





Glatfelter is a leading global supplier of engineered materials with a strong focus on innovation and sustainability. The Company's high quality, technology-driven, innovative, and customizable nonwovens solutions can be found in products that are Enhancing Everyday Life®. These include personal care and hygiene products, food and beverage filtration, critical cleaning products, medical and personal protection, packaging products, as well as home improvement and industrial applications. Headquartered in Charlotte, NC, the Company's annualized net sales approximate \$1.4 billion with approximately 3,250 employees worldwide. Glatfelter's operations utilize a variety of manufacturing technologies including airlaid, wetlaid and spunlace with sixteen manufacturing sites located in the United States, Canada, Germany, the United Kingdom, France, Spain, and the Philippines. The Company has sales offices in all major geographies serving customers under the Glatfelter and Sontara® brands. Additional information about Glatfelter may be found at www.glatfelter.com.

Forward-Looking Statements

Certain statements included in this annual report that pertain to future 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. We use words such as "anticipate", "believe", "expect", "future", "intend", "plan", "target", and similar expressions to identify forward-looking statements. Any such statements are based on management's current expectations and are subject to numerous risks, uncertainties and other unpredictable or uncontrollable factors that could cause future results to differ materially from those expressed in the forward-looking statements. The risks, uncertainties and other unpredictable or uncontrollable factors are described in our filings with the U.S. Securities and Exchange Commission ("SEC") in the Risk Factors section and under the heading "Forward-Looking Statements" in the accompanying Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q, which are available on the SEC's website at www.sec.gov. In light of these risks, uncertainties and other factors, any such forward-looking matters may not occur, and readers are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements speak only as of the date of this report and we undertake no obligation, and does not intend, to update these forward-looking statements to reflect events or circumstances occurring after the date of this Annual Report.

Dear Shareholders,



Dante C. Parrini, Chairman and Chief Executive Officer

2021 was a momentous year for Glatfelter. The global pandemic touched our lives with adversity and spawned a business environment of pandemic-driven inflation, global supply-chain disruptions, and market volatility that significantly impacted the year's performance. Glatfelter PEOPLE rose to the occasion and embraced our health and safety protocols to keep our facilities running efficiently and fulfill demand on behalf of our customers that produce some of the world's most well-known essential consumer staples. As we strove to mitigate the impact of these extraordinary economic conditions, the Company remained committed to its growth and transformation strategies with the successful acquisitions of two leading engineered materials businesses.

THE NEW GLATFELTER IS NOW A \$1.4 BILLION GLOBAL COMPANY WITH APPROXIMATELY 3,250 EMPLOYEES.

The acquisitions of Jacob Holm and Georgia-Pacific's (GP) U.S. nonwovens business provide greater scale, broader product and technology diversification, and stronger leadership positions in growing engineered materials segments.

- Jacob Holm, the largest acquisition in Glatfelter's 158-year history, became our new Spunlace segment and expanded our portfolio in the growing wipes, critical-cleaning, healthcare, and hygiene categories.
- The integration of GP's U.S. nonwovens business is meeting our near-term performance expectations as the integration continues to progress. This acquisition positions Glatfelter as the world's largest airlaid materials producer and contributed to our Airlaid Materials' segment sustaining its track record of year-over-year profit growth in 2021.

When combined with the previous acquisition of GP's European Nonwovens business, these transactions have nearly doubled the Company's size since the 2018 divestiture of our legacy printing and writing paper segment, consistent with our multi-year growth strategy. These historic acquisitions position us well to deliver long-term shareholder value with greater influence in growth markets, more innovative products, and expanded margins.

PANDEMIC-DRIVEN ECONOMIC HEADWINDS IMPACTED OUR PERFORMANCE.

Glatfelter's performance was severely hindered by pandemic-driven cost inflation, unprecedented energy prices in Europe, and global supply-chain disruptions that escalated throughout the year. We anticipated our price increases and energy surcharges, when combined with a sharp focus on continuous improvement and operational excellence, would adequately offset these issues. However, the unparalleled economic headwinds intensified in the fourth quarter and substantially depressed margins in the Composite Fibers and Spunlace segments.

Despite the various actions we took and the unrelenting efforts of all Glatfelter PEOPLE throughout 2021, we could not fully overcome the global economic challenges although managed to achieve several key financial highlights:

- Adjusted EBITDA was \$120 million and Adjusted EPS was \$0.61 versus \$125 million Adjusted EBITDA and \$0.84 Adjusted EPS in 2020.
- Revenue of \$1,085 million was up from \$916 million in the previous year.
- Glatfelter's quarterly dividend was increased to \$0.14 per share.
- A \$500 million bond offering financed our new acquisitions at an attractive interest rate.

Given the circumstances surrounding 2021, and having fallen short of meeting shareholders' expectations, we are taking swift and aggressive actions focused on optimizing earnings, strengthening cash flow, and paying down debt.

THE OUTLOOK: FOCUSING ON IMPERATIVES FOR HIGHER PERFORMANCE

2022 is another important year as we integrate our acquisitions, achieve synergies, and navigate the recovery from a multi-year pandemic in the midst of a tragic humanitarian crisis in Ukraine that is currently straining the global economy. To successfully deliver in 2022, we are focused on four critical imperatives:

- 1. Uphold employee health and safety: The mental and physical well-being of Glatfelter PEOPLE is a key priority as we begin living in a post-pandemic environment. Equally important, we will remain steadfast in sustaining our industry top-quartile safety performance while productively operating our facilities and implementing continuous improvement and operational excellence initiatives.
- 2. Integrate acquisitions and realize synergies: We have applied our best and brightest resources and proven integration methodology to rapidly transition Jacob Holm and GP's U.S. nonwovens business into Glatfelter's operating model. We are addressing the critical business priorities to achieve our overall goal of \$25 million in synergies and improve our operating performance.
- 3. Minimize price volatility: Our commercial team is engaging with strategic customers to implement well-justified pricing improvements. We are leveraging our experience and proven commercial arrangements from Airlaid Materials to migrate 50% of our Composite Fibers and Spunlace customers to a dynamic pricing model in 2022. This effort will reduce price volatility for Glatfelter and its customers, plus equitably manage input cost fluctuations across the value chain.
- 4. Further grow our Airlaid Materials segment: This business is a vital driver of cash flow and EBITDA and has demonstrated stability and resilience in generating growth during the pandemic. Its cost pass-through arrangements with customers protect margins from inflation and must be emulated by the other segments. In addition, the further integration of GP's U.S. nonwovens business will be a key contributor to steadily growing this segment.

CLOSING THOUGHTS

We are confident in the merits of our growth strategy and the Company's ability to reward shareholders. Since embarking on our transformation in late 2018, considerable progress has been achieved. After successfully completing the 2021 acquisitions, 90% of Glatfelter's manufacturing output produces essential consumer staples and 80% of these product categories are projected to grow at GDP levels or greater. Most of these offerings are closely aligned with the megatrends driving consumer demand with the majority derived from sustainable, plant-based materials. As testimony to the first 3 years of our transformation results, I am proud to share that Glatfelter was ranked in the 73rd percentile of S&P 600 Small Cap companies for shareholder returns. As we enter 2022, we have amassed the manufacturing assets, technologies, and talent to produce innovative, high-performing, and more environmentally friendly engineered materials that meet the world's demand for healthy living, convenience, mobility, and sustainability.

While we are encouraged by this progress, our 2021 results remind us there is still much work that lies ahead. We are far from satisfied with our performance and are committed to increasing enterprise value in the years to come.

I cannot conclude this letter without acknowledging our greatest and most unique asset – Glatfelter PEOPLE – who gave their very best every day during extraordinarily challenging circumstances. None of our accomplishments would have been possible without the energy, talents, and creativity of our 3,250 employees for which I express my personal gratitude.

I also want to thank you, our shareholders, for your unwavering support during a year of excitement, progress, and unprecedented challenges. Your continued loyalty and encouragement affirm our confidence that Glatfelter is on the right path for continued growth and long-term success.

Sincerely,

Chairman and Chief Executive Officer

Sont C. Parini

March 11, 2022

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, 2021

or

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

For the transition period from

to



4350 Congress Street, Suite 600 Charlotte, North Carolina 28209

(Address of principal executive offices)

(704) 885-2555

(Registrant's telephone number, including area code)

Commission file number

Exact name of registrant as specified in its charter

IRS Employer Identification No. State or other jurisdiction of incorporation or organization

1-03560

Glatfelter Corporation

23-0628360

Pennsylvania

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

Title of Each Class

Trading Symbol(s)

Name of Each Exchange on which registered

New York Stock Exchange

Common Stock, par value \$.01 per share

GLT

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

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 \square No \square .

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 \boxtimes No \square .

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 \boxtimes No \square .

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

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

Based on the closing price as of June 30, 2020, the aggregate market value of the Common Stock of the Registrant held by non-affiliates was \$509.1 million.

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 18, 2022 totaled 44,627,704 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the Annual Meeting of Shareholders to be held on May 5, 2022 are incorporated by reference into Part III.

GLATFELTER CORPORATION ANNUAL REPORT ON FORM 10-K

For the Year Ended

December 31, 2021

Table of Contents

		Page
PART I		
Item 1	Business	1
Item 1A	Risk Factors	7
Item 1B	Unresolved Staff Comments	12
Item 2	Properties	12
Item 3	Legal Proceedings	12
	Executive Officers	13
Item 4	Mine Safety Disclosures	13
PART II		
Item 5	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	14
	Stock Performance Graph	14
Item 6	[Reserved]	14
Item 7	Management's Discussion and Analysis of Financial Condition and Results of Operations	15
	Results of Operations	16
	Liquidity and Capital Resources	22
Item 7A	Quantitative and Qualitative Disclosures about Market Risk	25
Item 8	Financial Statements and Supplementary Data	28
	Management's Report on Internal Control Over Financial Reporting	28
	Report of Independent Registered Public Accounting Firm	29
	Consolidated Statements of Income (Loss)	32
	Consolidated Statements of Comprehensive Income (Loss)	33
	Consolidated Balance Sheets	34
	Consolidated Statements of Cash Flows	35
	Consolidated Statements of Shareholders' Equity	36
	Notes to Consolidated Financial Statements	37
	1. Organization	37
	2. Accounting Policies	37
	3. Acquisitions	40
	4. Discontinued Operations	42
	5. Restructuring	43
	6. Asset Impairment	43
	7. Gain on Dispositions of Plant, Equipment and Timberlands	43
	8. Revenue	44
	9. Earnings Per Share	45
	10. Accumulated Other Comprehensive Income	45
	11. Income Taxes	47
	12. Stock-Based Compensation	50
	13. Retirement Plans and Other Post-Retirement Benefits	51
	14. Inventories	54

	15. Plant, Equipment and Timberlands	54
	16. Goodwill and Intangible Assets	55
	17. Other Long-Term Assets	56
	18. Other Current Liabilities	56
	19. Leases	56
	20. Long-Term Debt	57
	21. Fair Value of Financial Instruments	59
	22. Financial Derivatives and Hedging Activities	59
	23. Shareholders' Equity	62
	24. Commitments, Contingencies and Legal Proceedings	62
	25. Segment and Geographic Information	64
Item 9	Changes in and Disagreements With Accountants on Accounting and Financial Disclosures	66
Item 9A	Controls and Procedures	66
Item 9B	Other Information	66
Item 9C	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	66
PART III		
Item 10	Directors, Executive Officers and Corporate Governance	66
Item 11	Executive Compensation	67
Item 12	Security Ownership of Certain Beneficial Owners and Management	67
Item 13	Certain Relationships and Related Transactions, and Director Independence	67
Item 14	Principal Accountant Fees and Services	67
PART IV		
Item 15	Exhibits, Financial Statement Schedules	68
Item 16	Form 10-K Summary	68
Signatures		71
Schedule II		72

PART I

Glatfelter Corporation 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, 4350 Congress Street, Suite 600, Charlotte, NC 28209. In this filing, unless the context indicates otherwise, the terms "we," "our," "us," "the Company," or "Glatfelter" refer to Glatfelter Corporation and subsidiaries.

The following discussion of our Business sets forth an update of the material developments since our most recent full discussion included in Item 1 - "Business" of our 2020 Annual Report on Form 10-K filed with the SEC on February 25, 2021.

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. Our annual net sales approximate \$1.4 billion, on a pro forma basis giving effect to recently completed acquisitions, with customers in over 100 countries. Our operations utilize a variety of manufacturing technologies including airlaid, wetlaid and spunlace with sixteen manufacturing sites located in the United States, Canada, Germany, the United Kingdom, France, Spain, and the Philippines. We have sales offices in all major geographies serving customers under the Glatfelter and Sontara brands.

Glatfelter has undergone a strategic transformation focused on becoming a leading engineered materials company accelerating growth through innovation and sustainability. The transformation includes unlocking value through the realignment of our product portfolio, investing in strategic growth opportunities, delivering shareholder distributions, and creating financial capacity for strategic flexibility. Our portfolio now consists of leading positions serving markets growing at or above gross domestic product rates, a predictable cash flow profile, and improved adjusted earnings before interest, taxes, depreciation, and amortization ("EBITDA").

We manage our business and make investment decisions under a functional operating model with three distinct reporting segments: Composite Fibers, Airlaid Materials and Spunlace. 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 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 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 sales. We are committed to growing with our key markets and will make appropriate investments to support our customers and satisfy market demands.

In 2021, we completed two significant acquisitions to further our business transformation and in alignment with our stated strategy. On May 13, 2021, we completed the acquisition of all the outstanding equity interests of Georgia-Pacific Mt. Holly LLC, Georgia-Pacific's U.S. nonwovens business ("Mount Holly"), for \$170.9 million. This business includes the Mount Holly, NC manufacturing facility and an R&D center and pilot line for nonwovens product development in Memphis, TN. The Mount Holly facility produces high-quality airlaid products for the wipes, hygiene, 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. Mount Holly had net sales of approximately \$100 million in 2020. The Mount Holly acquisition expanded our footprint and income generation in the U.S. and balanced our sales mix between the Airlaid Materials and Composite Fibers segments.

On October 29, 2021, we completed the acquisition of PMM Holding (Luxembourg) AG, and its wholly-owned subsidiaries ("Jacob Holm"), a global leading manufacturer of premium quality spunlace nonwoven fabrics for critical cleaning, high-performance materials, personal care, hygiene and medical applications, for an enterprise value of approximately \$304.0 million, including the extinguishment of debt. Jacob Holm's annual revenue approximates \$400.0 million. We expect the combination to create an expanded portfolio of engineered specialty applications based on spunlace-based production assets with opportunities for long-term growth aligned with post-COVID lifestyle changes. Jacob Holm's results are reported prospectively from the date of acquisition as Spunlace, a newly established reporting segment.

Additional information related to these acquisitions is set forth in Item 8 – Financial Statements and Supplementary Data - Note 3 – "Acquisitions."

Expanding our engineered materials business	Investing in organic growth and strategic acquisitions to expand capabilities and broaden scale Driving innovation and growth by leveraging market-leading capabilities and focusing on sustainability
Driving continuous improvement and cost optimization initiatives	•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	Applying a disciplined capital spending mindset Funding organic and inorganic growth opportunities Delivering shareholder distributions

Segments Consolidated net sales and the relative net sales contribution of each of our segments for the past three years are summarized below (the data includes the results of the recently completed acquisitions prospectively from the closing date):

Dollars in thousands	2021		2020		2019
Net sales	\$ 1,084,694	\$	916,498	\$	927,673
Operating segment contribution					
Composite Fibers	51.3 %)	57.3 %)	56.2 %
Airlaid Materials	43.4		42.7		43.8
Spunlace	5.3		_		_
Total	100.0 %	,	100.0 %)	100.0 %

On a pro forma basis, assuming the acquisitions of Mount Holly and Jacob Holm had been completed on January 1, 2021, annual sales would have been approximately \$1.4 billion and the operating segment contribution by Composite Fibers, Airlaid Materials and Spunlace would have been 39.2%, 35.3% and 25.5%, respectively.

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

Metric tons	2021	2020	2019
Composite Fibers	132,196	134,758	133,473
Airlaid Materials	148,134	136,661	137,595
Spunlace	12,514		
Total	292,844	271,419	271,068

COMPOSITE FIBERS Our Composite Fibers segment, with annual net sales of approximately \$556.8 million, processes specialty long fibers, primarily from natural sources such as abaca, and other materials to create premium value-added products in the following categories:

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

We believe Composite Fibers maintains a market leadership position 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 net sales composition by categories is set forth in Item 8 – Financial Statements and Supplementary Data- $\underline{\text{Note } 8-\text{"}\textit{Revenue."}}$

Composite Fibers is comprised of five paper making facilities (Germany (3), France and England), a metallizing operation (Wales) 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
147,000 lightweight and other paper	Abaca pulp	14,400
	Wood pulp	86,500
	Synthetic fiber	21,500
11,200 metallized	Base stock	11,000
12,000 abaca pulp	Abaca fiber	23,700

The primary raw materials used in the production of our lightweight materials 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. In 2021, Composite Fibers purchased approximately 77% of its electricity needs, the cost of which is influenced by the natural gas markets. In addition, the segment generates all the steam used in production by burning natural gas.

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. In addition, Composite Fibers' lightweight products are produced using highly specialized inclined wire paper machine technology. The following chart summarizes key competitors by market segment:

Market segment	Competitor
Single serve coffee & tea	Ahlstrom, Delfort Group AG, 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, Miquel y Costas, Burrows and Suominen Oyj
Composite laminates	Schweitzer-Maudit, Purico, Miquel y Costas, MB Papeles Especiales 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:

- leveraging innovation resources to drive plastic free applications, and new product and new business development;
- optimizing our asset utilization and product portfolio while capitalizing on growing global markets in beverage filtration, electrical storage and consumer products trends;
- 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.

AIRLAID MATERIALS Airlaid Materials, with annual net sales of approximately \$470.3 million, is a leading global supplier of highly absorbent and engineered cellulose-based airlaid nonwoven materials, primarily used to manufacture consumer products for growing global end-user markets. Our products are composed of all-natural fluff pulp, which is sustainable by design. The categories served by Airlaid Materials include:

- feminine hygiene and other hygiene products;
- specialty wipes;
- tabletop;
- home care;
- adult incontinence; and
- other consumer and industrial products.

Airlaid Materials' customers are industry leading consumer product companies, as well as private label converters. We believe this business holds a leading position 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.

This segment's net sales composition by categories is set forth in Item 8 – Financial Statements and Supplementary Data- <u>Note 8 – "Revenue.</u>"

The feminine hygiene category accounted for 44.0% and 52.1% of Airlaid Material's net sales in 2021 and 2020, respectively. 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, Fort Smith, Arkansas and Mount Holly, North Carolina. The segment's five facilities operate with the following combined attributes (in metric tons):

		Estimated Annua	
A	Airlaid Production	Quantity of PRM	
Сад	pacity (metric tons)	Principal Raw Material ("PRM") (short tons)	
190,000		Fluff pulp	130,000

Key raw materials used in the airlaid production process 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 79% of this segment's net sales in 2021 was earned under contracts whose selling price is influenced by pass-through provisions directly related to the cost of certain key raw materials.

Airlaid Materials continues to be a technology and product innovation leader in technically demanding segments of the markets it serves. Its 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, Suominen Oyj, Karweb Nonwovens, Gelok International
Tabletop	SharpCell, Rexcell AB, Ascutec, Karweb Nonwovens, Main SpA
Wipes	Suominen Oyj, Berry, Kimberly Clark, Spuntech Industries, AS Nonwovens

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 converting and distributing through private label arrangements;
- capitalizing on our product and process innovation capabilities, including developing plastic-free technologies;
- 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.

SPUNLACE Spunlace is a global leading specialty manufacturer of premium quality spunlace nonwovens for critical cleaning, high-performance materials, personal care, surface disinfecting wipes, hygiene, beauty care and medical applications. Spunlace, formed as a result of our Jacob Holm acquisition, is a global manufacturer with state of the art proprietary production technology, conversion capabilities and branded products. Spunlace serves the world's largest brands and focuses on quality, sustainability and innovation. The categories served by Spunlace include:

- critical cleaning;
- health care;
- high performance;
- beauty care;
- wipes; and
- feminine hygiene

Spunlace's products are used by a wide range of end users. The critical cleaning and high performance product categories are used in applications such as automotive refinishing, aerospace, cleanroom, automotive acoustics, fire blocking and filtration. It has long-standing relationships with its customers who are niche players with highly specialized requirements. Health and beauty care includes medical gowns and drapes, wound care, surgical towels, facial masks and face and body wipes. Customers in the wipes and feminine hygiene category consist of some of the world's largest consumer brands, retailers and converters.

The Spunlace segment results are included prospectively from October 29, 2021, the date of the acquisition. On a proforma basis, Jacob Holm operations had net sales of approximately \$362.9 million for the full year 2021, of which \$57.6 million is included in our results.

Spunlace's operates four manufacturing facilities, two of which are located in the United States, and one each in France and Spain. In addition, Spunlace provides converting capabilities transforming semi-finished roll goods into finished products using various converting technologies. Spunlace production facilities have the following combined attributes (in metric tons):

	Spunlace Production Capacity	Principal Raw Material ("PRM")	Estimated Annual Quantity of PRM (metric tonnes)
91,000		Synthetic fibers	37,500
		Pulp-based fibers	32,750
		Fluff pulp	17,850
		Base paper	16,350

Key raw materials used in the spunlace production process include natural and synthetic fibers, pulps and paper stock. The spunlace production process utilized by Spunlace's facilities consumes a significant amount of water to facilitate the formation fibers into salable product. The cost to produce is influenced by the cost of critical raw materials and energy prices, including electricity and natural gas used in its operations. Approximately 40% of this segment's net sales in 2021 was earned under contracts whose selling price is influenced by pass-through provisions directly related to the price indices of certain key raw materials.

The following summarizes Spunlace's key competitors:

Market segment	Competitor
Critical cleaning and high performance	Berry Plastics; Norafin; Kimberly Clark; Essity; Lydall; Fibertex
Feminine hygiene, Health and beauty care	Suominen Oyj, Kimberly Clark, Berry Plastics, Fibertex Personal Care

Our strategy in Spunlace is focused on:

- integrating its operations to maximize planned synergies;
- leading the industry transition in sustainability by leveraging our technological advantage;
- being the preferred co-innovator;
- optimizing the use of existing production capacity; and
- delivering operational excellence.

Concentration of Customers In each of the past three years, approximately 16% of our consolidated net sales were from sales to Procter & Gamble Company, a customer in the Airlaid Materials and Spunlace segments.

Capital Expenditures Our business requires expenditures for equipment enhancements to support growth strategies, research and development initiatives, and for normal upgrades or replacements. Capital expenditures totaled \$30.0 million, \$28.1 million and \$27.8 million in 2021, 2020 and 2019, respectively. Capital expenditures in 2022 are estimated to total between approximately \$45 million and \$50 million.

Government Regulations We are subject to various federal, state and local laws and regulations intended to protect the environment, as well as human health and safety. These regulations include, among others, limits on air emissions and water use and discharges by our facilities throughout the world. Glatfelter is committed to operating responsibly and addressing the concerns and needs of our stakeholders. 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.

Human Capital Our business is guided by our Board of Directors and a diverse management team comprised of leaders with extensive business and industry experience. Additional information on our leadership team is set forth within this Form 10-K under the caption "Executive Officers." As of December 31, 2021, we employed 3,235 people worldwide, the substantial majority of whom are skilled personnel responsible for the production and commercialization of our Composite Fibers, Airlaid Materials and Spunlace products. Our facilities are a continuous flow manufacturing operation with approximately 61% of our employees represented by local works councils or trade unions in Europe, the United Kingdom, Canada, and the Philippines.

The daily work of Glatfelter employees is rooted in the Company's longstanding Code of Business Conduct and Core Values of Integrity, Financial Discipline, Mutual Respect, Customer Focus, Environmental Responsibility and Social Responsibility.

<u>Employee Health and Safety</u> We have a well-established safety management system and ongoing employee wellness programs. The health and safety of our employees and their families have remained a top priority, and we have been diligently taking the necessary measures to protect them. This includes expanded safety, hygiene, and communication protocols throughout our facilities in response to the COVID-19 pandemic.

We view health and safety as everyone's responsibility and involve all employees at every level of the organization in our programs. Glatfelter facilities are striving to be "injury free every day" through implementation of our Global Health & Safety Protocol, regulatory compliance, site-specific safety plans, safety resources and training, ongoing risk assessment and a safety auditing program. We track multiple safety metrics, including total case incident rate ("TCIR"), to encourage and ensure continuous improvement and mitigation of potential safety risks. In recent years, our TCIR has consistently ranked in the top quartile of safety performance in our industry.

<u>Talent Attraction, Retention and Development</u> Our employees make essential contributions to our success and ability to drive growth and innovation. Even as the organization has undertaken substantial change in recent years, our vision and Core Values remain the center of our steadfast compliant culture. We are always working to enhance our human resources programs by implementing and integrating enterprise-level processes for talent attraction, career development and training. Creating a best-in-class, globally consistent process for these employee experiences has become even more important as part of our strategic transformation and the move of our corporate headquarters to Charlotte, North Carolina.

Glatfelter supports its team by providing fair wages, competitive salaries, comprehensive benefits, diverse wellness programs and other benefits to help enhance the lives of our employees. We regularly review our employee offerings to ensure we are positioned to attract and retain world-class talent.

Employee Training Training and professional growth are central to developing our workforce and driving long-term success for our organization. Global training encompasses a variety of programs, from apprenticeships and machine-specific skill development, grant-funded partnerships, Lean Six Sigma principles training, leadership development and compliance training. To ensure we continue to have the necessary resources with skills necessary to support the production of increasingly sophisticated engineered materials, we invest in the development of skills necessary to operate our machinery, including operational apprenticeship programs in many of our global locations.

<u>Diversity, Equity and Inclusion</u> We are a global company that encourages and embraces different cultures and backgrounds. Our employees, including our management team, are diverse – as our facilities hire locally for leadership positions, as well as salaried and production positions at all levels. We strive to create an inclusive culture and provide opportunities for people of all backgrounds to share their unique viewpoints and contribute to our success. The global nature of our business helps drive our inclusive corporate environment, as we regularly collaborate with colleagues who have different backgrounds, ethnicities and world views.

We are committed to ensuring our Company is a diverse and inclusive place to work, while also strengthening the communities in which we live.

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 4350 Congress Street, Suite 600, Charlotte, NC 28209.

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. Also, there may be periods during which demand for our products is insufficient to enable us to operate our production facilities at full capacity and in an economical manner which may force us to take machine downtime to curtail production to match demand.

On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic as the virus spread throughout the world. As the virus, and variants thereof, continued its rapid spread, a significant portion of the world's economies was adversely impacted, and may continue to be so from time to time, by government mandates intending to slow or reduce the virus' reach such as i) reduced operation of "non-essential" businesses; ii) "social distancing"; and iii) vaccine mandates. The actions undertaken across the globe in an attempt to contain the spread of the virus have had an unprecedented and significant adverse impact on global economies in terms of reduced GDP, disruptions in global supply chains, increased unemployment, and insolvencies in a variety of industries and markets.

The majority of our product portfolios are considered to be "essential or life-sustaining" and we continued to produce products used in the global response effort to the pandemic. However, shortly after the pandemic began and through the first several months of 2021, our financial performance and results of operations were impacted by the pandemic, particularly by weaker demand for tabletop products used by restaurants, catering and similar venues, all of which were impacted by "lockdowns" throughout many regions of the world. In the event economic activity continues to be adversely impacted, or the impact intensifies, due to the spread of COVID-19 or due to actions to control the spread, we could be forced to curtail operations further due to reduced customer demand, compliance with government mandates or the inability to adequately staff production facilities due to a widespread or sustained outbreak of COVID-19 at one or more of our facilities. In addition, our global supply chain could be disrupted, demand for our products, or the prices the products are sold, could be adversely impacted if economic conditions in the target markets that we serve remain weak or weaken further. We also could face potential legal actions that could arise due to our operations during the pandemic. This economic environment may also cause customer insolvencies which may result in their inability to satisfy their financial obligations to us. The conditions are beyond our control and may have a significant impact on our sales and results of operations.

In addition, the COVID-19 pandemic's impact on various economies throughout the world could lead to financial instabilities or insolvencies of some of our customers or the customers they in turn serve which could impact our ability to sell our products. These conditions are beyond our control and may have a significant impact on our sales and results of operations. As we cannot predict the duration or scope of the COVID-19 pandemic, in the event the spread continues or the government actions intensify, our results of operations and/or financial position could be adversely impacted.

Approximately 52% of our net sales in 2021 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.

Disruption of our global supply chain could adversely affect our business.

Our ability to manufacture, sell and distribute products is critical to our operations. Our products contain raw materials that we source globally from suppliers. If there is a shortage of a key material in our supply chain, and a replacement cannot be readily sourced from an alternative supplier, the shortage may disrupt our production. Likewise, disruptions in the transportation and delivery of products - both from suppliers to our production facilities, and from our production facilities to our customers - may impact our ability to sell product and deliver goods to our customers on time.

In addition, the costs of transporting materials and products through our chain of sourcing and production may increase, and such increases could be significant. The failure of third parties on which we rely, including those third parties who supply our raw materials, packaging, capital equipment and other necessary operating materials, contract manufacturers, commercial transport, distributors, contractors, and external business partners, to meet their obligations to us, or significant disruptions in their ability to do so, may negatively impact our operations. Failure to take adequate steps to mitigate the likelihood or potential impact of such disruptions, or to effectively manage such disruptions if they occur, could adversely affect our business and results of operations, as well as require additional resources to restore our global supply chain. Any of these factors could have a material adverse impact on our results of operations and financial condition.

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, polyester or 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 production site 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 landowners 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 and Spunlace 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, our operating results could be adversely affected.

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

A significant proportion of our net sale and earnings is generated from operations outside of the United States. In addition, we own and operate manufacturing facilities in Canada, Germany, France, Spain, 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 net sales exceeds euro expenses by an estimated €150 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.

In the event of significant currency weakening in the countries into which our products are sold, demand for our products, pricing of our products, or a customer's ability to satisfy obligations to us, could be adversely impacted.

The conflict between Russia and Ukraine could adversely affect our results of operations.

Approximately \$95 million of our net sales in 2021 was earned from customers located in Russia and Ukraine. Uncertain geopolitical conditions, the invasion of Ukraine, sanctions, and other potential impacts on this region's economic environment and currencies may cause demand for our products to be volatile, cause abrupt changes in our customers' buying patterns, interrupt our ability to supply products to this region or limit customers' access to financial resources and ability to satisfy obligations to us.

In addition, we operate manufacturing sites throughout Europe, including Germany, France, Spain and the United Kingdom. In many instances, these sites depend on the availability of natural gas for use in the production of products. The supply of a substantial portion of the natural gas used may originate from Russia.

In the event geopolitical tensions fail to abate or deteriorate further, additional governmental sanctions may be enacted adversely impacting this region's economy, its banking and monetary systems, markets or customers for our products, or the supply and cost of natural gas used by our sites.

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.

We generate a substantial portion of Airlaid Materials' and Spunlace's net sales 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 and Spunlace derive approximately 44% and 6% respectively, of their annual net sales from sales to the feminine hygiene market. In addition, one customer accounted for 36% of Airlaid Materials' and 11% of

Spunlace's sales. The balance is concentrated with a small group of large customers. The loss of this one large customer or a decline in sales of hygiene products could have a material adverse effect on these segment'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 and spunlace nonwoven fabric material market, including the hygiene market, may also switch to less expensive products, change preferences or otherwise reduce demand for our products, thus reducing the size of the markets in which the segments currently sell their 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 sites rely on local bodies of water or water sources for their production needs and, therefore, are particularly sensitive to drought conditions or other natural or man-made 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 facility 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 site 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 site 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 site 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 facility in the Philippines is located in a region that is unstable and subject to political unrest. As discussed above, our Philippine pulp facility 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 site, 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, net sales, 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, Spain, 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 site 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 know-how 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 are subject to significant change. Our effective tax rates could be affected by changes in tax laws or their interpretation, changes in the mix of earnings in jurisdictions with differing statutory tax rates, and changes in the valuation of deferred tax assets and liabilities. Also, many jurisdictions continue to adopt tax policies in response to the Organization for Economic Co-operation and Development's ("OECD") anti-Base Erosion and Profit Shifting ("BEPS") project. For example, in July of 2021, 130 countries agreed in principle to a framework of international taxation proposed by the OECD that would change the rules of how profit is allocated among countries and impose a global minimum tax rate. These and other developments could significantly negatively impact the Company's overall tax expense, results of operations, and future cash flows.

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.

We may not realize the growth opportunities and operational synergies that are anticipated from the Jacob Holm acquisition and the Mount Holly acquisition.

The benefits that we expect to result from the Jacob Holm acquisition and the Mount Holly acquisition will depend, in part, on our ability to realize anticipated growth opportunities and operational synergies. Our success in realizing these growth opportunities and operational synergies, and the timing of this realization, will depend in part on the successful integration of the Mount Holly and Jacob Holm businesses.

There is a significant degree of difficulty and management distraction inherent in the process of integrating acquisitions as sizable as the Jacob Holm acquisition and the Mount Holly acquisition. The process of integrating operations could cause an interruption of, or loss of momentum in, our Mount Holly's or Jacob Holm's business. Members of our senior management may be required to devote considerable amounts of time to this integration process, which will decrease the time they will have to manage our company, service existing customers, attract new customers and develop new products or strategies. If senior management is not able to effectively manage the integration process, or if any significant business activities are interrupted as a result of the integration process, our business could suffer.

We cannot assure you that we will successfully or cost-effectively integrate Mount Holly's or Jacob Holm's business or at all. The failure to do so could have a material adverse effect on our business, financial condition or results of operations. Even if we are able to integrate Mount Holly's or Jacob Holm's business successfully, this integration may not result in the realization of the growth opportunities and operational synergies that we currently expect from this integration, and we cannot guarantee that these benefits will be achieved within anticipated timeframes or at all.

We have substantial indebtedness and may incur substantial additional indebtedness, which could adversely affect our financial health and our ability to obtain financing in the future, react to changes in our business and make payments on the notes.

As of December 31, 2021, we had approximately \$787.4 million of senior unsecured debt and \$118.3 million of revolving commitments available under our Credit Facility (after giving effect to \$6.7 million of outstanding undrawn letters of credit). We are able to, and may, incur additional indebtedness in the future, subject to the limitations contained in the agreements governing our indebtedness. Our substantial indebtedness could have important consequences to holders of our indebtedness, including:

- making it more difficult for us to satisfy our obligations with respect to our long-term debt;
- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions
 or other general corporate requirements and our ability to satisfy our obligations with respect to the notes in the
 future;
- requiring a substantial portion of our cash flows to be dedicated to debt service payments instead of other
 purposes, thereby reducing the amount of cash flows available for working capital, capital expenditures,
 acquisitions and other general corporate purposes;
- increasing our vulnerability to general adverse economic and industry conditions;
- exposing us to the risk of increased interest rates as certain of our borrowings, including under the Credit Facility, are at variable rates of interest;
- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;
- placing us at a disadvantage compared to other, less leveraged competitors or competitors with comparable debt and more favorable terms and thereby affecting our ability to compete; and
- increasing our cost of borrowing.

Although our borrowing arrangements contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the additional indebtedness incurred in compliance with these restrictions could be substantial. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness. If new debt is added to our current debt levels, the related risks that we face would increase, and we may not be able to meet all our debt obligations, including the repayment of the notes.

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; Spain 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, land at our Mount Holly site, office and various warehouse space in the United States, Canada, Europe, Russia, China and our corporate offices in Charlotte, NC. 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, 2022.

<u>Name</u>	Age	Office with the Company
Dante C. Parrini	57	Chairman and Chief Executive Officer
Christopher W. Astley	49	Senior Vice President, Chief Commercial Officer
Samuel L. Hillard	40	Senior Vice President, Chief Financial Officer
Wolfgang Laures	52	Senior Vice President, Integrated Global Supply Chain & Information Technology
Eileen L. Beck	59	Vice President, Human Resources and Administration
David C. Elder	53	Vice President, Finance and Chief Accounting Officer
Ramesh Shettigar	46	Vice President, ESG, Investor Relations and Corporate Treasurer
Jill L. Urey	55	Vice President, Deputy General Counsel & Corporate Secretary

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 is our Senior Vice President, Integrated Global Supply Chain and Information Technology. He joined us in September 2019 with responsibility for our global supply chain and in July 2020 assumed additional leadership of Information Technology for Glatfelter. Prior to joining us, 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.

Ramesh Shettigar was promoted to Vice President, ESG, Investor Relations and Corporate Treasurer in September 2021. He joined us in July 2014 as Vice President and Treasurer. Prior to joining us, Mr. Shettigar was Director of Treasury at Quest Diagnostics with responsibility for a broad range of corporate finance activities including cash management, global liquidity, FX, debt/equity financing and capital planning. Prior to joining Glatfelter, Mr. Shettigar held treasury and related positions with Praxair Inc, Delphi Corporation an McDermott International.

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.

ITEM 4 MINE SAFETY DISCLOSURES

Not Applicable

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 \$0.14 per common share beginning with the second quarter of 2021 and declared a \$0.13 per share dividend in the first quarter of 2020 and a \$0.135 per share dividend in each of the following four quarters.

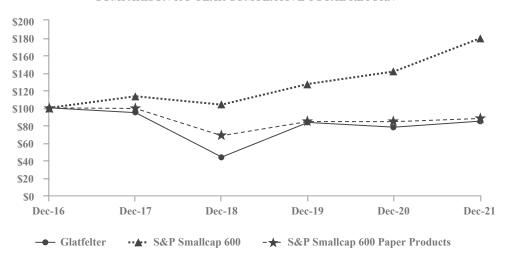
As of February 18, 2022, we had 874 shareholders of record.

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., Mercer International, Inc., Neenah, Inc., and Schweitzer-Mauduit International.

The following graph assumes \$100 was invested in our common stock and in each index (including reinvestment of dividends) on December 31, 2016 and charts the performance through December 31, 2021.

COMPARISON of 5-YEAR CUMULATIVE TOTAL RETURN



ITEM 6 | RESERVED|

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 2021 compared to 2020 is included herein. For discussion and analysis of 2020 compared to 2019, 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, 2020, which was filed with the United States Securities and Exchange Commission on February 25, 2021 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. risks associated with the impact of the COVID-19 pandemic, including global and regional economic conditions, changes in demand for our products, interruptions in our global supply chain, ability to continue production by our facilities, credit conditions of our customers or suppliers, or potential legal actions that could arise due to our operations during the pandemic;
- ii. disruptions of our global supply chain, including the availability of key raw materials and transportation for the delivery of critical inputs and of products to customers, and the increase in the costs of transporting materials and products;
- iii. variations in demand for our products, including the impact of unplanned market-related downtime, variations in product pricing, or product substitution;
- iv. the impact of competition, changes in industry production capacity, including the construction of new facilities or new machines, the closing of facilities and incremental changes due to capital expenditures or productivity increases;
- v. risks associated with our international operations, including local economic and political environments and fluctuations in currency exchange rates;
- vi. geopolitical matters, including any impact to our operations from events in Russia, Ukraine and Philippines;
- vii. our ability to develop new, high value-added products;
- viii. changes in the price or availability of raw materials we use, particularly woodpulp, pulp substitutes, synthetic pulp, other specialty fibers and abaca fiber;
- ix. changes in energy-related prices and commodity raw materials with an energy component;
- x. the impact of unplanned production interruption at our facilities or at any of our key suppliers;
- xi. disruptions in production and/or increased costs due to labor disputes;
- xii. the gain or loss of significant customers and/or on-going viability of such customers;
- xiii. the impact of war and terrorism;
- xiv. 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 taxes;
- xv. enactment of adverse state, federal or foreign tax or other legislation or changes in government legislation, policy or regulation; and
- xvi. our ability to finance, consummate and integrate acquisitions, including our acquisitions of Mount Holly and Jacob Holm.

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

- Composite Fibers with sales of single-serve tea and coffee filtration papers, wallcovering base materials, composite laminate papers, technical specialties including substrates for electrical applications, and metallized products;
- *Airlaid Materials* with sales of airlaid nonwoven fabric-like materials used in feminine hygiene products, adult incontinence products, tabletop, specialty wipes, home care products and other airlaid applications; and
- *Spunlace* with sales of premium quality spunlace nonwovens for critical cleaning, high-performance materials, personal care, hygiene and medical applications.

COVID-19 Pandemic On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic as the virus spread throughout the world. The COVID-19 pandemic and the actions undertaken throughout the world in an attempt to contain the virus have had an unprecedented and significant impact on global economies in terms of reduced GDP, inflation, volatile energy prices, disruptions in global supply chains, increased unemployment, and insolvencies in a variety of industries and markets. As a result, we have experienced and may continue to experience weaker or volatile demand for certain of our products due to the effects of the pandemic. Shortly after the pandemic began and through the first several months of 2021, our financial performance and results of operations were adversely impacted by the pandemic, particularly by weaker demand for tabletop products used by restaurants, catering and similar venues, all of which were impacted by "lockdowns" throughout many regions of the world. However, demand is improving as restaurants around the world begin to reopen. The majority of our other product portfolios are considered to be "essential or life-sustaining" and we continued to produce products used in the global response effort to the pandemic. We believe demand for certain of our products, such as Composite Fibers' food and beverage filtration products and Airlaid Materials' personal hygiene and wipes, will remain stable. The following discussion and analysis primarily focus on the financial results of operations and financial condition of our continuing operations.

Acquisition As discussed in Item 8 - Financial Statements and Supplementary Data, Note 3 "Acquisitions," we completed our acquisitions of Georgia-Pacific's U.S. nonwovens business ("Mount Holly") on May 13, 2021 for \$170.9 million and the acquisition of all outstanding equity of PMM Holdings (Luxembourg) AG ("Jacob Holm") on October 29, 2021 for \$304.0 million. Refer to Note 3 - "Acquisitions" for additional information about these transactions.

RESULTS OF OPERATIONS

2021 versus 2020

Overview For the year ended December 31, 2021, we reported income from continuing operations of \$6.7 million, or \$0.15 per share compared with \$20.8 million and \$0.47 per share in 2020. The following table sets forth summarized GAAP-based consolidated results of operations:

		nber 31,		
In thousands, except per share	2021			
Net sales	\$ 1,084,694	\$ 916,498		
Gross profit	144,795	147,869		
Operating income	28,614	49,156		
Continuing operations:				
Income	6,721	20,783		
Earnings per share	0.15	0.47		
Discontinued operations:				
Income	216	515		
Earnings per share	_	0.01		
Net income	6,937	21,298		
Earnings per share	\$ 0.15	\$ 0.48		

We generated \$71.0 million of cash from operations in 2021 compared with \$109.0 million a year ago. During 2021 and 2020, capital expenditures totaled \$30.0 and \$28.1 million, respectively. Refer to *Liquidity and Capital Resources* for additional discussion of our sources and uses of cash.

The reported results are in accordance with generally accepted accounting principles in the United States ("GAAP") and reflect a number of significant actions we undertook, including strategic initiatives, corporate headquarters relocation, cost optimization and the restructuring and consolidation of our metallized business, among others. Excluding

these items from reported results, adjusted earnings, a non-GAAP measure, was \$27.6 million, or \$0.61 per diluted share 2021, compared with \$37.4 million, or \$0.84 per diluted share, a year ago. The weaker financial performance largely reflects the adverse impact of significantly higher raw material and energy prices. Operating income for our Composite Fibers segment was \$14.7 million lower in 2021 compared with 2020 and Airlaid Materials' operating income was \$4.1 million lower. Spunlace, our new segment created in connection with the Jacob Holm acquisition, lost \$1.3 million for the two months since the acquisition was completed. 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 consists 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 2018 connection with the sale, are reported as discontinued operations for all periods presented. This adjustment reflects the net results of this discontinued operation.

Strategic initiatives. These adjustments primarily reflect professional, investment banker and legal fees incurred directly related to evaluating and executing certain strategic initiatives, including costs associated with acquisitions, related integrations and charges incurred to step-up acquired inventory to fair-value.

Corporate headquarters relocation. These adjustments reflect costs incurred in connection with the strategic relocation of the Company's corporate headquarters to Charlotte, NC. The costs are primarily related to employee relocation costs and exit costs at the former corporate headquarters.

Restructuring charge – Metallized operations. This adjustment represents charges incurred in 2020 in connection with the decision to restructure a portion of the Composite Fibers segment, primarily consisting of the consolidation of our metallizing operation from Gernsbach, Germany to Caerphilly, UK.

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 separations, 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.

COVID-19 incremental costs. This adjustment represents incremental cash costs incurred directly related to the COVID-19 pandemic such as employee incentive payments, enhanced hygiene protocols, safety and supplies, and professional fees primarily associated with the CARES Act benefit.

Asset Impairment Charge. This adjustment represents a non-cash charge recorded to reduce the carrying amount of a tradename intangible asset of the Dresden wallcover business due to the impact of the COVID-19 pandemic on the underlying forecasted revenue stream.

Pension settlement expenses, net. This adjustment reflects professional fees recorded in connection with the Company's termination of its qualified pension plan and the related actions to settle all obligations to the plan's participants. Since the pension plan was fully funded, the settlement of pension obligations did not require the use of the Company's cash, but instead was accomplished with plan assets.

Timberland sales and related costs. These adjustments exclude 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. These adjustments are irregular in timing and amount and may benefit our operating results.

Other tax adjustments. In 2021, these adjustments primarily reflect the tax impact related to the reversal of the permanent reinvestment assertion for certain foreign jurisdictions and a foreign tax benefit related to the establishment of a center of excellence. In 2020, a tax benefit was recorded in connection with passage of the Coronavirus Aid, Relief, and Economic Security Act ("CARES") related to provisions that modified the "net operating loss" provisions of previous law to allow certain losses to be carried back five years.

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 periods presented:

Year ended December 31,

	2021				2020			
In thousands, except per share	Amount EPS		EPS	EPS Amount		EPS		
Net income	\$	6,937	\$	0.15	\$	21,298	\$	0.48
Exclude: Income from discontinued operations, net of tax		(216)		_		(515)		(0.01)
Income from continuing operations		6,721		0.15		20,783		0.47
Adjustments (pre-tax):								
Strategic initiatives		30,928				1,567		
Corporate headquarters relocation		585				1,053		
Restructuring charge - Metallized operations		_				11,111		
Cost optimization actions		885				5,979		
Pension settlement expenses, net		_				6,154		
COVID-19 incremental costs		_				2,715		
Asset impairment charge		_				900		
Timberland sales and related costs		(5,239)				(1,382)		
Total adjustments (pre-tax)		27,159				28,097		
Income taxes (1)		415				(5,405)		
Other tax adjustments (2)		(6,696)				(6,082)		
Total after-tax adjustments		20,878		0.46		16,610		0.37
Adjusted earnings from continuing operations	\$	27,599	\$	0.61	\$	37,393	\$	0.84

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

⁽²⁾ In 2021, reflects the tax impact related to the reversal of permanent reinvestment assertion for certain foreign jurisdictions and a foreign tax benefit related to the establishment of a center of excellence. In 2020, a tax benefit was recorded in connection with passage of the Coronavirus Aid, Relief, and Economic Security Act ("CARES") related to provisions that modified the "net operating loss" provisions of previous law to allow certain losses to be carried back five years.

Segment Financial Performance

	Year	ended Decei	ember 31,	
In thousands, except tons	2021		2020	
Net Sales by Segment				
Composite Fibers	\$ 55	56,807 \$	525,089	
Airlaid Material	47	70,250	391,409	
Spunlace		57,637	_	
Total	\$ 1,08	84,694 \$	916,498	
Operating income by Segment				
Composite Fibers	\$ 3	37,422 \$	52,094	
Airlaid Material	4	12,244	46,304	
Spunlace		(1,338)	_	
Other and unallocated	(4	19,714)	(49,242)	
Total	\$ 2	28,614 \$	49,156	
Depreciation and amortization				
Composite Fibers	\$ 2	27,690 \$	26,175	
Airlaid Material	2	28,101	22,416	
Spunlace		1,693	_	
Other and unallocated		3,937	8,009	
Total	\$ (51,421 \$	56,600	
Capital expenditures				
Composite Fibers	\$ 1	1,912 \$	13,262	
Airlaid Material		8,431	9,311	
Spunlace		3,810	_	
Other and unallocated		5,884	5,563	
Total	\$ 3	\$0,037 \$	28,136	
Tons shipped (metric)				
Composite Fibers	13	32,196	134,758	
Airlaid Material	14	18,134	136,661	
Spunlace	1	12,514		
Total	29	2,844	271,419	

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

	Year ended December 31					
In thousands		2021		2020		Change
Net sales	\$	1,084,694	\$	916,498	\$	168,196
Costs of products sold		939,899		768,629		171,270
Gross profit	\$	144,795	\$	147,869	\$	(3,074)
Gross profit as a percent of Net sales		13.3 %	6	16.1 %		

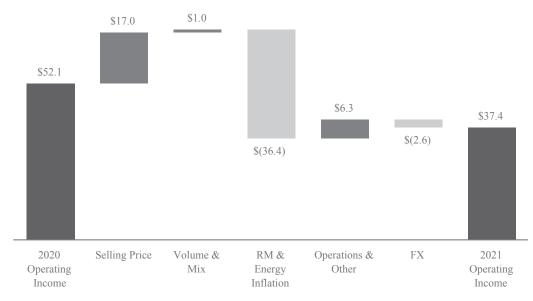
The following table sets forth the contribution to consolidated net sales by each segment:

	Year ended	December 31
Percent of Total	2021	2020
Segment		
Composite Fibers	51.3 %	57.3 %
Airlaid Materials	43.4	42.7
Spunlace	5.3	
Total	100.0 %	100.0 %

Net sales on a consolidated basis totaled \$1,084.7 million and \$916.5 million in 2021 and 2020, respectively. The \$168.2 million increase was primarily driven by \$60.6 million from the Mount Holly acquisition and \$57.6 million from the Jacob Holm acquisition. In addition, higher average selling prices favorably impacted the comparison by \$50.6 million and shipping volumes decreased 3.6% on an organic basis.

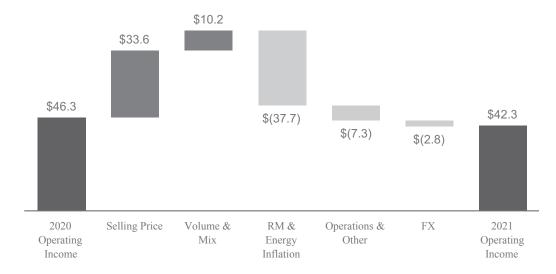
Composite Fibers' net sales increased \$31.7 million or 6.0% in 2021 compared to 2020 driven by favorable currency translation of \$18.5 million and \$17.0 million from higher selling prices. During 2021, we announced price increases of 8% and 12% in response to significantly higher input costs. Overall shipments decreased 1.9% in the year-to-year comparison.

Composite Fibers' 2021 operating income of \$37.4 million was \$14.7 million lower than 2020. The decline in operating results reflects the adverse impact of significantly higher costs for raw materials, primarily woodpulp, and higher energy prices in Europe, which increased \$36.4 million in the aggregate. The adverse impact of inflation more than outpaced the \$17.0 million increase in selling prices. The primary drivers are summarized in the following chart (in millions):



Airlaid Materials' net sales increased \$78.8 million, in the comparison of 2021 to 2020, and shipments increased 8.4% each driven by the addition of Mount Holly, which is included prospectively from the May 13, 2021 closing of the transaction. Mount Holly is estimated to generate approximately \$100.0 million of net sales on an annual basis. The Airlaid Materials' net sales were impacted by lower shipments in the hygiene and wipes categories (excluding volumes added by Mount Holly). Currency translation was \$6.5 million favorable.

Airlaid Materials' 2021 operating income of \$42.3 million was \$4.0 million lower than 2020. Higher shipments positively impacted results by \$10.2 million. Selling price increases of \$33.6 million, primarily due to raw material cost-pass through provisions and an energy surcharge, were more than offset by higher input costs. Operations were unfavorable \$7.3 million as a result of higher spending and inflationary pressures. The impact of currency and related hedging negatively impacted earnings by \$2.8 million. The primary drivers are summarized in the following chart (in millions):



Spunlace Spunlace net sales totaled \$57.6 million and operating loss totaled \$1.3 million for the period October 29, 2021 to December 31, 2021. Shipments were adversely affected by a larger customer's actions to recalibrate orders for wipes to manage year-end inventory, in addition to production delays that were impacted by raw material availability. These factors, combined with unfavorable mix, negatively impacted profitability by approximately \$0.7 million. In addition, raw material inflation, particularly on synthetic fibers, coupled with higher than anticipated energy costs, lowered profits by approximately \$1.5 million. Operations further negatively impacted results by \$1.4 million from lower production, higher than anticipated waste rates and COVID-related labor challenges. The preliminary purchase price allocation resulted in depreciation and amortization of approximately \$1.7 million after including the acquisition step-up to fixed and intangible assets.

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 \$49.7 million for 2021 compared with \$49.2 million in 2020. Excluding the items identified to present "adjusted earnings," unallocated expenses for the comparison increased \$1.3 million.

Gain on Sales of Plant, Equipment and Timberlands, net During each of the past two years, we sold certain assets, primarily timberlands. For a summary of these transactions, refer to Item 8 - Financial Statements and Supplementary Data. Note 7 - "Gain on Dispositions of Plant Equipment and Timberlands."

Interest expense, net For the year ended December 31, 2021, interest expense, net totaled \$12.3 million compared with \$6.6 million for 2020. The increase reflects additional net borrowings totaling \$497.3 million incurred to finance the two acquisitions completed in May 2021 and October 2021. In addition, in connection with the October 2021 issuance of our 4.750% senior notes to finance the Jacob Holm acquisition, we refinanced the amounts outstanding under our variable-rate revolving credit facility which averaged approximately 1.6% at the time they were refinanced, with the proceeds of the fixed-rate notes.

Income taxes For the year ended December 31, 2021, we recorded a \$7.0 million income tax provision on a pretax income of \$13.7 million from continuing operations. The comparable amounts for 2020 were \$11.6 million income tax provision on a pre-tax income of \$32.4 million. During 2021, the effective tax rate reflects the impact of \$3.6 million of tax expense related to the reversal of a permanent reinvestment assertion for certain foreign jurisdictions and a foreign tax benefit of \$10.7 million related to the establishment of a center of excellence. The income tax expense in 2020 includes the impact of nondeductible excise tax totaling \$8.3 million partially offset by a \$6.1 million benefit recorded in connection with passage of the CARES Act. This Act, which was signed into law on March 27, 2020, modified the "net operating loss" provisions of previous law to allow certain losses to be carried back five years. These amounts are excluded from net income when arriving at adjusted earnings.

On adjusted pre-tax income of \$40.8 million, income tax expense was \$13.2 million in 2021. The comparable amounts in 2020 were \$60.5 million and \$23.1 million, respectively. The effective tax rate on adjusted earnings was 32.4% in the 2021 compared to 38.2% in 2020.

Foreign Currency We own and operate facilities in Canada, Germany, France, the United Kingdom, Spain and the Philippines. The functional currency of our Canadian operations is the U.S. dollar. However, in Germany, France and Spain 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 net sales exceeds euro expenses by an estimated €150 million. For 2021 compared to 2020, the average currency exchange rate of the euro strengthened relative to the U.S. dollar by approximately 3.7%, and the British pound sterling to the dollar strengthened by approximately 7.2%. 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.

In thousands	Year ended December 31,2	
	Favorable (unfavorabl	
Net sales	\$	25,015
Costs of products sold	(28,698)
SG&A expenses		(1,726)
Income taxes and other		(1,537)
Net income	\$	(6,946)

The above table only presents the financial reporting impact of foreign currency translations assuming currency exchange rates in 2021 were the same as 2020, 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 our Specialty Papers business on October 31, 2018. Its results of operations are reported as discontinued operations for all periods presented. There was an immaterial amount of activity in results of discontinued operations for 2021 and 2020.

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:

		Year ended l	Decen	nber 31,
In thousands	_	2021		2020
Cash and cash equivalents at beginning of period	\$	99,581	\$	126,201
Cash provided (used) by				
Operating activities		70,977		108,993
Investing activities		(489,766)		(26,773)
Financing activities		462,352		(100,306)
Effect of exchange rate changes on cash		(5,418)		5,163
Change in cash and cash equivalents from discontinued operations		(996)		(1,613)
Net cash provided (used)		37,149		(14,536)
Cash, cash equivalents and restricted cash at the end of period		148,814		111,665
Less: restricted cash in Prepaid and other current assets		(2,000)		(2,000)
Less: restricted cash in Other assets		(8,378)		(10,084)
Cash and cash equivalents at end of period	\$	138,436	\$	99,581

At December 31, 2020, we had \$138.5 million in cash and cash equivalents ("cash"), of which approximately 90% was held by foreign subsidiaries. Cash held by our foreign subsidiaries can be repatriated without incurring a significant amount of additional taxes. In addition to cash, as of December 31, 2021, \$118.3 million was available under our existing revolving credit agreement.

Cash provided by operating activities totaled \$71.0 million in 2021 compared with \$109.0 million a year ago. The cash from operations includes \$22.9 million of cash payments related to strategic initiatives and a \$20.4 million tax refund in 2020 associated with the CARES Act. Working capital benefits from accounts payable were largely offset by uses of working capital for accounts receivable and inventory. Operating cash flow in 2021 only includes the EBITDA of the two acquisitions prospectively from their date of acquisition. Operating cash flow in 2020 includes \$5.3 million of outflows associated with the metallized restructuring and \$6.2 million related to the pension settlement. The following table sets forth a measure of "Adjusted EBITDA" a non-GAAP financial measure used by management to assess the cash generated by our core business operations. Pro forma Adjusted EBITDA presents this measure adjusted to include the historical results of the Mount Holly and Jacob Holm acquisitions for 2021 which aligns with the definition of this measure in accordance with our credit agreement for calculation of covenant compliance.

Adjusted EBITDA	Year ended	d December 31,
In thousands	2021	2020
Net income	\$ 6,937	7 \$ 21,298
Exclude: Income from discontinued operations, net of tax	(216	(515)
Add back: Taxes on Continuing operations	6,956	11,576
Depreciation and amortization	61,421	56,600
Interest expense, net	12,280	6,623
EBITDA	87,378	95,582
Adjustments:		
Strategic initiatives	30,928	3 1,567
compensation	5,063	5,655
Cost optimization actions	885	5,979
COVID-19 incremental costs	_	2,715
Corporate headquarters relocation	585	5 871
Restructuring charge - Metallized operations	_	7,211
Asset impairment charge	_	900
Pension settlement expenses, net	_	- 6,154
Timberland sales and related costs	(5,239	(1,382)
Adjusted EBITDA	119,600	125,252
Pro forma - Mount Holly (1)	2,088	-
Pro forma - Jacob Holm ⁽²⁾	18,291	
Pro forma Adjusted EBITDA	\$ 139,979	9 \$ 125,252

- (1) Represents pro forma Mount Holly EBITDA for the period January 1, 2021 through the May 13, 2021 acquisition date, adjusted to eliminate certain corporate cost overhead allocated to Mount Holly during its period of ownership by its previous parent.
- (2) Represents pro forma Jacob Holm EBITDA for the period January 1, 2021 through the October 29, 2021 acquisition date.

EBITDA is a measure used by management to assess our operating performance and is calculated using income (loss) from continuing operations and excludes interest expense, interest income, income taxes and depreciation and amortization. Adjusted EBITDA is calculated using EBITDA and further excludes certain items management considers to be unrelated to the company's core operations. The adjustments include the costs of strategic initiatives, certain cost optimization and restructuring activities, certain COVID-19 costs, corporate headquarters relocation expenses, pension settlement expenses, asset impairment charge, share-based compensation expense and debt refinancing, as well as the elimination of gains from sales of timberlands. Adjusted EBITDA is a performance measure that excludes costs that we do not consider to be indicative of our ongoing operating performance.

Net cash used by investing activities reflects the \$464.9 million combined purchase price, net of cash acquired, of the two acquisitions completed in 2021. Capital expenditures totaled \$30.0 million in 2021 compared with \$28.1 million in 2020. Capital expenditures are expected to total between \$45 million and \$50 million in 2022.

Net cash provided by financing activities totaled \$462.4 million in 2021 compared with a use of \$100.3 million in 2020. The change in the year-to-year comparison primarily reflects the issuance of bonds to finance our acquisitions in 2021.

Details of our outstanding long-term indebtedness are set forth under Item 8 - Financial Statements and Supplementary Data – Note 20 - "Long-Term Debt."

In October 2021, we issued \$500 million aggregate principal amount of 4.750% senior notes due 2029 (the "Notes"). The net proceeds from the offering of the Notes, together with cash on hand, were used to pay the purchase price of the Jacob Holm acquisition, certain indebtedness of Jacob Holm, outstanding borrowings under the Revolving Credit Facility including amounts previously borrowed to purchase Mount Holly, and to pay fees and expenses.

Our revolving credit facility due in September 2026, contains a number of customary compliance covenants, the most restrictive of which is a maximum leverage ratio of 5.25x at the end of 2021. As of December 31, 2021, the leverage ratio, as calculated in accordance with the definition in our amended credit agreement, was 3.8x, within the limits set forth in our credit agreement.

Financing activities includes cash used for common stock dividends. In 2021, we used \$24.5 million of cash for dividends on our common stock compared with \$23.5 million in 2020. In the second quarter of 2021, we increased the quarterly cash dividend by 3.7%. 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.

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 24 – "Commitments, Contingencies and Legal Proceedings," 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, 2021 and 2020, 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, are reflected in the consolidated balance sheets included herein in Item 8 – Financial Statements and Supplementary Data.

ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

		For the	year Ended Dec	cember 31		Decembe	r 31, 2021
In thousands, except percentages	2022	2023	2024	2025	2026	Carrying Value	Fair Value
Long-term debt							
Average principal outstanding							
At variable interest rates	\$ 228,026	\$ 218,682	\$ 206,223	\$ 47,999	\$ 6,740	\$ 228,026	\$ 228,026
At fixed interest rates – Term Loans	538,106	523,918	502,421	500,417	500,000	547,915	564,880
						\$ 775,941	\$ 792,906
Weighted-average interest rate							
On variable rate debt	1.79%	1.79%	1.79%	1.79%	1.79%		
On fixed rate debt – Term Loans	4.48%	4.57%	4.73%	4.75%	4.75%		
Interest rate swap							
Pay fixed/received variable (notional)	€ 180,000	€ 180,000	€ 180,000	_	_		
Rate paid	0.0395%	0.0395%	0.0395%	_	_		
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, 2021. 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, 2021, we had \$775.9 million of long-term debt, net of deferred debt issuance costs. After giving effect to the interest rate swap agreement, approximately 3.1% of our debt was at variable interest rates. The fixed-rate Term Loans are 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 and a euro-denominated term loan which accrue interest based on one-month LIBOR plus a margin. At December 31, 2021, the contractual interest rate paid was 1.79%. A hypothetical 100 basis point increase interest rates would increase annual interest expense by \$0.2 million and a hypothetical decrease in rates would have virtually no impact on interest expense.

We entered into a \in 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 \in 180 million of the underlying variable rate term loan. We will receive the greater of 0.00% or EURIBOR. As of the end of 2021, EURIBOR was (0.572)%.

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 22 - "Financial Derivatives and Hedging Activities."

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 net sales is estimated to exceed euro expenses by approximately €150 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.

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, net sales and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to long-lived assets, 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 annually, during the fourth quarter, 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. 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.

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.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of Glatfelter Corporation (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, 2021, 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). We excluded from our assessment the internal control over financial reporting at Glatfelter Mt. Holly LLC ("Mount Holly") and PMM Holding (Luxembourg) AG ("Jacob Holm"), which were acquired on May 13, 2021 and October 29, 2021, respectively, and whose financial statements constitute 11.4% and 19.6%, respectively, of total assets, and 5.6% and 5.3%, respectively, of total net sales of the Company's consolidated financial statement amounts as of and for the year ended December 31, 2021.

Management has determined that the Company's internal control over financial reporting as of December 31, 2021, 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, 2021, 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, 2021.

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 the Board of Directors of Glatfelter Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Glatfelter Corporation and subsidiaries (the "Company") as of December 31, 2021, 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, 2021, 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, 2021, of the Company and our report dated February 25, 2022, expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Georgia-Pacific Mt. Holly LLC ("Mount Holly") and PMM Holding (Luxembourg) AG ("Jacob Holm"), which were acquired on May 13, 2021 and October 29, 2021, respectively, and whose financial statements constitute 11.4% and 19.7%, respectively, of total assets, and 5.6% and 5.3%, respectively, of total net sales of the Company's consolidated financial statement amounts as of and for the year ended December 31, 2021. Accordingly, our audit did not include the internal control over financial reporting at Mount Holly and Jacob Holm.

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 Charlotte, North Carolina February 25, 2022

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Glatfelter Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Glatfelter Corporation and subsidiaries (the "Company") as of December 31, 2021 and 2020, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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, 2022, 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 16 to the financial statements

Critical Audit Matter Description

The Company reviews goodwill for impairment at least annually 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 \$236.2 million as of December 31, 2021, of which \$78.4 million was allocated to the Composite Fibers operating segment, which is also a reporting unit. 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 higher raw materials and energy prices, 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 Charlotte, North Carolina February 25, 2022

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

GLATFELTER CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF INCOME (LOSS)

In thousands, except per share	Ye 2021	ar en	ded December	31,	2019
Net sales	\$ 1,084,694	\$	916,498	\$	927,673
Costs of products sold	939,899		768,629		780,131
Gross profit	 144,795		147,869		147,542
Selling, general and administrative expenses	121,250		100,045		94,967
Gains on dispositions of plant, equipment and timberlands, net	(5,069)		(1,332)		(2,060
Operating income	28,614		49,156		54,635
Non-operating income (expense)					
Interest expense	(12,353)		(7,022)		(10,408
Interest income	73		399		1,123
Pension settlement	_		(6,154)		(75,326
Other, net	(2,657)		(4,020)		(4,477
Total non-operating expense	(14,937)		(16,797)		(89,088
Income (loss) before income taxes	 13,677		32,359		(34,453
Income tax provision (benefit)	6,956		11,576		(9,242
Income (loss) from continuing operations	6,721		20,783		(25,211
iscontinued operations:					
Income before income taxes	216		544		1,284
Income tax provision (benefit)	_		29		(2,386
Income from discontinued operations	216		515		3,670
Net income (loss)	\$ 6,937	\$	21,298	\$	(21,541
Basic earnings (loss) per share					
Income (loss) from continuing operations	\$ 0.15	\$	0.47	\$	(0.57
Income from discontinued operations	 		0.01		0.08
Basic earnings per share	\$ 0.15	\$	0.48	\$	(0.49
Diluted earnings (loss) per share					
Income (loss) from continuing operations	\$ 0.15	\$	0.47	\$	(0.57)
Income from discontinued operations			0.01		0.08
Diluted earnings per share	\$ 0.15	\$	0.48	\$	(0.49
Weighted average shares outstanding					
Basic	44,551		44,339		44,132

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

GLATFELTER CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

Year ended December 31, In thousands 2021 2020 2019 Net income (loss) \$ 6,937 \$ 21,298 (21,541)Foreign currency translation adjustments (27,232)33,821 (6,724)Net change in: Deferred gains (losses) on cash flow hedges, net of taxes of \$(1,866), \$2,507, and \$(737), respectively 4,484 (6,812)2,117 Unrecognized retirement obligations, net of taxes of \$(111), \$158, and \$(22,927), respectively 1,097 (7,766)64,151 (21,651)19,243 59,544 Other comprehensive income (loss) Comprehensive income (loss) 38,003 (14,714) \$ 40,541

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

GLATFELTER CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

	Decen	inci 3	
In thousands	2021		2020
Assets			
Cash and cash equivalents	\$ 138,436	\$	99,581
Accounts receivable (less allowance for doubtful accounts: 2021 - \$2,731; 2020 - \$2,093)	170,212		122,817
Inventories	279,520		196,230
Prepaid expenses and other current assets	 48,398		34,29
Total current assets	636,566		452,925
Plant, equipment and timberlands, net	758,812		543,26
Goodwill	236,165		164,369
Intangible assets, net	156,304		81,83
Other assets	 92,760		44,48
Total assets	\$ 1,880,607	\$	1,286,881
Liabilities and Shareholders' Equity			
Elabilities and Shareholders Equity			
Current portion of long-term debt	\$ 26,437	\$	25,05
Short-term debt	22,843		_
Accounts payable	214,015		127,50
Dividends payable	6,237		5,98
Environmental liabilities	2,200		3,70
Other current liabilities	99,438		71,09
Total current liabilities	371,170		233,34
Long-term debt	738,075		288,46
Deferred income taxes	87,285		77,13
Other long-term liabilities	141,315		110,01
Total liabilities	 1,337,845		708,94
Commitments and contingencies	_		_
Shareholders' equity			
Common stock, \$0.01 par value; authorized - 120,000,000; issued - 54,361,980 (including treasury shares: 2021 - 9,812,841; 2020 - 9,994,144)	544		54
Capital in excess of par value	64,779		63,26
Retained earnings	705,600		723,36
Accumulated other comprehensive loss	 (80,304)		(58,65
	690,619		728,51
Less cost of common stock in treasury	(147,857)		(150,58
Total shareholders' equity	542,762		577,93

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

1,880,607

1,286,881

Total liabilities and shareholders' equity

GLATFELTER CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS

Year ended December 31,

In thousands	2021	2020	2019
Operating activities			
Net income (loss)	\$ 6,937	\$ 21,298	\$ (21,541)
Income from discontinued operations, net of tax	(216)	(515)	(3,670
Adjustments to reconcile to net cash provided by operating activities:			
Depreciation, depletion and amortization	61,421	56,600	50,820
Amortization of debt issue costs and original issue discount	865	590	1,672
Pension settlement charge	_	_	75,326
Asset impairment charge	_	900	
Deferred income tax benefit	(13,619)		(22,971
Gains on dispositions of plant, equipment and timberlands, net	(5,069)		(2,060
Share-based compensation	5,063	5,655	3,583
Change in operating assets and liabilities	,	,	,
Accounts receivable	(14,794)	9,563	(5,473
Inventories	(40,019)		(17,387
Prepaid and other current assets	5,770	1,679	(2,833
Accounts payable	65,828	(7,234)	10,337
Accruals and other current liabilities	(4,165)	* * * * * * * * * * * * * * * * * * * *	(19,536
Pension assets received	(1,100)		53,401
Other	2,975	4,857	3,167
Net cash provided by operating activities	70,977	108,993	102,835
Investing activities	10,511	100,775	102,033
Expenditures for purchases of plant, equipment and timberlands	(30,037)	(28,136)	(27,765
Proceeds from disposals of plant, equipment and timberlands, net	5,567	1,413	2,198
Acquisitions, net of cash acquired	(464,856)		(1,383
Other investing	(440)		(1,363
Net cash used by investing activities	(489,766)		(27,113
Financing activities	(40),700)	(20,773)	(27,112
Proceeds from note offerings	500,000	_	_
Proceeds from term loans	46,849		248,644
Repayment of term loans	(26,088)	(23,246)	(16,660
Repayments of note offerings	(20,000)	(23,240)	(250,000
Net repayments under revolving credit facility	(23,481)	(53,392)	(28,062
Payments of borrowing costs	(10,132)	` ' '	(2,204
Payments of dividends	(24,458)		(22,936
Proceeds from government grants	479	358	(22,730
Payments related to share-based compensation awards and other	(817)		(1,556
Net cash provided (used) by financing activities	462,352	(100,306)	(72,774
Effect of exchange rate changes on cash	(5,418)		(269
Net increase (decrease) in cash, cash equivalents and restricted cash	38,145	(12,923)	2,679
Change in cash and cash equivalents from discontinued operations	(996)		(19,163
Cash, cash equivalents and restricted cash at the beginning of period	111,665	126,201	142,685
Cash, cash equivalents and restricted cash at the end of period	148,814	111,665	126,201
Less: restricted cash in Prepaid and other current assets	(2,000)	*	120,201
Less: restricted cash in Other assets	(8,378)		_
Cash and cash equivalents at the end of period	\$ 138,436		\$ 126,201
Supplemental cash flow information	φ 130,430	ψ 27,301	120,201
**			
Cash paid (refunded) for:	¢ 6057	\$ 6.190	\$ 10,208
Interest, net of amounts capitalized	\$ 6,957		
Income taxes, net	\$ 15,500	\$ (9,993)	\$ 14,242

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

GLATFELTER CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

For the years ended December 31, 2021, 2020 and 2019

In thousands	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Shareholders' Equity
Balance at January 1, 2019	\$ 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 loss						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
Net income			21,298			21,298
Other comprehensive income			21,270	19,243		19,243
Comprehensive income				15,213		40,541
Cash dividends declared (\$0.535###per share)			(23,728)			(23,728)
Share-based compensation expense		5,655	, , ,			5,655
Delivery of treasury shares:						
RSUs and PSAs		(2,077)			1,657	(420)
Employee stock options exercised — net		(217)			142	(75)
Balance at December 31, 2020	544	63,261	723,365	(58,653)	(150,585)	577,932
Net income			6,937			6,937
Other comprehensive loss				(21,651)		(21,651)
Comprehensive loss						(14,714)
Cash dividends declared (\$0.555###per share)			(24,702)			(24,702)
Share-based compensation expense		5,063				5,063
Delivery of treasury shares:						
RSUs and PSAs		(3,538)			2,723	(815)
Employee stock options exercised — net		(7)			5	(2)
Balance at December 31, 2021	\$ 544	\$ 64,779	\$ 705,600	\$ (80,304)	\$ (147,857)	\$ 542,762

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

GLATFELTER CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION

Glatfelter Corporation and subsidiaries ("Glatfelter") produce and supply high quality, technology-driven, innovative, and customizable nonwovens solutions can be found in products that are Enhancing Everyday Life®. These include personal care and hygiene products, food and beverage filtration, critical cleaning products, medical and personal protection, packaging products, as well as home improvement and industrial applications. Headquartered in Charlotte, NC, annualized net sales approximate \$1.4 billion with approximately 3,300 employees worldwide. Glatfelter's operations utilize a variety of manufacturing technologies including airlaid, wetlaid and spunlace with sixteen manufacturing sites located in the United States, Canada, Germany, the United Kingdom, France, Spain, and the Philippines. The Company has sales offices in all major geographies serving customers under the Glatfelter and Sontara brands. The terms "we," "us," "our," "the Company," or "Glatfelter," refer to Glatfelter Corporation 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 net sales 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 Our 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 indefinite-lived intangible assets are not amortized and, therefore, are reviewed for impairment annually, during the fourth quarter, 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 and requires the use and analysis of significant assumptions including among others,

estimated cash flows consistent with our long-term strategic plan, perpetuity growth rates, capital expenditures, and discount rates. In addition, the discounted cash flow model requires the use of significant judgement to assess the potential impact of macroeconomic conditions including higher energy prices in Europe, raw material inflation in all three segments, logistics costs, competition and similar factors. 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. For additional information, refer to Note 6 – "Asset Impairment."

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, or net sales, 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 8 – "Revenue" 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 matures, is de-designated, 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. For additional information, refer to Note 22 - "Financial Derivatives and Hedging Activities."

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 December 2020, 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. We adopted this standard in the first quarter of 2021, but it did not have a material impact on our financial statements.

3. ACQUISITIONS

On May 13, 2021, we completed the acquisition of all the outstanding equity interests in Georgia-Pacific Mt. Holly LLC, Georgia-Pacific's U.S. nonwovens business ("Mount Holly") for \$170.9 million. This business includes the Mount Holly, NC manufacturing facility with annual production capacity of approximately 37,000 metric tons and an R&D center and pilot line for nonwovens product development in Memphis, TN. The Mount Holly facility produces high-quality airlaid products for the wipes, hygiene, 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 employs approximately 140 people. Mount Holly's results are reported prospectively from the acquisition date as part of our Airlaid Materials segment. Mount Holly had annual net sales of approximately \$100 million in 2020.

The Mount Holly acquisition was financed through a combination of cash on hand and borrowings under our revolving credit facility.

On October 29, 2021, we completed the acquisition of PMM Holding (Luxembourg) AG, the owner of all of the equity interest in Jacob Holm, a global leading manufacturer of premium quality spunlace nonwoven fabrics for critical cleaning, high-performance materials, personal care, hygiene and medical applications, for approximately \$304.0 million for all outstanding shares and the extinguishment of Jacob Holm's debt.

Jacob Holm's broad product offerings and blue-chip customer base expands our portfolio to include surgical drapes and gowns, wound care, face masks, facial wipes and cosmetic masks. The acquisition of Jacob Holm's Sontara brand, a leading producer of finished products for critical cleaning wipes and medical apparel, enhances our technological capabilities. Jacob Holm has approximately 760 employees, operates production facilities in the United States, France and Spain, and its revenue in 2020 totaled approximately \$400 million. The results of Jacob Holm's operations are reported as Spunlace, a newly formed segment, prospectively from the acquisition date.

The Jacob Holm acquisition was financed with the proceeds of a private placement of \$500.0 million of senior notes discussed in Note 17 - "Long-term Debt."

The following table sets forth information related to the consideration exchanged for each acquisition.

In thousands	Mou	nt Holly	Ja	cob Holm	Total
Total consideration	\$	170,919	\$	303,952	\$ 474,871
Less: Debt repaid				(148,000)	(148,000)
Cash consideration	\$	170,919	\$	155,952	\$ 326,871

The preliminary purchase price allocations set forth in the following table are based on all information available to us at the present time and is subject to change. With respect to the Mount Holly acquisition, the purchase price allocation is complete. However, the Jacob Holm purchase price allocation is preliminary as we are in the process of finalizing our analysis of certain matters, primarily related to the assessment potential tax liabilities associated with the acquired entities. In the event new information becomes available, the measurement of the amount of goodwill reflected may be affected.

In thousands	Mount Holly	Jacob Holm	Total	
Assets				
Cash and cash equivalents	\$ —	\$ 11,426	\$ 11,426	
Accounts receivable	11,599	30,271	41,870	
Inventory	7,031	45,340	52,371	
Prepaid and other current assets	11	6,727	6,738	
Plant, equipment and timberlands	100,498	158,612	259,110	
Intangible assets	20,000	70,240	90,240	
Goodwill	35,793	48,855	84,648	
Other assets	8,041	26,929	34,970	
Total assets	182,973	398,400	581,373	
Liabilities				
Short-term debt		14,081	14,081	
Accounts payable	2,321	25,264	27,585	
Other current liabilities	1,868	21,763	23,631	
Other long-term liabilities	7,865	33,340	41,205	
Total liabilities	12,054	94,448	106,502	
Total preliminary purchase price	\$ 170,919	\$ 303,952	\$ 474,871	

The preliminary purchase price allocations set forth in the table above are based on all information available to us at the present time and is subject to change. In the event new information becomes available, primarily related to the finalization of post-closing working capital adjustments, the measurement of the amount of goodwill reflected may be affected. For purposes of allocating the total purchase price, assets acquired and liabilities assumed are recorded at their estimated fair market values. The allocations set forth above are based on management's estimate of the fair value using valuation techniques such as discounted cash flow models, appraisals and similar methodologies.

Acquired property, plant and equipment in both acquisitions are being depreciated on a straight-line basis with estimated remaining lives ranging from five years to 35 years. Intangible assets recorded in connection with the Mount Holly acquisition consist of customer relationships and are being amortized on a straight-line basis (11 years). With respect to the Jacob Holm acquisition, identifiable intangible assets consist of trade and product names (15 to 20-year life), technical know-how (8 to 20-year life) and customer relationships (20-year life). These assets are being amortized on a straight-line basis. The goodwill arising from the acquisitions largely relates to strategic benefits, product and market diversification, assembled workforce, and similar factors. Goodwill recorded in connection with the Mount Holly transaction is deductible for federal tax purposes over 15 years. Additional information is discussed in Note 16 - "Goodwill and Intangible Assets."

In connection with the Jacob Holm acquisition and as provided for in the underlying Share Purchase Agreement, we recorded a \$17.3 million indemnification asset related to certain potential tax liabilities. The indemnification asset is presented above under the caption "Other assets."

The following table sets forth information related to amounts of net sales, operating income (loss) of the acquired businesses included in our results of operations prospectively from the date of acquisition and amounts of legal and professional fees directly related to the transaction included in our results of operations for the year ended December 31, 2021:

In thousands	Mount Holly	Jacob Holm
Net sales	\$ 60,599	\$ 57,637
Operating income (loss)	6,205	(1,338)
Legal and professional fees included in SG&A	3,421	16,336

For purposes of presenting the pro forma financial information, the legal and professional costs directly related to the acquisitions have been eliminated. The following table summarizes annual unaudited pro forma financial information as

if the acquisition occurred as of January 1, 2020:

	 2021		2020
In thousands, except per share	(unau	dited)	
Net sales	\$ 1,400,901	\$	1,421,578
Income (loss) from continuing operations	14,677		23,055

For purposes of presenting the above pro forma financial information, the legal and professional costs directly related to the acquisitions have been eliminated. 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

In 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 \$360.0 million. The sale of the business was in connection with the strategic focus on our more growth oriented Composite Fibers and Airlaid Materials.

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

	Year ended December 31,				
In thousands	2021	2020	2019		
Net sales	s —	<u> </u>	s —		
Energy and related sales, net					
Total revenues	_	_	_		
Costs of products sold					
Gross profit	_	_	_		
Selling, general and administrative expenses	(216)	(544)	109		
(Gains) losses on dispositions of plant, equipment and timberlands, net					
Operating income (loss)	216	544	(109)		
Non-operating income (expense)					
Interest expense	_	_	_		
Other, net	_	_	1,393		
Impairment charge					
Income (loss) before income taxes	216	544	1,284		
Income tax provision (benefit)		29	(2,386)		
Income from discontinued operations	\$ 216	\$ 515	\$ 3,670		

The amount set forth above in 2021 primarily represents reversal of sales and use tax reserves due to the expiration of statutes of limitation partially offset by legal costs incurred to pursue certain legal claims. In 2020, the amount set forth above primarily represents the settlement of a sales and use tax audit.

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

	Year ended December 31,					
<u>In thousands</u>		2021		2020		2019
Net cash used by operating activities	\$	(996)	\$	(1,613)	\$	(10,942)
Net cash used by investing activities		_		_		(8,221)
Net cash provided by financing activities						_
Change in cash and cash equivalents from discontinued operations	\$	(996)	\$	(1,613)	\$	(19,163)

5. RESTRUCTURING

In the first quarter of 2020, we announced restructuring actions within the Composite Fibers operating segment. The actions primarily consisted of the consolidation of our metallizing operation from Gernsbach, Germany to our Caerphilly, U.K. site.

In thousands	ear ended ecember 31, 2020
Severance and benefit continuation	\$ 6,143
Accelerated depreciation	3,900
Inventory and spare parts	977
Other	 91
Total	\$ 11,111

The restructuring charge is recorded under the caption "Costs of product sold" in the accompanying consolidated statements of income for the year ended December 31, 2020. With the exception of the severance and benefit continuation amounts, all other amounts accrued represent accelerated non-cash asset write-downs. As of December 31, 2021, the accrued and unpaid restructuring charge totaled approximately \$0.3 million.

6. ASSET IMPAIRMENT

During the second quarter of 2020, in connection with an assessment of potential impairment of indefinite-lived intangible assets, we recorded a \$0.9 million non-cash asset impairment charge related to a trade name intangible asset acquired in connection with our Composite Fibers segment's 2013 Dresden acquisition. The charge was due to a change in the estimated fair value of the trade name, primarily driven by lower forecasted wallcover net sales associated with economic instability in Russia and Ukraine together with the impact of the COVID-19 pandemic on this business. The charge is recorded in the accompanying consolidated statement of income for 2020 under the caption "Selling, general and administrative expenses." The fair value of the asset was estimated using a discounted cash flow model (Level 3 fair value classification).

7. GAIN ON DISPOSITIONS OF PLANT, EQUIPMENT AND TIMBERLANDS

During 2021, 2020 and 2019, we completed the following sales of assets:

Dollars in thousands	Acres	Acres Proceeds		Gain (loss)	
2021					
Timberlands	1,796	\$	5,567	\$	5,239
Other	n/a		<u> </u>		(170)
Total		\$	5,567	\$	5,069
2020					
Timberlands	461	\$	1,413	\$	1,381
Other	n/a		<u> </u>		(49)
Total		\$	1,413	\$	1,332
2019					
Timberlands	1,996	\$	1,705	\$	1,572
Other	n/a		493		488
Total		\$	2,198	\$	2,060

8. REVENUE

The following table sets forth disaggregated information pertaining to our net sales from contracts with customers:

			Ye	ear en	ded December	31,	
In thousands			2021		2020		2019
Revenue by product category							
Composite Fibers							
Food & beverage		\$	298,859	\$	285,665	\$	278,786
Wallcovering			88,057		79,346		81,679
Technical specialties			92,351		84,320		79,535
Composite laminates			43,438		36,856		35,274
Metallized			34,102		38,902		46,392
			556,807		525,089		521,666
Airlaid Materials							
Feminine hygiene			207,116		204,085		207,301
Specialty wipes			110,201		74,942		70,149
Tabletop			76,904		45,314		66,486
Home care			25,575		25,040		17,266
Adult incontinence			22,034		21,825		25,233
Other			28,420		20,203		19,572
			470,250		391,409		406,007
Spunlace							
Consumer wipes			23,937		_		_
Critical cleaning			16,871		_		_
Health care			10,785		_		_
Hygiene			3,428		_		_
High performance			1,483		_		_
Beauty care			1,133		_		_
			57,637		_		_
	Total	\$	1,084,694	\$	916,498	\$	927,673
Davanua bu gaagnanku							
Revenue by geography Composite Fibers							
Europe, Middle East and Africa		\$	333,608	\$	315,881	\$	312,218
Americas		Φ	134,753	φ	128,385	φ	132,845
Asia Pacific			88,446		80,823		76,603
Asia i aciiic			556,807		525,089		521,666
Airlaid Materials			330,007		323,009		321,000
Europe, Middle East and Africa			223,718		204,728		220,924
Americas			237,808		174,606		179,067
Asia Pacific			8,724		12,075		6,016
Asia Pacific			470,250		391,409		406,007
Spunlace			4/0,430		371,409		400,007
Europe, Middle East and Africa			19,990				
Americas			30,815		_		_
Asia Pacific			6,832				_
			0,032				
Tiota I delile			57,637				_

9. EARNINGS PER SHARE

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

		Y ea	ar ende	a December	31,	
In thousands, except per share	_	2021		2020	_	2019
Net income (loss)	\$	6,937	\$	21,298	\$	(21,541)
Weighted average common shares outstanding used in basic EPS		44,551		44,339		44,132
Common shares issuable upon exercise of dilutive stock options and PSAs / RSUs		373		275		
Weighted average common shares outstanding and common share equivalents used in diluted EPS		44,924		44,614		44,132
Earnings (loss) per share						
Continuing operations	\$	0.15	\$	0.47	\$	(0.57)
Discontinued operations		_		0.01		0.08

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:

	Year ended December 31,					
In thousands	2021	2020	2019			
Potential common shares	1,079	1,082	1,233			

10. 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, 2021, 2020 and 2019.

In thousands	tr	Currency anslation justments	Unrealized gain (loss) on cash low hedges	Change in pensions	Change in other ostretirement defined benefit plans	Total
Balance at January 1, 2021	\$	(42,525)	\$ (2,496)	\$ (12,844)	\$ (788)	\$ (58,653)
Other comprehensive income (loss) before reclassifications (net of tax)		(27,232)	4,759	611	(79)	(21,941)
Amounts reclassified from accumulated other comprehensive income (net of tax)			(275)	751	(186)	290
Net current period other comprehensive income (loss)		(27,232)	4,484	1,362	(265)	(21,651)
Balance at December 31, 2021	\$	(69,757)	\$ 1,988	\$ (11,482)	\$ (1,053)	\$ (80,304)
Balance at January 1, 2020	\$	(76,346)	\$ 4,316	\$ (7,253)	\$ 1,387	\$ (77,896)
Other comprehensive income (loss) before reclassifications (net of tax)		33,821	(2,840)	(6,202)	(878)	23,901
Amounts reclassified from accumulated other comprehensive income (net of tax)			(3,972)	611	(1,297)	(4,658)
Net current period other comprehensive income (loss)		33,821	(6,812)	(5,591)	(2,175)	19,243
Balance at December 31, 2020	\$	(42,525)	\$ (2,496)	\$ (12,844)	\$ (788)	\$ (58,653)
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	\$	(76,346)	\$ 4,316	\$ (7,253)	\$ 1,387	\$ (77,896)

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

		_		
Vaar	andad	Decem	har	21
1 Cai	CHUCU	DCCCIII	UCI	21.

In thousands	2021	2020	2019	
Description				Line Item in Statements of Income
Cash flow hedges (Note 22)				
Gains on cash flow hedges	\$ (382)	\$ (5,503)	\$ (6,468)	Costs of products sold
Tax expense	22	1,448	1,785	Income tax provision (benefit)
Net of tax	(360)	(4,055)	(4,683)	
Loss on interest rate swaps	85	83	_	Interest expense
Tax expense				Income tax provision (benefit)
Net of tax	85	83		
Total cash flow hedges	(275)	(3,972)	(4,683)	
Retirement plan obligations (Note 13)				
Amortization of defined benefit pension plan items				
Prior service costs	47	48	216	Other, net
Actuarial losses	792	651	2,842	Other, net
Pension settlement	_		75,326	
	839	699	78,384	
Tax benefit	(88)	(88)	(22,936)	Income tax provision (benefit)
Net of tax	751	611	55,448	
Amortization of defined benefit other plan items				
Prior service costs	(233)	(463)	(10)	Other, net
Actuarial gains	47	(834)	(852)	Other, net
	(186)	(1,297)	(862)	
Tax expense	_		9	Income tax provision (benefit)
Net of tax	(186)	(1,297)	(853)	
Total reclassifications, net of tax	\$ 290	\$ (4,658)	\$ 49,912	

11. 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:

		Year ended December 31,				
In thousands	2021		2020		2019	
Current taxes						
Federal	\$ (5	70) \$	(4,989)	\$	(419)	
State	5	84	166		134	
Foreign	20,5	61	18,470		14,014	
	20,5	75	13,647		13,729	
Deferred taxes and other						
Federal	(1,1	59)	540		(20,448)	
State	2	34	(1,183)		(4,105)	
Foreign	(12,6	94)	(1,428)		1,582	
	(13,0	19)	(2,071)		(22,971)	
Income tax provision (benefit)	\$ 6,9	56 \$	11,576	\$	(9,242)	

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

	Year ended December 31,					
In thousands	2021	2020		2019		
United States	\$ (44,682) \$	(35,696)	\$	(107,455)		
Foreign	 58,359	68,055		73,002		
Total pretax income (loss)	\$ 13,677 \$	32,359	\$	(34,453)		

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

	Year	Year ended December 31,				
	2021	2020	2019			
Federal income tax provision at statutory rate	21.0 %	21.0 %	21.0 %			
State income taxes, net of federal income tax benefit	2.7	0.6	3.7			
Foreign income tax rate differential	(3.3)	3.4	2.0			
Tax effect of tax credits	(0.1)	(10.2)	8.2			
Provision for (resolution of) tax matters	23.6	12.4	(8.0)			
Rate changes due to enacted legislation	15.3	0.7	0.1			
Change in reinvestment assertion	26.4	_	_			
Effect of U.S. tax law change	2.8	(21.5)	_			
Global Intangible Low-Taxed Income	18.7	7.1	(9.4)			
Stock-based compensation	3.9	1.4	(1.0)			
Nondeductible officer's compensation	3.9	1.0	(0.7)			
Valuation allowance	(3.1)	11.7	4.3			
Recognition of non-U.S. intangible tax basis	(78.1)	_	_			
Capitalized transaction costs	8.9	_	_			
Pension termination, settlement and related	_	5.4	5.0			
Prior year adjustments	7.1	4.5	1.8			
Other	1.2	(1.7)	(0.2)			
Actual tax rate	50.9 %	35.8 %	26.8 %			

The effective income tax rate for the year ended December 31, 2021 was unfavorably impacted by operating losses in the U.S. which generated no tax benefit, \$25.6 million of restructuring and other non-recurring costs for which no tax benefit was recorded, and a \$3.6 million tax charge related to unremitted earnings of a foreign subsidiary, offset in part by a \$10.7 million benefit recorded in connection with the recognition of an intangible asset at a foreign subsidiary.

In thousands	2021	2020
Reserves	\$ 1,060	\$ 685
Environmental	3,970	4,481
Compensation	1,920	2,415
Pension	4,479	4,279
Post-retirement benefits	1,210	1,388
Research & development expenses	4,239	3,092
Tax carryforwards	45,729	16,703
Other	2,444	5,714
Deferred tax assets	65,051	38,757
Valuation allowance	(24,526)	(23,305
Net deferred tax assets	40,525	15,452
Property	(93,164)	(70,492)
Intangible assets	(14,063)	(18,808)
Inventories	(37)	_
Other	(5,201)	(3,282)
Deferred tax liabilities	(112,465)	(92,582
Net deferred tax liabilities	\$ (71,940)	\$ (77,130)

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

	1	December 31,		
In thousands	2021			2020
Other assets	\$ 15	,345	\$	1
Deferred income taxes	87	,285		77,131

At December 31, 2021, we had federal, state and foreign tax net operating loss ("NOL") carryforwards of \$98.7 million, \$198.8 million, and \$40.2 million, respectively. These NOL carryforwards are available to offset future taxable income, if any. \$6.2 million of the federal NOL carryforward expires in 2037; the residual \$92.5 million of the federal NOL never expires. The state NOL carryforwards expire at various times and in various amounts beginning in 2022. Certain foreign NOL carryforwards begin to expire after 2025.

The federal and state NOL carryforwards on the income tax returns filed included unrecognized tax benefits taken in prior years. The deferred tax assets recognized for financial statement purposes for such NOL carryforwards are presented net of these unrecognized tax benefits.

In addition, we had various federal tax credit carryforwards totaling \$14.2 million which begin to expire after 2034 and state tax credit carryforwards totaling \$3.4 million, which begin to expire in 2028.

As of December 31, 2021 and 2020, we had a valuation allowance of \$24.5 million and \$23.3 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 \$0.0 million, \$3.3 million and \$2.8 million in 2021, 2020 and 2019, respectively, related to research and development credits.

At December 31, 2021 and 2020, unremitted earnings of certain subsidiaries outside the United States deemed to be indefinitely reinvested totaled \$107.0 million and \$109.0 million, respectively. Because the unremitted earnings of those subsidiaries are deemed to be indefinitely reinvested as of December 31, 2021 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 with regard to those subsidiaries. During 2021, we designated unremitted earnings of a subsidiary as not indefinitely reinvested, and as a result, recorded a \$3.6 million deferred tax charge with regard to the unremitted earnings of that subsidiary.

As of December 31, 2021, 2020 and 2019, we had \$55.7 million, \$46.3 million and \$30.5 million of gross unrecognized tax benefits, respectively. As of December 31, 2021, if such benefits were to be recognized, approximately \$51.1 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:

In thousands	2021		2020	2019
Balance at January 1	\$ 46,2	59 \$	30,458	\$ 29,620
Increases in tax positions for prior years		38	13,866	2,803
Decreases in tax positions for prior years	(6	38)	(72)	(2,892)
Acquisition related:				
Purchase Accounting	12,7	18	_	_
Increases in tax positions for current year	3,6	83	4,400	4,552
Settlements		_	(1,101)	(309)
Lapse in statutes of limitation	(6,4	00)	(1,292)	(3,316)
Balance at December 31	\$ 55,6	60 \$	46,259	\$ 30,458

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:

	Open Tax	Years
Jurisdiction	Examinations not yet initiated	Examination in progress
United States		
Federal	2014, 2015; 2018 - 2021	N/A
State	2017 - 2021	N/A
Canada ⁽¹⁾	2014 - 2018; 2021	2019 - 2020
Germany ⁽¹⁾	2020 - 2021	2016 - 2019
France	2019 - 2021	N/A
United Kingdom	2020 - 2021	N/A
Philippines	2020 - 2021	2018, 2019

⁽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 \$1.7 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. \$3.0 million of penalty accruals and \$1.2 million of interest accruals were recorded in 2021 through purchase accounting:

	 As of or for the year ended December 31,					
In thousands	2021		2020		2019	
Accrued interest payable	\$ 3,947	\$	1,792	\$	424	
Interest expense (income)	974		927		(649)	
Penalties	3,020		_		_	

12. STOCK-BASED COMPENSATION

Our 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, 2021, there were 1,628,094 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 2019, 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:

Units	2021	2020	2019
Balance at January 1,	1,071,652	896,463	756,786
Granted	374,931	400,854	600,820
Forfeited	(103,499)	(89,483)	(223,677)
Shares delivered	(231,702)	(136,182)	(237,466)
Balance at December 31,	1,111,382	1,071,652	896,463
In thousands	2021	2020	2019
Compensation expense	\$ 5,063	\$ 5,655	\$ 3,543

The amount granted in 2021, 2020 and 2019 includes 162,480, 171,150 and 218,422 PSAs, respectively, exclusive of reinvested dividends. The weighted average grant date fair value per unit for awards in 2021, 2020 and 2019 was \$16.71, \$16.65 and \$15.86, respectively. As of December 31, 2021, unrecognized compensation expense for outstanding RSUs and PSAs totaled \$3.6 million. The weighted average remaining period over which the expense will be recognized is 1.4 years.

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

	 20	21		20	20		20	19	
SOSARs	Shares		d Avg ise Price	Shares		Wtd Avg ercise Price	Shares		d Avg eise Price
Outstanding at January 1,	1,082,413	\$	20.40	1,291,947	\$	20.05	2,334,742	\$	18.08
Granted	_		_	_		_	_		_
Exercised	(3,300)		15.61	(58,460)		12.85	(596,360)		15.56
Canceled / forfeited			_	(151,074)		20.25	(446,435)		21.06
Outstanding at December 31,	1,079,113	\$	20.42	1,082,413	\$	20.40	1,291,947	\$	20.05
Exercisable at December 31,	1,079,113		20.42	1,082,413		20.40	1,291,947		20.05
Vested and expected to vest	1,079,113			1,082,413			1,291,947		
Compensation expense (in thousands)	\$ 			\$ 			\$ 40		

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 any of the past three years. As of December 31, 2021, the intrinsic value of SOSARs vested and expected to vest totaled \$0.2 million and the remaining weighted average contractual life of outstanding SOSARs was 2.5 years.

13. 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 U.S. 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 were 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 a result of terminating the qualified plan and settling the associated liabilities, as of December 31, 2020, \$53.4 million of assets remained in the pension trust and was included in cash and cash equivalents in the accompanying consolidated balance sheet based on the nature of the underlying assets. In addition, during 2020, we received \$2.3 million as a post-settlement adjustment with the third party. After transferring \$14.1 million to a suspense account to fund future 401(k) contributions and paying \$8.3 million of excise taxes, approximately \$33.3 million was 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 was 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, beginning in 2022, the Plan may provide for elective employee deferrals. Under the Deferred Compensation Plan, participants are eligible to receive annual Company contributions that such participants would have received under our 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, 2021 and 2020, the remaining non-contributory pension plans are unfunded non-qualified plans. Non-U.S. benefits were based on average salary and years of service. 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.

All information presented in the following tables represents amounts attributable to continuing operations.

		Pension	Bene	fits	Other I	Benef	its
In thousands		2021		2020	2021		2020
Change in Benefit Obligation							
Balance at beginning of year	\$	47,333	\$	45,714	\$ 5,967	\$	6,511
Service cost		_		_	29		_
Interest cost		974		1,210	127		184
Benefits paid		(2,247)		(2,420)	(1,078)		(1,611)
Participant contributions		_		_	_		_
Plan amendments		_		_	6		_
Actuarial (gain)/loss		(203)		1,749	79		883
Effect of currency rate changes		(972)		1,080	_		_
Balance at end of year	\$	44,885	\$	47,333	\$ 5,130	\$	5,967
Change in Plan Assets							
Fair value of plan assets at beginning of year	\$	_	\$	53,401	\$ _	\$	_
Reversion of excess plan assets		_		(53,401)	_		_
Total contributions		2,247		2,420	1,078		1,611
Benefits paid		(2,247)		(2,420)	(1,078)		(1,611)
Fair value of plan assets at end of year	_	_		_	_		_
Funded status at end of year	\$	(44,885)	\$	(47,333)	\$ (5,130)	\$	(5,967)

As of December 31, 2021, the non-qualified plans have an unfunded projected benefit obligation of \$44.9 million. Amounts recognized in the consolidated balance sheets consist of the following as of December 31:

	 Pension Benefits			Other Benefits		
In thousands	2021	2020	202	.1	2020	
Current liabilities	\$ (2,096)	\$ (2,271)	\$	(852) \$	(1,167)	
Other long-term liabilities	(42,789)	(45,062)		(4,278)	(4,800)	
Net amount recognized	\$ (44,885)	\$ (47,333)	\$	(5,130) \$	(5,967)	

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

	 Pension Bene	fits	Other Benefits		
In thousands	2021	2020	2021	2020	
Prior service credit (cost)	\$ (172) \$	(226) \$	(125) \$	108	
Net actuarial gain (loss)	(14,189)	(15,612)	(382)	(350)	

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

	Pension Benefits		Other Bene	efits
	2021	2020	2021	2020
Discount rate – benefit obligation	2.42 %	2.17 %	2.70 %	2.30 %

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, 2021 ranged from 1.10% to 2.88% for pension plans and was 2.70% for the other benefit plans.

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

In thousands	 2021	2020
Projected benefit obligation	\$ 44,885 \$	47,333
Accumulated benefit obligation	44,885	47,333
Fair value of plan assets	_	_

Net periodic benefit (income) expense includes the following components:

Total net periodic benefit income

Year Ended December 31, In thousands 2021 2020 2019 **Pension Benefits** Service cost \$ \$ \$ 1,269 974 Interest cost 1,210 11,495 Expected return on plan assets (13,724)48 48 Amortization of prior service cost 246 790 655 2,759 Amortization of actuarial loss 1,259 Termination benefits One-time settlement charge 75,356 1,913 \$ Total net periodic benefit expense \$ 1,812 \$ 78,660 **Other Benefits** Service cost \$ 29 \$ - \$ Interest cost 127 184 313 Amortization of prior service credit (233)(458)Amortization of actuarial loss (gain) 47 (834)(892)

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

\$

(30) \$

(1,108) \$

(579)

	Year Ended	Dece	mber 31,
In thousands	2021		2020
Pension Benefits			
Actuarial (gain) loss	\$ (203	8) \$	1,750
Recognized prior service costs	(48	3)	(48)
Recognized actuarial losses	(790)	(655)
Total recognized in other comprehensive (income) loss	(1,04)	.)	1,047
Total recognized in net periodic benefit cost and other comprehensive loss	\$ 771	\$	2,960
Other Benefits			
Actuarial loss	\$ 79	\$	883
Amortization of actuarial gain (loss)	(47)	834
Total recognized in other comprehensive loss	32	;	1,717
Total recognized in net periodic benefit cost and other comprehensive loss	\$ 2	\$	609

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

	Year Ended December 31,					
	2021	2020	2019			
Pension Benefits						
Discount rate – benefit expense	2.17 %	2.70 %	4.34 %			
Future compensation growth rate	_	_	2.50 %			
Expected long-term rate of return on plan assets	_	_	4.50 %			
Other Benefits						
Discount rate – benefit expense	2.30 %	3.11 %	4.19 %			

For 2019, the development of the expected long-term rate of return assumption was based on the historical returns and expected future 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:

	2021	2020
Health care cost trend rate assumed for next year	5.30 %	5.30 %
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

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

In thousands	Pension Benefits	Other Benefits
2022	\$ 2,096	\$ 852
2023	2,057	582
2024	2,013	468
2025	1,968	436
2026	1,909	427
2027 through 2031	17,208	1,471

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. We currently provide a minimum company contribution equal to 7% of eligible compensation. In addition, we have provided discretionary contributions resulting in total contributions equal to 10% and 11% of compensation in 2021 and 2020, respectively. The expense associated with our 401(k) plan was \$2.4 million, \$2.0 million and \$1.9 million in 2021, 2020 and 2019, respectively.

14. INVENTORIES

Inventories, net of reserves were as follows:

	Dec	December 31,			
In thousands	2021		2020		
Raw materials	\$ 87,4	18 \$	55,466		
In-process and finished	139,0	58	97,109		
Supplies	53,0	14	43,655		
Total	\$ 279,5.	20 \$	196,230		

15. PLANT, EQUIPMENT AND TIMBERLANDS

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

In thousands	2021	2020
Land and buildings	\$ 236,347	\$ 173,646
Machinery and equipment	838,999	754,737
Furniture, fixtures, and other	219,111	160,922
Accumulated depreciation	 (591,803)	(569,386)
	702,654	519,919
Construction in progress	56,156	23,330
Timberlands, less depletion	 2	18
Total	\$ 758,812	\$ 543,267

As of December 31, 2021 and 2020, we had \$7.1 million and \$3.1 million, respectively, of accrued capital expenditures.

16. GOODWILL AND INTANGIBLE ASSETS

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

In thousands	Dec	cember 31, 2020	A	cquisitions	A	mortization	Tı	anslation	Dec	ember 31, 2021
Goodwill										
Composite Fibers	\$	84,586	\$	_	\$	_	\$	(6,148)	\$	78,438
Airlaid Materials		79,783		35,793		_		(6,090)		109,486
Spunlace		_		48,855				(614)		48,241
Total	\$	164,369	\$	84,648	\$		\$	(12,852)	\$	236,165
Other Intangible Assets Composite Fibers										
Tradename - non-amortizing	\$	3,902	\$	_	\$	_	\$	(301)	\$	3,601
Technology and related		41,578		_		_		(2,964)		38,614
Accumulated amortization		(18,636)		_		(1,845)		1,257		(19,224
Net	_	22,942		_		(1,845)		(1,707)		19,390
Customer relationships and related		37,535		_		_		(2,796)		34,739
Accumulated amortization		(21,290)		_		(2,478)		1,664		(22,104
Net		16,245		_		(2,478)		(1,132)		12,635
Airlaid Materials										
Tradename		3,960		_		_		525		4,485
Accumulated amortization		(456)		_		(190)		43		(603
Net		3,504		_		(190)		568		3,882
Technology and related		20,053		_		_		(2,228)		17,825
Accumulated amortization		(3,591)		_		(1,268)		307		(4,552
Net		16,462		_		(1,268)		(1,921)		13,273
Customer relationships and related		26,636		20,000		_		(2,051)		44,585
Accumulated amortization		(7,856)		_		(3,249)		593		(10,512
Net		18,780		20,000		(3,249)		(1,458)		34,073
Spunlace										
Products and Tradenames		_		27,649		_		(26)		27,623
Accumulated amortization		_		_		(253)				(253
Net		_		27,649		(253)		(26)		27,370
Technology and related		_		14,561		_		(14)		14,547
Accumulated amortization		_				(202)				(202
Net		_		14,561		(202)		(14)		14,345
Customer relationships and related				28,030				(27)		28,003
Accumulated amortization				20,030		(268)		(27)		(268
Net				28,030		(268)		(27)		27,735
Total intangibles		133,664		90,240		_		(9,882)		214,022
Total accumulated amortization	_	(51,829)				(9,753)		3,864		(57,718
Net intangibles	\$	81,835	\$	90,240	\$	(9,753)	\$	(6,018)	\$	156,304

The following table sets forth information pertaining to amortization of intangible assets:

In thousands	2021	2020	2019
Aggregate amortization expense	\$ 9,753	\$ 8,014	\$ 7,986
Estimated amortization expense:			
2022	13,966		
2023	13,966		
2024	13,966		
2025	13,966		
2026	13,966		

Intangible assets are amortized on a straight-line basis, except for Composite Fiber's indefinite life tradename. We amortize trade and product names over 14 years to 20 years; technical know-how over 7 years to 20 years; and customer relationships over 11 years to 20 years. The remaining weighted average useful life of intangible assets was 13.2 years at December 31, 2021.

17. OTHER LONG-TERM ASSETS

Other long-term assets consist of the following:

	December 31,			1,
In thousands		2021		2020
Right-of-use asset operating leases	\$	27,186	\$	11,789
Deferred taxes		15,345		2
Restricted cash		8,378		10,084
Other		41,851		22,610
Total	\$	92,760	\$	44,485

December 21

18. OTHER CURRENT LIABILITIES

Other current liabilities consist of the following:

	December 31,		
In thousands	2	021	2020
Accrued payroll and benefits	\$	25,572 \$	21,726
Other accrued compensation and retirement benefits		5,633	9,376
Income taxes payable		11,746	4,781
Accrued rebates		6,327	4,002
Other accrued expenses		50,160	31,208
Total	\$	99,438 \$	71,093

19. 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 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 expedients 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.

The following table sets forth information related to our leases as of the periods indicated.

T			24
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Dollars in thousands	2021	2020
Right of use asset	\$ 27,186 \$	11,789
Weighted average discount rate	3.31 %	2.94 %
Weighted average remaining maturity (years)	26.0	5.5

The following table sets forth operating lease expense for the periods indicated:

Decem	1	21
Decem	ner	.) I

In thousands	2021	2020
Operating lease expense	\$ 5,742 \$	5,876

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

In	thousands

2022	\$ 6,479
2023	3,921
2024	3,028
2025	2,618
2026	2,541
Thereafter	38,588

20. LONG-TERM DEBT

Long-term debt is summarized as follows:

December 31,

In thousands	2021	2020
Revolving credit facility, due Sep. 2026	\$ 10,000	\$ 36,813
4.750% Senior Notes, due Oct. 2029	500,000	_
Term loan, due Feb 2024	218,026	249,715
2.40% Term Loan, due Jun 2022	809	2,629
2.05% Term Loan, due Mar 2023	7,556	14,737
1.30% Term Loan, due Jun 2023	2,427	4,382
1.55% Term Loan, due Sep 2025	5,204	7,143
1.10% Term Loan, due Mar 2024	9,267	_
0.57% Term Loan, due Jul 2023	 22,652	 _
Total long-term debt	775,941	315,419
Less current portion	(26,437)	(25,057)
Unamortized deferred issuance costs	 (11,429)	(1,898)
Long-term debt, net of current portion	\$ 738,075	\$ 288,464

On September 2, 2021, we entered into a restatement agreement as part of a Fourth Amended and Restated \$400 million Revolving Credit Facility and a €220.0 million Term Loan (collectively, the "Credit Facility") which matures September 6, 2026 and February 8, 2024, respectively. Revolving Loans borrowings are available in U.S. Dollars, Euros, British Pound Sterling, and Canadian Dollars and the borrowing of Term Loans are available in Euros. 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.

Borrowing rates for the Revolving Loans are determined at our option at the time of each borrowing. For all U.S. Dollar denominated Revolving Loan borrowings, the borrowing rate is either, (a) the bank's base rate which is equal to the greater of i) the prime rate; ii) the overnight bank funding rate plus 50 basis points; or iii) the daily 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 daily Euro-rate or EURIBOR-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 the Term Loan and non-U.S. Dollar denominated borrowings, interest is based on (b) above.

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, limits certain intercompany financing arrangements, make acquisitions and engage in mergers or consolidations. The Credit Agreement also specifies a maximum ratio of consolidated total net debt to consolidated adjusted EBITDA, also known as the leverage ratio. Subsequent to the Jacob Holm acquisition, we must maintain a maximum leverage ratio of no more than 5.25 to 1.00, which steps down to 4.00 to 1.00 after 24 months of the Jacob Holm acquisition. The Credit Agreement also contains covenants requiring a minimum interest coverage ratio and provisions limiting our ability to, among other things, (i) incur debt and guaranty obligations, (ii) incur liens, (iii) make loans, advances, investments and acquisitions, (iv) merge or liquidate, or (v) sell or transfer assets. In addition, the Credit Agreement provides that if, and for so long as, the Debt Rating (as defined in the Credit Agreement) is below "BB" by Standard & Poor's or below "Ba2" by Moody's, obligations under the Credit Agreement will be secured by substantially all domestic assets of the Company and the guarantors, subject to certain exceptions and limitations.

All remaining principal outstanding and accrued interest under the Revolving Credit Facility and the Term Loan will be due and payable on September 2, 2026 and February 8, 2024, respectively.

As of December 31, 2021, the leverage ratio, as calculated in accordance with the definition in our Credit Agreement, was 3.8x. A breach of these requirements would give rise to certain remedies under the Revolving Credit Facility, among which is the termination of the agreement.

On October 25, 2021, we issued \$500 million aggregate principal amount of 4.750% senior notes due 2029 (the "Notes"). The Notes are guaranteed on a senior unsecured basis, jointly and severally, by each of our existing and future domestic restricted subsidiaries that guarantees our obligations under the Credit Agreement, and/or certain other indebtedness (the "Guarantees").

The Notes were issued pursuant to an indenture dated as of October 25, 2021 (the "Base Indenture"), as supplemented by the supplemental indenture dated as of October 25, 2021 (the "Supplemental Indenture" and, together with the Base Indenture, the "Indenture") among the Company, certain subsidiaries of the Company party thereto (the "Guarantors") and Wilmington Trust, National Association, as trustee.

The net proceeds from the offering of the Notes, together with cash on hand, were used to pay the purchase price of the Jacob Holm acquisition, to repay certain indebtedness of Jacob Holm, to repay outstanding revolving borrowings under the Revolving Credit Facility, and to pay estimated fees and expenses.

The Notes will mature on November 15, 2029. Interest on the Notes accrues at the rate of 4.750% per annum and is payable semi-annually in arrears on May 15 and November 15 of each year, commencing on May 15, 2022.

The Notes are redeemable, in whole or in part, at any time at the redemption prices specified in the underlying indenture. Prior to November 15, 2024, we may redeem some or all of the Notes at a "make-whole" premium as specified.

The Notes contain various covenants customary to indebtedness of this nature, including limitations on i) the amount of indebtedness that may be incurred; ii) certain restricted payments including common stock dividends; iii) distributions from certain subsidiaries; iv) sales of assets; v) transactions amongst subsidiaries; and vi) incurrence of liens on assets. In addition, the Notes contain cross default provisions that could result in all such notes becoming due and payable in the event of a failure to repay debt outstanding under the Credit Agreement at maturity or a default under the Credit Agreement that accelerates the debt outstanding thereunder. As of December 31, 2021, we met all of the requirements of our debt covenants.

Glatfelter Gernsbach GmbH ("Gernsbach"), a wholly-owned subsidiary of ours, entered into a series of borrowing agreements with IKB Deutsche Industriebank AG, Düsseldorf ("IKB"). 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.

In 2021, Gernsbach also entered into two fixed-rate non-amortizing term loans with certain financial institutions. Similar to the IKB loans discussed above, the financial covenants of these borrowings are calculated by reference to the Credit Agreement.

Aggregated unamortized deferred debt issuance costs incurred in connection with all of our outstanding debt totaled \$11.4 million at December 31, 2021. 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 \$0.9 million in 2021.

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.

	'n thousands	
	2022	\$ 26,438
	2023	42,938
	2024	195,525
	2025	1,040
	2026	10,000
,	Thereafter	500,000

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

As of December 31, 2021 and 2020, we had \$6.7 million and \$7.3 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.

21. 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:

	2021			2020			
In thousands	Carrying Value		Fair Value		Carrying Value		Fair Value
Variable rate debt	\$ 10,000	\$	10,000	\$	36,813	\$	36,813
4.750% Senior Notes, due Oct. 2029	500,000		516,875		_		_
Term loan, due Feb. 2024	218,026		218,026		249,715		249,715
2.40% Term Loan	809		813		2,629		2,651
2.05% Term Loan	7,556		7,616		14,737		14,873
1.30% Term Loan	2,427		2,433		4,382		4,384
1.55% Term Loan	5,204		5,234		7,143		7,210
1.10% Term Loan	9,267		9,252		_		_
0.57% DZ Bank	22,652		22,657		_		_
Total	\$ 775,941	\$	792,906	\$	315,419	\$	315,646

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 22 – "*Financial Derivatives and Hedging Activities*."

22. 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 that are designated and qualify as cash flow hedges of foreign exchange risk are 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:

	Decemb	ber 31,	
In thousands	2021	2020	
Derivative			
Sell/Buy - sell notional			
Euro / British Pound	18,823	18,638	
Philippine Peso / Euro	_	18,522	
U.S. Dollar / British Pound	16,205	_	
U.S. Dollar / Euro	658	1,041	
Canadian Dollar / U.S. Dollar	_	70	
Sell/Buy - buy notional			
Euro / Philippine Peso	896,291	853,686	
British Pound / Philippine Peso	1,121,183	1,081,791	
Euro / U.S. Dollar	108,467	69,324	
U.S. Dollar / Canadian Dollar	36,904	34,847	

These contracts have maturities of eighteen months or less.

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

Derivatives Designated as Hedging Instruments – Net Investment Hedge The €220 million Term Loan discussed in Note 20 – "Long-Term Debt" is designated as a net investment hedge of our Euro functional currency foreign subsidiaries. During 2021, we recognized a pre-tax gain of \$18.6 million and in 2020 a pre-tax loss of \$21.1 million on the remeasurement of the term loan from changes in currency exchange rates. Such amounts are recorded as a component of Other Comprehensive Income (Loss).

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."

	Decembe	er 31,	
In thousands	2021	2020	
Derivative			
Sell/Buy - sell notional			
U.S. Dollar / British Pound	26,600	25,250	
Euro / British Pound	_	600	
British Pound / Euro	3,400	1,900	
U.S. Dollar / Swiss Franc	2,180	_	
British Pound / Swiss Franc	1,025	_	
Euro / Swiss Franc	2,750	_	
Euro / U.S. Dollar	11,000	_	
Sell/Buy - buy notional			
Euro / U.S. Dollar	20,900	7,500	
British Pound / Euro	5,300	_	

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:

		Decem	ber 31,		Decem	ber 31	1,
In thousands	202	21	2	2020	2021		2020
Balance sheet caption		and (Expenses Other t Assets		Other Liab	Curren ilities	nt
Designated as hedging:							
Forward foreign currency exchange contracts	\$	3,197	\$	577	\$ 288	\$	4,342
Interest rate swap		_		_	44		136
Not designated as hedging:							
Forward foreign currency exchange contracts		701		456	116		118

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:

	Ye	ar ended December 31,				
In thousands	2021		2020		2019	
Designated as hedging:						
Forward foreign currency exchange contracts:						
Effective portion – cost of products sold	\$ 382	\$	5,503	\$	6,468	
Interest expense	85		83		_	
Not designated as hedging:						
Forward foreign currency exchange contracts:						
Other – net	2,666		1,679		300	

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 – "*Accounting Policies*."

The fair values of the foreign exchange forward contracts are considered to be Level 2. These 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:

In thousands	2021	2020
Balance at January 1,	\$ (3,460) \$	5,859
Deferred (losses) gains on cash flow hedges	6,646	(3,899)
Reclassified to earnings	 (297)	(5,420)
Balance at December 31,	\$ 2,889 \$	(3,460)

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.

23. SHAREHOLDERS' EQUITY

The following table summarizes outstanding shares of common stock:

	rear ended December 31,				
In thousands	2021	2020	2019		
Shares outstanding at beginning of year	44,368	44,248	43,959		
Treasury shares issued for:					
Restricted stock awards	181	110	188		
Employee stock options exercised		10	101		
Shares outstanding at end of year	44,549	44,368	44,248		

Voor anded December 31

24. COMMITMENTS, CONTINGENCIES AND LEGAL PROCEEDINGS

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

In thousands	Leases	Other
2022	\$ 6,479	\$
2023	3,921	19,154
2024	3,028	_
2025	2,618	_
2026	2,541	_
Thereafter	38,588	_

Other contractual obligations primarily represent unconditional purchase obligations under energy supply contracts. At December 31, 2021, required minimum annual payments due under operating leases and other similar contractual obligations aggregated \$57.2 million and \$19.2 million, respectively.

Fox River - Neenah, Wisconsin

Background We have previously reported that we face liabilities 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. 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").

Over the past several years, we and certain other PRPs completed all remedial actions pursuant to applicable consent decrees or a Unilateral Administrative Order. 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 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 Our remaining obligations under the OU1 consent decree 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 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, 2021, the escrow account balance, which is included in the consolidated balance sheet under the caption "Other assets" totaled \$8.7 million which is less than amounts due under the fixed-price contract by approximately \$1.7 million. Our obligation to pay this difference is secured by a letter of credit.

Under the consent decree, we are responsible for reimbursement of government oversight costs paid from October 2018 and later over approximately the next 30 years. We anticipate that oversight costs will decline as activities at the site transition from remediation to 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:

		Year ended December 31,				
In thousands	2021		2020			
Balance at January 1,	\$ 18,45:	5 \$	21,870			
Payments	(2,45)	3)	(3,622)			
Accretion	203	3	207			
Balance at December 31,	\$ 16,200	\$	18,455			

The payments set forth above represent payments for government oversight costs for amounts due under the long-term monitoring and maintenance agreement. Of our total reserve for the Fox River, \$2.2 million is recorded in the accompanying December 31, 2021, consolidated balance sheet under the caption "Environmental liabilities" and the remaining \$14.0 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.

25. SEGMENT AND GEOGRAPHIC INFORMATION

The following table sets forth net sales, profitability and other information by segment:

		Year ended December 31,						
In thousands, except per share		2021		2020		2019		
Net Sales								
Composite Fibers	\$	556,807	\$	525,089	\$	521,666		
Airlaid Material		470,250		391,409		406,007		
Spunlace		57,637		_		_		
Total	\$	1,084,694	\$	916,498	\$	927,673		
Operating income (loss)								
Composite Fibers	\$	37,422	\$	52,094	\$	47,883		
Airlaid Material		42,244		46,304		41,118		
Spunlace		(1,338)				_		
Other and unallocated		(49,714)		(49,242)		(34,366)		
Total	\$	28,614	\$	49,156	\$	54,635		
	_							
Depreciation and amortization		 <00	•	26177	•	26152		
Composite Fibers	\$	27,690	\$	26,175	\$	26,153		
Airlaid Material		28,101		22,416		21,136		
Spunlace		1,693		_		2.521		
Other and unallocated	Φ.	3,937	_	8,009	_	3,531		
Total	<u>\$</u>	61,421	\$	56,600	\$	50,820		
Capital expenditures								
Composite Fibers	\$	11,912	\$	13,262	\$	11,972		
Airlaid Material		8,431		9,311		13,667		
Spunlace		3,810		_		_		
Other and unallocated		5,884		5,563		2,126		
Total	\$	30,037	\$	28,136	\$	27,765		
Tons shipped (metric)								
Composite Fibers		132,196		134,758		133,473		
Airlaid Material		148,134		136,661		137,595		
Spunlace		12,514				_		
Total	_	292,844		271,419		271,068		
Plant, equipment and timberlands, net								
Composite Fibers	\$	202,445	\$	225,444	\$	222,710		
Airlaid Material		371,324		295,806		293,779		
Spunlace		161,478		_				
Other and unallocated		23,565		22,017		20,932		
Total	\$	758,812	\$	543,267	\$	537,421		

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 categories:

- Food & Beverage;
- Wallcovering;
- Technical Specialties;
- Composite Laminate; and
- Metallized products.

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

- Feminine hygiene and other hygiene applications;
- Specialty wipes;
- Tabletop;
- Home care;
- Adult incontinence; and
- Other consumer and industrial products.

The Spunlace segment is a global leading specialist manufacturer of premium quality spunlace nonwovens for critical cleaning, high-performance materials, personal care, hygiene and medical applications. The categories served by Spunlace include:

- Critical cleaning;
- Health care;
- High performance;
- Beauty care;
- Wipes; and
- Feminine hygiene.

Disaggregated net sales by categories and geographic region for the segments is presented in Item 8 Financial Statements and Supplementary Data, Note 8 – "Revenue."

In each of the past three years ended December 31, 2021, approximately 16% of our consolidated net sales were from sales to Procter & Gamble Company, a customer of the Airlaid Materials and Spunlace segments.

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.

	2021				20			2019				
		Plant,			Plant,			Plant,				
	Equipment and					quipment and		Equipment and				
In thousands	Net sales	Tim	berlands – Net		Net sales	Tim	berlands – Net		Net sales	Tim	berlands – Net	
United States	\$ 255,086	\$	326,668	\$	166,131	\$	103,570	\$	167,887	\$	105,763	
Germany	513,043		251,375		489,655		286,591		504,012		274,146	
United Kingdom	82,144		50,420		73,604		50,140		70,018		52,039	
Canada	120,808		65,291		112,128		68,975		121,789		72,436	
Other	 113,613		65,057		74,980		33,991		63,967		33,037	
Total	\$ 1,084,694	\$	758,812	\$	916,498	\$	543,267	\$	927,673	\$	537,421	

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, 2021, 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

We completed the acquisition of Mount Holly and Jacob Holm on May 13, 2021 and October 29, 2021, respectively. We are in the process of incorporating Mount Holly's and Jacob Holm's internal controls into our control structure. The ongoing integration of each entity is considered a material change in our internal control over financial reporting. There were no changes in our internal control over financial reporting during the three months ended December 31, 2021, that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

ITEM 9B	OTHER INFORMATION
None.	
ITEM 9C	DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS
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 31, 2022. Our board of directors has determined that, based on the relevant experience of the members of the Audit Committee, four of the five 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 12 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 31, 2022.

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 31, 2022.

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 31, 2022.

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 31, 2022.

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, 2021, 2020 and 2019
		ii.	Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2021, 2020 and 2019
		iii.	Consolidated Balance Sheets as of December 31, 2021 and 2020
		iv.	Consolidated Statements of Cash Flows for the years ended December 31, 2021, 2020 and 2019
		v.	Consolidated Statements of Shareholders' Equity for the years ended December 31, 2021, 2020 and 2019
		vi.	Notes to Consolidated Financial Statements
(a)	2.		Financial Statement Schedules (Consolidated) included in Part IV:
		i.	Schedule II -Valuation and Qualifying Accounts - for years ended December 31, 2021, 2020 and 2019
(a)	3.		Exhibits
			See Index to Exhibits

ITEM 16 FORM 10-K SUMMARY

None

Index to Exhibits Item 15(a)(3)

Exhibit			Incorporated by Reference to
Number	Description of Documents	Exhibit	Filing
2.1	Share Purchase Agreement, dated July 22, 2021, by and among Glatfelter Corporation, PHG Tea Leaves, Inc., Ammon Ammon AG and the ultimate owners of Ammon Ammon AG ‡	2.1	Form 8-K filed July 23, 2021
2.2	Share Purchase Agreement, dated January 5, 2021, by and between GPPC Equity Holdings LLC and Glatfelter Corporation †	2.3	Form 10-K filed Feb. 25, 2021
3.1	Articles of Amendment to Articles of Incorporation, effective October 1, 2020.	3.1	Form 8-K filed Oct. 1, 2020
3.2	Articles of Incorporation, as amended through December 20, 2007.	3.1	Form 10-K filed Feb. 26, 2020
3.2	Amended and Restated By-laws of Glatfelter Corporation, dated May 6, 2021.	3.1	Form 8-K filed May 6, 2021
4.1	Indenture, dated as of October 25, 2021, among Glatfelter Corporation, the subsidiaries of Glatfelter Corporation party thereto and Wilmington Trust, National Association, as trustee.	4.1	Form 8-K filed Oct. 25, 2021
4.2	Supplemental Indenture, dated as of October 25, 2021, among Glatfelter Corporation, the subsidiaries of Glatfelter Corporation party thereto and Wilmington Trust, National Association, as trustee.	4.2	Form 8-K filed Oct. 25, 2021
4.3	Form of 4.750% Senior Note due 2029 (included as Exhibit A to the Supplemental Indenture filed as Exhibit 4.2).	4.2	Form 8-K filed Oct. 25, 2021
4.4	Description of securities.	4.1	Form 10-K filed Feb. 26, 2020
10.1	Fourth Restatement Agreement, dated September 2, 2021, by and among Glatfelter Corporation, PNC Bank National Association, and the other lenders party thereto (the Fourth Amended and Restated Credit Agreement is appended as Exhibit A to the Fourth Restatement Agreement).	10.1	Form 8-K filed Sep. 2, 2021
10.2	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
10.3	Guaranty, dated April 17, 2013, executed by the P. H. Glatfelter Company (as Guarantor) in favor of IKB <u>Deutsche Industriebank AG.</u>	10.2	Form 10-Q filed May 9, 2013
10.4	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
10.5	P. H. Glatfelter Company Amended and Restated 2005 Management Incentive Plan, effective January 1, 2015. **	10.1	Form 8-K filed May 8, 2015

10.6	P. H. Glatfelter Company Supplemental Long Term Disability Plan, dated February 25, 2014, between P. H. Glatfelter Company and certain employees. **	10.1	Form 10-Q filed May 2, 2014
10.7	P. H. Glatfelter Company Supplemental Management Pension Plan (amended and restated effective January 1, 2008). **	10(d)	Form 10-K filed Mar. 8, 2013
10.8	P. H. Glatfelter Company Supplemental Executive Retirement Plan (Amended and Restated). **	10.1	Form 10-Q filed Jul. 30, 2019
10.9	Amendment No. 2019-1 to the P. H. Glatfelter Company Supplemental Management Pension Plan. **	10.2	Form 10-Q filed Jul. 30, 2019
10.10	Glatfelter Switzerland Sàrl Retirement Pension Plan for management employees. **	10.12	Form 10-K filed Feb. 26, 2020
10.11	Form of Non-Employee Director Restricted Stock Unit Award Certificate (form effective May 4, 2017). **	10.4	Form 8-K filed May 4, 2017
10.12	Form of Stock-Only Stock Appreciation Right Award Certificate (form effective February 26, 2014). **	10.3	Form 10-Q filed May 2, 2014
10.13	Form of Performance Share Award Certificate (form effective February 23, 2017). **	10.2	Form 8-K filed May 4, 2017
10.14	Form of Performance Share Award Certificate (form effective February 26, 2014). **	10.2	Form 10-Q filed May 2, 2014
10.15	Form of Restricted Stock Unit Award Certificate (form effective as of February 23, 2017). **	10.3	Form 8-K filed May 4, 2017
10.16	Form of Restricted Stock Unit Award Certificate (form effective as of December 13, 2013). **	10(1)	Form 10-K filed Mar. 3, 2014
10.17	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 Jul. 6, 2010
10.18	Restricted Stock Unit Award Certificate for Dante C. Parrini, dated as of November 13, 2019. **	10.1	Form 8-K filed Nov. 18, 2019
10.19	Long Term Employment Contract between Glatfelter Switzerland Gmbh, a wholly-owned subsidiary, and Wolfgang Laures, effective January 1, 2020. **	10.21	Form 10-K filed Feb. 26, 2020
10.20	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
10.21	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
10.22	Schedule of Change in Control Employment Agreements, filed herewith. **		
10.23	Summary of Non-Employee Director Compensation, effective January 1, 2020. **	10.25	Form 10-K filed Feb. 26, 2020
10.24	P. H. Glatfelter Company Deferred Compensation Plan for Directors, effective as of January 1, 2007. **	10(k)	Form 10-K filed Mar. 8, 2013
10.25	Form of Director's and Officer's Indemnification Agreement. **	10.1	Form 8-K filed Dec. 19, 2017
10.26	Guidelines for Executive Severance. **	10.2	Form 8-K filed . Jul. 6, 2010
10.32	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
14.1	Code of Business Ethics for the CEO and Senior Financial Officers of Glatfelter, filed herewith.	14	Form 10-K filed Feb. 26, 2020
21.1	Subsidiaries of Glatfelter Corporation, filed herewith.		
23.1	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.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Extension Definition Linkbase Document.
101.LAB	Inline XBRL Extension Label Linkbase Document.
101.PRE	Inline XBRL Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as an inline XBRL and contained in Exhibit 101).

[‡] Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Glatfelter Corporation agrees to furnish supplementally a copy of such schedules, or any section thereof, to the SEC upon request.

Portions of this exhibit and the exhibits and schedules thereto, marked by brackets, have been omitted pursuant to Item 601(b)(10) of Regulation S-K.

^{**} 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.

GLATFELTER CORPORATION (Registrant)

February 25, 2022

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:

Date	Signature	Capacity
February 25, 2022	/s/ Dante C. Parrini Dante C. Parrini Chairman and Chief Executive Officer	Principal Executive Officer and Director
February 25, 2022	/s/ Samuel L. Hillard Samuel L. Hillard Senior Vice President and Chief Financial Officer	Principal Financial Officer
February 25, 2022	/s/ David C. Elder David C. Elder Vice President, Finance and Chief Accounting Officer	Principal Accounting Officer
February 25, 2022	/s/ Bruce Brown Bruce Brown	Director
February 25, 2022	/s/ Kathleen A. Dahlberg Kathleen A. Dahlberg	Director
February 25, 2022	/s/ Kevin M. Fogarty Kevin M. Fogarty	Director
February 25, 2022	/s/ Marie T. Gallagher Marie T. Gallagher	Director
February 25, 2022	/s/ Darrel Hackett Darrel Hackett	Director
February 25, 2022	/s/ J. Robert Hall J. Robert Hall	Director
February 25, 2022	/s/ Lee C. Stewart Lee C. Stewart	Director

GLATFELTER CORPORATION AND SUBSIDIARIES SUPPLEMENTAL FINANCIAL STATEMENT SCHEDULE

For each of the three years ended December 31, 2021 Valuation and Qualifying Accounts

		Allowance for											
In thousands		Doubtful Accounts							Sales Discounts and Deductions				
	2021			2020		2019		2021		2020		2019	
Balance, beginning of year	\$	2,093	\$	1,682	\$	1,661	\$	791	\$	578	\$	832	
Provision		469		488		720		1,649		1,516		1,440	
Write-offs, recoveries and discounts allowed		(10)		(114)		(678)		(1,493)		(1,291)		(1,526)	
Other (1)		179		37		(21)		(122)		(12)		(168)	
Balance, end of year	\$	2,731	\$	2,093	\$	1,682	\$	825	\$	791	\$	578	

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.

⁽¹⁾ Relates primarily to changes in currency exchange rates.







OFFICERS AND DIRECTORS

OFFICERS

Dante C. Parrini

Chairman & 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, Integrated Global Supply Chain & Information Technology

Eileen L. Beck

Vice President, Global Human Resources & Administration

David C. Elder

Vice President, Finance & Chief Accounting Officer

Ramesh Shettigar

Vice President, ESG, Investor Relations & Corporate Treasurer

Jill L. Urey

Vice President, Deputy General Counsel & Corporate Secretary

Timothy A. Cobb

Vice President, Tax

DIRECTORS

Dante C. Parrini

Chairman & Chief Executive Officer

Bruce Brown

Retired Chief Technology Officer Procter & Gamble, Inc.

Kathleen A. Dahlberg

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

Kevin M. Fogarty

Retired President, CEO, and Director Kraton Corporation, Inc.

Marie T. Gallagher

Senior Vice President and Controller PepsiCo, Inc.

Darrel Hackett

President

US Wealth Management BMO Financial Group

J. Robert Hall

Chief Executive Officer
Ole Smoky Distillery, LLC

Lee C. Stewart

Private Financial Consultant

CORPORATE INFORMATION

STOCK EXCHANGE AND SYMBOL

New York Stock Exchange GLT

ANNUAL MEETING OF SHAREHOLDERS

May 5, 2022, 8:00 a.m. ET Virtual Meeting virtualshareholdermeeting.com/GLT2022

TRANSFER AGENT, DIVIDEND DISBURSING AGENT AND REGISTRAR

Correspondence should be mailed to: Computershare P.O. Box 505000

Overnight correspondence should be sent to: Computershare 462 South 4th Street, Suite 1600 Louisville, KY 40202

Shareholder website

Louisville, KY 40233

www.computershare.com/investor toll-free: 877-832-7259 international: +1 201-680-6578

INFORMATION SOURCES

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

Investor Relations Glatfelter Corporation 4350 Congress Street, Suite 600 Charlotte, NC 28209

717-225-2746

ir@glatfelter.com



Headquarters

Charlotte, NC U.S.A.

Integrated Global Supply Chain Center of Excellence

Zug, Switzerland

Spunlace

Center of Excellence

Basel, Switzerland

Manufacturing Locations

North America

Asheville, NC *
Fort Smith, AR *
Gatineau, QC Canada *
Mount Holly, NC
Old Hickory, TN

Europe

Asturias, Spain
Caerphilly, Wales *
Dresden, Germany *
Falkenhagen, Germany *
Gernsbach, Germany *
Lydney, England *
Ober-Schmitten, Germany *
Scaer, France *
Soultz, France
Steinfurt, Germany *

Sales & Distribution Offices

North America

Gainesville, GA Mexico City, Mexico

South America

Buenos Aires, Argentina

Europe / Asia

Kuala Lumpur, Malaysia Milan, Italy Moscow, Russia Seoul, South Korea Shanghai, Peoples Republic of China Suzhou, Peoples Republic of China Tokyo, Japan

Specialty Fiber Sites

Lanao del Norte, Philippines San José, Costa Rica

^{*} Also a Sales & Distribution Office



