due to rounding.

Results of individual operating segments are presented based on our management accounting practices and management structure. There is no comprehensive, authoritative body of guidance for management accounting equivalent to accounting principles generally accepted in the United States of America; therefore, the financial results of individual segments are not necessarily comparable with similar information for any other company. The management accounting process uses assumptions and allocations to measure performance of the operating segments. Methodologies are refined from time to time as management accounting practices are enhanced and businesses change. The costs incurred by support areas not directly aligned with the operating segments are allocated primarily based on an estimated utilization of support area services.

Management evaluates results of operations of the operating segments before pension expense, certain corporate level costs, and the effects of certain gains or losses not considered to be related to the core business operations. Management believes that this is a more meaningful representation of the operating performance of its core businesses, the profitability of segments and the extent of cash flow generated from these core operations. Such amounts are presented under the caption “Other and Unallocated.” In the evaluation of operating segment results, management does not use any measures of total assets. This presentation is aligned with the management and operating structure of our company. It is also on this basis that the Company’s performance is evaluated internally and by the Company’s Board of Directors.

Our Composite Fibers segment serves customers globally and focuses on higher value-added products in the following markets:

- **Food & Beverage** filtration paper primarily used for single-serve coffee and tea products;
- **Wallcovering** base materials used by the world’s largest wallpaper manufacturers;
- **Technical Specialties** a diverse line of specialty papers used in commercial and industrial applications such as electrical energy storage, homecare, hygiene, and other highly-engineered fiber-based applications;
- **Composite Laminate** paper used in production of decorative laminates, furniture, and flooring applications; and
- **Metallized** products used in labels, packaging liners, gift wrap, and other consumer product applications.

The Airlaid Materials segment is a leading global supplier of highly absorbent cellulose-based airlaid nonwoven materials used in:

- feminine hygiene;
- specialty wipes;
- table top;
- adult incontinence;
- home care; and
- other consumer products.

Disaggregated revenue by market segment and geographic region for Composite Fibers and Airlaid Materials is presented in Item 8 Financial Statements and Supplementary Data, Note 6 – Revenue.

Approximately 16% of our consolidated net revenue in 2019, 2018 and 2017, were from sales to Procter & Gamble Company, a customer of the Airlaid Materials segment.

Our net sales to external customers and location of net plant, equipment and timberlands are summarized below. Net sales are attributed to countries based upon origin of shipment.

<i>In thousands</i>	2019		2018		2017	
	Net sales	Plant, Equipment and Timberlands – Net	Net sales	Plant, Equipment and Timberlands – Net	Net sales	Plant, Equipment and Timberlands – Net
United States	\$ 167,887	\$ 105,763	\$ 124,690	\$ 109,797	\$ 89,773	\$ 105,663
Germany	504,012	274,146	483,628	286,839	450,668	240,932
United Kingdom	70,018	52,039	76,053	50,483	76,594	55,494
Canada	121,789	72,436	114,877	74,448	120,433	78,220
Other	63,967	33,037	67,038	34,477	62,894	34,874
Total	\$ 927,673	\$ 537,421	\$ 866,286	\$ 556,044	\$ 800,362	\$ 515,183

24. QUARTERLY RESULTS (UNAUDITED)

<i>In thousands, except per share</i>	Net sales		Gross Profit		Income (loss) from continuing operations		Earnings (loss) per share	
	2019	2018	2019	2018	2019	2018	2019	2018
First	\$ 229,133	\$ 211,209	\$ 35,617	\$ 36,561	\$ 4,603	\$ 2,267	\$ 0.10	\$ 0.05
Second	235,053	215,742	37,500	33,300	6,293	1,278	0.14	0.03
Third	232,515	209,855	38,021	29,872	8,643	(705)	0.19	(0.02)
Fourth	230,972	229,480	36,404	30,674	(44,750)	(3,289)	(1.01)	(0.08)

ITEM 9 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our chief executive officer and our chief financial officer have, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), as of December 31, 2019, concluded that, as of the evaluation date, our disclosure controls and procedures were effective.

Internal Control Over Financial Reporting

Management's report on the Company's internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) and the related report of our independent registered public accounting firm are included in Item 8 – Financial Statements and Supplementary Data.

Changes in Internal Control over Financial Reporting

During the fourth quarter of 2019, we completed the implementation of a new enterprise resource planning and manufacturing system for our Airlaid Materials' Falkenhagen, Germany location. There were no other changes in our internal control over financial reporting during the three months ended December 31, 2019, that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

ITEM 9B OTHER INFORMATION

None.

PART III

ITEM 10 DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors The information with respect to directors required under this Item is incorporated herein by reference to our Proxy Statement, to be dated on or about March 30, 2020. Our board of directors has determined that, based on the relevant experience of the members of the Audit Committee, four of the six members are *audit committee financial experts* as this term is set forth in the applicable regulations of the SEC.

Executive Officers of the Registrant The information with respect to the executive officers required under this Item is incorporated herein by reference to "Executive Officers" as set forth in Part I, page 11 of this report.

We have adopted a Code of Business Ethics for the CEO and Senior Financial Officers (the "Code of Business Ethics") in compliance with applicable rules of the Securities and Exchange Commission that applies to our chief executive officer, chief financial officer and our principal accounting officer or controller, or persons performing similar functions. A copy of the Code of Business Ethics is filed as an exhibit to this Annual Report on Form 10-K and is available on our website, free of charge, at www.glatfelter.com.

ITEM 11 EXECUTIVE COMPENSATION

The information required under this Item is incorporated herein by reference to our Proxy Statement, to be dated on or about March 30, 2020.

ITEM 12 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required under this Item is incorporated herein by reference to our Proxy Statement, to be dated on or about March 30, 2020.

ITEM 13 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required under this Item is incorporated herein by reference to our Proxy Statement, to be dated on or about March 30, 2020.

ITEM 14 PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required under this Item is incorporated herein by reference to our Proxy Statement, to be dated on or about March 30, 2020.

Our Chief Executive Officer has certified to the New York Stock Exchange that he is not aware of any violations by the Company of the NYSE corporate governance listing standards.

PART IV

ITEM 15 EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) 1. Our Consolidated Financial Statements as follows are included in Part II, Item 8:
- i. Consolidated Statements of Income (Loss) for the years ended December 31, 2019, 2018 and 2017
 - ii. Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2019, 2018 and 2017
 - iii. Consolidated Balance Sheets as of December 31, 2019 and 2018
 - iv. Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018 and 2017
 - v. Consolidated Statements of Shareholders' Equity for the years ended December 31, 2019, 2018 and 2017
 - vi. Notes to Consolidated Financial Statements
2. Financial Statement Schedules (Consolidated) included in Part IV:
- i. Schedule II -Valuation and Qualifying Accounts - For each of the three years ended December 31, 2019

(b) Exhibit Index

Exhibit Number	Description of Documents	Incorporated by Reference to Exhibit	Filing
2.1	Share Purchase Agreement, dated June 19, 2018, by and among Buckeye Holdings GmbH, Georgia-Pacific Nonwovens LLC and Glatfelter Gernsbach GmbH & Co. KG. ***	2.1	Form 8-K filed Jun. 19, 2018
2.2	First Amendment to Share Purchase Agreement by and among Buckeye Holdings GmbH, Georgia-Pacific Nonwovens LLC, and Glatfelter Gernsbach GmbH, a wholly-owned subsidiary of P. H. Glatfelter Company.	10.1	Form 10-Q filed Nov. 6, 2018
2.3	Asset Purchase Agreement, dated August 21, 2018, by and between P. H. Glatfelter Company and Spartan Paper LLC. ***	2.1	Form 8-K filed August 22, 2018
2.4	Amendment No. 1 to the Asset Purchase Agreement, dated as of October 31, 2018, by and between P. H. Glatfelter Company and Pixelle Specialty Solutions LLC. ***	2.1	Form 8-K filed Nov. 6, 2018
3.1	Articles of Incorporation, as amended through December 20, 2007, filed herewith.		
3.2	Amended and Restated By-Laws of P. H. Glatfelter Company, as amended, dated February 20, 2020.	3.1	Form 8-K filed Feb. 24, 2020
4.1	Description of securities, filed herewith.		
10.1	Third Amended and Restated Credit Agreement, dated as of February 8, 2019, by and among the Company, certain of its subsidiaries as borrowers and certain of its subsidiaries as guarantors and PNC Bank, National Association, as administrative agent, PNC Capital Markets LLC, JPMorgan Chase Bank, N.A., and HSBC Bank USA, N.A., as joint lead arrangers and joint bookrunners, and JPMorgan Chase Bank, N.A. and HSBC Bank USA, N.A., as co-syndication agents, and Cobank, ACB, Bank of America, N.A. and Manufacturers and Traders Trust Company, as co-documentation agents.	10.1	Form 8-K filed Feb. 11, 2019
10.2	First Amendment to Third Amended and Restated Credit Agreement, dated September 25, 2019, by and among P. H. Glatfelter Company, the Lenders party thereto, and PNC Bank, National Association, in its capacity as administrative agent for the Lenders.	10.2	Form 10-Q filed Oct. 30, 2019
10.3	Loan Agreement, dated April 11, 2013, by and among Glatfelter Gernsbach GmbH & Co. KG. and IKB Deutsche Industriebank AG, Düsseldorf.	10.1	Form 10-Q filed May 9, 2013
10.4	Guaranty, dated April 17, 2013, executed by P. H. Glatfelter Company (as Guarantor) in favor of IKB Deutsche Industriebank AG.	10.2	Form 10-Q filed May 9, 2013
10.5	P. H. Glatfelter Company Amended and Restated Long-Term Incentive Plan, as amended and restated effective February 23, 2017. **	10.1	Form 8-K filed May 4, 2017
10.6	P. H. Glatfelter Company Amended and Restated 2005 Management Incentive Plan, effective January 1, 2015. **	10.1	Form 8-K filed May 8, 2015
10.7	P. H. Glatfelter Company Supplemental Long Term Disability Plan, dated February 25, 2014, between the registrant and certain employees. **	10.1	Form 10-Q filed May 2, 2014
10.8	P. H. Glatfelter Company Supplemental Executive Retirement Plan (amended and restated effective January 1, 2010). **	10(c)	Form 10-K filed Mar. 8, 2013
10.9	P. H. Glatfelter Company Supplemental Management Pension Plan (amended and restated effective January 1, 2008). **	10(d)	Form 10-K filed Mar. 8, 2013
10.10	P. H. Glatfelter Company Supplemental Executive Retirement Plan (Amended and Restated). **	10.1	Form 10-Q filed Jul. 30, 2019
10.11	Amendment No. 2019-1 to the P.H. Glatfelter Company Supplemental Management Pension Plan. **	10.2	Form 10-Q filed Jul. 30, 2019
10.12	Glatfelter Switzerland Sàrl Retirement Pension Plan for management employees, filed herewith. **		
10.13	Form of Non-Employee Director Restricted Stock Unit Award Certificate (form effective May 4, 2017). **	10.4	Form 8-K filed May 4, 2017
10.14	Form of Stock-Only Stock Appreciation Right Award Certificate (form effective February 26, 2014). **	10.3	Form 10-Q filed May 2, 2014

10.15	Form of Performance Share Award Certificate (form effective February 23, 2017). **	10.2	Form 8-K filed May 4, 2017
10.16	Form of Performance Share Award Certificate (form effective February 26, 2014). **	10.2	Form 10-Q filed May 2, 2014
10.17	Form of Restricted Stock Unit Award Certificate (form effective as of February 23, 2017). **	10.3	Form 8-K filed May 4, 2017
10.18	Form of Restricted Stock Unit Award Certificate (form effective as of December 13, 2013). **	10(l)	Form 10-K filed March 3, 2014
10.19	Non-Competition and Non-Solicitation Agreement by and between P. H. Glatfelter Company and Dante C. Parrini, dated July 2, 2010. **	10.1	Form 8-K filed July 6, 2010
10.20	Restricted Stock Unit Award Certificate for Dante C. Parrini, dated as of November 13, 2019. **	10.1	Form 8-K filed Nov. 18, 2019
10.21	Long Term Employment Contract between Glatfelter Switzerland GmbH, a wholly-owned subsidiary, and Wolfgang Laures, effective January 1, 2020, filed herewith. **		
10.22	Form of Change in Control Employment Agreement by and between P. H. Glatfelter Company and certain employees (form effective as of March 7, 2008). **	10(j)	Form 10-K filed Mar. 13, 2009
10.23	Form of Change in Control Employment Agreement by and between P. H. Glatfelter Company and certain employees (form effective as of August 5, 2013). **	10(q)	Form 10-K filed Mar. 3, 2014
10.24	Schedule of Change in Control Employment Agreements, filed herewith. **		
10.25	Summary of Non-Employee Director Compensation, effective January 1, 2020, filed herewith. **		
10.26	P. H. Glatfelter Company Deferred Compensation Plan for Directors, effective as of January 1, 2007. **	10(k)	Form 10-K filed Mar. 8, 2013
10.27	Separation Agreement and General Release between John P. Jacunski and P. H. Glatfelter Company. **	10.1	Form 10-Q filed Apr. 30, 2019
10.28	Service Agreement, commencing on August 1, 2006, between the Registrant (through a wholly owned subsidiary) and Martin Rapp. **	10(r)	Form 10-K filed Mar. 16, 2007
10.29	Retirement Pension Contract, dated October 31, 2007, between Registrant (through a wholly owned subsidiary) and Martin Rapp. **	10(t)	Form 10-K filed Mar. 13, 2008
10.30	Separation Agreement and General Release between Martin Rapp and P. H. Glatfelter Company. **	10.1	Form 8-K/A2 filed May 2, 2019
10.31	Form of Director's and Officer's Indemnification Agreement. **	10.1	Form 8-K filed Dec. 19, 2017
10.32	Guidelines for Executive Severance. **	10.2	Form 8-K filed Jul. 6, 2010
10.33	Consent Decree for Remedial Design and Remedial Action at Operable Unit 1 of the Lower Fox River and Green Bay Site between the United States of America and the State of Wisconsin v. P. H. Glatfelter Company and WTM I Company (f/k/a Wisconsin Tissue Mills Inc.).	10.3(a)	Form 10-Q filed August 6, 2010
10.34	Agreed Supplement to Consent Decree between United States of America and the State of Wisconsin vs. P. H. Glatfelter Company and WTM I Company (f/k/a Wisconsin Tissue Mills Inc.).	10.3(b)	Form 10-Q filed Aug. 6, 2010
10.35	Second Agreed Supplement to Consent Decree between United States of America and the State of Wisconsin vs. P. H. Glatfelter Company and WTM I Company (f/k/a Wisconsin Tissue Mills Inc.).	10.3(c)	Form 10-Q filed Aug. 6, 2010
10.36	Amended Consent Decree for Remedial Design and Remedial Action at Operable Unit 1 of the Lower Fox River and Green Bay Site by and among the United States of America and the State of Wisconsin v. P. H. Glatfelter and WTM I Company (f/k/a Wisconsin Tissue Mills Inc.) (certain Appendices have been intentionally omitted, copies of which can be obtained free of charge from the Registrant).	10.3(d)	Form 10-Q filed Aug. 6, 2010
10.37	Administrative Order for Remedial Action dated November 13, 2007, issued by the United States Environmental Protection Agency.	10.2	Form 8-K filed Nov. 19, 2007
10.38	Consent Decree between P. H. Glatfelter Company, Georgia-Pacific Consumer Products LP, the United States of America and the State of Wisconsin, dated March 14, 2019.	10.2	Form 10-Q filed Apr. 30, 2019
14	Code of Business Ethics for the CEO and Senior Financial Officers of Glatfelter, filed herewith.		
21	Subsidiaries of the Registrant, filed herewith.		
23	Consent of Independent Registered Public Accounting Firm, filed herewith.		
31.1	Certification of Dante C. Parrini, Chairman and Chief Executive Officer of Glatfelter, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002, filed herewith.		
31.2	Certification of Samuel L. Hillard, Senior Vice President and Chief Financial Officer of Glatfelter, pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002, filed herewith.		
32.1	Certification of Dante C. Parrini, Chairman and Chief Executive Officer of Glatfelter, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, furnished herewith.		
32.2	Certification of Samuel L. Hillard, Senior Vice President and Chief Financial Officer of Glatfelter, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, furnished herewith.		

101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data file because its iXBRL tags are embedded within the Inline XBRL document, filed herewith.
101.SCH	XBRL Taxonomy Extension Schema, filed herewith.
101.CAL	XBRL Extension Calculation Linkbase, filed herewith.
101.DEF	XBRL Extension Definition Linkbase, filed herewith.
101.LAB	XBRL Extension Label Linkbase, filed herewith.
101.PRE	XBRL Extension Presentation Linkbase, filed herewith.
104	The cover page from the Company’s Annual Report on Form 10-K for the year ended December 31, 2019, has been formatted in Inline XBRL.

*** Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K and will be provided to the Securities and Exchange Commission upon request.

** Management contract or compensatory plan

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.

P. H. GLATFELTER COMPANY
(Registrant)

February 25, 2020

By /s/ Dante C. Parrini
Dante C. Parrini
Chairman and
Chief Executive Officer

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 in the capacities and on the dates indicated:

<u>Date</u>	<u>Signature</u>	<u>Capacity</u>
February 25, 2020	<u>/s/ Dante C. Parrini</u> Dante C. Parrini Chairman and Chief Executive Officer	Principal Executive Officer and Director
February 25, 2020	<u>/s/ Samuel L. Hillard</u> Samuel L. Hillard Senior Vice President and Chief Financial Officer	Principal Financial Officer
February 25, 2020	<u>/s/ David C. Elder</u> David C. Elder Vice President, Finance	Chief Accounting Officer
February 25, 2020	<u>/s/ Bruce Brown</u> Bruce Brown	Director
February 25, 2020	<u>/s/ Kathleen A. Dahlberg</u> Kathleen A. Dahlberg	Director
February 25, 2020	<u>/s/ Nicholas DeBenedictis</u> Nicholas DeBenedictis	Director
February 25, 2020	<u>/s/ Kevin M. Fogarty</u> Kevin M. Fogarty	Director
February 25, 2020	<u> </u> Marie T. Gallagher	Director
February 25, 2020	<u>/s/ J. Robert Hall</u> J. Robert Hall	Director
February 25, 2020	<u>/s/ Ronald J. Naples</u> Ronald J. Naples	Director
February 25, 2020	<u>/s/ Lee C. Stewart</u> Lee C. Stewart	Director

P. H. GLATFELTER COMPANY AND SUBSIDIARIES
SUPPLEMENTAL FINANCIAL STATEMENT SCHEDULE

For each of the three years ended December 31, 2019

Valuation and Qualifying Accounts

<i>In thousands</i>	Allowance for					
	Doubtful Accounts			Sales Discounts and Deductions		
	2019	2018	2017	2019	2018	2017
Balance, beginning of year	\$ 1,661	\$ 1,761	\$ 1,695	\$ 832	\$ 1,029	\$ 925
Provision	720	695	(152)	1,440	2,075	1,191
Write-offs, recoveries and discounts allowed	(678)	(688)	—	(1,526)	(2,294)	(1,159)
Other (a)	(21)	(107)	218	(168)	22	72
Balance, end of year	\$ 1,682	\$ 1,661	\$ 1,761	\$ 578	\$ 832	\$ 1,029

The provision for doubtful accounts is included in selling, general and administrative expense and the provision for sales discounts and deductions is deducted from sales. The related allowances are deducted from accounts receivable.

(a) Relates primarily to changes in currency exchange rates.

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OFFICERS AND DIRECTORS

OFFICERS

Dante C. Parrini

Chairman and Chief Executive Officer

Christopher W. Astley

Senior Vice President & Chief Commercial Officer

Samuel L. Hillard

Senior Vice President & Chief Financial Officer

Wolfgang Laures

Senior Vice President, Global Supply Chain

Eileen L. Beck

Vice President, Global Human Resources & Administration

David C. Elder

Vice President, Finance & Chief Accounting Officer

Philippe Sevoz

Vice President, Global Operations

Jill L. Urey

Vice President, Deputy General Counsel & Corporate Secretary

Joseph J. Zakutney

Vice President, Global Business Services & Chief Information Officer

Ramesh Shettigar

Vice President, Investor Relations & Corporate Treasurer

Amy R. Wannemacher

Vice President, Tax

DIRECTORS

Dante C. Parrini

Chairman and Chief Executive Officer

Bruce Brown

Retired Chief Technology Officer
Procter & Gamble

Kathleen A. Dahlberg

Chief Executive Officer
G.G.I., Inc.

Nicholas DeBenedictis

Chairman Emeritus
Essential Utilities, Inc.

Kevin M. Fogarty

President and Chief Executive Officer
Kraton Corporation, Inc.

Marie T. Gallagher

Senior Vice President and Controller
PepsiCo, Inc.

J. Robert Hall

Chief Executive Officer
Ole Smoky Distillery

Ronald J. Naples

Chairman Emeritus
Quaker Chemical Corporation

Lee C. Stewart

Private Financial Consultant

CORPORATE INFORMATION

STOCK EXCHANGE AND SYMBOL

New York Stock Exchange
GLT

ANNUAL MEETING OF SHAREHOLDERS

May 7, 2020, 8:00 a.m. EST
The Kimpton Tryon Park Hotel
303 South Church Street
Charlotte, NC 28202

TRANSFER AGENT, DIVIDEND DISBURSING AGENT AND REGISTRAR

Correspondence should be mailed to:
Computershare
P.O. Box 505000
Louisville, KY 40233

Shareholder website

www.computershare.com/investor

toll-free: 877-832-7259

international: 201-680-6578

INFORMATION SOURCES

For the latest quarterly business results or other information, visit www.glatfelter.com or contact:

Ramesh Shettigar
Vice President, Investor Relations & Corporate Treasurer

phone: 717-225-2746

e-mail: ir@glatfelter.com



U.S. LOCATIONS

NORTH CAROLINA

Headquarters
(effective mid 2020)
4350 Congress Street
Suite 600
Charlotte, NC 28209

PENNSYLVANIA

Satellite Office
96 South George Street
Suite 400
York, PA 17401

ARKANSAS

8201 Chad Colley Boulevard
Fort Smith, AR 72916

GEORGIA*

351 Jesse Jewell Parkway
Suite 301
Gainesville, GA 30501

INTERNATIONAL LOCATIONS

CANADA

Gatineau
1680 rue Atmec
Gatineau, QC J8P 7G7

CHINA

Suzhou*
Room 501
Building 24 of Times Square
Suzhou Industrial Park
215028 Suzhou

FRANCE

Scaër
BP 2
29390 Scaër

GERMANY

Dresden
Pirnaer Straße 31-33
01809 Heidenau

Falkenhagen

Gewerbepark Prignitz/Falkenhagen
Rolf-Hövelmann-Straße 10
16928 Pritzwalk

Gernsbach

Hördener Straße 5
76593 Gernsbach

Ober-Schmitt

Rhönstraße 13
Ober-Schmitt
63667 Nidda

Steinfurt

Dieselstraße 16
48565 Steinfurt

ITALY

Milano*
Via Alberto da Giussano 1
I-20145 Milano

PHILLIPINES

Newtech
Bo. Maria Cristina
9217 Balo-I
Lanao del Norte

RUSSIA

Moscow*
13 2-ya Zvenigorodskaya Street
Building 41 (Floor 9)
Moscow 123022

UNITED KINGDOM

Caerphilly
Pontywindy Industrial Estate
Caerphilly, Mid Glamorgan
CF83 3HU

Lydney

Church Road
Lydney, Gloucestershire
GL15 5EJ

* Sales office only

