

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2019

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File No.: 000-51826

MERCER INTERNATIONAL INC.

(Exact name of Registrant as specified in its charter)



Washington
*(State or other jurisdiction
of incorporation or organization)*

47-0956945
(IRS Employer Identification No.)

**Suite 1120, 700 West Pender Street,
Vancouver, British Columbia, Canada**
(Address of Principal Executive Office)

V6C 1G8
(Zip Code)

Registrant's telephone number including area code: **(604) 684-1099**

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$1.00 per share	MERC	NASDAQ Global Select Market

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

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

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

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

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). Yes No

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of the Registrant's voting and non-voting common equity held by non-affiliates of the Registrant as of June 30, 2019, the last business day of the Registrant's most recently completed second fiscal quarter, based on the closing price of the voting stock on the NASDAQ Global Select Market on such date, was approximately \$981.2 million.

As of February 12, 2020, the Registrant had 65,629,582 shares of common stock, \$1.00 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information that will be contained in the definitive proxy statement for the Registrant's annual meeting to be held in 2020 is incorporated by reference into Part III of this Form 10-K.

TABLE OF CONTENTS

<u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	1
<u>INDUSTRY AND MARKET DATA</u>	1
<u>CURRENCY</u>	2
<u>PART I</u>	3
ITEM 1. <u>BUSINESS</u>	3
<u>Mercer</u>	3
<u>Corporate Strategy</u>	7
<u>The Pulp Industry</u>	8
<u>Pulp Production</u>	15
<u>Generation and Sales of Green Energy and Chemicals</u>	15
<u>Cash Production Costs</u>	18
<u>Production Costs</u>	18
<u>Sales, Marketing and Distribution</u>	21
<u>Transportation</u>	23
<u>Capital Expenditures</u>	23
<u>Innovation</u>	25
<u>Environmental</u>	25
<u>Climate Change</u>	26
<u>Wood Products Industry</u>	28
<u>Human Resources</u>	28
<u>Description of Certain Indebtedness</u>	29
<u>Internet Availability and Additional Information</u>	31
ITEM 1A. <u>RISK FACTORS</u>	32
ITEM 1B. <u>UNRESOLVED STAFF COMMENTS</u>	46
ITEM 2. <u>PROPERTIES</u>	46
ITEM 3. <u>LEGAL PROCEEDINGS</u>	48
ITEM 4. <u>MINE SAFETY DISCLOSURES</u>	48
<u>PART II</u>	49
ITEM 5. <u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	49
ITEM 6. <u>SELECTED FINANCIAL DATA</u>	51
<u>NON-GAAP FINANCIAL MEASURES</u>	53
ITEM 7. <u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	54
<u>Results of Operations</u>	54
<u>Year Ended December 31, 2019 Compared to Year Ended December 31, 2018</u>	58
<u>Sensitivities</u>	62
<u>Liquidity and Capital Resources</u>	62
<u>Balance Sheet Data</u>	64
<u>Sources and Uses of Funds</u>	64
<u>Credit Facilities and Debt Covenants</u>	65
<u>Off-Balance Sheet Activities</u>	66
<u>Contractual Obligations and Commitments</u>	66
<u>Foreign Currency</u>	66
<u>Credit Ratings of Senior Notes</u>	67
<u>Critical Accounting Policies</u>	67
<u>New Accounting Standards</u>	70
ITEM 7A. <u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	71
<u>Foreign Currency Exchange Risk</u>	71
<u>Product Price Risk</u>	72
<u>Fiber Price Risk</u>	72
<u>Interest Rate Risk</u>	72
<u>Credit Risk</u>	73
<u>Risk Management and Derivatives</u>	73

ITEM 8.	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	74
ITEM 9.	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	74
ITEM 9A.	<u>CONTROLS AND PROCEDURES</u>	74
	<u>Evaluation of Disclosure Controls and Procedures</u>	74
	<u>Management’s Report on Internal Control Over Financial Reporting</u>	75
	<u>Changes in Internal Controls</u>	75
ITEM 9B.	<u>OTHER INFORMATION</u>	75
	<u>PART III</u>	76
ITEM 10.	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	76
	<u>Executive Chairman, Chief Executive Officer and Directors</u>	76
	<u>Other Executive Officers</u>	77
	<u>Audit Committee</u>	79
	<u>Compensation and Human Resources Committee</u>	79
	<u>Governance and Nominating Committee</u>	79
	<u>Environmental, Health and Safety Committee</u>	80
	<u>Lead Director/Deputy Chairman</u>	80
	<u>Code of Business Conduct and Ethics and Anti-Corruption Policy</u>	80
	<u>Section 16(a) Beneficial Ownership Reporting Compliance</u>	80
ITEM 11.	<u>EXECUTIVE COMPENSATION</u>	80
ITEM 12.	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	81
ITEM 13.	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	81
	<u>Review, Approval or Ratification of Transactions with Related Persons</u>	81
ITEM 14.	<u>PRINCIPAL ACCOUNTING FEES AND SERVICES</u>	81
	<u>PART IV</u>	82
ITEM 15.	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	82
ITEM 16.	<u>FORM 10-K SUMMARY</u>	84

CAUTIONARY NOTE REGARDING 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*. Forward-looking statements can be identified by the fact that they do not relate strictly to historical or current facts. They often include words such as “believes”, “expects”, “anticipates”, “estimates”, “intends”, “plans”, “seeks” or words of similar meaning, or future or conditional verbs, such as “will”, “should”, “could”, “may”, “aims”, “intends” or “projects”. A forward-looking statement is neither a prediction nor a guarantee of future events or circumstances, and those future events or circumstances may not occur. You should not place undue reliance on forward-looking statements, which speak only as of the date of this annual report on Form 10-K. These forward-looking statements are all based on currently available operating, financial and competitive information and are subject to various risks and uncertainties. Our actual future results and trends may differ materially depending on a variety of factors, including, but not limited to, the risks and uncertainties discussed under Item 1. “Business”, Item 1A. “Risk Factors” and Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. Given these risks and uncertainties, you should not rely on forward-looking statements as a prediction of actual results. Any or all of the forward-looking statements contained in this annual report on Form 10-K and any other public statement made by us, including by our management, may turn out to be incorrect. We are including this cautionary note to make applicable and take advantage of the safe harbor provisions of the *Private Securities Litigation Reform Act of 1995* for forward-looking statements. We expressly disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

INDUSTRY AND MARKET DATA

In this annual report on Form 10-K, we rely on and refer to information and statistics regarding our market share and the markets in which we compete. We have obtained some of this market share information and industry data from internal surveys, market research, publicly available information and industry publications. Such reports generally state that the information contained therein has been obtained from sources believed to be reliable, but the accuracy or completeness of such information is not guaranteed. Although we believe this information is reliable, we have not independently verified, nor can we guarantee, the accuracy or completeness of that information.

Statements in this annual report on Form 10-K concerning the production capacity of our mills are management estimates based primarily on historically achieved levels of production and assumptions regarding maintenance downtime. Statements concerning electrical generating capacity at our mills are also management estimates based primarily on our expected production (which largely determines the amount of electricity we can generate) and assumptions regarding maintenance downtime, in each case within manufacturers’ specifications of capacity.

CURRENCY

The following table sets out exchange rates, based on the noon buying rates in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York, referred to as the “Noon Buying Rate”, for the conversion of dollars to euros and Canadian dollars in effect at the end of the following periods, the average exchange rates during these periods (based on daily Noon Buying Rates) and the range of high and low exchange rates for these periods:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(\$/€)				
End of period	1.1227	1.1456	1.2022	1.0552	1.0859
High for period	1.0905	1.1281	1.0416	1.0375	1.0524
Low for period	1.1524	1.2488	1.2041	1.1516	1.2015
Average for period	1.1194	1.1817	1.1301	1.1072	1.1096
	(\$/C\$)				
End of period	0.7715	0.7329	0.7989	0.7448	0.7226
High for period	0.7358	0.7326	0.7275	0.6853	0.7148
Low for period	0.7715	0.8143	0.8243	0.7972	0.8529
Average for period	0.7537	0.7722	0.7710	0.7558	0.7830

On February 10, 2020, the most recent weekly publication of the daily Noon Buying Rate before the filing of this annual report on Form 10-K reported that the Noon Buying Rate as of February 7, 2020 for the conversion of dollars to euros and Canadian dollars was \$1.0950 per euro and \$0.7517 per Canadian dollar.

PART I

ITEM 1. BUSINESS

In this document, please note the following:

- references to “we”, “our”, “us”, the “Company” or “Mercer” mean Mercer International Inc. and its subsidiaries, unless the context clearly suggests otherwise, and references to “Mercer Inc.” mean Mercer International Inc. excluding its subsidiaries;
- references to “\$” or “dollars” shall mean U.S. dollars, which is our reporting currency, unless otherwise stated; “€” refers to euros; and “C\$” refers to Canadian dollars;
- references to “NBHK” mean northern bleached hardwood kraft;
- references to “NBSK” mean northern bleached softwood kraft;
- references to “ADMTs” mean air-dried metric tonnes;
- references to “MW” mean megawatts and “MWh” mean megawatt hours;
- references to “Mfbm” mean thousand board feet;
- references to “MMfbm” mean million board feet; and
- our lumber metrics are converted from cubic meters to Mfbm using a conversion ratio of 1.6 cubic meters of lumber equaling one Mfbm, which is the ratio commonly used in the industry.

Due to rounding, numbers presented throughout this report may not add up precisely to totals we provide and percentages may not precisely reflect the absolute figures.

Mercer

General

We are a global forest products company and have two reportable operating segments:

- **Pulp** – consists of the manufacture, sale and distribution of pulp, electricity and other by-products at our pulp mills.
- **Wood Products** – consists of the manufacture, sale and distribution of lumber, electricity and other wood residuals at the Friesau mill.

We have consolidated annual production capacity of approximately 2.2 million ADMTs of kraft pulp, 550 MMfbm of lumber and approximately 416.5 MW of electrical generation.

Pulp Segment

We are one of the world’s largest producers of “market” NBSK pulp, which is pulp that is sold on the open market. Our size provides us increased presence, better industry information in our markets and close customer relationships with many large pulp consumers.

We operate two modern and highly efficient NBSK mills in Eastern Germany and one NBSK mill and a “swing” kraft mill in Western Canada, referred to as “MPR”, which we acquired in December 2018. MPR produces both NBSK and NBHK and has a 50% joint venture interest in the Cariboo NBSK mill in Quesnel, British Columbia. MPR also holds two 20-year renewable governmental forest management agreements and three deciduous timber allocations in Alberta with an aggregate allowable annual cut of approximately 2.4 million cubic meters of hardwood and softwood allocations totaling 400,000 cubic meters.

We are the sole NBSK producer, and the only significant market pulp producer in Germany, which is the largest pulp import market in Europe. We supply the growing pulp demand in China both through our Canadian mills' ready access to the Port of Vancouver and through our Stendal mill's existing logistics arrangements. In addition, as a result of the significant investments made in cogeneration equipment, all of our mills generate and sell a significant amount of surplus "green" energy. We also produce and sell tall oil, a by-product of our production process, which is used as both a chemical additive and as a green energy source.

Of our consolidated annual production capacity of approximately 2.2 million ADMTs of kraft pulp, approximately 1.9 million ADMTs or 86% is NBSK and the balance is NBHK.

Key operating details for each of our pulp mills are as follows:

- **Rosenthal mill.** Our Rosenthal mill is a modern, efficient ISO 9001, 14001 and 50001 certified NBSK pulp mill that has an annual production capacity of approximately 360,000 ADMTs and 57 MW of electrical generation. The Rosenthal mill exported 156,828 MWh of electricity in 2019, resulting in approximately \$15.9 million in revenues. The Rosenthal mill is located in the town of Rosenthal am Rennsteig, Germany, approximately 300 kilometers south of Berlin.
- **Stendal mill.** Our Stendal mill is a state-of-the-art, single line, ISO 9001, 14001 and 50001 certified NBSK pulp mill that has an annual production capacity of approximately 660,000 ADMTs and 148 MW of electrical generation. The Stendal mill exported 492,825 MWh of electricity in 2019, resulting in approximately \$46.7 million in revenues. The Stendal mill is located near the town of Stendal, Germany, approximately 130 kilometers west of Berlin.
- **Celgar mill.** Our Celgar mill is a modern, efficient ISO 9001 and 14001 certified NBSK pulp mill that has an annual production capacity of approximately 520,000 ADMTs and 100 MW of electrical generation. The Celgar mill exported 105,741 MWh of electricity in 2019, resulting in approximately \$7.4 million in revenues. The Celgar mill is located near the city of Castlegar, British Columbia, Canada, approximately 600 kilometers east of Vancouver.
- **Peace River mill.** Our Peace River mill is a modern ISO 14001 certified "swing" mill that produces both NBSK and NBHK pulp and has an annual production capacity of approximately 475,000 ADMTs and 70 MW of electrical generation. The Peace River mill exported 67,447 MWh of electricity in 2019, resulting in approximately \$5.0 million in revenues. The Peace River mill is located near the town of Peace River, Alberta, approximately 490 kilometers north of Edmonton. Through our Peace River mill, we have a 50% proportionate share of the annual production capacity of the Cariboo mill, which is approximately 170,000 ADMTs and 28.5 MW of electrical generation. The Cariboo mill is located in Quesnel, British Columbia, approximately 660 kilometers north of Vancouver.

Our pulp mills are some of the newest and most modern pulp mills in Europe and North America. We believe the relative age, production capacity and electrical generation capacity of our mills provide us with certain manufacturing cost and other advantages over many of our competitors. We believe our competitors' older mills do not have the equipment or capacity to produce or sell surplus power or chemicals in a meaningful amount. In addition, since our mills are relatively new, they benefit from lower maintenance capital requirements and higher efficiency relative to many of our competitors' mills.

The following table sets out our pulp production and pulp revenues for the periods indicated:

	Year Ended December 31,		
	2019	2018⁽¹⁾	2017
Pulp production ('000 ADMTs)	2,040.6	1,472.6	1,507.0
Pulp sales ('000 ADMTs)	2,098.8	1,440.9	1,515.1
Pulp revenues (in thousands)	\$ 1,370,742	\$ 1,190,588	\$ 979,645

(1) Includes results of MPR since December 10, 2018.

Our pulp mills generate and sell surplus electricity, providing us with a stable revenue source unrelated to pulp prices. Our German pulp mills also generate tall oil from black liquor, which is sold to third parties for use in numerous applications, including bio-fuels. Since our energy and chemical production are by-products of our pulp production process, there are minimal incremental costs and our surplus energy and chemical sales are highly profitable. All of our mills generate and sell surplus energy to regional utilities or the regional electrical market. Our German mills benefit from special tariffs under Germany’s *Renewable Energy Sources Act*, referred to as the “Renewable Energy Act”, which provides for premium pricing on green energy. Our recently acquired Peace River mill sells surplus energy to its regional electrical market. Each of our Celgar mill and the Cariboo mill is party to a fixed electricity purchase agreement with the regional public utility provider for the sale of surplus power through October 2020 and December 2022, respectively, and, in the case of the Cariboo mill, renewable at the option of the joint venture for an additional ten-year term. Our Celgar mill is currently in negotiations with the regional utility to try to secure a new agreement beyond 2020. See Item 1A. “Risk Factors – We sell surplus energy pursuant to statutory energy programs in Germany and electricity purchase agreements with a utility in Western Canada”.

The following table sets out the amount of surplus energy we produced and sold and revenues from the sale of such surplus energy and chemicals in our pulp segment for the periods indicated:

	Year Ended December 31,					
	2019 ⁽¹⁾		2018 ⁽¹⁾⁽²⁾		2017	
	(MWh)	(\$) (in thousands)	(MWh)	(\$) (in thousands)	(MWh)	(\$) (in thousands)
Surplus electricity	822,841	75,018	615,182	63,189	822,120	77,867
Chemicals		11,363		14,427		14,203
Total		<u>86,381</u>		<u>77,616</u>		<u>92,070</u>

- (1) Does not include our 50% joint venture interest in the Cariboo mill, which is accounted for using the equity method.
(2) Includes results of MPR since December 10, 2018.

We serve pulp customers in Europe, Asia and North America. We primarily work directly with customers to capitalize on our geographic diversity, coordinate sales and enhance customer relationships. We believe our ability to deliver high-quality pulp on a timely basis and our customer service make us a preferred supplier for many customers.

Wood Products Segment

We entered the wood products segment in April 2017 when we acquired substantially all of the assets of the Friesau sawmill, one of Germany’s largest sawmills.

Our Friesau mill has an annual production capacity of approximately 550 MMfbm of lumber and 13 MW of electrical generation from a modern biomass fueled cogeneration power plant built in 2009. The Friesau mill is located approximately 16 kilometers west of our Rosenthal mill and has historically been one of the Rosenthal mill’s largest fiber suppliers.

We manufacture, sell and distribute lumber, electricity and other wood residuals at the Friesau mill which produces lumber for European, U.S. and other lumber export markets.

The European and U.S. lumber markets are very different. In the European market, lumber is generally customized in terms of dimensions and finishing, whereas the U.S. market is driven primarily by demand from new housing starts and dimensions and finishing are generally standardized.

Additionally, lumber production and sales in Europe are commonly measured in cubic meters, whereas in the U.S. they are measured in thousand board feet or Mfbm.

The following table sets out our lumber production and lumber revenues for the periods indicated:

	Year Ended December 31,		
	2019	2018	2017 ⁽¹⁾
Lumber production (MMfbm)	414.7	398.7	281.3
Lumber sales (MMfbm)	408.8	412.9	213.5
Lumber revenues (in thousands)	\$ 142,243	\$ 168,663	\$ 82,176

(1) Includes results of the Friesau mill since April 12, 2017.

The Friesau mill generates electricity for minimal incremental costs, all of which is sold, providing a stable revenue source unrelated to lumber prices. The Friesau mill's modern biomass fueled cogeneration power plant has a production capacity of approximately 13 MW of electricity. The plant sells electricity pursuant to a long-term fixed price green power tariff that runs to 2029.

The following table sets out the amount of surplus energy we produced and sold and revenues from the sale of surplus energy by our Friesau mill for the periods indicated.

	Year Ended December 31,					
	2019		2018		2017 ⁽¹⁾	
	(MWh)	(\$) (in thousands)	(MWh)	(\$) (in thousands)	(MWh)	(\$) (in thousands)
Surplus electricity	83,490	9,721	86,325	10,831	73,698	8,872

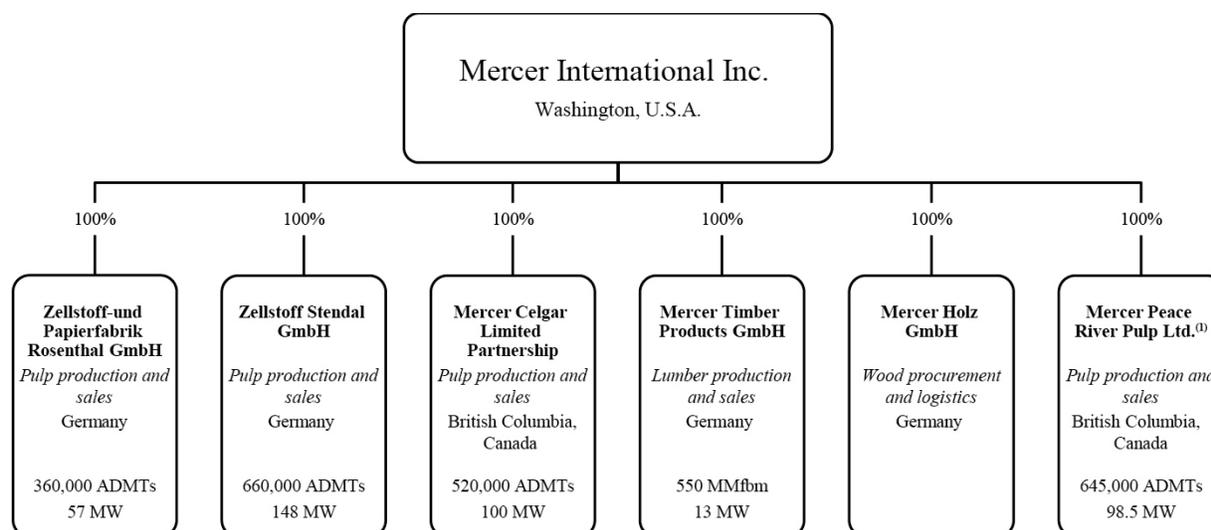
(1) Includes results of the Friesau mill since April 12, 2017.

Corporate Structure, History and Development of Business

Mercer Inc. is a corporation organized under the laws of the State of Washington whose common stock is quoted and listed for trading on the NASDAQ Global Select Market (MERC).

We currently employ approximately 2,325 people and have our headquarters in Vancouver, Canada.

The following simplified chart sets out our principal operating subsidiaries, their jurisdictions of organization, their principal activities and their annual pulp or lumber production and electrical generation capacity:



(1) Includes 170,000 ADMTs and 28.5 MW based on MPR's 50% joint venture interest in the Cariboo mill.

We entered into the pulp business in 1994 by acquiring our Rosenthal mill and in 1999 converted it to the production of kraft pulp.

In September 2004, we expanded our pulp operations when we completed construction of the Stendal mill at a cost of approximately \$1.1 billion, which was financed through a combination of government grants, long-term project debt and equity. We initially had a 63.6% interest in Stendal which increased over time through acquisitions and/or further investments until September 2014, when we acquired all of the economic interest in Stendal.

We further expanded our pulp operations into Western Canada in February 2005 when we acquired the Celgar mill for \$210.0 million plus defined working capital.

In April 2017, we entered into the wood products segment when we acquired the Friesau mill for \$61.6 million in cash.

In October 2018, we acquired the Santanol Group, which operates Indian sandalwood plantations and an oil extractives plant in Australia, for \$35.7 million in cash.

In December 2018, we significantly expanded our pulp business when we acquired MPR for approximately \$344.0 million in cash.

Corporate Strategy

Our corporate strategy is to grow in businesses where we have clear competencies while maintaining modern facilities, managing the integrity of our balance sheet and liquidity and a high standard of environmental, social and governance performance. Key elements of our strategy include:

- ***Operate World Class Assets.*** The maintenance of modern, reliable and energy efficient operations is key to our ability to produce stable returns through the economic cycle. The markets for our principal products are cyclical and subject to global economic influences. Further, our manufacturing operations are capital intensive and complex. Maintaining a high standard of maintenance and strategic capital expenditure programs differentiates us from older, higher cost, lower efficiency competitors. We believe that over time this will reduce our exposure to product price volatility, unexpected downtime and changes in environmental and regulatory conditions. We operate four modern pulp mills and one of the most modern sawmills in the world. In 2019, the majority of our capital expenditures focused on projects to increase production and operational efficiency, reduce costs and increase electricity and chemical sales. Additionally, we continuously strive to enhance our maintenance systems to improve and increase production by improving reliability. We also seek to reduce operating costs by better managing our fiber procurement, sales, marketing and logistics activities. We believe this continued focus on operational excellence enhances our profitability and cash flows.
- ***Growth and Diversification Where We Have Core Competencies.*** We are focused on growth in areas where we have a clear leadership position or high degree of competence to ensure that we can add value for shareholders. We believe that a larger company will benefit shareholders in terms of improved equity trading, liquidity and reduced variability of earnings. Our core competencies lend themselves to growth in one or more of the following areas:
 - Pulp. The core of our business is NBSK pulp. We are one of the largest producers of market NBSK in the world and have deep expertise and a market reputation as a reliable, efficient and high quality producer. We believe that the global demand for kraft pulp will continue to grow and that the supply of fiber to meet that demand is limited. In 2018, we expanded our pulp segment with the acquisition of MPR, an acquisition that fortified our position as a leading kraft pulp producer and added NBHK to our product line.

- Wood Products. We have significant expertise in forestry and wood procurement services and have utilized that expertise and our logistics networks in support of our pulp operations. In 2017, we began leveraging this foundation into the solid wood products business with the acquisition of one of the world's largest and most flexible sawmills at Friesau, Germany. The Friesau mill created synergies with our wood procurement and pulp businesses. We believe that further strategic expansion within this segment can add more value for shareholders in future. We are in the midst of a three-year upgrade to the Friesau sawmill that will make it one of the most technologically advanced and largest in the world.
- Wood Extractives. We believe that we are very well positioned to fully extract all of the value from wood including those elements that were traditionally wasted or burned. We have applied considerable resources to manufacturing products such as tall oil, which is upgraded by our customers and used in adhesives and bio-fuels that are displacing fossil fuel based alternatives. We are also expanding our production of turpentine for use in aromatics and fragrances. We also acquired sandalwood plantations and an essential sandalwood oil extraction and sales business to further develop such operations and move closer to the end customer. We are also focused on researching and commercializing other complex and novel products based on wood and have established various partnerships and working relationships to advance these products.
- Green Energy. Our modern, highly efficient mills allow us to produce green, cogenerated electricity. Our mills are all self-sufficient in power and net exporters of electricity and our power is sold to regional utilities or the regional market. We are very experienced at building and operating cogeneration facilities and we have increased our electricity production by 48% since 2010.
- ***Managing the Integrity of our Balance Sheet and Liquidity.*** We focus on maintaining a balance sheet that allows us to advance our objectives through the full economic cycle, while at the same time, giving us some flexibility to take advantage of strategic growth opportunities as they arise. We maintain a foundation of long term, unsecured, senior notes with expiry dates to 2024 and beyond. In addition to cash on hand, we have a series of revolving credit facilities intended to provide liquidity and flexibility in times of opportunity or economic slowdown. We commenced a dividend in 2015 and remain committed to returning capital to our shareholders through the economic cycle.
- ***Sustainable Operations.*** We seek to operate to exceed or meet best in class standards in environmental performance, social conditions and governance (often referred to as "ESG" standards). We believe that sustainably-focused businesses can flourish if they align themselves with societal objectives, and that the diminishing tolerance of stakeholders for under-performing companies in regards to sustainability will lead to their decline. Further, we believe that our products, which are renewable wood-based fiber, carbon sequestering solid wood products, green energy and naturally sourced wood extractives, are becoming more important for a world seeking to limit its reliance on fossil fuel-based products. We will continue to grow these products, enhance our environmental performance and stakeholder engagement and maintain strong governance and ethical business practices.

The Pulp Industry

General

Pulp is used in the production of paper, tissues and paper-related products. Pulp is generally classified according to fiber type, the process used in its production and the degree to which it is bleached. Kraft pulp, a type of chemical pulp, is produced through a sulphate chemical process in which lignin, the component of wood which binds individual fibers, is dissolved in a chemical reaction. Chemically prepared pulp allows the wood's fiber to retain its length and flexibility, resulting in stronger paper products. Kraft pulp can be bleached to increase its brightness. Softwood kraft pulp is noted for its strength, brightness and absorption properties and is used to produce a variety of products, including lightweight publication grades of paper, tissues and other paper-related products.

There are two main types of bleached kraft pulp, being softwood kraft made from coniferous trees and hardwood kraft made from deciduous trees. Softwood species generally have long, flexible fibers which add strength to paper while fibers from species of hardwood contain shorter fibers which lend bulk and opacity.

We primarily produce and sell NBSK pulp, which is a bleached kraft pulp manufactured using northern softwood and is considered a premium grade because of its strength. It generally obtains the highest price relative to other kraft pulps.

Prior to our acquisition of the Peace River mill in December 2018, NBSK pulp was the sole pulp product of our mills. The Peace River mill is a “swing mill” as it produces both NBSK and NBHK pulp. The mill expands our product offering and its swing capabilities allow us to adjust our production mix to respond to market developments and take advantage of pricing differentials between NBSK and NBHK pulp.

Most paper users of market kraft pulp use a mix of softwood and hardwood grades to optimize production and product qualities. In 2019, market kraft pulp consumption was approximately 55% hardwood bleached kraft and 41% softwood bleached kraft, with the remainder comprised of unbleached pulp. Over the last several years, production of hardwood pulp, based on fast growing plantation fiber primarily from Asia and South America, has increased much more rapidly than that of softwood grades, based on fiber that has longer growth cycles. Hardwood kraft generally has a cost advantage over softwood kraft as a result of lower fiber costs, higher wood yields and, for newer hardwood mills, economies of scale. As a result of this growth in supply and lower costs, kraft pulp customers have substituted some of the pulp content in their products to hardwood pulp.

Counteracting customers’ ability to substitute lower priced hardwood pulp for NBSK pulp is the requirement for strength and formation characteristics in finished goods. Paper and tissue makers focus on larger paper machines with higher speeds and lower basis weights for certain papers which require the strength characteristics of softwood pulp. Additionally, where paper products are lightweight or specialized, like direct mail, magazine paper or premium tissue, or where strength or absorbency are important, softwood kraft forms a significant proportion of the fiber used. As a result, we believe that the ability of kraft pulp users to further substitute hardwood for softwood pulp is limited by such requirements.

Kraft pulp can be made in different grades, with varying technical specifications, for different end uses. Softwood kraft pulp is valued for its reinforcing role in mechanical printing papers and is sought after by producers of paper for the publishing industry, primarily for magazines and advertising materials. Softwood kraft pulp is also an important ingredient for tissue manufacturing and tissue demand tends to increase with living standards in developing countries. NBSK pulp produced for reinforcement fibers is considered the highest grade of kraft pulp and generally obtains the highest price.

Markets

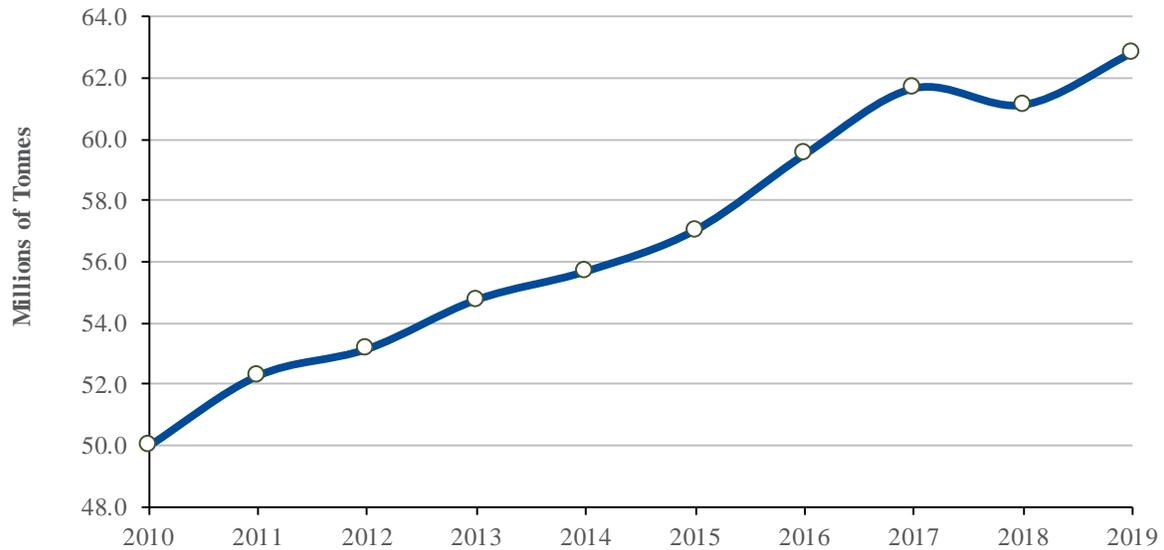
We believe that over 140 million ADMTs of chemical pulp are converted annually into tissues, printing and writing papers, carton boards and other specialty grades of paper and paperboard around the world. We also believe that approximately 40% of this pulp is sold on the open market as market pulp, while the remainder is produced for internal purposes by integrated paper and paperboard manufacturers.

The pulp business is highly cyclical in nature and markets are characterized by periods of supply and demand imbalance, which in turn affect prices. Pulp markets are highly competitive and are sensitive to cyclical changes in the global economy, industry capacity and foreign exchange rates, all of which can have a significant influence on selling prices and our operating results. The length and magnitude of industry cycles have varied over time but generally reflect changes in macro-economic conditions and levels of industry capacity. Pulp is a commodity that is generally available from other producers. Because commodity products have few distinguishing qualities from producer to producer, competition is generally based upon price, which is generally determined by supply relative to demand.

Between 2010 and 2019, worldwide demand for chemical market pulp grew at an average rate of approximately 2% annually, with worldwide demand for bleached softwood kraft market pulp having grown at an average of approximately 2% per annum.

The following chart illustrates the global demand for chemical market pulp for the periods indicated:

Estimated Global Chemical Market Pulp Demand



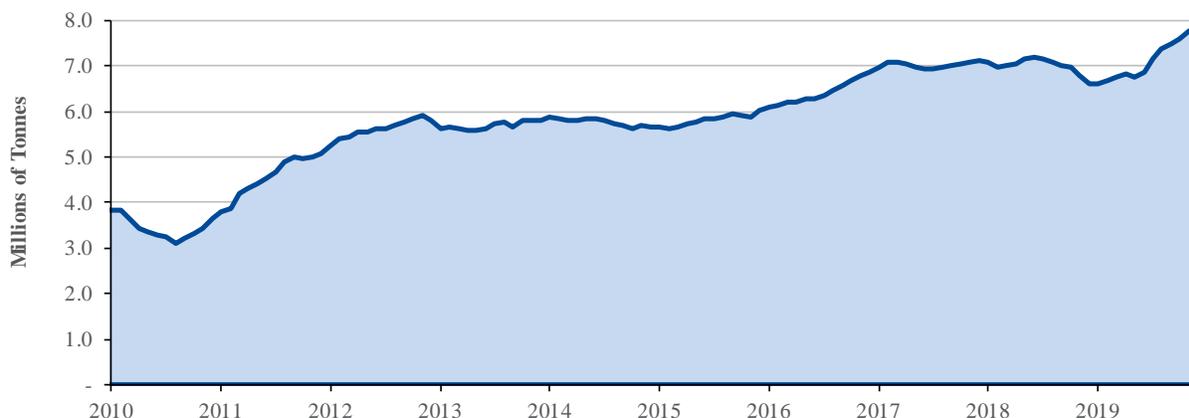
The most significant macro-economic trends that have affected worldwide NBSK pulp demand are:

- a significant increase in demand from emerging markets, and in particular China, which has more than offset declining and stagnating demand in the mature markets of Europe, North America and Japan; and
- a significant shift in demand by end use, as demand from tissue and specialty producers has increased markedly and offset the secular decline in demand for printing and writing paper resulting from the rapid growth in digital media.

Over the last ten years, demand for chemical softwood market pulp has grown in the emerging markets of Asia, particularly China and Eastern Europe. In China, imports of chemical softwood market pulp grew by approximately 9% per annum between 2010 and 2019. We believe the emerging markets now account for approximately 57% of total global demand for bleached softwood kraft market pulp and China itself now accounts for approximately 34% of global bleached softwood kraft market pulp demand compared to approximately 21% in 2010. Western Europe currently accounts for approximately 22% of global bleached softwood kraft market pulp demand compared to approximately 33% in 2010.

The following chart sets forth industry-wide bleached softwood kraft deliveries to China for the periods indicated:

12 Month Rolling Bleached Softwood Kraft Pulp Deliveries to China

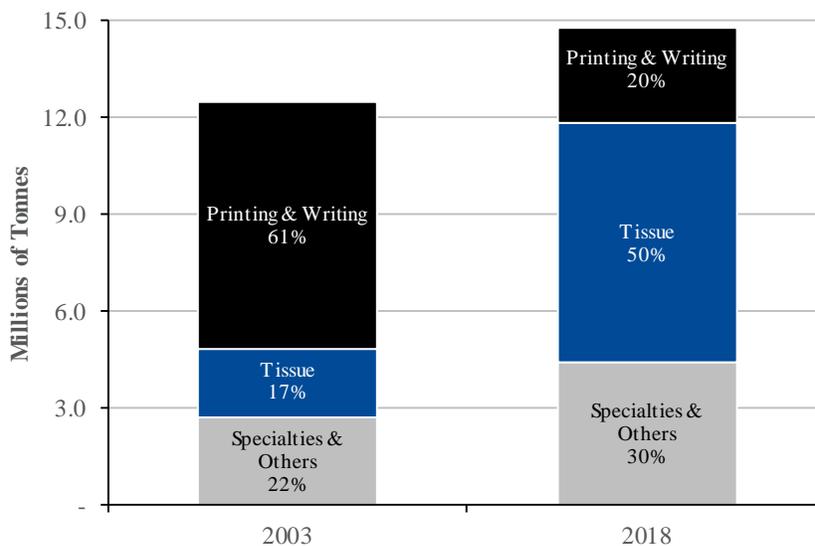


Growth in NBSK pulp demand in China and other emerging markets has been primarily driven by increased demand from tissue and specialty paper producers, as a result of economic growth and rising income levels and living standards in such markets. These factors generally contribute to a greater demand for personal hygiene products in such regions. In China alone, tissue production capacity has increased by approximately 5.8 million ADMTs over the last five years.

This has also led to an overall shift in demand for NBSK pulp, as demand from tissue producers has increased, while demand from printing and writing end uses has decreased.

The following chart compares worldwide NBSK pulp demand by end use in each of 2003 and 2018 (the latest year for which figures are currently available):

NBSK Pulp Demand by End Use



We believe 2019 NBSK demand by end use was generally consistent with the trend in the chart above.

A measure of demand for kraft pulp is the ratio obtained by dividing the worldwide demand of kraft pulp by the worldwide capacity for the production of kraft pulp, or the “demand/capacity ratio”. An increase in this ratio generally occurs when there is an increase in global and regional levels of economic activity. An increase in this ratio also generally indicates greater demand as consumption increases, which often results in rising kraft pulp prices and a reduction of inventories by producers and buyers. As prices continue to rise, producers continue to run at higher operating rates. However, an adverse change in global and regional levels of economic activity generally negatively affects demand for kraft pulp, often leading buyers to reduce their purchases and rely on existing pulp inventories. As a result, producers run at lower operating rates by taking downtime to limit the build-up of their own inventories. The demand/capacity ratio for bleached softwood kraft pulp was approximately 92% and 89% in 2019 and 2018, respectively.

In 2019, chemical pulp capacity decreased by approximately 0.4 million ADMTs, consisting primarily of softwood kraft pulp. In January 2020, an NBSK pulp mill in Nova Scotia, Canada closed, removing approximately 280,000 ADMTs of capacity. Currently, we are not aware of any material announced capacity increases of NBSK or NBHK pulp in 2020.

NBSK Pulp Pricing

Kraft pulp is a globally traded commodity and prices are highly cyclical. Kraft pulp prices are generally quoted in dollars. Pricing is primarily influenced by the balance between supply and demand, as affected by global macro-economic conditions, changes in consumption and capacity, the level of customer and producer inventories and fluctuations in exchange rates. Generally, we and other producers consider global NBSK pulp supply and demand to be evenly balanced when world inventory levels are at about 30 days’ supply.

General macro-economic conditions are closely tied to overall global business activity, which helps determine pulp demand and, in turn, impacts pricing.

As the majority of market NBSK pulp is produced and sold by Canadian and Northern European producers, while the price of NBSK pulp is generally quoted in dollars, pricing is often affected by fluctuations in the currency exchange rates for the dollar versus the euro and the Canadian dollar. As NBSK pulp producers generally incur costs in their local currency, while pulp is quoted in dollars, a dollar strengthening generally benefits producers’ businesses and operating margins. Conversely, a weakening of the dollar versus the local currency of producers generally adversely affects producers’ businesses and operating margins.

As a corollary to changes in exchange rates between the dollar and the euro and Canadian dollar, a stronger dollar generally increases costs to customers of NBSK pulp producers and results in downward pressure on prices. Conversely, a weakening dollar generally supports higher pulp pricing. However, there is invariably a time lag between changes in currency exchange rates and pulp prices. This lag can vary and is not predictable with any certainty.

As Northern Europe has historically been the world’s largest market and NBSK pulp is the premium grade, the European market NBSK price is generally used as a benchmark price by the industry. The average European list prices for NBSK pulp since 2010 have fluctuated between a low of approximately \$760 per ADMT in 2012 and a high of \$1,230 per ADMT in 2018.

The following chart sets out the changes in list prices for NBSK pulp in Europe, as stated in dollars, Canadian dollars and euros for the periods indicated:

NBSK Pulp Price History (European Delivery)



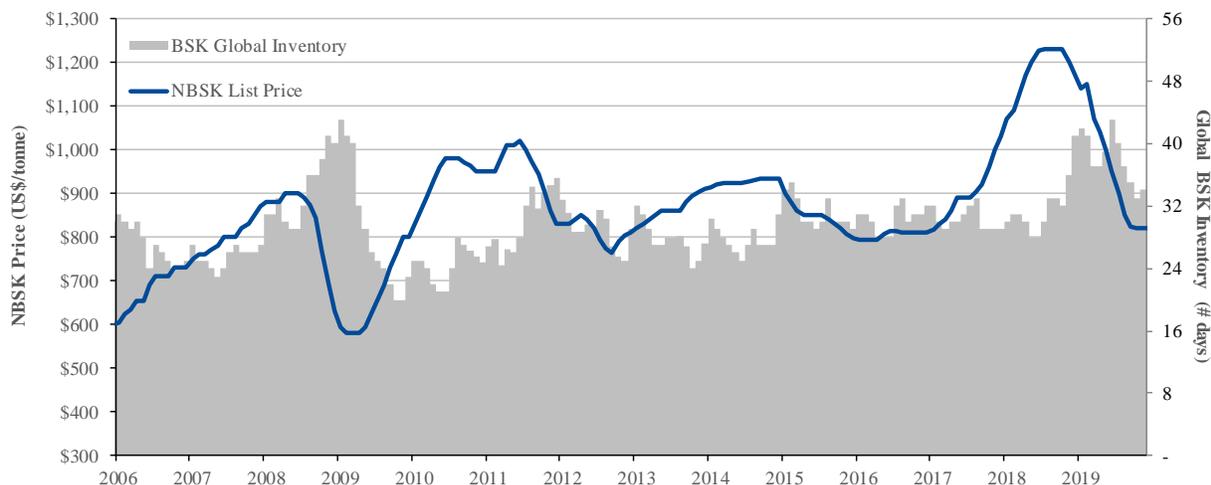
The following table sets out list prices for NBSK pulp in the regions indicated at the dates indicated:

	December 31,	
	2019	2018
	(\$/ADMT)	
Europe	820	1,185
China	580	725
North America	1,115	1,430

A producer's net sales realizations are list prices, net of customer discounts, rebates and other selling concessions. The nature of the pricing structure in Asia is different in that, while quoted list prices tend to be lower than Europe, customer discounts and rebates are much lower, resulting in net sales realizations that are generally similar to other markets.

The following chart sets forth changes in FOEX PIX Pulp Index prices for NBSK pulp in Europe and global bleached softwood kraft inventory levels between 2006 and 2019:

Pulp Price and Global Inventory History



Seasonality

We are exposed to fluctuations in quarterly sales volumes and expenses due to seasonal factors. These factors are common in the kraft pulp industry. We generally have weaker pulp demand in Europe during the summer holiday months and in China in the period relating to the lunar new year. We typically have a seasonal build-up in raw material inventories in the early winter months as our mills build up their fiber supply for the winter when there is reduced availability.

Competition

Pulp markets are large and highly competitive. Producers ranging from small independent manufacturers to large integrated companies produce pulp worldwide. Our pulp and customer services compete with similar products manufactured and distributed by others. While many factors influence our competitive position, particularly in weak economic times, a key factor is price. Other factors include service, quality and convenience of location. Some of our competitors are larger than we are in certain markets and have substantially greater financial resources. These resources may afford those competitors more purchasing power, increased financial flexibility, more capital resources for expansion and improvement and enable them to compete more effectively. Our key NBSK pulp competitors are principally located in Northern Europe and Canada and include Canfor Pulp, Stora Enso, Metsä Fibre, Ilim, Södra Cell and Paper Excellence.

Pulp Production

Our pulp production capacity and actual production by mill for the periods indicated is set out below:

Pulp Production by Mill	Annual Production Capacity⁽¹⁾	Year Ended December 31,	
		2019	2018⁽²⁾
		(ADMTs)	
Rosenthal	360,000	352,575	351,566
Stendal	660,000	656,714	636,863
Celgar	520,000	433,432	442,620
Peace River	475,000	444,102	30,438
Cariboo ⁽³⁾	170,000	153,759	11,103
Total pulp production	<u>2,185,000</u>	<u>2,040,582</u>	<u>1,472,590</u>

(1) Capacity is the rated capacity of the plants for the year ended December 31, 2019.

(2) Includes results of MPR and MPR's 50% joint venture interest in the Cariboo mill from December 10, 2018.

(3) MPR's 50% joint venture interest in the Cariboo mill.

Generation and Sales of Green Energy and Chemicals

General

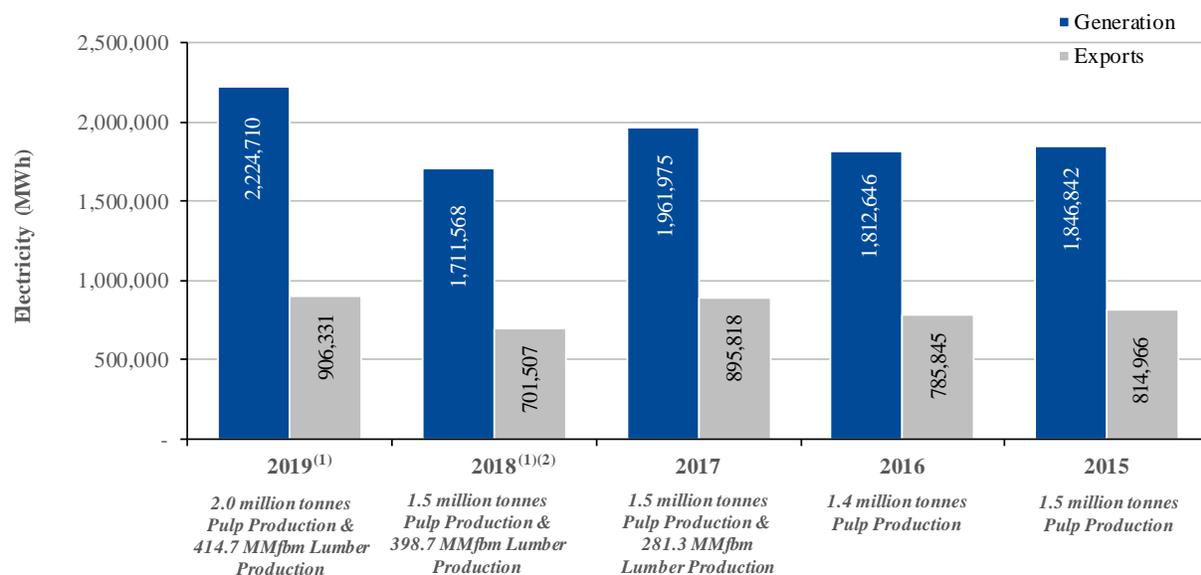
Our pulp mills are large scale bio-refineries that, in addition to pulp, also produce surplus "carbon neutral" or green energy. As part of the pulp production process, our mills generate green energy using carbon neutral bio-fuels such as black liquor and wood waste. Through the incineration of bio-fuels in the recovery and power boilers, our mills produce sufficient steam to cover all of our steam requirements and allow us to produce surplus electricity which we sell to third-party utilities and, in the case of the Peace River mill, into the regional electricity market. As a result, we have benefited from green energy legislation, incentives and commercialization that have developed over the last decade in Europe and Canada. In addition, in recent years we have applied considerable resources to increasing our capacity to produce and sell chemicals, primarily tall oil for use in numerous applications including bio-fuels.

Our Friesau mill also generates and sells green energy produced from its biomass cogeneration power plant.

Our surplus energy and chemical sales provide us with a stable revenue source unrelated to pulp or lumber prices. Since our energy and chemical production are by-products of our production processes, there are minimal incremental costs and our surplus energy and chemical sales are highly profitable. We believe that this revenue source gives our mills a competitive advantage over other older mills which do not have the equipment or capacity to produce and/or sell surplus power and/or chemicals in a meaningful amount.

The following table sets out our electricity generation and surplus electricity sales for the five years ended December 31, 2019:

Electricity Generation and Exports

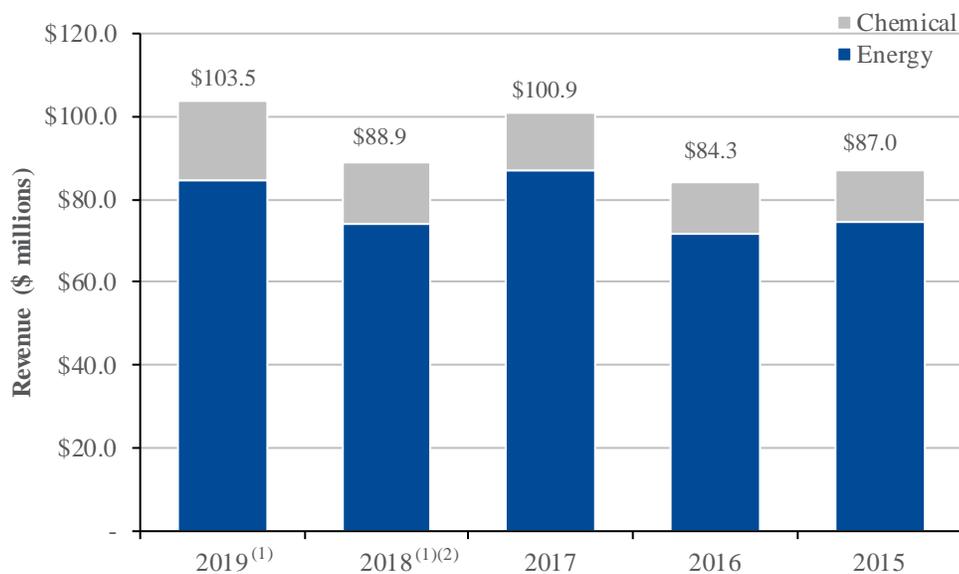


(1) Does not include electricity generation and exports of our 50% joint venture interest in the Cariboo mill, which is accounted for using the equity method.

(2) Includes results of MPR from December 10, 2018.

The following chart sets forth our consolidated revenues from electricity and chemical sales for the five years ended December 31, 2019:

Energy and Chemical Revenue



(1) Does not include energy revenues of our 50% joint venture interest in the Cariboo mill, which is accounted for using the equity method.

(2) Includes results of MPR from December 10, 2018.

Germany

Our German pulp mills and the Friesau mill participate in a program established pursuant to the Renewable Energy Act, which requires that public electric utilities give priority to electricity produced from renewable energy sources by independent power producers and pay a fixed tariff for such electricity for a period of 20 years. Currently we expect such tariff to expire on December 31, 2020 for our Rosenthal mill, December 31, 2024 for our Stendal mill and in 2029 for the Friesau mill. Recent amendments to the Renewable Energy Act will extend the initial terms for our pulp mills for a further 10-year period, based upon the price received in the last year prior to renewal, regressing at a rate of 8% per annum commencing in the second year. Such amendments are subject to compliance with European Union, referred to as the “EU”, state aid rules. While we expect them to be effective, we can provide no assurance that the current proposed amendments will be implemented or when.

In 2019, energy sales for our German pulp mills and the Friesau mill were \$72.4 million or 733,143 MWh.

In 2019, our Rosenthal and Stendal mills generated \$11.4 million from the sale of tall oil, a by-product of our production process, and other chemicals.

Canada

The Celgar mill has an electricity sales agreement with the British Columbia Hydro and Power Authority, referred to as “B.C. Hydro”, for the sale of power generated, pursuant to which the mill agreed to supply a minimum of approximately 238,000 MWh of surplus electrical energy annually to the utility over a ten-year term. The agreement expires in October 2020.

In 2019, our Celgar mill sold approximately 105,741 MWh of renewable electricity for proceeds of approximately \$7.4 million.

The Peace River mill has a production capacity of approximately 70 MW of electrical generation. The mill’s surplus electricity is sold into the Alberta market.

In 2019, our Peace River mill sold approximately 67,447 MWh of renewable electricity for proceeds of approximately \$5.0 million.

The Cariboo mill has two generators, only one of which is used for pulp production. The other generator produces and sells electricity to B.C. Hydro at a fixed rate pursuant to a long-term electricity purchase agreement that runs until December 2022 and may be extended for an additional ten-year term at the option of the joint venture.

Cash Production Costs

The following table sets forth our consolidated cash production costs and cash production costs per ADMT for our pulp segment, and a reconciliation of such amounts to cost of sales, excluding depreciation and amortization, as presented in our consolidated financial statements, for the periods indicated:

	Year Ended December 31,			
	2019		2018 ⁽¹⁾	
	(in thousands)	(per ADMT) ⁽²⁾	(in thousands)	(per ADMT) ⁽²⁾
Fiber	\$ 491,834	\$ 261	\$ 452,878	\$ 307
Labor	117,245	62	89,740	61
Chemicals	109,226	58	89,395	61
Energy	40,646	22	38,579	26
Other	163,059	86	127,706	87
Pulp segment cash production costs ⁽³⁾	922,010	\$ 489	798,298	\$ 542
Purchased pulp ⁽⁴⁾	97,384		6,114	
Pulp segment other direct costs ⁽⁵⁾	180,426		62,616	
Pulp segment cost of sales, excluding depreciation and amortization	1,199,820		867,028	
Wood products segment and corporate and other cost of sales, excluding depreciation and amortization	155,750		183,610	
Intercompany eliminations	(15,190)		(18,537)	
Cost of sales, excluding depreciation and amortization	<u>\$ 1,340,380</u>		<u>\$ 1,032,101</u>	

(1) Includes results of MPR from December 10, 2018.

(2) Cash production costs per ADMT are cash production costs divided by pulp production for the year.

(3) Cash production costs exclude depreciation and amortization.

(4) Pulp purchased from the 50% owned Cariboo mill, which is accounted for using the equity method.

(5) Other direct costs primarily consist of freight and the net change in finished goods inventory.

Production Costs

Our major costs of pulp production are fiber, labor, chemicals and energy.

Fiber, comprised of wood chips and pulp logs, is our most significant operating expense for our pulp segment, representing about 53% of our pulp cash production costs in 2019. Further, fiber, in the form of sawlogs, represents about 75% of lumber cash production costs.

Given the significance of fiber to our total operating expenses and our limited ability to control its cost compared with our other operating costs, volatility in fiber costs can materially affect our margins and results of operations.

Fiber

General

Our mills are situated in regions which generally provide a relatively stable supply of fiber. The fiber consumed by our pulp mills consists of wood chips produced by sawmills as a by-product of the sawmilling process and pulp logs. Wood chips are small pieces of wood used to make pulp and are either wood residuals from the sawmilling process or pulp logs chipped especially for this purpose. Pulp logs consist of lower quality logs not used in the production of lumber. The Friesau mill consumes sawlogs and waste wood, which are cyclical in both price and supply.

Generally, the cost of wood chips, pulp logs and sawlogs is primarily affected by the supply and demand for lumber. Additionally, regional factors such as harvesting levels and weather conditions can also have a material effect on the supply, demand and price for fiber.

While fiber costs and supply are subject to cyclical changes, we expect that we will be able to continue to obtain an adequate supply of fiber on reasonably satisfactory terms for our mills due to their locations and our long-term relationships with suppliers. We have not historically experienced any significant fiber supply interruptions for our operations.

During the past few years, certain customers have endeavored to purchase pulp that is produced using fiber that meets certain recognized wood certification requirements from forest certification agencies like the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC), the Sustainable Forestry Initiative (SFI) and the Canadian Standards Association (CSA). If the fiber we purchase does not meet certain wood certifications required by customers, it may make it more difficult to, or prevent us from, selling our pulp to such customers. The chain of custody wood certification process is a voluntary process which allows a company to demonstrate that they use forest resources in accordance with strict principles and standards in the areas of sustainable forest management practices and environmental management. In an effort to procure wood only from sustainably managed sources, we employ an FSC Chain of Custody protocol for controlled wood and PEFC certification, which requires tracking of fiber origins and preparing risk based assessments regarding the region and operator. In the areas where we operate, we are actively engaged in the further development of certification processes. However, there is competition among private certification systems along with efforts by supporters to further these systems by having customers of forest products require products to be certified to their preferred system. Such wood certification standards continue to evolve and are not consistent from jurisdiction to jurisdiction or how they are interpreted and applied. We currently do not expect certification requirements to have a material adverse impact on our fiber procurement and sales. However, if sufficient marketplace demand requires wood raw materials to be sourced from standards that are inconsistent with those in our fiber supply regions, it could increase our operating costs and available harvest levels.

Germany

We believe we are the largest consumer of wood chips and pulp logs in Germany and often provide the best long-term economic outlet for the sale of wood chips in Eastern Germany. We coordinate the wood procurement activities for our German mills to reduce overall personnel and administrative costs, provide greater purchasing power and coordinate buying and trading activities. This coordination and integration of fiber flows also allows us to optimize transportation costs, and the species and fiber mix for our mills. In addition, in 2016, we entered into a joint wood purchasing arrangement with another significant wood consumer in Europe, being the Mondi Group.

In 2019, our German pulp mills consumed an aggregate of approximately 5.1 million cubic meters of fiber. Approximately 58% was in the form of pulp logs and approximately 42% was in the form of sawmill wood chips.

In 2019, our per unit pulp fiber costs in Germany decreased compared to 2018, primarily as a result of the availability of storm and beetle damaged wood.

Our Rosenthal mill sources wood chips from approximately 27 sawmills located primarily in the states of Bavaria, Baden-Württemberg and Thuringia and primarily within a 300 kilometer radius of the Rosenthal mill. Within this radius, the Rosenthal mill is the largest consumer of wood chips. Given its location and size, the Rosenthal mill is often the best economic outlet for the sale of wood chips in the area. In 2019, approximately 85% of the fiber consumed by the Rosenthal mill was spruce and the remainder was pine. Wood chips for the Rosenthal mill are normally sourced from sawmills under one-year contracts with quarterly adjustments for market pricing. Substantially all of our chip supply is sourced from suppliers with which we have long-standing relationships. Pulp logs are sourced from the state forest agencies in Thuringia, Saxony and Bavaria and from private and municipal forest owners. In addition, the Rosenthal mill buys relevant volumes from traders and via imports from the Czech Republic and Poland.

The core wood supply region for the Stendal mill includes most of the Northeastern and Western part of Germany, primarily within an approximate 400 kilometer radius of the mill. We also purchase wood chips from Southwestern and Southern Germany as well as the Baltic Sea region. The fiber consumed by the Stendal mill consisted of approximately 50% pine, 47% spruce and 3% other species in 2019. The Stendal mill has sufficient chipping capacity to fully operate solely using pulp logs, if required. We source pulp logs from private forest holders, municipal forest owners and from state forest agencies in Saxony-Anhalt, Mecklenburg-Western Pomerania, Saxony, Lower Saxony, North Rhine-Westphalia, Hesse, Brandenburg, Schleswig-Holstein, Rhineland-Palatinate and the City of Berlin. The volumes are distributed at optimal costs between the mills. In addition, over the last three years, the Stendal mill also imported fiber from Poland and the Baltic Sea region.

Our Friesau mill is dependent on the consistent supply of sawlog fiber. Wood fiber is the single largest input cost and accounts for about 75% of its cash costs of producing lumber. Our Friesau mill is located in an area where there is a significant amount of high-quality fiber within economic reach. The wood fiber requirements of the Friesau mill are met primarily through open market purchases and contract purchases from state forestry agencies and private timberland owners.

In Germany, the price and supply of wood chips has been affected by increasing demand from alternative or renewable energy producers and government initiatives for carbon neutral energy. Declining energy prices, weaker economies or periodically warm winters tempered the demand for wood chips resulting from initiatives by European governments to promote the use of wood as a carbon neutral energy. There can be no assurance that such non-traditional demand for fiber will remain strong in the long-term.

Offsetting some of the increases in demand for wood fiber have been initiatives to increase harvest levels in Germany, particularly from small private forest owners. We believe that Germany has the highest availability of softwood forests in Europe suitable for harvesting and manufacturing. We believe private ownership of such forests is approximately 48%. Many of these forest ownership stakes are very small and have been harvested at rates much lower than their rate of growth.

Canada

In 2019, the Celgar mill consumed approximately 2.3 million cubic meters of fiber. Approximately 67% of such fiber was in the form of sawmill wood chips and the remaining 33% came from pulp logs processed through its woodroom or chipped by a third-party. Celgar's woodroom is able to process about 40% of the mill's fiber needs. The source of fiber at the mill is characterized by a mixture of species (pine, douglas fir, hemlock, cedar and spruce) and the mill sources fiber from a number of Canadian and U.S. suppliers.

In 2019, our Celgar mill's per unit fiber costs increased compared to 2018, due to strong demand in the mill's fiber procurement area resulting from reduced sawmilling activity and wood chip availability.

The availability of fiber for the Celgar mill is in large part influenced by the strength of the lumber market. Lumber markets are primarily driven by U.S. housing starts and, to a lesser degree, demand from China.

In 2019, the Celgar mill had access to approximately 30 different chip suppliers from Canada and the United States. Chips are purchased in Canada and the United States in accordance with chip purchase agreements. Generally, pricing is reviewed and adjusted periodically to reflect market conditions. The contracts are generally for one year with quarterly adjustments or on three-month terms.

To secure the volume of pulp logs required by its woodroom and field chippers, the Celgar mill has entered into pulp log supply agreements, which can range from three-month to one-year terms, with a number of different suppliers, many of whom are also contract chip suppliers to the mill. All of the pulp log agreements can be terminated by either party for any reason, upon seven days' written notice. The Celgar mill also bids on British Columbia timber sales from time to time.

In 2019, our Peace River mill consumed approximately 2.3 million cubic meters of softwood and hardwood fiber. Approximately 62% of such fiber was in the form of hardwood chips from portable chippers and the remaining 38% came from sawmills in the form of residual softwood chips. The source of fiber at the mill is characterized by a mixture of softwood (spruce and pine) and hardwood species (aspen and balsam poplar) and the mill sources fiber from a number of Canadian suppliers.

MPR holds two 20-year renewable governmental forest management agreements and three deciduous timber allocations in Alberta with an aggregate allowable annual cut of approximately 2.4 million cubic meters of hardwood, of which it currently harvests approximately 44%, and 400,000 cubic meters of softwood, which it sells to sawmills surrounding the Peace River mill in exchange for wood chips. The forest management agreements were last renewed for a 20-year term expiring in 2029. Approximately 85% of our Peace River mill's hardwood fiber requirements are satisfied through MPR's forest management agreements and timber allocations with the remainder sourced from trees harvested from third-party owned timberlands. Softwood fiber supply is from residual sawmill chips from local surrounding sawmills.

In 2019, the Peace River mill had access to five different softwood chip suppliers from Canada. Chips are purchased in Canada in accordance with chip purchase agreements. Generally, pricing is reviewed and adjusted periodically to reflect market prices. All contracts are generally for three to five years with monthly adjustments indexed on the average pulp price for the previous three months.

The Cariboo mill has a secure supply of high-quality residual wood chips primarily supplied by surrounding sawmills located at a short distance. The majority of the mill's fiber is currently sourced from sawmills owned by MPR's joint venture partner. The supply of fiber is characterized by a mix of lodgepole pine, white spruce and interior douglas fir.

Labor

Our labor costs are generally steady, with small overall increases due to inflation in wages and health care costs. We have been able to largely offset such increases by increasing our efficiencies and production and streamlining operations; however, such costs increased in 2018 and 2019 as a result of maintenance work at the mills.

Energy

Our energy is primarily generated from renewable carbon neutral sources, such as black liquor and wood waste. Our mills produce all of our energy requirements and generate excess energy which we sell to third-party utilities and, in the case of the Peace River mill, into the Alberta market. In 2019, we generated 2,224,710 MWh and sold 906,331 MWh of surplus energy. See also “– Generation and Sales of Green Energy and Chemicals”. We utilize fossil fuels, such as natural gas, primarily in our lime kilns and we use a limited amount for start-up and shut-down operations. Additionally, from time to time, mill process disruptions occur and we consume small quantities of purchased electricity and fossil fuels to maintain operations. As a result, all of our mills are subject to fluctuations in the prices for fossil fuels.

Chemicals

Our pulp mills use certain chemicals which are generally available from several suppliers and sourcing is primarily based upon pricing and location. Overall, our chemical costs have remained generally stable over the last two years.

In connection with our focus on the growing bio-energy market, we sell tall oil, a by-product of our pulp production process which is used as both a chemical additive and as a green energy source. In 2019, we generated \$11.4 million from the sale of tall oil and other chemicals from our pulp segment.

Sales, Marketing and Distribution

Our pulp revenues by geographic area are set out in the following table for the periods indicated:

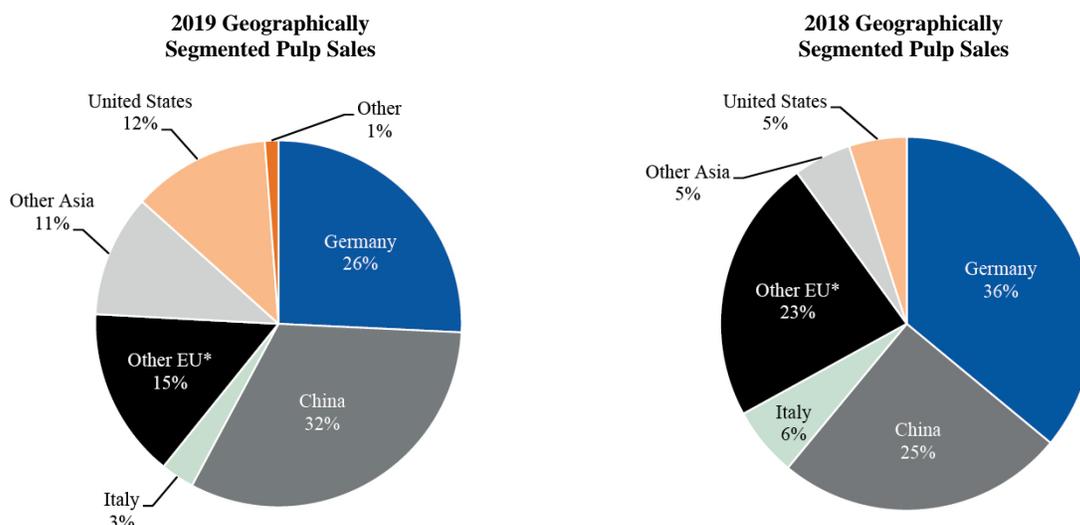
	Year Ended December 31,	
	2019	2018⁽¹⁾
	(in thousands)	
Revenues by Geographic Area		
Germany	\$ 356,803	\$ 432,055
Italy	40,782	70,968
Other EU countries ⁽²⁾	207,870	268,204
United States	168,197	55,692
China	430,508	291,657
Other Asia	150,012	61,132
Other countries	16,570	10,880
Total⁽³⁾	\$ 1,370,742	\$ 1,190,588

(1) Includes results of MPR from December 10, 2018.

(2) Excluding Germany and Italy.

(3) Excluding intercompany sales.

The following charts illustrate the geographic distribution of our pulp revenues as a percentage of our total pulp revenues for the periods indicated:



* Excluding Germany and Italy.

The distribution of our pulp sales volumes by end use are set out in the following table for the periods indicated:

	Year Ended December 31,	
	2019	2018⁽¹⁾
	(in thousands of ADMTs)	
Tissue	766	567
Specialty	279	211
Printing & Writing	1,008	635
Other	46	28
Total	2,099	1,441

(1) Includes results of MPR from December 10, 2018.

In 2019, our lumber revenues were: (i) 38% from the United States; (ii) 25% from Germany; (iii) 18% from other EU countries; and (iv) 19% from other countries.

Our global sales and marketing group is responsible for conducting all sales and marketing of the pulp produced at our mills and currently has approximately 20 employees. This group largely handles all European and North American sales directly. Sales to Asia are made directly or through commission agents overseen by our sales group. The global sales and marketing group handles sales to approximately 260 customers. We coordinate and integrate the sales and marketing activities of our German mills to realize on a number of synergies between them. These include reduced overall administrative and personnel costs and coordinated selling, marketing and transportation activities. We also coordinate pulp sales across our mills on a global basis, thereby providing our larger customers with seamless service across all major geographies. In marketing our pulp, we seek to establish long-term relationships by providing a competitively priced, high-quality, consistent product and excellent service. In accordance with customary practice, we maintain long-standing relationships with our customers, pursuant to which we periodically reach agreements on specific volumes and prices.

Our lumber sales are handled by our sales teams in Germany and Vancouver. We also sell lumber through commissioned agents in certain markets.

Our pulp and lumber sales are on customary industry terms. At December 31, 2019, we had no material payment delinquencies. In 2019, no customer accounted for 10% or more of our revenues. In 2018, one customer of our pulp segment through several of its operations accounted for 13% of our revenues. We do not believe our pulp sales are dependent upon the activities of any single customer and the loss of any single customer would not have a material adverse effect on us.

Our sales to tissue and specialty paper product manufacturers were approximately 50% of our pulp sales volume in 2019 and 54% in 2018. Generally, tissue producer customers are not as sensitive to cyclical declines in demand caused by downturns in economic activity. The balance of our sales was to other paper product manufacturers.

Transportation

We transport our pulp and lumber generally by truck, rail and ocean carriers through third-party carriers. We have a small fleet of trucks in Germany that deliver some of our German mills' pulp.

Our German pulp mills are currently the only market kraft pulp producers in Germany, which is the largest import market for kraft pulp in Europe. We therefore have a competitive transportation cost advantage compared to Canadian and Northern European pulp producers when shipping to customers in Europe. Due to the location of our German mills, we are able to deliver pulp to many of our customers primarily by truck and rail.

Our Canadian mills' pulp is transported to customers by truck, rail and ocean carrier to ensure timely delivery. The majority of our Canadian mills' pulp for overseas markets is initially delivered primarily by rail to the Port of Vancouver for shipment overseas by ocean carrier. Based in Western Canada, our Canadian mills are well positioned to service Asian customers. The majority of our Canadian mills' pulp for domestic markets is shipped by rail directly to the customer or to third-party warehouses in the United States. We also operate a logistics and reload center near Trail, British Columbia to provide us with additional warehouse space and greater transportation flexibility in terms of access to rail and trucking options.

The Friesau mill's lumber is transported to customers by truck, rail and ocean carriers through third-party carriers.

In each of 2019 and 2018, outbound transportation costs comprised approximately 11% and 9%, respectively, of our total consolidated costs and expenses. In 2019, transportation costs increased due to a higher proportion of sales to China due to the acquisition of MPR.

Capital Expenditures

We have continued to make capital investments designed to increase pulp, green energy and chemical production, reduce costs and improve efficiency and environmental performance at our pulp mills. The improvements made over the years have increased the competitive position of our pulp segment. Since its acquisition, we have also made capital investments to optimize sawmill production at the Friesau mill.

Total capital expenditures at our mills (excluding any related governmental grants) are set out in the following table for the periods indicated:

	Year Ended December 31,	
	2019	2018⁽¹⁾
	(in thousands)	
Rosenthal	\$ 13,334	\$ 19,632
Stendal	20,622	19,228
Celgar	48,587	27,342
Peace River	20,523	—
Friesau	28,425	20,682
Total	<u>\$ 131,491</u>	<u>\$ 86,884</u>

(1) Includes capital expenditures of the Peace River mill from December 10, 2018.

Capital investments at the Rosenthal mill in 2019 primarily related to a project for wastewater improvement and maintenance projects. In 2018, they primarily related to new chip screens to improve the consistency of chips for the mill's digester, bleach plant improvements and other projects.

Capital investments at the Stendal mill in 2019 and 2018 primarily related to wastewater improvement projects including the extension of the effluent treatment plant and other projects.

In June 2018, we commenced a Phase II expansion and optimization project at the Friesau mill, which is designed to, among other things, increase annual lumber production to approximately 750 MMfbm of lumber and improve production grade capabilities and efficiencies. We currently expect to substantially complete the project in the first quarter of 2021.

Certain of our capital investment programs in Germany were partially financed through government grants made available by German federal and state governments. Under legislation adopted by the federal and certain state governments of Germany, government grants are provided to qualifying businesses operating in Eastern Germany to finance capital investments. The grants are made to encourage investment and job creation.

The following table sets out, as at the dates indicated, the effect of government grants on the recorded value of such assets in our Consolidated Balance Sheets:

	As at December 31,	
	2019	2018
	(in thousands)	
Property, plant and equipment, gross amount less amortization	\$ 1,264,813	\$ 1,240,789
Less: government grants less amortization	(190,571)	(211,532)
Property, plant and equipment, net (as shown on the Consolidated Balance Sheet)	<u>\$ 1,074,242</u>	<u>\$ 1,029,257</u>

The following table sets forth, as at the dates indicated, the gross amount of all government grants we have received and capitalized in our balance sheet, the associated amortization and the resulting net balance we include in our property, plant and equipment:

	As at December 31,	
	2019	2018
	(in thousands)	
Government grants - gross ⁽¹⁾	\$ 496,769	\$ 503,119
Less: accumulated amortization	(306,198)	(291,587)
Government grants less accumulated amortization	<u>\$ 190,571</u>	<u>\$ 211,532</u>

(1) Grants were received in euros and Canadian dollars and amounts change when translated into dollars as a result of changes in currency exchange rates.

Qualifying capital investments at industrial facilities in Germany that reduce effluent discharges offset wastewater fees that would otherwise be required to be paid. For more information about our environmental capital expenditures, see “– Environmental”.

In 2019, capital investments at the Celgar mill primarily related to improvements to the mill’s bale line, a turpentine extraction project and other production improvement projects. In 2018, capital investments at the Celgar mill primarily related to improvements to its digester and large maintenance projects.

In 2019, capital investments at the Peace River mill primarily related to large maintenance projects.

In 2020, excluding amounts being financed through government grants and expected insurance proceeds, we currently expect our total capital expenditures to be approximately \$100 million.

In our pulp segment, excluding our Peace River mill, we currently expect our capital expenditures in 2020 to be principally comprised of wastewater improvement and maintenance projects. At the Peace River mill we will be undertaking significant maintenance to the boiler that will be funded by insurance proceeds. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations – General”.

In our wood products segment, we currently expect capital expenditures in 2020 at our Friesau mill, principally comprised of approximately \$40 million for further upgrades to our planer mill and large sawline and other capital improvements.

Innovation

We utilize our expertise with wood, its processing and by-products to expand our product mix. As a result, we seek to develop new products based on derivatives of the kraft pulping process and wood processing. Currently these processes are focused on:

- the further refinement of materials contained in black liquor, the extractive chemical and lignin containing compounds that are a result of the kraft pulping process;
- the further refinement of cellulose materials that are currently the basis of pulp; and
- higher use products that may be derived from wood processing and harvesting including oils from sandalwood trees.

We are working on some of these initiatives on our own and with others in conjunction with industry associations or joint venture partners. We are also researching potential higher use products that may be derived from processing different species of trees. In particular, we acquired the Santanol Group in 2018 which grows, harvests and processes sandalwood trees in Australia. We will be processing these trees for the production of sandalwood oil. This product is valued by the fragrance and essential oil industries for its scent and health benefits.

Environmental

Our operations are subject to a wide range of environmental laws and regulations, dealing primarily with:

- air, water and land;
- solid and hazardous waste management;
- waste disposal;
- remediation and contaminated sites; and
- chemical usage.

Compliance with these laws and regulations generally involves capital expenditures as well as additional operating costs. We cannot easily quantify the future amounts of capital expenditures we might have to make to comply with these laws and regulations or the effects on our operating costs because in some instances compliance standards have not been developed, have not become final or definitive or may be amended in the future. In addition, it is difficult to isolate the environmental component of most manufacturing capital projects.

We devote significant management and financial resources to comply with all applicable environmental laws and regulations. In particular, the operation of our plants is subject to permits, authorizations and approvals and we have to comply with prescribed emission limits. Compliance with these requirements is monitored by local authorities and non-compliance may result in administrative orders, fines or closures of the non-compliant mill. Our total capital expenditures on environmental projects at our mills were approximately \$16.7 million in 2019 and approximately \$20.6 million in 2018. In 2020, capital expenditures for environmental projects, principally comprised of projects to improve wastewater quality, are expected to be approximately \$15.6 million.

Environmental responsibility is a priority for our operations. To ensure compliance with environmental laws and regulations, we regularly monitor emissions at our mills and periodically perform environmental audits of operational sites and procedures both with our internal personnel and outside consultants. These audits identify opportunities for improvement and allow us to take proactive measures at the mills as considered appropriate.

We believe we have obtained all required environmental permits, authorizations and approvals for our operations. We believe our operations are currently in material compliance with the requirements of all applicable environmental laws and regulations and our respective operating permits.

Under German state environmental rules relating to effluent discharges, industrial users are required to pay wastewater fees based upon the amount of their effluent discharge. These rules also provide that an industrial user which undertakes environmental capital expenditures and lowers certain effluent discharges to prescribed levels may offset the amount of these expenditures against the wastewater fees that they would otherwise be required to pay. We expect capital investment programs and other environmental initiatives at our German mills will continue to offset the wastewater fees that are payable and we believe they will ensure that our operations continue in substantial compliance with prescribed standards.

In Canada, in addition to existing provincial air quality regulations, an air quality management system, referred to as “AQMS”, outlines a comprehensive national approach for improving air quality in Canada. Under the AQMS, all levels of government are to work collaboratively to respond to different air quality challenges across the country. The AQMS includes four elements:

- Canadian Ambient Air Quality Standards (CAAQS), meant to drive local air quality improvements. They provide the basis for provincial territorial governments to determine the level of action needed.
- A framework for regional and local air quality management through air zones and regional airsheds.
- Base-level Industrial Emissions Requirements (BLIERs) for certain major industries.
- An intergovernmental working group to improve collaboration and reduce emissions from mobile sources (*i.e.* sources such as in-use cars and trucks).

In October 2012, all federal, provincial and territorial ministers of the environment, with the exception of Quebec, agreed to implement the AQMS.

In 2016, Environment Canada released the Pan-Canadian Framework on Clean Growth and Climate Change. The framework put in place a national, sector-based greenhouse gas reduction program applicable to a number of industries. In addition, the various provincial governments, including British Columbia and Alberta, have introduced legislation with the intention of reducing greenhouse gas emissions.

British Columbia has, for example, introduced a carbon tax and low-carbon fuel standards. British Columbia has also implemented performance standards, such as greenhouse gas emissions benchmarks for select industrial facilities and sectors, and new greenhouse gas emissions reporting regulations for certain industrial operations. British Columbia has also established greenhouse gas emission offset projects.

In 2019, the federal government began phasing in a federal carbon tax pricing system in provinces and territories without a provincial carbon tax program. As of January 1, 2020, the federal carbon tax pricing system applies to Saskatchewan, Manitoba, Ontario, New Brunswick and Alberta, as well as the territories of Nunavut and the Yukon.

We believe that these water and air emission measures in Germany and Canada have not had, and in 2020 will not have, a significant effect on our operations. Although these measures could have a material adverse effect on our operations in the future, we expect that we will not be disproportionately affected by these measures as compared with owners of comparable operations. We also expect that these measures will not significantly disrupt our planned operations.

Future regulations or permits may place lower limits on allowable types of emissions, including air, water, waste and hazardous materials, and may increase the financial consequences of maintaining compliance with environmental laws and regulations or conducting remediation. Our ongoing monitoring and policies have enabled us to develop and implement effective measures to maintain emissions in substantial compliance with environmental laws and regulations to date in a cost-effective manner. However, there can be no assurance that this will be the case in the future.

Climate Change

Changing weather patterns and climatic conditions due to natural and man-made causes have added to the unpredictability and frequency of natural disasters, such as hurricanes, earthquakes, hail storms, wildfires and wind, snow and ice storms. Such changes and resulting conditions can adversely affect our operations, including variations in the cost and availability of raw materials, such as fiber, unplanned downtime, operating rates and transportation and logistics. As there are differing scientific studies relating to the severity, extent and speed at which climate change is occurring, we cannot identify and predict all of the consequences of climate change on our business and operations.

The effects and perceived effects of climate change and social and governmental responses have created both opportunities and negative consequences for our business.

The focus on climate change has generated a substantial increase in demand and in legislative requirements for carbon neutral or green energy. Pulp mills consume wood residuals, being wood chips and pulp logs, as the base raw

material for their production process. Wood chips are residuals left over from lumber production and pulp logs are generally lower quality logs left over from logging that are unsuitable for the production of lumber. Sawmills consume sawlogs and residuals, like wood chips, are generally sold to other industrial consumers like pulp and pellet producers.

As part of their production process, our pulp mills take wood residuals and process them through a digester where cellulose is separated from the wood to be used in pulp production and the remaining residuals, called black liquor, are used for green energy production. As a result of their use of wood residuals and because our mills generate combined heat and power in a process known as cogeneration, they are efficient producers of energy. Our Friesau mill utilizes residual bark and shavings from consumed logs to produce energy. This energy is carbon neutral and produced from a renewable source. Our relatively modern mills generate a substantial amount of energy that is surplus to their operational requirements.

These factors, along with governmental initiatives in respect of renewable or green energy legislation, have provided business opportunities for us to enhance our generation and sales of green energy to regional utilities.

We are constantly exploring other initiatives to enhance our generation and sales of surplus green energy and chemical by-products. Other potential opportunities that may result from climate change include:

- the expansion of softwood forests and increased growth rates for such forests;
- more intensive forestry practices and timber salvaging versus harvesting standing timber;
- greater demand for sustainable energy and cellulosic biomass fuels; and
- additional governmental incentives and/or legislative requirements to enhance biomass energy production.

At this time, we cannot predict which, if any, of these potential opportunities will be realized by us or their economic effect on our business.

While not all of the specific consequences to our business from climate change are predictable, the most visible adverse consequence to date is that the focus on renewable energy has created greater demand and competition for wood residuals or fiber from renewable energy producers like the pellet industry in Germany.

In Germany, the price and supply of wood residuals have been periodically affected by an increasing demand from alternative or renewable energy producers and governmental initiatives for carbon neutral energy. Declining energy prices, weaker economies or warm winters temper the demand for wood chips resulting from initiatives by European governments to promote the use of wood as a carbon neutral energy. There can be no assurance that such non-traditional demand for fiber will remain strong in the long-term. Additionally, the growing interest and focus in British Columbia for renewable green energy has created additional competition for such fiber. Such additional demand for wood residuals may increase the competition and prices for wood residuals over time.

In response to climate change risks, there have been governmental initiatives and legislation on the international, national, state and local levels. Such governmental action or legislation can have an important effect on the demand and prices for fiber. As governments pursue green energy initiatives, they risk creating incentives and demand for wood residuals from renewable energy producers that “cannibalizes” or adversely affects traditional users, such as lumber and pulp and paper producers. We are continually engaged in dialogue with governments to educate and try to ensure potential initiatives recognize the traditional and continuing role of our mills in the overall usage of forestry resources and the economies of local communities.

Other potential negative consequences from climate change that can affect our business include:

- a greater susceptibility of northern forests to disease, fire and insect infestation;
- the disruption of transportation systems and power supply lines due to more severe storms;
- the loss of fresh water transportation for logs and pulp due to lower water levels;
- decreases in the quantity and quality of processed water for our mill operations;

- the loss of northern forests in areas in sufficient proximity to our mills to competitively acquire fiber; and
- lower harvest levels decreasing the supply of harvestable timber and, as a consequence, wood residuals.

Wood Products Industry

General

With approximately 3.7 billion cubic meters, Germany has the largest timber reserves in Europe. The principal trees are spruce, pine, beech and oak. Approximately 70 to 80 million cubic meters are harvested annually. Many of the German forest areas have been certified according to PEFC or FSC standards. Modern solid wood products include sawn and planed lumber which are used in different areas.

Demand for softwood lumber is cyclical and influenced by transportation costs, exchange rates, government tariffs and competitiveness of substitute products, as well as factors that affect consumer confidence and drive demand for residential construction, such as interest rates, disposable income, unemployment rates, perceived job security and other indicators of general economic conditions. Demand can vary from region to region within a country and seasonal factors that determine optimal building conditions can also affect demand.

Lumber Products and Markets

Our Friesau mill, which was built in 1992 and has two high-volume Linck sawlines, has the ability to produce both rough and planed products. The sawmill principally manufactures finished sawn lumber milled from spruce and pine, including European metric and specialty lumber, U.S. dimensional lumber and J-grade lumber, in various sizes and grades.

The process for manufacturing lumber results in a significant percentage of each sawlog ending up as by-products or residuals such as wood chips, trim blocks, sawdust shavings and bark. By-products are typically used as fuel for our cogeneration power plant or sold to a wide variety of customers. In addition, we utilize a significant portion of the chips from the Friesau mill at our Rosenthal pulp mill.

The main markets for our lumber products are in Europe, the United States and the Far East.

Our Friesau mill fosters a diverse customer base in each of its key markets. Customers include national and regional distributors, large construction firms, secondary manufacturers, retail yards and home centers.

Competition

The markets for our lumber products are highly competitive on a global basis and producers compete generally on price, quality and service. Factors influencing our competitive position include, among others, the availability, quality and cost of raw materials, including fiber, energy and labor and the efficiency and productivity of the Friesau mill in relation to its competitors. The Friesau mill competes in international markets subject to currency fluctuations and global business conditions.

Our Friesau mill competes against many producers, a number of whom own and operate more mills than we do and numerous competitors have greater financial resources or lower production costs than us.

Human Resources

We currently employ approximately 2,325 people, of which approximately 1,455 employees work in our German operations and approximately 840 employees work in our Canadian operations.

Our pulp segment employs approximately 1,825 people, the majority of whom are bound by collective agreements. Our wood products segment employs approximately 395 people, the majority of whom are bound by a collective agreement.

We consider the relationships with our employees to be good. Although no assurance can be provided, we have not had any significant work stoppages at any of our operations and we would therefore expect to enter into new labor agreements with our workers when the current labor agreements expire without any significant work stoppages.

Our senior managers and directors have extensive experience in the pulp, lumber and forestry industries, along with experienced managers at all of our mills. Our management has a proven track record of implementing new initiatives and capital projects in order to reduce costs throughout our operations as well as identifying and harnessing new revenue opportunities.

Description of Certain Indebtedness

The following summarizes certain material provisions of our senior notes and revolving working capital facilities. The summaries are not complete and are qualified by reference to the applicable documents and the applicable amendments to such documents on file with the U.S. Securities and Exchange Commission, referred to as the “SEC”, and incorporated by reference herein.

Senior Notes

We currently have outstanding the following issues of senior notes, collectively referred to as the “Senior Notes”:

- \$250.0 million in aggregate principal amount of 6.500% senior notes due 2024, referred to as the “2024 Senior Notes”;
- \$550.0 million in aggregate principal amount of 7.375% senior notes due 2025, referred to as the “2025 Senior Notes”⁽¹⁾; and
- \$300.0 million in aggregate principal amount of 5.500% senior notes due 2026, referred to as the “2026 Senior Notes”.

(1) \$200.0 million in principal amount was issued in October 2019 and the net proceeds were used on October 21, 2019 to redeem \$100.0 million of 7.750% senior notes due 2022, referred to as the “2022 Senior Notes”, and for general corporate purposes.

The 2024 Senior Notes mature on February 1, 2024 and interest on the 2024 Senior Notes is payable semi-annually in arrears on each February 1 and August 1. Interest is payable to holders of record of the 2024 Senior Notes on the immediately preceding January 15 and July 15 and is computed on the basis of a 360-day year consisting of twelve 30-day months. Commencing February 1, 2020, the 2024 Senior Notes became redeemable at our option at a price equal to 103.250% of the principal amount redeemed and declining ratably on February 1 of each year thereafter to 100.000% on or after February 1, 2022.

The 2025 Senior Notes mature on January 15, 2025 and interest on the 2025 Senior Notes is payable semi-annually in arrears on each January 15 and July 15. Commencing July 15, 2019, interest is payable to holders of record of the 2025 Senior Notes on the immediately preceding January 1 and July 1 and is computed on the basis of a 360-day year consisting of twelve 30-day months. Commencing January 15, 2021, the 2025 Senior Notes will become redeemable at our option at a price equal to 103.688% of the principal amount redeemed and declining ratably on January 15 of each year thereafter to 100.000% on or after January 15, 2023.

The 2026 Senior Notes mature on January 15, 2026 and interest on the 2026 Senior Notes is payable semi-annually in arrears on each January 15 and July 15. Commencing July 15, 2018, interest is payable to holders of record of the 2026 Senior Notes on the immediately preceding January 1 and July 1 and is computed on the basis of a 360-day year consisting of twelve 30-day months. Commencing January 15, 2021, the 2026 Senior Notes will become redeemable at our option at a price equal to 102.750% of the principal amount redeemed and declining ratably on January 15 of each year thereafter to 100.000% on or after January 15, 2023.

The indentures governing the Senior Notes contain covenants limiting, among other things, our ability and the ability of our restricted subsidiaries to: incur additional indebtedness or issue preferred stock; pay dividends or make other distributions to our shareholders; purchase or redeem capital stock or subordinated indebtedness; make investments; create liens; incur restrictions on the ability of our restricted subsidiaries to pay dividends or make other payments to us; sell assets; consolidate or merge with or into other companies or transfer all or substantially all

of our assets; and engage in transactions with affiliates. As of December 31, 2019, all of our subsidiaries were restricted subsidiaries.

The Senior Notes are unsecured and are not guaranteed by any of our operating subsidiaries, all of which are located outside the United States. Our obligations under the Senior Notes rank: effectively junior in right of payment to all of our existing and future secured indebtedness, to the extent of the assets securing such indebtedness, and all indebtedness and liabilities of our subsidiaries; equal in right of payment with all of our existing and future unsecured senior indebtedness; and senior in right of payment to any of our future subordinated indebtedness.

Pan-German Revolving Credit Facility

In December 2018, certain of our German subsidiaries entered into a €200.0 million joint revolving credit facility, referred to as the “German Facility”, with a group of bank lenders. The principal terms of the facility include:

- The total availability under the German Facility is €200.0 million.
- The German Facility matures in December 2023.
- The German Facility is unsecured and is jointly and severally guaranteed by each of our German subsidiaries.
- Interest under the German Facility is payable on loans of Euribor plus 1.05% to 2.00% depending on the leverage ratio as defined in the underlying credit agreement.
- A commitment fee equal to 35% of the applicable margin on the unused and uncanceled amount of the German Facility is payable quarterly in arrears.
- The German Facility contains financial maintenance covenants which are tested on a quarterly basis, commencing March 31, 2019, which require: (i) our German subsidiaries that are party thereto to maintain a leverage ratio of “net debt” (excluding shareholder loans) to EBITDA of not greater than 3.50:1.00; and (ii) defined capital of not less than €400.0 million.
- The German Facility contains other customary restrictive covenants which, among other things, govern the ability of our German subsidiaries to incur liens, sell assets, incur indebtedness, make acquisitions with proceeds from the German Facility, enter into joint ventures or repurchase or redeem shares. The German Facility also contains customary events of default.

The German Facility is available to all of the borrowers, subject to maximum borrowing sub-limits for certain of the borrowers.

As at December 31, 2019, approximately €11.0 million (\$12.4 million) of the German Facility was supporting bank guarantees leaving approximately €189.0 million (\$212.3 million) available.

Celgar Working Capital Facility

In July 2018, our Celgar mill entered into a C\$40.0 million revolving credit facility with a Canadian bank, referred to as the “Celgar Working Capital Facility”. The principal terms of the facility include:

- The facility matures in July 2023.
- The facility is available by way of: (i) Canadian and U.S. denominated advances, which bear interest at a designated prime rate less 0% to 0.125% per annum; (ii) banker’s acceptance equivalent loans, which bear interest at the applicable Canadian dollar banker’s acceptance plus 1.25% to 1.50% per annum; and (iii) dollar LIBOR advances, which bear interest at LIBOR plus 1.25% to 1.50% per annum.
- The facility includes a C\$3.0 million sub-limit for letters of credit. Celgar is required to pay 1.00% to 1.25% per annum on issued letters of credit and 0.25% per annum on unused availability under the facility.
- The availability of the facility is subject to a borrowing base limit that is based on the Celgar mill’s eligible receivable and inventory levels from time to time.

- The Celgar Working Capital Facility is secured by, among other things, a first priority charge on the inventories and receivables of Celgar.
- The facility includes a springing financial covenant, which is measured when excess availability under the facility is less than C\$5.0 million and which requires Celgar to comply with a 1.10:1.00 fixed charge coverage ratio.
- The facility also contains restrictive covenants which, among other things, restrict the ability of Celgar to declare and pay dividends, incur indebtedness, incur liens and make payments on subordinated debt. The facility contains customary events of default.

As at December 31, 2019, approximately C\$1.7 million (\$1.3 million) was supporting letters of credit and approximately C\$38.3 million (\$29.5 million) was available under the Celgar Working Capital Facility.

MPR Revolving Credit Facility

In February 2019, our Peace River mill entered into a C\$60.0 million revolving credit facility with a Canadian bank, referred to as the “MPR Working Capital Facility”. The principal terms of the facility include:

- The facility matures in February 2024.
- The facility is available by way of: (i) Canadian denominated advances, which bear interest at a designated prime rate per annum; (ii) banker’s acceptance equivalent loans, which bear interest at the applicable Canadian dollar banker’s acceptance plus 1.25% to 1.50% per annum; (iii) dollar denominated base rate advances at the greater of the federal funds rate plus 0.50%, a designated LIBOR rate plus 1.00% and the bank’s applicable reference rate for U.S. dollar loans; and (iv) dollar LIBOR advances, which bear interest at LIBOR plus 1.25% to 1.50% per annum.
- The facility includes a C\$5.0 million sub-limit for letters of credit of MPR. MPR is required to pay 1.25% to 1.50% per annum, plus a 0.125% annual fee where there is more than one lender under the facility, on issued letters of credit.
- The availability of the facility is subject to a borrowing base limit that is based on the Peace River mill’s eligible receivable and inventory levels from time to time.
- The MPR Working Capital Facility is secured by, among other things, a first priority charge on the inventories and receivables of the Peace River mill.
- The facility includes a springing financial covenant, which is measured when excess availability under the facility is less than the greater of 10% of borrowing base thereunder or C\$4.5 million and which requires MPR to comply with a 1.00:1.00 fixed charge coverage ratio.
- The facility also contains restrictive covenants which, among other things, restrict the ability of MPR to declare and pay dividends, incur indebtedness, incur liens, make investments, including in its existing joint ventures, and make payments on subordinated debt. The facility contains customary events of default.

As at December 31, 2019, approximately C\$1.0 million (\$0.8 million) was supporting letters of credit and approximately C\$59.0 million (\$45.4 million) was available under the MPR Working Capital Facility.

Internet Availability and Additional Information

We make available free of charge, on or through our website at www.mercerint.com, annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and all amendments to these reports, as soon as reasonably practicable after we file these materials with, or furnish these materials to, the SEC. The SEC maintains an internet site at www.sec.gov that also contains our current and periodic reports, including our proxy and information statements.

All websites referred to herein are inactive textual references only, meaning that the information contained on such websites is not incorporated by reference herein and you should not consider information contained on such websites as part of this document unless expressly specified.

ITEM 1A. RISK FACTORS

The statements in this “Risk Factors” section describe material risks to our business and should be considered carefully. You should review carefully the risk factors listed below, as well as those factors listed in other documents we file with the SEC. In addition, these statements constitute our cautionary statements under the *Private Securities Litigation Reform Act of 1995*. Our disclosure and analysis in this annual report on Form 10-K and in our annual report to shareholders contain some forward-looking statements that set forth anticipated results based on management’s current plans and assumptions.

There are a number of important factors, many of which are beyond our control that could cause actual conditions, events or results to differ significantly from those described in the forward-looking statements. These factors include, but are not limited to, the following:

- our business is highly cyclical in nature;
- a weakening of the global economy, including capital and credit markets, could adversely affect our business and financial results and have a material adverse effect on our liquidity and capital resources;
- our level of indebtedness could negatively impact our financial condition, results of operations and liquidity;
- cyclical fluctuations in the price and supply of our raw materials, particularly fiber, could adversely affect our business;
- we face intense competition in our markets;
- we are exposed to currency exchange rate fluctuations;
- political uncertainty and an increase in trade protectionism could have a material adverse effect on global macro-economic activities and trade and adversely affect our business, results of operations and financial condition;
- we are subject to extensive environmental regulation and we could incur substantial costs as a result of compliance with, violations of or liabilities under applicable environmental laws and regulations;
- our business is subject to risks associated with climate change and social and government responses thereto;
- our operations require substantial capital and we may be unable to maintain adequate capital resources to provide for such capital requirements;
- future acquisitions may result in additional risks and uncertainties in our business;
- we have limited control over the operations of the Cariboo mill;
- fluctuations in prices and demand for lumber could adversely affect our business;
- adverse housing market conditions may increase the credit risk from customers of our wood products segment;
- our wood products segment lumber products are vulnerable to declines in demand due to competing technologies or materials;
- changes in credit ratings issued by nationally recognized statistical rating organizations could adversely affect our cost of financing and have an adverse effect on the market price of our securities;
- we sell surplus energy pursuant to statutory energy programs in Germany and electricity purchase agreements with a utility in Western Canada;
- we may experience material disruptions to our production;
- we are subject to risks related to our employees;
- we are dependent on key personnel;
- if our long-lived assets become impaired, we may be required to record non-cash impairment charges that could have a material impact on our results of operations;

- we may incur losses as a result of unforeseen or catastrophic events, including the emergence of a pandemic, terrorist attacks or natural disasters;
- our insurance coverage may not be adequate;
- we rely on third parties for transportation services;
- we periodically use derivatives to manage certain risks which could cause significant fluctuations in our operating results;
- failures or security breaches of our information technology systems could disrupt our operations and negatively impact our business;
- the price of our common stock may be volatile;
- a small number of our shareholders could significantly influence our business;
- our international sales and operations are subject to applicable laws relating to trade, export controls and foreign corrupt practices, the violation of which could adversely affect our operations; and
- we are exposed to interest rate fluctuations.

From time to time, we also provide forward-looking statements in other materials we release as well as oral forward-looking statements. Such statements give our current expectations or forecasts of future events; they do not relate strictly to historical or current facts.

Statements in the future tense, and all statements accompanied by terms such as “may”, “will”, “believe”, “project”, “expect”, “estimate”, “assume”, “intend”, “design”, “anticipate”, “plan”, “should” and variations thereof and similar terms are intended to be forward-looking statements as defined by federal securities law. You can find examples of these statements throughout this annual report on Form 10-K, including in Item 1. “Business” and Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. While these forward-looking statements reflect our best estimates when made, the following risk factors could cause actual results to differ materially from estimates or projections.

We intend that all forward-looking statements we make will be subject to safe harbor protection of the federal securities laws pursuant to Section 27A of the *Securities Act of 1933*, as amended and Section 21E of the *Securities Exchange Act of 1934*, as amended, referred to as the “Exchange Act”.

You should consider the limitations on, and risks associated with, forward-looking statements and not unduly rely on the accuracy of predictions contained in such forward-looking statements. As noted above, these forward-looking statements speak only as of the date when they are made. We do not undertake any obligation to update forward-looking statements to reflect events, circumstances, changes in expectations, or the occurrence of unanticipated events after the date of those statements. Moreover, in the future, we may make forward-looking statements that involve the risk factors and other matters described in this document as well as other risk factors subsequently identified.

Our business is highly cyclical in nature.

The pulp and lumber businesses are highly cyclical in nature and markets are characterized by periods of supply and demand imbalance, which in turn can materially affect prices. Pulp and lumber markets are sensitive to cyclical changes in the global economy, industry capacity and foreign exchange rates, all of which can have a significant influence on selling prices and our operating results. The length and magnitude of industry cycles have varied over time but generally reflect changes in macro-economic conditions and levels of industry capacity. Pulp and lumber are commodities that are generally available from other producers. Because commodity products have few distinguishing qualities from producer to producer, competition is generally based upon price, which is generally determined by supply relative to demand.

Industry capacity can fluctuate as changing industry conditions can influence producers to idle production capacity or permanently close mills. In addition, to avoid substantial cash costs in idling or closing a mill, some producers will choose to operate at a loss, sometimes even a cash loss, which can prolong weak pricing environments due to oversupply. Oversupply of our products can also result from producers introducing new capacity in response to favorable pricing trends. Certain integrated pulp and paper producers have the ability to discontinue paper

production by idling their paper machines and selling their pulp production on the market, if market conditions, prices and trends warrant such actions.

Currently, we are not aware of any material announced capacity increases for NBSK or NBHK pulp in 2020. However, we cannot predict whether new capacity will be announced or will come on line in the future. If any new capacity, particularly for NBSK pulp, is not absorbed in the market or offset by curtailments or closures of older, high-cost pulp mills, the increase could put downward pressure on pulp prices and materially adversely affect our results of operations, margin and profitability. Additionally, while NBHK pulp is not a direct competitor to NBSK pulp, if any future increases of NBHK supply are not absorbed by demand growth, such supply could put downward pressure on NBSK pulp prices as well.

Demand for each of pulp and lumber has historically been determined primarily by general global macro-economic conditions and has been closely tied to overall business activity. Pulp prices have been and are likely to continue to be volatile and can fluctuate widely over time. Between 2010 and 2019, average European list prices for NBSK pulp have fluctuated between a low of approximately \$760 per ADMT in 2012 to a high of \$1,230 per ADMT in 2018. In the same period, the average North American NBHK price has fluctuated between a low of \$700 per ADMT in 2012 to a high of \$1,235 per ADMT in 2018.

A pulp producer's actual sales price realizations are list prices net of customer discounts, rebates and other selling concessions. Our sales price realizations may also be affected by price movements between the order and shipment dates.

Accordingly, prices for pulp and lumber are driven by many factors outside our control, and we have little influence over the timing and extent of price changes, which are often volatile. Because market conditions beyond our control determine the prices for pulp and lumber, prices may fall below our cash production costs, requiring us to either incur short-term losses on product sales or cease production at one or more of our mills. Therefore, our profitability depends on managing our cost structure, particularly raw materials which represent a significant component of our operating costs and can fluctuate based upon factors beyond our control. If the prices of our products decline, or if prices for our raw materials increase, or both, our results of operations and cash flows could be materially adversely affected.

A weakening of the global economy, including capital and credit markets, could adversely affect our business and financial results and have a material adverse effect on our liquidity and capital resources.

As demand for our products has principally historically been determined by general global macro-economic activities, demand and prices for our products have historically decreased substantially during economic slowdowns. A significant economic downturn may affect our sales and profitability. Further, our suppliers and customers may also be adversely affected by an economic downturn. Additionally, restricted credit and capital availability restrains our customers' ability or willingness to purchase our products, resulting in lower revenues. Depending on their severity and duration, the effects and consequences of a global economic downturn could have a material adverse effect on our liquidity and capital resources, including our ability to raise capital, if needed, and otherwise negatively impact our business and financial results.

In addition, financial uncertainties and other events in our major international markets, including uncertainties surrounding the impact on EU countries or the global market of the United Kingdom's withdrawal from the EU or those arising as a result of global pandemics, may negatively impact the global economy and consequently, our results of operations.

Our level of indebtedness could negatively impact our financial condition, results of operations and liquidity.

As of December 31, 2019, we have approximately \$1,087.9 million of indebtedness outstanding. We may also incur additional indebtedness in the future. Our high debt levels may have important consequences for us, including, but not limited to the following:

- our ability to obtain additional financing for working capital, capital expenditures, general corporate and other purposes or to fund future operations may not be available on terms favorable to us or at all;

- a significant amount of our operating cash flow is dedicated to the payment of interest and principal on our indebtedness, thereby diminishing funds that would otherwise be available for our operations and for other purposes;
- increasing our vulnerability to current and future adverse economic and industry conditions;
- a substantial decrease in net operating cash flows or increase in our expenses could make it more difficult for us to meet our debt service requirements, which could force us to modify our operations;
- our leveraged capital structure may place us at a competitive disadvantage by hindering our ability to adjust rapidly to changing market conditions or by making us vulnerable to a downturn in our business or the economy in general;
- causing us to offer debt or equity securities on terms that may not be favorable to us or our shareholders;
- limiting our flexibility in planning for, or reacting to, changes and opportunities in our business and our industry; and
- our level of indebtedness increases the possibility that we may be unable to generate cash sufficient to pay the principal or interest due in respect of our indebtedness.

The indentures that govern our Senior Notes, and our bank credit facilities contain restrictive covenants which impose operating and other restrictions on us and our subsidiaries. These restrictions will affect, and in many respects will limit or prohibit, our ability to, among other things, incur or guarantee additional indebtedness, pay dividends or make distributions on capital stock or redeem or repurchase capital stock, make investments or acquisitions, create liens and enter into mergers, consolidations or transactions with affiliates. The terms of our indebtedness also restrict our ability to sell certain assets, apply the proceeds of such sales and reinvest in our business.

Certain of the agreements governing our indebtedness have covenants that require us to maintain prescribed financial ratios and tests. Failure to comply with such covenants could result in events of default and could have a material adverse effect on our liquidity, results of operations and financial condition.

Our ability to repay or refinance our indebtedness will depend on our future financial and operating performance. Our performance, in turn, will be subject to prevailing economic and competitive conditions, as well as financial, business, legislative, regulatory, industry and other factors, many of which are beyond our control. Our ability to meet our future debt service and other obligations may depend in significant part on the extent to which we can successfully implement our business strategy. We cannot assure you that we will be able to implement our strategy fully or that the anticipated results of our strategy will be realized. Over the next several years, we will require financing to refinance maturing debt obligations (unless extended), and such refinancing may not be available on favorable terms or at all.

In addition, certain of our credit facilities use LIBOR as a benchmark for establishing borrowing rates. In July 2017, the United Kingdom regulator that regulates LIBOR announced its intention to phase out LIBOR rates by the end of 2021. At this time, no consensus exists as to what rate or rates may become accepted alternatives to LIBOR, and it is impossible to predict whether and to what extent banks will continue to provide LIBOR submissions to the administrator of LIBOR, whether LIBOR rates will cease to be published or supported before or after 2021 or whether any additional reforms to LIBOR may be enacted. While our credit facilities generally include provisions for the determination of a successor benchmark, any discontinuation of LIBOR after 2021 and the replacement with an alternative reference rate may adversely impact interest rates and our cost of borrowing.

Cyclical fluctuations in the price and supply of our raw materials, particularly fiber, could adversely affect our business.

Our main raw material is fiber in the form of wood chips, pulp logs and sawlogs. Fiber represented approximately 53% of our pulp cash production costs and approximately 75% of our lumber cash production costs in 2019. Fiber is a commodity and both prices and supply are cyclical. Fiber pricing is subject to regional market influences and our costs of fiber may increase in a region as a result of local market shifts. The cost of wood chips, pulp logs and sawlogs is primarily affected by the supply and demand for lumber. Demand for these raw materials is generally determined by the volume of pulp and paper products and wood products produced globally and regionally. Governmental regulations related to the environment, forest stewardship and green or renewable energy can also affect the supply of fiber. In Germany, governmental initiatives to increase the supply of renewable energy have led to more renewable energy projects in Europe, including Germany. Demand for wood residuals from such energy producers, combined with lower harvesting rates, has generally put upward pressure on prices for wood residuals, such as wood chips, in Germany and its neighboring countries. This has historically resulted in higher fiber costs for our German pulp mills and such trend could continue to put further upward pressure on wood chip prices. Wood chip supply in Germany was generally stable during the last three years due to stable sawmill production and lower demand from pellet producers and board manufacturers; however, there is no assurance that wood chip supply will continue to be stable or that supply will not be reduced or that fiber costs will not increase in the future.

Similarly, North American sawmill activity declined significantly during the recession, reducing the supply of chips and availability of pulp logs to pulp mills, including our Celgar mill. Additionally, North American energy producers are exploring the viability of renewable energy initiatives and governmental initiatives in this field are increasing, all of which could lead to higher demand for sawmill residual fiber, including chips. A recovery in U.S. housing starts, which commenced in the latter part of 2012 and continued through the first half of 2018, resulted in increased sawmill activity. This increased the supply of wood chips for the Celgar mill and reduced its need for pulp logs, which are generally a higher cost for the mill than wood chips. However, a slowdown in sawmilling activities that commenced in the second half of 2018 reduced the availability of both wood chips and pulp logs and put upward pressure on fiber costs. There is no assurance that sawmill activity will improve or become stable or that fiber prices will not increase in the future.

The 2006 Softwood Lumber Agreement, which governed softwood lumber exports from Canada to the United States, expired in 2015, and a one-year post-expiration period during which the United States agreed not to impose trade sanctions expired in October 2016. In November 2016, a petition was filed by a coalition of U.S. lumber producers to the U.S. Department of Commerce and the U.S. International Trade Commission requesting an investigation into alleged subsidies provided to Canadian lumber producers. In December 2017, the U.S. International Trade Commission published its final injury determination. In late 2017, the U.S. Department of Commerce announced its final countervailing and anti-dumping duty rates, which set out a countervailing duty of 14.19% and an anti-dumping rate of 6.04% for “all other” Canadian lumber producers. The U.S. Department of Commerce also concluded that critical circumstances did not exist for countervailing duties, but did exist for anti-dumping duties. The Canadian forest products industry and Canadian federal and provincial governments have denied the U.S. Department of Commerce’s allegations. Canada has announced an appeal of the duties to the North American Free Trade Agreement appeal panel and the World Trade Organization. It is uncertain when or if the United States and Canada may settle a new agreement and what terms or restrictions it may contain. Any duties or other restrictions imposed on Canadian softwood lumber exports by the United States could negatively impact Canadian sawmill production in our Canadian mills’ supply area and result in reduced availability and increased costs for wood chips for the mills. While we believe this may be partially offset by increased wood chip supply from U.S. sawmills and pulp log availability, we cannot currently predict the overall effect on our Canadian mills’ overall fiber costs.

Availability of fiber may be further limited by adverse responses to and prevention of wildfires, weather, insect infestation, disease, ice storms, wind storms, flooding and other natural causes. In addition, the quantity, quality and price of fiber we receive could be affected by man-made causes such as those resulting from industrial disputes, material curtailments or shut-down of operations by suppliers, government orders and legislation (including new taxes or tariffs). Any or a combination of these can affect fiber prices in a region.

The cyclical nature of pricing for fiber represents a potential risk to our profit margins if pulp and lumber producers are unable to pass along price increases to their customers or we cannot offset such costs through higher prices for our surplus energy.

Other than the renewable forest licenses of MPR, we do not own any timberlands or have any material long-term governmental timber concessions. We also currently have few long-term fiber contracts at our German operations. Fiber is available from a number of suppliers and we have not historically experienced material supply interruptions or substantial sustained price increases. However, our requirements have increased and may continue to do so as we expand capacity through capital projects or other efficiency measures at our mills. As a result, we may not be able to purchase sufficient quantities of these raw materials to meet our production requirements at prices acceptable to us during times of tight supply. An insufficient supply of fiber or reduction in the quality of fiber we receive would materially adversely affect our business, financial condition, results of operations and cash flows.

In addition to the supply of fiber, we are, to a lesser extent, dependent on the supply of certain chemicals and other inputs used in our production facilities. Any disruption in the supply of these chemicals or other inputs could affect our ability to meet customer demand in a timely manner and could harm our reputation. Any material increase in the cost of these chemicals or other inputs could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We face intense competition in our markets.

We sell our pulp and lumber globally, with a large percentage sold in Europe, Asia and North America. The markets for pulp and lumber are highly competitive. A number of other global companies compete in each of these markets and no company holds a dominant position. Our pulp and lumber are considered commodities because many companies produce similar and largely standardized products. As a result, the primary basis for competition in our markets has been price. Many of our competitors have greater resources and lower leverage than we do and may be able to adapt more quickly to industry or market changes or devote greater resources to the sale of products than we can. Additionally, certain of our competitors are fully or more vertically integrated than we are and may have different priorities when operating their respective businesses. There can be no assurance that we will continue to be competitive in the future. Prices for our products are affected by many factors outside of our control and we have no influence over the timing and extent of price changes, which are often volatile. Our ability to maintain satisfactory margins depends, in large part, on managing our costs, particularly raw material and energy costs which represent significant components of our operating costs and can fluctuate based upon factors beyond our control.

Our mills and operations voluntarily subject themselves to third-party certification as to compliance with internationally recognized, sustainable management standards because end use paper and lumber customers have shown an increased interest in understanding the origin of products they purchase. Demand for our products could be adversely affected if we, or our suppliers, are unable to achieve compliance or are perceived by the public as failing to comply with these standards or if our customers require compliance with alternate standards for which our operations are not certified.

Global pulp and lumber markets have historically been characterized by considerable swings in prices which have and will result in variability in our earnings.

We are exposed to currency exchange rate fluctuations.

We have manufacturing operations in Germany and Canada. Most of the operating costs and expenses of our German mills are incurred in euros and those of our Canadian mills in Canadian dollars. However, the majority of our sales are in products quoted in dollars. Our results of operations and financial condition are reported in dollars. As a result, our costs generally benefit from a strengthening dollar but are adversely affected by a decrease in the value of the dollar relative to the euro and to the Canadian dollar. Such declines in the dollar relative to the euro and the Canadian dollar reduce our operating margins and the cash flow available to fund our operations and to service our debt. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Further, while a strengthening dollar generally lowers our costs and expenses, it increases the cost of pulp to our customers and generally puts downward pressure on pulp prices and reduces our energy, chemical and European lumber sales revenues as they are sold in euros and Canadian dollars.

Although we report in dollars, we hold certain assets and liabilities, including our mills, in euros and Canadian dollars. We translate foreign denominated assets and liabilities into dollars at the rate of exchange on the balance sheet date. Equity accounts are translated using historical exchange rates. Unrealized gains or losses from these

translations are recorded in other comprehensive income (loss) and do not affect our net earnings, operating income or Operating EBITDA.

Certain intercompany dollar advances between Mercer Inc. and its foreign subsidiaries are held in euros and Canadian dollars. Mercer Inc. holds some cash in foreign currencies and certain foreign subsidiaries hold some cash and other balances in dollars. When such advances, cash and other balances are translated into the applicable local currency at the end of each reporting period, the gains or losses thereon are reflected in net earnings.

Political uncertainty and an increase in trade protectionism could have a material adverse effect on global macro-economic activities and trade and adversely affect our business, results of operations and financial condition.

The rise of economic nationalist sentiments and trade protectionism has led to increasing political uncertainty and unpredictability throughout the world. The United Kingdom is currently in the process of effecting its departure from the EU. The terms of such departure are still being determined as a result thereof and currently there is no certainty as to the overall effect on European and world economies. The current U.S. administration has imposed various tariffs on various goods from various countries, including China. Although there has been a partial first phase trade deal between the United States and China, there can be no certainty whether any further trade deals or relaxation or elimination of trade tariffs will occur or upon what terms. Additionally, there can be no assurance that additional or new trade tensions and tariffs will not arise between various trade partners including, among others, the United States and China. These potential developments, market perceptions concerning these and related issues and the attendant regulatory uncertainty regarding, for example, the posture of governments with respect to international trade, could have a material adverse effect on global trade and economic growth which, in turn, can adversely affect our business, results of operation and financial condition.

Increased trade protectionism could materially adversely affect our business. If the current global economy or outlook is undermined by downside risks and there is a prolonged economic downturn, governments may resort to new or enhanced trade barriers to protect their domestic industries against imports, thereby depressing demand. Changes in the trade policies of the U.S. and other countries, such as the announcement of unilateral tariffs on imported products, have already triggered retaliatory actions from affected countries, resulting in “trade wars” that could have a material adverse effect on global trade and economic growth.

Protectionist developments, or the perception they may occur, may have a material adverse effect on global economic conditions, and may significantly reduce global trade. Increasing trade protectionism in the markets could increase the risks associated with exporting goods to such markets. These developments could have a material adverse effect on our business, results of operations and financial condition.

We are subject to extensive environmental regulation and we could incur substantial costs as a result of compliance with, violations of or liabilities under applicable environmental laws and regulations.

Our operations are subject to numerous environmental laws and regulations as well as permits, guidelines and policies relating to the protection of the environment. These laws, regulations, permits, guidelines and policies govern, among other things:

- unlawful discharges to land, air, water and sewers;
- waste collection, storage, transportation and disposal;
- hazardous waste;
- dangerous goods and hazardous materials and the collection, storage, transportation and disposal of such substances;
- the clean-up of unlawful discharges;
- land use planning;
- municipal zoning; and
- employee health and safety.

In addition, as a result of our operations, we may be subject to remediation, clean-up or other administrative orders or amendments to our operating permits, and we may be involved from time to time in administrative and judicial proceedings or inquiries. Future orders, proceedings or inquiries could have a material adverse effect on our

business, financial condition and results of operations. Environmental laws and land use laws and regulations are constantly changing. New regulations or the increased enforcement of existing laws could have a material adverse effect on our business and financial condition. In addition, compliance with regulatory requirements is expensive, at times requiring the replacement, enhancement or modification of equipment, facilities or operations. There can be no assurance that we will be able to maintain our profitability by offsetting any increased costs of complying with future regulatory requirements.

We are subject to liability for environmental damage at the facilities that we own or operate, including damage to neighboring landowners, residents or employees, particularly as a result of the contamination of soil, groundwater or surface water and especially drinking water. The costs of such liabilities can be substantial. Our potential liability may include damages resulting from conditions existing before we purchased or operated these facilities. We may also be subject to liability for any offsite environmental contamination caused by pollutants or hazardous substances that we or our predecessors arranged to transport, treat or dispose of at other locations. In addition, we may be held legally responsible for liabilities as a successor owner of businesses that we acquire or have acquired. Except for Stendal, our facilities have been operating for decades and we have not done invasive testing to determine whether or to what extent any such environmental contamination exists. As a result, these businesses may have liabilities for conditions that we discover or that become apparent, including liabilities arising from non-compliance with environmental laws by prior owners. Because of the limited availability of insurance coverage for environmental liability, any substantial liability for environmental damage could materially adversely affect our results of operations and financial condition.

We have incurred, and we expect to continue to incur, significant capital, operating and other expenditures as a result of complying with applicable environmental laws and regulations.

Further, enactment of new environmental laws or regulations, changes in existing laws or regulations or the interpretation of these laws and regulations might require significant capital expenditures. We may be unable to generate sufficient funds or access other sources of capital to fund unforeseen environmental liabilities or expenditures.

Our business is subject to risks associated with climate change and social and government responses thereto.

Our operations and those of our suppliers are subject to climate change variations which can impact the productivity of forests, the abundance of species, harvest levels and lumber. Further, over the last few years, changing weather patterns and climate conditions due to natural and man-made causes have added to the frequency and unpredictability of natural disasters like earthquakes, storms, wildfires and wind, snow and ice storms. One or a combination of these factors could adversely affect our fiber supply which is our largest cash production cost. There are differing scientific studies and opinions relating to the severity, extent and speed at which climate change is or may be occurring around the world. As a result, we are currently unable to identify and predict all of the specific consequences of climate change on our business and operations.

Further, governmental initiatives in response to climate change also have an impact on operations. There continue to be numerous international, country level and regional initiatives to address global and country specific climate issues.

In Germany, government and social focus on and demand for carbon neutral or green energy has created greater demand and competition for the wood residuals or fiber that is consumed by our pulp mills as part of their production processes. This has helped drive up the cost of fiber for German mills. In addition, further or new governmental initiatives or legislation may also increase both the demand and prices for wood residuals. As governments pursue green energy initiatives, they may implement financial, tax, pricing or other legislated incentives for renewable energy producers that “cannibalize” or materially adversely affect fiber supplies for existing traditional users, such as lumber and pulp and paper producers.

Such additional demand for wood residuals and/or governmental initiatives may materially increase the competition and prices for wood residuals over time. This could increase our fiber costs and/or restrict our ability to acquire fiber at competitive prices or at all during times of shortages. If our fiber costs increase and we cannot pass on these costs to our customers or offset them through higher prices for our sales of surplus energy, it will negatively affect our operating margins, results of operations and financial position. If we cannot obtain the fiber required to operate our mills, we may have to curtail and/or shut down production. This could have a material adverse effect on operations, financial results and financial position.

Other risks to our business from climate change include:

- a greater susceptibility of northern forests to disease, fire and insect infestation, which could diminish fiber availability;
- the disruption of transportation systems and power supply lines due to more severe storms;
- the loss of fresh water transportation for logs and pulp due to lower water levels;
- decreases in the quantity and quality of processed water for our mill operations;
- the loss of northern forests in areas in sufficient proximity to our mills to competitively acquire fiber; and
- lower harvest levels decreasing the supply of harvestable timber and, as a consequence, wood residuals.

The occurrence of any or a combination of these events could have a material adverse effect on our operations and/or financial results.

Our operations require substantial capital and we may be unable to maintain adequate capital resources to provide for such capital requirements.

Our business is capital intensive and requires that we regularly incur capital expenditures to maintain our equipment, improve efficiencies and, as a result of changes to environmental regulations that require capital expenditures, bring our operations into compliance with such regulations. In addition, we may approve projects in the future that will require significant capital expenditures. Increased capital expenditures could have a material adverse effect on our cash flow and our ability to satisfy our debt obligations. If our available cash resources and cash generated from operations are not sufficient to fund our operating needs and capital expenditures, we would have to obtain additional funds from borrowings or other available sources or reduce or delay our capital expenditures. Our indebtedness could adversely affect our financial health, limit our operations or impair our ability to raise additional capital. If this occurs, we may not be able to obtain additional funds on favorable terms or at all. If we cannot maintain or upgrade our equipment as may be required from time to time, we may become unable to manufacture products that compete effectively. An inability to make required capital expenditures in a timely fashion could have a material adverse effect on our growth, business, financial condition or results of operations.

Future acquisitions may result in additional risks and uncertainties in our business.

In order to grow our business, we may seek to acquire additional assets or companies. Our ability to pursue selective and accretive acquisitions will be dependent on management's ability to identify, acquire and develop suitable acquisition targets in both new and existing markets. In pursuing acquisition and investment opportunities, we face competition from other companies having similar growth strategies, many of which may have substantially greater resources than us. Competition for these acquisitions or investment targets could result in increased acquisition or investment prices, higher risks and a diminished pool of businesses or assets available for acquisition.

Acquisitions also frequently result in recording of goodwill and other intangible assets, which are subject to potential impairments in the future that could have a material adverse effect on our operating results. Furthermore, the costs of integrating acquired businesses (including restructuring charges associated with the acquisitions, as well as other acquisition costs, such as accounting fees, legal fees and investment banking fees) could significantly impact our operating results.

Although we perform diligence on the businesses we purchase, in light of the circumstances of each transaction, an unavoidable level of risk remains regarding the actual condition of these businesses. We may not be able to ascertain the value or understand the potential liabilities of the acquired businesses and their operations until we assume operating control of the assets and operations of these businesses.

Furthermore, future acquisitions could entail a number of risks, including:

- diversion of management's attention from our ongoing business;
- difficulty integrating the operations, including financial and accounting functions, sales and marketing procedures, technology and other corporate administrative functions of the combined operations;
- increased operating costs;

- exposure to substantial unanticipated liabilities;
- difficulty in realizing projected synergies, efficiencies and cost savings;
- difficulty maintaining relationships with present and potential customers, distributors and suppliers due to uncertainties regarding service, production quality and prices; and
- problems retaining key employees.

If we are unable to address any of these risks, our results of operations and financial condition could be materially adversely affected.

We have limited control over the operations of the Cariboo mill.

Our 50% ownership interest in the Cariboo mill is through an unincorporated joint venture. The ownership and operation of the Cariboo mill is subject to the agreement underlying the joint venture and its day-to-day operations are principally conducted by our joint venture partner. Joint ventures generally involve special risks, including that the business and strategic interests of the joint venture partner and ourselves may not coincide or that the joint venture partner may be unable to meet its economic or other obligations thereunder. We have limited control over the actions of the joint venture partner in respect of the Cariboo mill, including any non-performance, default or bankruptcy of such party. Any non-performance by our joint venture partner or other actions taken by the joint venture partner in connection with the day-to-day operation of the Cariboo mill may adversely affect our results of operations and financial condition.

Fluctuations in prices and demand for lumber could adversely affect our business.

The financial performance of the Friesau mill depends on the demand for and selling price of lumber, which is subject to significant fluctuations. The markets for lumber are highly volatile and are affected by economic conditions in Europe, Asia and the United States, the strength of housing markets in such regions, the growing importance of the Asian market, changes in industry production capacity, changes in inventory levels and other factors beyond our control. Additionally, interest rates have a significant impact on residential construction and renovation activity, which in turn influence the demand for and price of lumber.

Adverse housing market conditions may increase the credit risk from customers of our wood products segment.

Our wood products segment generally extends credit to customers who are generally susceptible to the same economic business risks that we are. Unfavorable housing market conditions could result in financial failures of one or more of such customers. If such customers' financial position becomes impaired, our ability to fully collect receivables from such customers could be impaired and negatively affect our operating results, cash flows and liquidity.

Our wood products segment lumber products are vulnerable to declines in demand due to competing technologies or materials.

Our lumber products may compete with alternative products. For example, plastic, wood/plastic or composite materials may be used by builders as alternatives to the lumber products produced by our wood products segment. Changes in the prices for oil, chemicals and other products can change the competitive position of our wood products segment lumber products relative to available alternatives and could increase substitution of those products for our wood products segment products. If use of these alternative products grows, demand for and pricing of our wood products segment products could be adversely affected.

Changes in credit ratings issued by nationally recognized statistical rating organizations could adversely affect our cost of financing and have an adverse effect on the market price of our securities.

Credit rating agencies rate our debt securities on factors that include our operating results, actions that we take, their view of the general outlook for our industry and their view of the general outlook for the economy. Actions taken by the rating agencies can include maintaining, upgrading or downgrading the current rating or placing the company on a watch list for possible future downgrading. Downgrading the credit rating of our debt securities or placing us on a

watch list for possible future downgrading could limit our access to credit markets, increase our cost of financing and have an adverse effect on the market price of our securities, including our Senior Notes.

We sell surplus energy pursuant to statutory energy programs in Germany and electricity purchase agreements with a utility in Western Canada.

Our German mills sell surplus green energy at fixed prices or tariffs pursuant to the Renewable Energy Act.

Effective January 1, 2017, the German government amended the Renewable Energy Act so that funding for renewable energy is to be allocated through an auction system, primarily to create a competitive bidding process for new installations of wind, solar and biomass energy. Our Friesau mill's tariff expires in 2029. However, the amendments provide that existing pulp mills, including our German pulp mills, are ineligible for such auction process and instead will have their tariffs renewed upon expiry of their initial 20-year terms for a further 10-year period, based upon the price received in the last year prior to renewal, regressing at a rate of 8% per annum. Currently we expect our Rosenthal mill's initial 20-year tariff to expire on December 31, 2020 and our Stendal mill's initial 20-year tariff to expire on December 31, 2024. Such 10-year extensions for such pulp mills have been notified by the German government to the European Commission for review for compliance with applicable state aid rules. We have been advised by German governmental authorities that such extensions may not be permitted under EU rules. As a result, we cannot currently predict whether such promulgated amendments to the Renewable Energy Act will become effective. If they do not become effective, we cannot predict what further resulting amendments the German government may put into effect and their effect on our German mills' sale or consumption of energy after the expiry of their current terms on December 31, 2020 for Rosenthal and December 31, 2024 for Stendal.

Our costs of energy for our pulp operations in Germany could increase in the event that the auto-generation surcharge exemption is removed or reduced in the future. Additionally, if the stipulated tariffs for energy sold by our German mills are reduced in the future or sales are on an auction or market basis, we cannot provide assurances that our energy sales in Germany will be as profitable. Any of the foregoing situations or any combination of them could have a material adverse effect on our results of operations.

Our Celgar mill and our 50% joint venture Cariboo mill sell surplus electricity to the local utility pursuant to fixed price electricity purchase agreements. The agreement for our Celgar mill expires in 2020. Although we are in discussions for an extension or a new agreement for the Celgar mill, there can be no assurance that we will be able to conclude such an agreement upon favorable terms or at all. In the event that we cannot agree upon new terms for the sale of electricity by our Celgar mill or the prices at which such electricity is sold is materially lower than the current agreement, it could have a material adverse effect on our Celgar mill's results of operations.

We may experience material disruptions to our production.

A material disruption at one of our manufacturing facilities could prevent us from meeting customer demand, reduce our pulp, lumber and energy sales and/or negatively impact our results of operations. Any of our mills could cease operations unexpectedly due to a number of events, including:

- unscheduled maintenance outages;
- prolonged power failures;
- equipment failure;
- employee errors or failures;
- design error or employee or contractor error;
- chemical spill or release;
- explosion of a boiler;
- disruptions in the transportation infrastructure, including roads, bridges, railway tracks, tunnels, canals and ports;

- fires, floods, earthquakes, windstorms, pest infestations, severe weather conditions or other natural catastrophes affecting our production of goods or the supply of raw materials like fiber;
- prolonged supply disruption of major inputs;
- labor difficulties;
- capital projects that require temporary cost increases or curtailment of production; and
- other operational problems.

Any such downtime or facility damage could prevent us from meeting customer demand for our products and/or require us to make unplanned capital expenditures. If any of our facilities were to incur significant downtime, our ability to meet our production capacity targets and satisfy customer requirements would be impaired and could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We are subject to risks related to our employees.

The majority of our employees are unionized and we have collective agreements in place with our employees at all of our mills, other than the Peace River mill which is non-union. Although we have not experienced any material work stoppages in the past, there can be no assurance that we will be able to negotiate acceptable collective agreements or other satisfactory arrangements with our employees upon the expiration of our collective agreements. This could result in a strike or work stoppage by the affected workers. The registration or renewal of the collective agreements or the outcome of our wage negotiations could result in higher wages or benefits paid to union members. Additionally, changing demographics may make it more difficult for us to recruit skilled employees in the future. Accordingly, we could experience a significant disruption of our operations or higher ongoing labor costs, which could have a material adverse effect on our business, financial condition, results of operations and cash flows. In addition, whenever we seek to reduce the workforce at any of our mills, the affected mill's labor force could seek to hinder or delay such actions, we could incur material severance or other costs and our operations could be disrupted.

We are dependent on key personnel.

Our future success depends, to a large extent, on the efforts and abilities of our executive and senior mill operating officers. Such officers are industry professionals, many of whom have operated through multiple business cycles.

The loss of one or more of our officers could make us less competitive, which could materially adversely affect our business, financial condition, results of operations and cash flows. We do not maintain key person life insurance for any of our executive or senior mill operating officers.

If our long-lived assets become impaired, we may be required to record non-cash impairment charges that could have a material impact on our results of operations.

We review the carrying value of long-lived assets for impairment when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Should the markets for our products deteriorate or should we decide to invest capital differently or should other cash flow assumptions change, it is possible that we will be required to record non-cash impairment charges in the future that could have a material adverse effect on our results of operations.

We may incur losses as a result of unforeseen or catastrophic events, including the emergence of a pandemic, terrorist attacks or natural disasters.

The occurrence of unforeseen or catastrophic events, including the emergence of a pandemic or other widespread health emergency (or concerns over the possibility of such an emergency), terrorist attacks or natural disasters, could create economic and financial disruptions and could lead to operational difficulties (including travel limitations) that could impair our ability to manage or operate our business and adversely affect our results of operations.

Our insurance coverage may not be adequate.

We have obtained insurance coverage that we believe would ordinarily be maintained by an operator of facilities similar to our mills. Our insurance is subject to various limits and exclusions. Damage or destruction to our facilities could result in claims that are excluded by, or exceed the limits of, our insurance coverage. Additionally, the weak global and financial markets have also reduced the availability and extent of credit insurance for our customers. If we cannot obtain adequate credit insurance for our customers, we may be forced to amend or curtail our planned operations which could negatively impact our sales revenues, results of operations and financial position.

We rely on third parties for transportation services.

Our business primarily relies upon third parties for the transportation of pulp and lumber to our customers, as well as for the delivery of our raw materials to our mills. Our pulp, lumber and raw materials are principally transported by truck, barge, rail and sea-going vessels, all of which are highly regulated. Increases in transportation rates can also materially adversely affect our results of operations.

Further, if our transportation providers fail to deliver our pulp or lumber in a timely manner, it could negatively impact our customer relationships and we may be unable to manufacture pulp or lumber in response to customer orders or sell them at full value. Also, if any of our transportation providers were to cease operations, we may be unable to replace them at a reasonable cost. The occurrence of any of the foregoing events could materially adversely affect our results of operations.

We periodically use derivatives to manage certain risks which could cause significant fluctuations in our operating results.

We periodically use derivatives related to currency exchange rates, interest rates, commodity prices and energy prices.

We record unrealized gains or losses on our derivative instruments when they are marked to market at the end of each reporting period and realized gains or losses on them when they are settled. These unrealized and realized gains and losses can materially impact our operating results for any reporting period.

If any of the variety of instruments and strategies we utilize is not effective, we may incur losses which may have a material adverse effect on our business, financial condition, results of operations and cash flows. The purpose of our derivative activity may also be considered speculative in nature; we do not use these instruments with respect to any pre-set percentage of revenues or other formula, but either to augment our potential gains or reduce our potential losses depending on our perception of future economic events and developments.

Failures or security breaches of our information technology systems could disrupt our operations and negatively impact our business.

We use information technologies to manage our operations and various business functions. We rely on various technologies to process, store and report on our business and to communicate electronically between our facilities, personnel, customers and suppliers as well as for administrative functions and many of such technology systems are dependent on one another for their functionality. We also use information technologies to process financial information and results of operations for internal reporting purposes and to comply with regulatory, legal and tax requirements. We rely on third party providers for some of these information technologies and support. Our ability to effectively manage our business and coordinate the production, distribution and sale of our products is highly dependent on our technology systems. Despite our security design and controls and other operational safeguards, and those of our third party providers, our information technology systems may be vulnerable to a variety of interruptions, including during the process of upgrading or replacing hardware, software, databases or components thereof, natural disasters, terrorist attacks, telecommunications failures, computer viruses, cyber-attacks, hackers, unauthorized access attempts and other security issues or may be breached due to employee error, malfeasance or other disruptions. Any such interruption or breach could result in operational disruptions or the misappropriation of sensitive data that could subject us to civil and criminal penalties, litigation or have a negative impact on our reputation. There can be no assurance that such disruptions or misappropriations and the resulting repercussions will not negatively impact our cash flows and materially affect our results of operations or financial condition.

In addition, many of our information technology systems, such as those we use for administrative functions, including human resources, payroll, accounting and internal and external communications, as well as the information technology systems of our third-party business partners and service providers, whether cloud-based or hosted in proprietary servers, contain personal, financial or other information that is entrusted to us by our customers and personnel. Many of our information technology systems also contain proprietary and other confidential information related to our business, such as business plans and research and development initiatives. To the extent we or a third party were to experience a material breach of our or such third party's information technology systems that results in the unauthorized access, theft, use, destruction or other compromises of our customers' or personnel's data or confidential information stored in such systems, including through cyber-attacks or other external or internal methods, it could result in a violation of applicable privacy and other laws, and subject us to litigation and governmental investigations and proceedings, any of which could result in our exposure to material liability.

The price of our common stock may be volatile.

The market price of our common stock may be influenced by many factors, some of which are beyond our control, including those described above and the following:

- actual or anticipated fluctuations in our operating results or our competitors' operating results;
- announcements by us or our competitors of new products, capacity changes, significant contracts, acquisitions or strategic investments;
- our growth rate and our competitors' growth rates;
- the financial market and general economic conditions;
- changes in stock market analyst recommendations regarding us, our competitors or the forest products industry generally or lack of analyst coverage of our common stock;
- sales of common stock by our executive officers, directors and significant shareholders;
- changes in accounting principles; and
- changes in laws and regulations.

In addition, there has been significant volatility in the market price and trading volume of securities of companies operating in the forest products industry that often has been unrelated to the operating performance of particular companies. Some companies that have had volatile market prices for their securities have had securities litigation brought against them. If litigation of this type is brought against us, it could result in substantial costs and would divert management's attention and resources.

A small number of our shareholders could significantly influence our business.

There are a few significant shareholders of our common stock who own a substantial percentage of the outstanding shares of our common stock. These few significant shareholders, either individually or acting together, may be able to exercise significant influence over matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions, such as a merger or other sale of the company or our assets. This concentration of ownership may make it more difficult for other shareholders to effect substantial changes in the company, may have the effect of delaying, preventing or expediting, as the case may be, a change in control of the company and may adversely affect the market price of our common stock. Further, the possibility that one or more of these significant shareholders may sell all or a large portion of their common stock in a short period of time could adversely affect the trading price of our common stock. Also, the interests of these few shareholders may not be in the best interests of all shareholders.

Our international sales and operations are subject to applicable laws relating to trade, export controls and foreign corrupt practices, the violation of which could adversely affect our operations.

As a result of our international sales and operations, we are subject to trade and economic sanctions and other restrictions imposed by the United States, Canada and other governments or organizations, including prohibitions in the United States against foreign competitors' (including our operating subsidiaries) receipt of certain unlawful foreign governmental benefits. We are also subject to the U.S. *Foreign Corrupt Practices Act of 1977*, the Canadian

Corruption of Foreign Public Officials Act and other anti-bribery laws that generally bar bribes or unreasonable gifts to foreign governments or officials. Changes in trade sanctions laws could restrict our business practices, including cessation of business activities in sanctioned countries or with sanctioned entities, and may result in modifications to compliance programs. Violations of these laws or regulations could result in sanctions including fines, loss of authorizations needed to conduct our international business, the imposition of tariffs or duties and other penalties, which could adversely impact our business, operating results and financial condition.

We are exposed to interest rate fluctuations.

Interest on borrowings under our revolving credit facilities are at “floating” rates. As a result, increases in interest rates will increase our costs of borrowing and reduce our operating margins.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own the Rosenthal, Stendal, Celgar, Peace River pulp mills, the Friesau mill and their underlying properties and have a 50% joint venture interest in the Cariboo pulp mill. We also own sandalwood plantations in Western Australia.

Rosenthal Mill. The Rosenthal mill is situated on a 230 acre site in the town of Rosenthal am Rennsteig in the state of Thuringia, approximately 300 kilometers south of Berlin. The Saale River flows through the site of the mill. In late 1999, we completed a major capital project which converted the Rosenthal mill to the production of kraft pulp. It is a single line mill with a current annual production capacity of approximately 360,000 ADMTs of kraft pulp. The mill is self-sufficient in steam and electrical power. Some excess electrical power which is constantly generated is sold to the regional power grid. The facilities at the mill include:

- an approximately 425,000 square feet fiber storage area;
- debarking and chipping facilities for pulp logs;
- an approximately 700,000 square feet roundwood yard;
- a fiber line, which includes a Kamy continuous digester and bleaching facilities;
- a pulp machine, which includes a dryer, a cutter and a baling line;
- an approximately 60,000 square feet finished goods storage area;
- a chemical recovery line, which includes a recovery boiler, evaporation plant, recausticizing plant and lime kiln;
- a fresh water plant;
- a wastewater treatment plant; and
- a power station with a turbine capable of producing 57 MW of electrical power from steam produced by the recovery boiler and a power boiler.

Stendal Mill. The Stendal mill is situated on a 200 acre site owned by Stendal that is part of a larger 1,250 acre industrial park near the town of Stendal in the state of Saxony-Anhalt, approximately 300 kilometers north of the Rosenthal mill and 130 kilometers west of Berlin. The mill is adjacent to the Elbe River and has access to harbor facilities for water transportation. The mill is a single line mill with a current annual design production capacity of approximately 660,000 ADMTs of kraft pulp. The Stendal mill is self-sufficient in steam and electrical power. Some excess electrical power which is constantly being generated is sold to the regional power grid. The facilities at the mill include:

- an approximately 740,000 square feet fiber and roundwood storage area;
- debarking and chipping facilities for pulp logs;
- a fiber line, which includes ten SuperBatch™ digesters and bleaching facilities;

- a pulp machine, which includes a dryer, a cutter and a baling line;
- an approximately 105,000 square feet finished goods storage area;
- a chemical recovery line, which includes a recovery boiler, evaporation plant, recausticizing plant and lime kiln;
- a fresh water plant;
- a wastewater treatment plant; and
- a power station with two turbines capable of producing 148 MW of electrical power.

Celgar Mill. The Celgar mill is situated on a 400 acre site near the city of Castlegar, British Columbia. The mill is located on the south bank of the Columbia River, approximately 600 kilometers east of the port city of Vancouver, British Columbia, and approximately 32 kilometers north of the Canada-U.S. border. The city of Seattle, Washington is approximately 650 kilometers southwest of Castlegar. The Celgar mill is a single line mill with a current annual production capacity of approximately 520,000 ADMTs of kraft pulp. Internal power generating capacity resulting from the completion of the Celgar Energy Project in 2010 enables the Celgar mill to be self-sufficient in electrical power and to sell surplus electricity. The facilities at the Celgar mill include:

- an approximately 450,000 square feet fiber storage area and approximately 440,000 square feet log storage;
- a woodroom containing debarking and chipping facilities for pulp logs;
- a fiber line, which includes a dual vessel hydraulic digester, a two stage oxygen delignification system and a four stage bleach plant;
- two pulp machines, which each include a dryer, a cutter and a baling line;
- an approximately 28,000 square feet on-site finished goods storage area and an approximately 29,000 square feet off-site finished goods storage area;
- a chemical recovery line, which includes a recovery boiler, evaporation plant, recausticizing plant and lime kiln;
- a wastewater treatment system; and
- a power station with two turbines capable of producing approximately 100 MW of electrical power.

Peace River Mill. The Peace River mill is situated on a 791 acre site near the town of Peace River, Alberta, approximately 490 kilometers north of Edmonton. The mill has an annual production capacity of approximately 475,000 ADMTs of kraft pulp and 70 MW of electrical generation. The facilities at the Peace River mill include:

- an approximately 1,240,000 square feet fiber storage area and approximately 85,000 square feet log storage;
- an approximately 90 railcar siding/storage plus an additional 75 railcar siding/storage;
- a fiber-line which includes a dual vessel hydraulic digester, a single stage oxygen delignification system and a four stage bleach plant;
- a pulp machine which includes a dryer, cutter and two baling lines;
- an approximately 56,000 square feet on-site finished goods storage area;
- a chemical recovery line which includes a recovery boiler, evaporation plant, recausticizing plant and a lime kiln;
- a fresh water treatment plant;
- a wastewater treatment system; and
- two turbines capable of producing approximately 70 MW of electrical power.

Friesau Mill. The Friesau mill is situated on a 62 acre site in the town of Saalburg-Ebersdorf, Germany, approximately 300 kilometers south of Berlin and only 16 kilometers from the Rosenthal mill. It is a two line sawmill with an annual production capacity of approximately 550 MMfbm of lumber on a continuously operating basis. The mill also sells electrical power generation to the regional power grid at fixed green power tariffs. The mill is self-sufficient in thermal power. The facilities at the Friesau mill include:

- an approximately one million square feet roundwood storage area;
- three log debarking and two sorting lines;
- two Linck sawing lines;
- 42 lumber kilns capable of matching sawmill production;
- a continuous kiln;
- a two line planer mill;
- an approximately 663,800 square feet finished goods storage area; and
- a biomass fueled cogeneration power plant capable of producing 13 MW of electrical power.

Santanol. Santanol owns and leases approximately 2,500 hectares of Indian sandalwood plantations and a processing and extraction plant in Western Australia.

ITEM 3. LEGAL PROCEEDINGS

We are subject to routine litigation incidental to our business. We do not believe that the outcome of such litigation will have a material adverse effect on our business or financial condition.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

- (a) *Market Information.* Our shares are quoted for trading on the NASDAQ Global Select Market under the symbol "MERC".
- (b) *Shareholder Information.* As at February 12, 2020, there were approximately 175 holders of record of our shares and a total of 65,629,582 shares were outstanding.
- (c) *Dividend Information.* On February 13, 2020, our board of directors approved a quarterly dividend of \$0.1375 per share to be paid to holders of our common stock on April 1, 2020 to shareholders of record on March 25, 2020.

In 2019, our board of directors approved one quarterly dividend of \$0.125 per share and three quarterly dividend payments of \$0.1375 per share each, the first being paid on April 3, 2019, the second being paid on July 3, 2019, the third being paid on October 2, 2019 and the fourth being paid on December 19, 2019.

The further declaration and payment of dividends is at the discretion of our board of directors and will depend upon various factors, including our earnings, financial condition, restrictions imposed by our credit facilities and the terms of any other indebtedness that may be outstanding, cash requirements, future prospects and other factors deemed relevant by our board of directors. The indentures governing our Senior Notes and our credit facilities limit our ability to pay dividends or make other distributions on capital stock. See Item 1. "Business – Description of Certain Indebtedness".

- (d) *Equity Compensation Plans.* The following table sets forth information as at December 31, 2019 with respect to the shares of our common stock that may be issued under our existing equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by shareholders	—	(1) \$ —	2,609,353 (2)
Equity compensation plans not approved by shareholders	—	\$ —	—

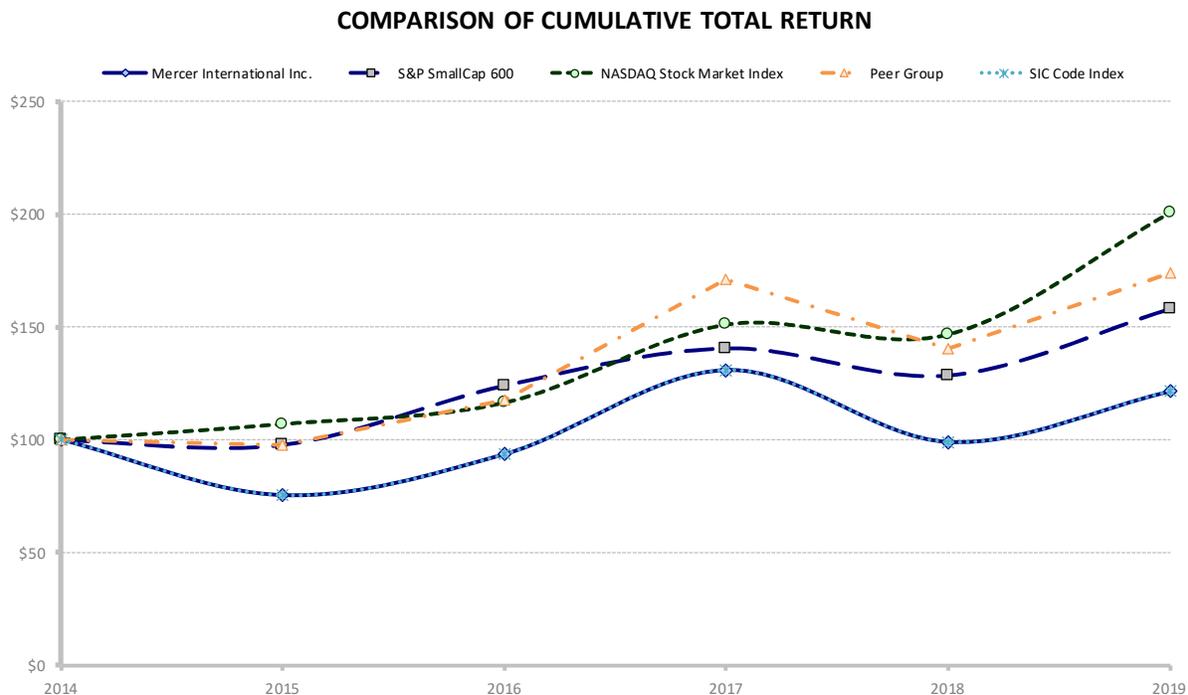
- (1) Excludes 31,405 outstanding restricted shares which vest in 2020 and a maximum of 1,764,976 outstanding performance share units, 496,634 of which had vested as at December 31, 2019. The underlying shares of common stock relating to the vested performance share units were issued in February 2020. Of the remaining 1,268,342 performance share units, 627,136 will vest in 2020 and 641,206 will vest in 2021. The actual number of shares of common stock issued in respect of unvested performance share units will vary from 0% to 200% of performance share units granted, based upon achievement of performance objectives established for such awards.
- (2) Represents the number of shares of our common stock remaining available for issuance under the 2010 Stock Incentive Plan, which replaced two previous plans, as of December 31, 2019. The plan provides for options, restricted stock rights, restricted shares, performance shares, performance share units and stock appreciation rights to be awarded to employees, consultants and non-employee directors.

- (e) *Purchases of Equity Securities by the Issuer and Affiliated Purchasers.* The following table provides information regarding our share repurchase activity during 2019:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Program
May 1 - May 31, 2019	23,630	\$ 14.30	23,630	
June 1 - June 30, 2019	29,249	\$ 14.21	29,249	
	<u>52,879</u>			\$ 49,246,566

- (1) In May 2019, our board of directors authorized a common stock repurchase program under which we may purchase up to \$50 million of our shares until May 2020.
- (2) Repurchases may be made from time to time under the program through open market or in privately negotiated transactions, through block trades or pursuant to any trading plan that may be adopted in accordance with Rule 10b5-1 under the Exchange Act. The repurchase program is subject to market conditions, applicable legal requirements and other factors. The repurchase program does not obligate us to acquire any specific number of shares and may be suspended or terminated at any time.

- (f) *Performance Graph.* The following graph shows a five-year comparison of cumulative total shareholder return, calculated on an assumed dividend reinvested basis, for our common stock, the S&P SmallCap 600 Index, a group of peer companies, referred to as the “Peer Group”, the NASDAQ Stock Market Index and Standard Industrial Classification Code Index or “SIC” (SIC Code 2611 - pulp mills), referred to as the “SIC Code Index”. The graph assumes \$100 was invested in each of our common stock, the S&P SmallCap 600 Index, the Peer Group, the NASDAQ Stock Market Index and the SIC Code Index on December 31, 2014. Data points on the graph are annual.



**Assumes \$100 Invested December 31, 2014
Assumes Dividends Reinvested
Fiscal Year Ending December 31, 2019**

	2014	2015	2016	2017	2018	2019
Mercer International Inc.	\$ 100.00	\$ 75.47	\$ 93.74	\$ 131.00	\$ 99.08	\$ 121.56
S&P SmallCap 600 Index	\$ 100.00	\$ 98.03	\$ 124.06	\$ 140.48	\$ 128.56	\$ 157.85
Peer Group ⁽¹⁾	\$ 100.00	\$ 97.51	\$ 117.75	\$ 170.97	\$ 140.15	\$ 174.03
SIC Code Index	\$ 100.00	\$ 75.41	\$ 93.66	\$ 130.89	\$ 99.00	\$ 121.46
NASDAQ Stock Market Index	\$ 100.00	\$ 106.96	\$ 116.45	\$ 150.96	\$ 146.67	\$ 200.49

(1) The Peer Group is comprised of Borregard ASA, Canfor Pulp Products Inc., Domtar Corporation, Ence Energia y Celulosa SA, Resolute Forest Products Inc., Rottneros AB, Stora Enso Oyj, UPM-Kymmene Oyj and West Fraser Timber Co. Ltd.

In prior years, the stock performance graph presented in our annual report on Form 10-K compared our total shareholder return to the NASDAQ Stock Market Index and the SIC Code Index. Beginning with this Annual Report on Form 10-K, we will substitute the S&P SmallCap 600 Index and the Peer Group for the NASDAQ Stock Market Index and the SIC Code Index as we believe they represent a better comparison of our stock as they include companies that are more similar to us in size and the Peer Group includes entities that are more similar to our business and product types.

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth selected historical financial and operating data as at and for the years indicated. The following selected financial data are qualified in their entirety by, and should be read in conjunction with, our consolidated financial statements and related notes contained in this annual report and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations".

	Year Ended December 31,				
	2019	2018 ⁽¹⁾	2017	2016	2015
(in thousands, other than per share amounts and operating data)					
Statement of Operations Data					
Pulp segment revenues	\$1,457,123	\$1,268,204	\$1,071,715	\$ 931,623	\$1,033,204
Wood products segment revenues	159,937	189,036	97,430		
Corporate and other revenues	7,351	478			
Total revenues	<u>\$1,624,411</u>	<u>\$1,457,718</u>	<u>\$1,169,145</u>	<u>\$ 931,623</u>	<u>\$1,033,204</u>
Pulp segment operating income	\$ 90,583	\$ 274,356	\$ 171,279 ⁽²⁾	\$ 124,594 ⁽²⁾	\$ 171,850 ⁽²⁾
Wood products segment operating income	7,349	6,203	5,610		
Corporate and other operating loss	(13,929)	(12,692)	(8,335)	(9,470)	(4,923)
Total operating income	<u>\$ 84,003</u>	<u>\$ 267,867</u>	<u>\$ 168,554</u>	<u>\$ 115,124</u>	<u>\$ 166,927</u>
Pulp segment depreciation and amortization	\$ 117,108	\$ 87,628	\$ 80,833	\$ 71,476	\$ 67,761
Wood products segment depreciation and amortization	7,966	8,485	4,060		
Corporate and other depreciation and amortization	1,320	616	401	508	572
Total depreciation and amortization	<u>\$ 126,394</u>	<u>\$ 96,729</u>	<u>\$ 85,294</u>	<u>\$ 71,984</u>	<u>\$ 68,333</u>
Costs and expenses	\$1,540,408	\$1,189,851	\$1,000,591 ⁽²⁾	\$ 816,499 ⁽²⁾	\$ 866,277 ⁽²⁾
Interest expense	\$ 75,750	\$ 51,464	\$ 54,796	\$ 51,575	\$ 53,891
Loss on settlement of debt	\$ (4,750) ⁽³⁾	\$ (21,515) ⁽³⁾	\$ (10,696) ⁽⁴⁾	\$ (454) ⁽⁴⁾	\$ —
Legal cost award	\$ —	\$ (6,951)	\$ —	\$ —	\$ —
Acquisition commitment fee	\$ —	\$ (5,250)	\$ —	\$ —	\$ —
Other income (expenses)	\$ 6,084	\$ (5,417)	\$ 873 ⁽²⁾	\$ (3,631) ⁽²⁾	\$ (8,085) ⁽²⁾
Net income (loss)	\$ (9,639)	\$ 128,589	\$ 70,483	\$ 34,943	\$ 75,502
Net income (loss) per common share					
Basic	\$ (0.15)	\$ 1.97	\$ 1.09	\$ 0.54	\$ 1.17
Diluted	\$ (0.15)	\$ 1.96	\$ 1.08	\$ 0.54	\$ 1.17
Dividends declared per common share	\$ 0.5375	\$ 0.5000	\$ 0.4700	\$ 0.4600	\$ 0.2300
Weighted average shares outstanding					
Basic	65,553	65,133	64,916	64,631	64,381
Diluted	65,553	65,771	65,393	65,098	64,777
Balance Sheet Data					
Current assets	\$ 844,697	\$ 810,699	\$ 852,339 ⁽⁵⁾	\$ 401,851	\$ 388,811
Current liabilities	\$ 256,312	\$ 195,388	\$ 430,466 ⁽⁵⁾	\$ 93,170	\$ 104,421
Working capital	\$ 588,385	\$ 615,311	\$ 421,873	\$ 308,681	\$ 284,390
Total assets ⁽⁶⁾	\$2,065,720	\$1,975,735	\$1,724,710 ⁽⁵⁾	\$1,158,708	\$1,182,817
Long-term liabilities	\$1,259,005	\$1,198,918	\$ 743,578	\$ 686,410	\$ 695,420
Total equity	\$ 550,403	\$ 581,429	\$ 550,666	\$ 379,128	\$ 382,976
Selected Production, Sales and Other Data					
Pulp Segment					
Pulp production ('000 ADMTs)					
NBSK	1,736.4	1,451.3	1,507.0	1,428.4	1,458.0
NBHK	304.2	21.3			
Pulp sales ('000 ADMTs)					
NBSK	1,773.2	1,418.0	1,515.1	1,428.7	1,463.1
NBHK	325.7	22.9			

Average pulp sales realizations (\$/ADMT)⁽⁷⁾

NBSK	663	821	640	586	640
NBHK	567	707			
Energy production ('000 MWh)	2,141.2 ⁽⁸⁾	1,625.2 ⁽⁸⁾	1,888.3	1,812.6	1,846.8
Energy sales ('000 MWh)	822.8 ⁽⁸⁾	615.2 ⁽⁸⁾	822.1	785.8	815.0
Average energy sales realizations (\$/MWh)	91 ⁽⁸⁾	103 ⁽⁸⁾	95	91	92

Wood Products Segment

Lumber production (MMfbm)	414.7	398.7	281.3		
Lumber sales (MMfbm)	408.8	412.9	213.5		
Average lumber sales realizations (\$/Mfbm)	348	408	385		
Energy production and sales ('000 MWh)	83.5	86.3	73.7		
Average energy sales realizations (\$/MWh)	116	125	120		

(1) Includes results of MPR from December 10, 2018.

(2) Adjusted as a result of our adoption of Accounting Standards Update 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post-Retirement Benefit Cost*.

(3) Redemption of 2022 Senior Notes.

(4) Redemption of 2019 Senior Notes.

(5) In December 2017, we issued \$300.0 million of 2026 Senior Notes and used the proceeds along with cash on hand to redeem, on January 5, 2018, \$300.0 million of 2022 Senior Notes.

(6) We do not report the effect of government grants relating to our assets in our net income (loss). These grants reduce the cost basis of the assets purchased. See Item 1. "Business – Capital Expenditures".

(7) Sales realizations after customer discounts, rebates and other selling concessions. Incorporates the effect of pulp price variations occurring between the order and shipment dates.

(8) Does not include energy production and sales relating to our 50% joint venture interest in the Cariboo mill, which is accounted for using the equity method.

NON-GAAP FINANCIAL MEASURES

This annual report on Form 10-K contains “non-GAAP financial measures”, that is, financial measures that either exclude or include amounts that are not excluded or included in the most directly comparable measure calculated and presented in accordance with the generally accepted accounting principles in the United States, referred to as “GAAP”. Specifically, we make use of the non-GAAP measures “Operating EBITDA” and “Operating EBITDA margin”.

Operating EBITDA is defined as operating income (loss) plus depreciation and amortization and non-recurring capital asset impairment charges. Operating EBITDA margin is Operating EBITDA expressed as a percentage of revenues. We use Operating EBITDA and Operating EBITDA margin as benchmark measurements of our own operating results and as benchmarks relative to our competitors. We consider them to be meaningful supplements to operating income as performance measures primarily because depreciation expense and non-recurring capital asset impairment charges are not actual cash costs, and depreciation expense varies widely from company to company in a manner that we consider largely independent of the underlying cost efficiency of our operating facilities. In addition, we believe Operating EBITDA is commonly used by securities analysts, investors and other interested parties to evaluate our financial performance.

Operating EBITDA does not reflect the impact of a number of items that affect our net income (loss), including financing costs and the effect of derivative instruments. Operating EBITDA is not a measure of financial performance under GAAP, and should not be considered as an alternative to net income (loss) or income (loss) from operations as a measure of performance, or as an alternative to net cash from operating activities as a measure of liquidity. Operating EBITDA and Operating EBITDA margin are internal measures and therefore may not be comparable to other companies.

Operating EBITDA has significant limitations as an analytical tool, and should not be considered in isolation, or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are that Operating EBITDA does not reflect: (i) our cash expenditures, or future requirements, for capital expenditures or contractual commitments; (ii) changes in, or cash requirements for, working capital needs; (iii) the significant interest expense, or the cash requirements necessary to service interest or principal payments, on our outstanding debt; (iv) the impact of realized or marked to market changes in our derivative positions, which can be substantial; and (v) the impact of non-recurring impairment charges against our investments or assets. Because of these limitations, Operating EBITDA should only be considered as a supplemental performance measure and should not be considered as a measure of liquidity or cash available to us to invest in the growth of our business. Because all companies do not calculate Operating EBITDA in the same manner, Operating EBITDA as calculated by us may differ from Operating EBITDA or EBITDA as calculated by other companies. We compensate for these limitations by using Operating EBITDA as a supplemental measure of our performance and by relying primarily on our GAAP financial statements.

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

The following discussion and analysis of our financial condition and results of our operations for the years ended December 31, 2019 and 2018 is based upon and should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this annual report. Please refer to Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our annual report on Form 10-K for the year ended December 31, 2018 for a discussion of our results of operations for 2017 and financial position as at December 31, 2017. This annual report contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those indicated in forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" and Item 1A. "Risk Factors".

Results of Operations

General

We have two reportable operating segments:

- **Pulp** – consists of the manufacture, sale and distribution of pulp, electricity and other by-products at our pulp mills.
- **Wood Products** – consists of the manufacture, sale and distribution of lumber, electricity and other wood residuals at the Friesau mill.

Our pulp segment has consolidated annual kraft pulp production capacity of approximately 2.2 million ADMTs, of which approximately 86% is NBSK and the balance is NBHK and 403.5 MW of electrical generation. Our pulp operations were significantly expanded when we acquired MPR on December 10, 2018.

Our wood products segment has an annual production capacity of approximately 550 MMfbm of lumber and 13 MW of electrical generation.

Each segment offers primarily different products and requires different manufacturing processes, technology and sales and marketing.

Markets for kraft pulp are global, cyclical and commodity based. Our financial performance depends on a number of variables that impact sales and production costs. Sales and production results for kraft pulp are influenced largely by the market price for kraft pulp, fiber costs and foreign currency exchange rates. Kraft pulp prices are highly cyclical and primarily determined by the balance between supply and demand. Pricing and demand are influenced by global macro-economic conditions, changes in consumption and industry capacity, the level of customer and producer inventories and fluctuations in exchange rates. The average European list prices for NBSK pulp between 2010 and 2019 have fluctuated between a low of \$760 per ADMT in 2012 to a high of \$1,230 per ADMT in 2018. In the same period, average North American list prices for NBHK pulp have fluctuated between a low of \$700 per ADMT in 2012 to a high of \$1,235 per ADMT in 2018.

In 2019, average list prices for NBSK pulp decreased by approximately 20% in Europe, 28% in China and 7% in North America compared to 2018 as a result of high producer inventory levels.

Our pulp sales realizations are list prices, net of customer discounts, rebates and other selling concessions. Our sales to China are closer to a net price with significantly lower or little discounts and rebates.

European and U.S. lumber markets differ. In the European market, lumber is generally customized in terms of dimensions and finishing, whereas the U.S. market is driven primarily by demand from new housing starts and dimensions and finishing are generally standardized.

In 2019, European and U.S. lumber markets were generally stable but lumber pricing declined. European lumber pricing declined due to an increase in beetle and storm damaged wood entering the market at lower prices. U.S. lumber pricing declined as a response to record pricing in 2018 which resulted in increased supply and high customer inventory levels combined with a slower summer housing market. In the first half of 2018, European and U.S. lumber markets were strong with prices near multi-year highs. In the second half of 2018, European and U.S. lumber markets weakened and prices declined.

Our financial performance is also impacted by changes in the dollar to euro and Canadian dollar exchange rates. Changes in currency rates affect our operating results because most of our operating costs at our German mills are incurred in euros and those at our Canadian mills are in Canadian dollars. These costs do not fluctuate with the dollar to euro or Canadian dollar exchange rates. Thus, an increase in the strength of the dollar versus the euro and the Canadian dollar decreases our operating costs and increases our operating margins and income from operations. Conversely, a weakening of the dollar against the euro and the Canadian dollar tends to increase our operating costs and decrease our operating margins and income from operations. Our energy, chemical and European lumber sales are made in local currencies and, as a result, decline in dollar terms when the dollar strengthens and increase when the dollar weakens.

As a corollary to changes in exchange rates between the dollar and the euro and Canadian dollar, a stronger dollar generally increases costs to our customers and results in downward pressure on pulp and lumber prices. Conversely, a weakening dollar generally supports higher pulp and lumber pricing. However, there is invariably a time lag between changes in currency exchange rates and prices. This lag can vary and is not predictable with any precision.

In 2019, the dollar was 5% stronger against the euro and 2% stronger against the Canadian dollar compared to 2018, which decreased our euro and Canadian dollar denominated costs and expenses.

Energy and chemical production and sales are key revenue sources for us. In 2019 and 2018, we sold 906,331 MWh and 701,507 MWh, respectively, of renewable energy. Further initiatives to increase our generation and sales of renewable energy, chemicals and other by-products will continue to be a key focus for us. Such further initiatives may require additional capital spending.

Energy and chemicals are by-products of our pulp and lumber production and the volumes generated and sold are primarily related to the rate of production. Prices for our energy and chemical sales are generally stable and unrelated to cyclical changes in pulp or lumber prices. In 2019, energy and chemical revenues increased by approximately 16% compared to 2018 when one turbine at our Stendal mill was taken offline for scheduled maintenance.

Our production costs are influenced by the availability and cost of raw materials, energy and labor, and our plant efficiencies and productivity. Our main raw material is fiber in the form of wood chips, pulp logs and sawlogs. Wood chip, pulp log and sawlog costs are primarily affected by the supply of, and demand for, lumber and pulp, which are both highly cyclical. Higher fiber costs could affect producer profit margins if they are unable to pass along price increases to pulp and lumber customers or purchasers of surplus energy.

In 2019, our per unit fiber costs decreased by approximately 16% for our pulp segment and 26% for our wood products segment primarily due to lower fiber costs for our German mills due to the availability of storm and beetle damaged wood. In 2019, fiber costs for our Canadian mills remained high due to strong demand in the Celgar mill's fiber procurement areas.

Production costs also depend on the total volume of production. High operating rates and production efficiencies permit us to lower our average per unit cost by spreading fixed costs over more units. Higher operating rates also permit us to increase our generation and sales of surplus renewable energy and chemicals. Our production levels are also dependent on, among other things, the number of days of maintenance downtime at our mills.

The following table sets out the number of days and ADMTs of annual maintenance downtime for our pulp segment for the periods indicated:

	Year Ended December 31,			
	2019		2018 ⁽¹⁾	
	Days	ADMTs	Days	ADMTs
	(in thousands, except number of days)			
Pulp segment	82	108.1	54	75.6

(1) Excluding MPR, which was acquired on December 10, 2018.

In 2020, excluding the Peace River mill, we currently have scheduled maintenance downtime for our pulp mills of 45 days, or approximately 56,300 ADMTs. Of such downtime, three days, or approximately 4,100 ADMTs will be in the first quarter, an aggregate of 11 days, or approximately 13,400 ADMTs, will be in the second quarter, an aggregate of 10 days, or approximately 13,700 ADMTs, in the third quarter and an aggregate of 21 days, or 25,100 ADMTs, in the fourth quarter.

The Peace River mill had previously scheduled downtime in 2019 to undertake the replacement of the lower furnace of the boiler at the Peace River mill as a result of a boiler incident that occurred in 2017. Such work has been rescheduled to 2020 primarily due to a delay in the delivery of parts. The work is planned to commence in August 2020, take approximately 60 days, or approximately 82,000 ADMTs, and insurance is expected to cover the estimated costs of about \$43 million. Upon completion, the mill will have a new state-of-the-art boiler. We also expect to receive business interruption insurance for the extra downtime for repairs resulting from the prior incident. Such business interruption insurance proceeds will be recorded as a reduction to our cost and expenses.

Unexpected maintenance downtime can be particularly disruptive in our industry.

Selected 2019 Highlights

In 2019, we:

- integrated the operations of MPR into our pulp segment; and
- successfully refinanced our remaining 2022 Senior Notes with a portion of the proceeds from the issue of \$200 million of additional 2025 Senior Notes.

Current Market Environment

In 2019, pulp demand remained steady but high producer inventory levels led to lower pulp sales realizations compared to 2018. In 2019, our NBSK pulp sales realizations decreased by 19% compared to 2018. As of December 31, 2019, NBSK list prices in Europe, China and North America were approximately \$820, \$580 and \$1,115 per ADMT, respectively, and NBHK prices in China and North America were \$475 and \$890 per ADMT, respectively.

Going into 2020, we currently expect pulp markets to improve over the year as a result of continued steady demand. However, the current ongoing coronavirus outbreak could create inland logistics restrictions or other disruptions that may, over time, begin to slow down paper manufacturing in China and put pressure on pulp pricing and demand. We are currently unable to determine the full impact at this time. We continue to closely monitor this developing situation.

In 2019, the lumber market was steady but prices declined as a result of the supply of lumber processed from beetle and storm damaged wood in Europe and high producer inventories in the U.S. market. We currently expect modestly higher lumber prices going into 2020 primarily due to stronger demand in the U.S. in the near term.

Summary Financial Highlights

	Year Ended December 31,	
	2019	2018 ⁽¹⁾
(in thousands, other than percent and per share amounts)		
Statement of Operations Data		
Pulp segment revenues	\$ 1,457,123	\$ 1,268,204
Wood products segment revenues	159,937	189,036
Corporate and other revenues	7,351	478
Total revenues	\$ 1,624,411	\$ 1,457,718
Pulp segment operating income	\$ 90,583	\$ 274,356
Wood products segment operating income	7,349	6,203
Corporate and other operating loss	(13,929)	(12,692)
Total operating income	\$ 84,003	\$ 267,867
Pulp segment depreciation and amortization	\$ 117,108	\$ 87,628
Wood products segment depreciation and amortization	7,966	8,485
Corporate and other depreciation and amortization	1,320	616
Total depreciation and amortization	\$ 126,394	\$ 96,729
Operating EBITDA ⁽²⁾	\$ 210,397	\$ 364,596
Operating EBITDA margin ⁽²⁾	13%	25%
Loss on settlement of debt ⁽³⁾	\$ (4,750)	\$ (21,515)
Provision for income taxes	\$ (19,226)	\$ (48,681)
Net income (loss)	\$ (9,639)	\$ 128,589
Net income (loss) per common share		
Basic	\$ (0.15)	\$ 1.97
Diluted	\$ (0.15)	\$ 1.96
Common shares outstanding at period end	65,629	65,202

(1) Includes results of MPR from December 10, 2018.

(2) See "Non-GAAP Financial Measures" for a description of Operating EBITDA and Operating EBITDA margin, their limitations and why we consider them to be useful measures. The following table provides a reconciliation of net income (loss) to operating income and Operating EBITDA for the years indicated:

	Year Ended December 31,	
	2019	2018
(in thousands)		
Net income (loss)	\$ (9,639)	\$ 128,589
Provision for income taxes	19,226	48,681
Interest expense	75,750	51,464
Loss on settlement of debt	4,750	21,515
Legal cost award	—	6,951
Acquisition commitment fee	—	5,250
Other (income) expenses	(6,084)	5,417
Operating income	84,003	267,867
Add: Depreciation and amortization	126,394	96,729
Operating EBITDA	\$ 210,397	\$ 364,596

(3) Redemption of 2022 Senior Notes.

Selected Production, Sales and Other Data

Selected production, sales and exchange rate data for the periods indicated:

	Year Ended December 31,	
	2019	2018⁽¹⁾
Pulp Segment		
Pulp production ('000 ADMTs)		
NBSK	1,736.4	1,451.3
NBHK	304.2	21.3
Annual maintenance downtime ('000 ADMTs)	108.1	75.6
Annual maintenance downtime (days)	82	54
Pulp sales ('000 ADMTs)		
NBSK	1,773.2	1,418.0
NBHK	325.7	22.9
Average NBSK pulp list prices (\$/ADMT) ⁽²⁾		
Europe	946	1,183
China	634	878
North America	1,239	1,337
Average NBHK pulp list prices (\$/ADMT) ⁽²⁾		
China	576	790
North America	1,036	1,152
Average pulp sales realizations (\$/ADMT) ⁽³⁾		
NBSK	663	821
NBHK	567	707
Energy production ('000 MWh) ⁽⁴⁾	2,141.2	1,625.2
Energy sales ('000 MWh) ⁽⁴⁾	822.8	615.2
Average energy sales realizations (\$/MWh) ⁽⁴⁾	91	103
Wood Products Segment		
Lumber production (MMfbm)	414.7	398.7
Lumber sales (MMfbm)	408.8	412.9
Average lumber sales realizations (\$/Mfbm)	348	408
Energy production and sales ('000 MWh)	83.5	86.3
Average energy sales realizations (\$/MWh)	116	125
Average Spot Currency Exchange Rates		
\$ / € ⁽⁵⁾	1.1194	1.1817
\$ / C\$ ⁽⁵⁾	0.7537	0.7722

(1) Includes results of MPR from December 10, 2018.

(2) Source: RISI pricing report.

(3) Sales realizations after customer discounts, rebates and other selling concessions. Incorporates the effect of pulp price variations occurring between the order and shipment dates.

(4) Does not include energy production and sales relating to our 50% joint venture interest in the Cariboo mill, which is accounted for using the equity method.

(5) Average Federal Reserve Bank of New York Noon Buying Rates over the reporting period.

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Consolidated – Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Total revenues in 2019 increased by approximately 11% to \$1,624.4 million from \$1,457.7 million in 2018 primarily due to the inclusion of the results of MPR for a full year and higher pulp and energy sales volumes partially offset by lower sales realizations.

Costs and expenses in 2019 increased by approximately 29% to \$1,540.4 million from \$1,189.9 million in 2018 due to the inclusion of MPR costs for a full year, higher sales volumes and higher maintenance costs partially offset by lower per unit fiber costs, the positive impact of a stronger dollar primarily on our euro denominated costs and expenses and the reversal of \$20.9 million in accrued wastewater fees at our German pulp mills.

In 2019, cost of sales depreciation and amortization increased to \$125.8 million from \$96.3 million in 2018 primarily due to the inclusion of MPR for a full year.

Selling, general and administrative expenses increased to \$74.2 million in 2019 from \$61.5 million in 2018 primarily due to the inclusion of MPR for a full year.

In 2019, our operating income decreased by approximately 69% to \$84.0 million from \$267.9 million in 2018 as lower sales realizations and higher maintenance costs were partially offset by lower per unit fiber costs, the positive impact of a stronger dollar primarily on our euro denominated costs and expenses and a \$20.9 million reversal of accrued wastewater fees.

In 2019, we redeemed \$100.0 million of 2022 Senior Notes at a cost, including premium, of \$103.9 million and recorded a loss on such redemption of \$4.8 million (being \$0.07 per share). In 2018, we redeemed \$300.0 million of 2022 Senior Notes at a cost, including premium, of \$317.4 million and recorded a loss on such redemption of \$21.5 million (being \$0.33 per share).

Interest expense in 2019 increased to \$75.8 million from \$51.5 million in 2018 primarily as a result of the issuance in December 2018 of \$350.0 million of our 2025 Senior Notes to finance the acquisition of MPR.

In 2018, we incurred expenses of \$7.0 million in connection with the legal cost award against us and \$5.3 million in an acquisition commitment fee related to our acquisition of MPR.

In 2019, we had \$6.1 million of other income primarily due to interest earned on cash and a foreign exchange gain on the weakening of the dollar at the end of 2019 on our foreign denominated cash. In 2018, we incurred other expenses of \$5.4 million primarily due to a foreign exchange loss on the strengthening of the dollar on our Canadian dollar denominated cash held to purchase MPR.

During 2019, income tax expense was \$19.2 million primarily due to net income for our German entities partially offset by tax recoveries for our Canadian entities. In 2018, income tax expense was \$48.7 million, due to record net income.

In 2019, after giving effect to costs of \$4.8 million, or \$0.07 per share, for the loss on the redemption of senior notes our net loss was \$9.6 million, or \$0.15 per share, from net income in 2018 of \$128.6 million, or \$1.97 per basic and \$1.96 per diluted share, after giving effect to costs of \$33.7 million, or \$0.52 per basic and \$0.51 per diluted share, for the loss on the redemption of senior notes, the legal cost award and the acquisition commitment fee.

In 2019, Operating EBITDA decreased by approximately 42% to \$210.4 million from \$364.6 million in 2018 as lower sales realizations and higher maintenance costs were partially offset by lower per unit fiber costs, a \$20.9 million reversal of accrued wastewater fees and the positive impact of a stronger dollar primarily on our euro denominated costs and expenses.

Pulp Segment – Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Selected Financial Information

	Year Ended December 31,	
	2019	2018⁽¹⁾
	(in thousands)	
Pulp revenues	\$ 1,370,742	\$ 1,190,588
Energy and chemical revenues	\$ 86,381	\$ 77,616
Depreciation and amortization	\$ 117,108	\$ 87,628
Operating income	\$ 90,583	\$ 274,356

(1) Includes results of MPR from December 10, 2018.

Pulp revenues in 2019 increased by approximately 15% to \$1,370.7 million from \$1,190.6 million in 2018 due to the inclusion of MPR for a full year and higher sales volumes partially offset by lower sales realizations.

Energy and chemical revenues increased by approximately 11% to \$86.4 million in 2019 from \$77.6 million in 2018 when one turbine at our Stendal mill was taken offline for scheduled maintenance.

NBSK pulp production increased by approximately 20% to 1,736,372 ADMTs in 2019 from 1,451,327 ADMTs in 2018. In 2019, we also produced 304,210 ADMTs of NBHK pulp from 21,263 ADMTs in 2018. In 2019, we had annual scheduled maintenance downtime of 82 days (approximately 108,100 ADMTs), compared to 54 days (approximately 75,600 ADMTs) in 2018.

We estimate that such maintenance downtime in 2019 adversely impacted our operating income by approximately \$95.4 million, comprised of approximately \$72.6 million in direct out-of-pocket expenses and the balance in reduced production. Many of our competitors that report their financial results using International Financial Reporting Standards, referred to as "IFRS", capitalize their direct costs of maintenance downtime.

NBSK pulp sales volumes increased by approximately 25% to 1,773,153 ADMTs in 2019 compared to 1,417,961 ADMTs in 2018 primarily due to the inclusion of MPR for a full year and steady demand from China and North America. In 2019, we also sold 325,665 ADMTs of NBHK pulp compared to 22,907 ADMTs in 2018.

In 2019, list prices for NBSK pulp decreased from 2018, largely as a result of high producer inventory levels. Average list prices for NBSK pulp in Europe were approximately \$946 per ADMT in 2019, compared to approximately \$1,183 per ADMT in 2018. Average list prices for NBSK pulp in China and North America were approximately \$634 per ADMT and \$1,239 per ADMT, respectively, in 2019 compared to approximately \$878 per ADMT and \$1,337 per ADMT, respectively, in 2018.

Average NBSK pulp sales realizations decreased by approximately 19% to \$663 per ADMT in 2019 from \$821 per ADMT in 2018 due to lower list prices. In 2019, NBHK pulp sales realizations decreased by approximately 20% to \$567 per ADMT in 2019 from \$707 per ADMT in 2018.

In 2019, we recorded inventory impairment charges of \$23.0 million as a result of the decline in pulp prices and increased fiber costs for our Canadian mills.

In 2019, the net positive impact on operating income due to foreign exchange was \$18.5 million primarily due to a stronger dollar on average compared to the euro which decreased the dollar cost of our euro denominated costs and expenses compared to 2018.

Costs and expenses in 2019 increased by approximately 37% to \$1,367.1 million from \$995.2 million in 2018 primarily due to the inclusion of MPR for a full year, higher pulp sales volumes and higher maintenance costs partially offset by lower per unit fiber costs, the positive impact of a stronger dollar primarily on our euro denominated costs and expenses and the reversal of \$20.9 million in accrued wastewater fees at our German pulp mills.

In 2019, depreciation and amortization increased to \$117.1 million from \$87.6 million in 2018 primarily due to the inclusion of MPR for a full year.

On average, in 2019, overall per unit fiber costs decreased by approximately 16% from 2018 primarily as a result of lower per unit fiber costs for our German mills. In 2019, the per unit fiber costs for our German mills declined due to the availability of storm and beetle damaged wood. For our Canadian mills, per unit fiber costs remained high due to strong demand for fiber in Celgar's fiber procurement area.

In 2020, we currently expect stable per unit fiber costs due to the continued availability of beetle damaged wood in Germany and continued strong demand for fiber in Celgar's fiber procurement area.

Transportation costs increased by approximately 80% to \$144.5 million in 2019 from \$80.4 million in 2018 primarily as a result of the inclusion of MPR for a full year.

In 2019, pulp segment operating income decreased by approximately 67% to \$90.6 million from \$274.4 million in 2018 primarily due to lower pulp sales realizations and higher maintenance costs partially offset by lower per unit

fiber costs, the reversal of \$20.9 million of accrued wastewater fees and the positive impact of a stronger dollar primarily on our euro denominated costs and expenses.

Wood Products Segment – Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Selected Financial Information

	Year Ended December 31,	
	2019	2018
	(in thousands)	
Lumber revenues	\$ 142,243	\$ 168,663
Energy revenues	\$ 9,721	\$ 10,831
Wood residual revenues	\$ 7,973	\$ 9,542
Depreciation and amortization	\$ 7,966	\$ 8,485
Operating income	\$ 7,349	\$ 6,203

In 2019, lumber revenues decreased by approximately 16% to \$142.2 million from \$168.7 million, primarily due to lower sales realizations. In 2019 approximately 30% of sales volumes were in the U.S. market and the majority of remaining sales were to Europe.

Energy and wood residual revenues decreased by approximately 13% to \$17.7 million in 2019 from \$20.4 million in 2018 primarily due to lower sales realizations.

Production increased by approximately 4% to 414.7 MMfbm of lumber in 2019 from 398.7 MMfbm in 2018 primarily due to planned downtime in 2018 for capital projects.

Lumber sales volumes modestly decreased to 408.8 MMfbm in 2019 from 412.9 MMfbm in 2018.

Average lumber sales realizations decreased by approximately 15% to \$348 per Mfbm in 2019 from \$408 Mfbm in 2018 primarily due to lower pricing in both the U.S. and Europe. U.S. lumber pricing declined as record pricing in 2018 resulted in increased supply and high customer inventory levels. European lumber pricing also declined due to an increase in the supply of lumber processed from beetle and storm damaged wood which generally obtains lower prices.

Fiber costs were approximately 75% of our lumber cash production costs in 2019. In 2019 per unit fiber costs decreased by approximately 26% from 2018 primarily due to the availability of lower cost storm and beetle damaged wood. We currently expect stable per unit fiber costs in 2020 as a result of the continued availability of beetle damaged wood.

In 2019, depreciation and amortization for our wood products segment decreased to \$8.0 million from \$8.5 million in 2018 as a result of the positive impact of a stronger dollar on our euro denominated depreciation expense.

Transportation costs increased to \$23.7 million in 2019 from \$22.2 million in 2018 due to a higher proportion of sales to the U.S. market.

In 2019, our wood products segment operating income increased to \$7.3 million from \$6.2 million in 2018 primarily due to lower per unit fiber costs partially offset by lower sales realizations.

Sensitivities

The following sensitivity analysis provides only a limited point-in-time view of the pulp price, lumber price, fiber costs and foreign exchange rates discussed. The actual impact of the underlying price and rate changes may differ materially from that shown in the sensitivity analysis.

Our earnings are sensitive to, among other things, fluctuations in:

Pulp Price. Pulp is a global commodity that is priced in dollars, whose markets are highly competitive and cyclical in nature. As a result, our earnings are sensitive to pulp price changes. Based upon our 2019 sales volume and assuming all other factors remained constant, each \$10.00 per tonne change in pulp list prices yields a change in pulp revenues of approximately \$17.0 million.

Lumber Price. Lumber markets are highly competitive and cyclical in nature. As a result, our earnings are sensitive to lumber price changes. Based upon our 2019 sales volume and assuming all other factors remain constant, each \$10.00 per Mfbm change in lumber price yields a change in lumber revenues of approximately \$4.0 million.

Fiber Costs. Our main raw material is fiber in the form of wood chips, pulp logs and sawlogs. Fiber is a commodity and both prices and supply are cyclical. As a result, our operating costs are sensitive to fiber cost changes. For our pulp segment, based upon our 2019 fiber costs and assuming all other factors remained constant, each 1% change in per unit fiber cost yields a change in annual operating costs of approximately \$5.0 million. For our wood products segment, based upon our 2019 fiber costs and assuming all other factors remained constant, each 1% change in per unit fiber cost yields a change in annual operating costs of approximately \$1.0 million.

Foreign Exchange. Our operating costs are in euros for our German mills and Canadian dollars for our Canadian mills. As a result, our operating costs will fluctuate with changes in the value of the dollar relative to the euro and Canadian dollar. Based on our 2019 operating costs and assuming all other factors remained constant, each \$0.01 change in the value of the dollar relative to the euro and the Canadian dollar yields a total change in annual operating costs of approximately \$17.0 million.

Our energy, chemical and European lumber sales are made in local currencies and, as a result, decline in dollar terms when the dollar strengthens. Based on our 2019 energy, chemical and lumber revenues and assuming all other factors remained constant, each \$0.01 change in the value of the dollar relative to the euro and the Canadian dollar yields a total change in energy, chemical and lumber revenues of approximately \$1.5 million.

Seasonal Influences. We are exposed to fluctuations in quarterly sales volumes and expenses due to seasonal factors. These factors are common in the pulp and lumber industries. We generally have weaker pulp demand in Europe during the summer holiday months and in China in the period relating to the lunar new year. We typically have a seasonal build-up in raw material inventories in the early winter months as the mills build up their fiber supply for the winter when there is reduced availability.

Liquidity and Capital Resources

Summary of Cash Flows

	Year Ended December 31,	
	2019	2018
	(in thousands)	
Net cash from operating activities	\$ 244,283	\$ 236,668
Net cash used in investing activities	(139,358)	(467,479)
Net cash from financing activities	6,098	14,861 ⁽¹⁾
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(429)	(4,297)
Net increase (decrease) in cash, cash equivalents and restricted cash	<u>\$ 110,594</u>	<u>\$ (220,247) ⁽¹⁾</u>

(1) Includes restricted cash of \$317.4 million used to redeem \$300.0 million of 2022 Senior Notes on January 5, 2018. Excluding such amount, in 2018 net cash used in financing activities was \$332.3 million and the net increase in our cash and cash equivalents was \$97.2 million.

We operate in a cyclical industry and our operating cash flows vary accordingly. Our principal operating cash expenditures are for labor, fiber, chemicals and debt service.

Working capital levels fluctuate throughout the year and are affected by maintenance downtime, changing sales patterns, seasonality and the timing of receivables and the payment of payables and expenses. Generally, finished goods inventories are increased prior to scheduled maintenance downtime to maintain sales volume while production is stopped. Our fiber inventories exhibit seasonal swings as we increase pulp log, sawlog and wood chip inventories to ensure adequate supply of fiber to our mills during the winter months. Changes in sales volume can affect the level of receivables and influence overall working capital levels. We believe our management practices with respect to working capital conform to common business practices.

Cash Flows from Operating Activities

Cash from operations includes:

- cash received from customers;
- cash paid to employees and suppliers;
- cash paid for interest on our debt; and
- cash paid or received for taxes.

Cash provided by operating activities in 2019 increased to \$244.3 million from \$236.7 million in 2018 due to a lower net working capital balance. In 2019, a decrease in accounts receivable provided cash of \$41.4 million and in 2018, an increase in accounts receivable used cash of \$10.4 million. In 2019, a decrease in inventories provided cash of \$24.7 million and in 2018, an increase in inventories used cash of \$58.1 million. In 2019, an increase in accounts payable and accrued expenses provided cash of \$45.3 million and in 2018, an increase in accounts payable and accrued expenses provided cash of \$38.0 million.

Cash Flows from Investing Activities

Cash from investing activities includes:

- acquisitions of property, plant and equipment and businesses;
- proceeds from the sale of assets; and
- purchases and sales of short-term investments.

Investing activities in 2019 used cash of \$139.4 million primarily related to capital expenditures of \$132.0 million and acquisitions of \$6.4 million primarily for certain forestry operations. Investing activities in 2018 used cash of \$467.5 million primarily related to the acquisitions of MPR for \$344.6 million and Santanol for \$35.7 million and capital expenditures of \$87.0 million.

In 2019, capital expenditures included improvements to the bale line and a turpentine extraction project at our Celgar mill, the planer line replacement project at our Friesau mill and the completion of wastewater improvement projects at our German pulp mills. In 2018, capital expenditures included large maintenance projects at our pulp mills, improvements to the digester at our Celgar mill, new chip screens, and bleach plant improvements at the Rosenthal mill, extension of the effluent treatment plant and other wastewater improvement projects at the Stendal mill and upgrades to the planer mill and saw line and the replacement of mobile equipment at the Friesau mill.

Cash Flows from Financing Activities

Cash from financing activities includes:

- issuances and payments of debt;
- borrowings and payments under revolving lines of credit;
- proceeds from issuances of stock; and
- payments of cash dividends and repurchases of stock.

In 2019, financing activities provided cash of \$6.1 million primarily from the issuance of \$200.0 million 2025 Senior Notes which were used to redeem \$100.0 million of 2022 Senior Notes and for general corporate purposes. In 2019, we primarily used cash to repay \$58.4 million of revolving credit facilities and pay dividends of \$35.3 million. In 2019 we received \$6.5 million of government grants primarily to finance greenhouse gas reduction capital projects at the Peace River mill. In 2018, financing activities provided cash of \$14.9 million primarily from the issuance of \$350.0 million 2025 Senior Notes which, along with cash on hand, was used to finance our acquisition of MPR. In 2018, advances of \$36.6 million on our revolving credit facilities were primarily used to finance capital projects at the Friesau mill and wood procurement activities. In 2018, we used \$317.4 million to redeem \$300.0 million of 2022 Senior Notes, \$40.7 million for the payment of dividends and \$10.1 million for debt issuance costs primarily related to the 2025 Senior Note issuance.

Balance Sheet Data

The following table is a summary of selected financial information for the dates indicated:

	December 31,	
	2019	2018
	(in thousands)	
Financial Position		
Cash and cash equivalents	\$ 351,085	\$ 240,491
Working capital	\$ 588,385	\$ 615,311
Total assets	\$ 2,065,720	\$ 1,975,735
Long-term liabilities	\$ 1,259,005	\$ 1,198,918
Total equity	\$ 550,403	\$ 581,429

Sources and Uses of Funds

Our principal sources of funds are cash flows from operations and cash and cash equivalents on hand. Our principal uses of funds consist of operating expenditures, capital expenditures and interest payments on our Senior Notes.

The following table sets out our total capital expenditures and interest expense for the periods indicated:

	Year Ended December 31,	
	2019	2018
	(in thousands)	
Capital expenditures	\$ 132,034	\$ 87,012
Cash paid for interest expense ⁽¹⁾	\$ 59,707	\$ 40,278
Interest expense ⁽²⁾	\$ 75,750	\$ 51,464

(1) Amounts differ from interest expense which includes non-cash items. See supplemental disclosure of cash flow information from our consolidated financial statements included in this annual report.

(2) Interest on our 2022 Senior Notes was paid semi-annually in June and December of each year. In January 2018, we redeemed \$300.0 million and in October 2019, we redeemed the remaining \$100.0 million of our 2022 Senior Notes. Interest on our 2024 Senior Notes is paid semi-annually in February and August of each year. Interest on our 2025 Senior Notes and on our 2026 Senior Notes is paid semi-annually in January and July of each year, commencing in July 2019 and July 2018, respectively. See Item 1. "Business – Description of Certain Indebtedness" for further information.

As of December 31, 2019, our cash and cash equivalents increased to \$351.1 million from \$240.5 million at the end of 2018.

As of December 31, 2019, we had approximately \$287.2 million available under our revolving credit facilities.

As of December 31, 2019, we had no material commitments to acquire assets or operating businesses.

In 2020, excluding amounts being financed through government grants and expected insurance proceeds, we currently expect capital expenditures to be approximately \$100 million.

We currently consider the majority of undistributed earnings of our foreign subsidiaries to be indefinitely reinvested and, accordingly, no U.S. income tax has been provided on such earnings. However, if we were required to repatriate funds to the United States, we believe that we currently could repatriate the majority thereof without incurring any material amount of taxes as a result of our shareholder advances and U.S. tax reform. However, it is currently not practical to estimate the income tax liability that might be incurred if such earnings were remitted to the United States. Substantially all of our undistributed earnings are held by our foreign subsidiaries outside of the United States.

Based upon the current level of operations and our current expectations for future periods in light of the current economic environment, and in particular, current and expected pulp and lumber pricing and foreign exchange rates, we believe that cash flow from operations and available cash, together with available borrowings under our revolving credit facilities, will be adequate to finance the capital requirements for our business including the payment of our quarterly dividend during the next 12 months.

In the future we may make acquisitions of businesses or assets or commitments to additional capital projects. To achieve the long-term goals of expanding our assets and earnings, including through acquisitions, capital resources will be required. Depending on the size of a transaction, the capital resources that will be required can be substantial. The necessary resources will be generated from cash flow from operations, cash on hand, borrowing against our assets or the issuance of securities.

Credit Facilities and Debt Covenants

We had the following principal amounts outstanding under our credit facilities and Senior Notes as of the dates indicated:

	December 31,	
	2019	2018
	(in thousands)	
German Facility	\$ —	\$ 58,968
Rosenthal €2.6 million loan	\$ —	\$ —
Celgar Working Capital Facility	\$ —	\$ —
MPR Working Capital Facility	\$ —	
2022 Senior Notes	\$ —	\$ 100,000
2024 Senior Notes	\$ 250,000	\$ 250,000
2025 Senior Notes	\$ 550,000	\$ 350,000
2026 Senior Notes	\$ 300,000	\$ 300,000

For a description of such indebtedness, see Item 1. “Business – Description of Certain Indebtedness”.

Certain of our long-term obligations contain various financial tests and covenants customary to these types of arrangements.

Under the German Facility, the Obligors must not exceed a ratio of net debt to EBITDA of 3.50:1 in any 12-month period and maintain defined capital of not less than €400.0 million.

The Celgar Working Capital Facility includes a covenant that, for so long as the excess amount under the facility is less than C\$5.0 million, then until it becomes equal to or greater than such amount, the Celgar mill must maintain a fixed charge coverage ratio of not less than 1.1:1.0 for each 12-month period.

The MPR Working Capital Facility includes a covenant that so long as the excess amount under the facility is less than the greater of 10% of the borrowing base thereunder or C\$4.5 million, MPR must comply with a 1.00:1.00 fixed charge coverage ratio.

The German Facility is provided by a syndicate of six financial institutions and each of our Celgar Working Capital Facility and MPR Working Capital Facility is provided by one financial institution. To date we have not experienced any reductions in credit availability with respect to these credit facilities. However, if any of these financial institutions were to default on their commitment to fund, we could be adversely affected.

The indentures governing the Senior Notes do not contain any financial maintenance covenants and there are no scheduled principal payments until maturity. Interest on our 2024 Senior Notes is payable semi-annually in arrears on February 1 and August 1, commencing August 1, 2017, at the rate of 6.50% and they mature in February 2024. Interest on our 2025 Senior Notes is payable semi-annually in arrears on January 15 and July 15, commencing July 15, 2019, at the rate of 7.375% and they mature in January 2025. Interest on our 2026 Senior Notes is payable semi-annually in arrears on January 15 and July 15, commencing July 15, 2018, at the rate of 5.50% and they mature in January 2026.

As of December 31, 2019, we were in full compliance with all of the covenants of our indebtedness.

Off-Balance Sheet Activities

As of December 31, 2019 and December 31, 2018, we had no off-balance sheet arrangements.

Contractual Obligations and Commitments

The following table sets out our contractual obligations and commitments as of December 31, 2019:

	Payments Due By Period				Total
	2020	2021-2022	2023-2024	Beyond 2024	
	(in thousands)				
Contractual Obligations⁽¹⁾					
Debt ⁽²⁾	\$ —	\$ —	\$ 250,000	\$ 850,000	\$ 1,100,000
Interest on debt ⁽³⁾	74,315	148,630	139,482	45,031	407,458
Finance lease liabilities ⁽⁴⁾	4,472	8,512	8,472	19,142	40,598
Operating lease liabilities ⁽⁵⁾	3,218	5,880	3,465	3,410	15,973
Purchase obligations ⁽⁶⁾	52,925	100,685	55,842	81	209,533
Other long-term liabilities ⁽⁷⁾	8,586	10,318	11,107	31,648	61,659
Total	<u>\$ 143,516</u>	<u>\$ 274,025</u>	<u>\$ 468,368</u>	<u>\$ 949,312</u>	<u>\$ 1,835,221</u>

- (1) We have identified approximately \$9.5 million of asset retirement obligations. However, due to the uncertain timing related to these potential liabilities, we are unable to allocate the payments in the contractual obligations table.
- (2) This reflects the future principal payments due under our debt obligations. See Item 1. "Business – Description of Certain Indebtedness" and Note 9 to our consolidated financial statements included herein for a description of such indebtedness.
- (3) Amounts presented for interest payments assume that all debt outstanding as of December 31, 2019 will remain outstanding until maturity, and interest rates on variable rate debt in effect as of December 31, 2019 will remain in effect until maturity.
- (4) Finance lease liabilities are primarily for railcars and production equipment. These amounts reflect principal and imputed interest.
- (5) Operating lease liabilities are primarily for land to support sandalwood plantations and for offices.
- (6) Purchase obligations relate primarily to take-or-pay contracts, including for purchases of fiber, made in the ordinary course of business.
- (7) Other long-term liabilities relate primarily to future payments that will be made for pension and other post-retirement benefits. Those amounts are estimated using actuarial assumptions, including expected future service, to project the future obligations.

Foreign Currency

Our reporting currency is the dollar. However, we hold certain assets and liabilities in euros and Canadian dollars and the majority of our expenditures are denominated in euros or Canadian dollars. Accordingly, our consolidated financial results are subject to foreign currency exchange rate fluctuations.

We translate foreign denominated assets and liabilities into dollars at the rate of exchange on the balance sheet date. Equity accounts are translated using historical exchange rates. Unrealized gains or losses from these translations are recorded in our other comprehensive income (loss) and do not affect our net earnings.

In 2019, accumulated other comprehensive loss decreased by \$11.6 million to a loss of \$116.6 million, primarily due to the foreign currency translation adjustment.

Based upon the exchange rate at December 31, 2019, the dollar was approximately 2% stronger against the euro and approximately 5% weaker against the Canadian dollar since December 31, 2018. See Item 7A. "Quantitative and Qualitative Disclosures about Market Risk".

Credit Ratings of Senior Notes

We and our Senior Notes are rated by Standard & Poor's Rating Services, referred to as "S&P", and Moody's Investors Service, Inc., referred to as "Moody's".

S&P and Moody's base their assessment of the credit risk on our Senior Notes on the business and financial profile of Mercer Inc. and our restricted subsidiaries under the indentures governing the Senior Notes. As of December 31, 2019, all of our subsidiaries are restricted subsidiaries. Factors that may affect our credit rating include changes in our operating performance and liquidity. Credit rating downgrades can adversely impact, among other things, future borrowing costs and access to capital markets.

Moody's rating on our Senior Notes is Ba3 and its outlook is stable and S&P's rating on our Senior Notes is BB-, its recovery rating is "3" and its outlook is stable.

Credit ratings are not recommendations to buy, sell or hold securities and may be subject to revision or withdrawal by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Critical Accounting Policies

The preparation of financial statements and related disclosures in conformity with GAAP requires management to make estimates and assumptions that affect both the amount and the timing of recording of assets, liabilities, revenues and expenses in the consolidated financial statements and accompanying note disclosures. Our management routinely makes judgments and estimates about the effects of matters that are inherently uncertain. As the number of variables and assumptions affecting the probable future resolution of the uncertainties increase, these judgments become even more subjective and complex.

Our significant accounting policies are disclosed in Note 1 to our audited annual consolidated financial statements included in Part IV of this annual report. While all of the significant accounting policies are important to the consolidated financial statements, some of these policies may be viewed as having a high degree of judgment. On an ongoing basis using currently available information, management reviews its estimates, including those related to accounting for, among other things, pension and other post-retirement benefit obligations, deferred income taxes (valuation allowance and permanent reinvestment), depreciation and amortization, future cash flows associated with impairment testing for long-lived assets, the allocation of the purchase price in a business combination to the assets acquired and liabilities assumed, legal liabilities and contingencies. Actual results could differ materially from these estimates, and changes in these estimates are recorded when known.

The following accounting policies require management's most difficult, subjective and complex judgments, and are subject to a fair degree of measurement uncertainty.

Pension and Other Post-Retirement Benefit Obligations

We maintain defined benefit pension plans and an other post-retirement benefit plan for certain employees of MPR and our Celgar mill which are funded based on actuarial estimates and requirements and are non-contributory. We recognize the net funded status of the plans and we record net periodic benefit costs associated with these net obligations. As of December 31, 2019, we had pension and other post-retirement benefit obligations aggregating \$126.2 million and accumulated pension plan assets with a fair value of \$100.0 million. Our 2019 net periodic pension and other post-retirement benefit costs were \$3.4 million. The amounts recorded for the net pension and other post-retirement obligations include various judgments and uncertainties.

The following inputs are used to determine our net obligations and our net periodic benefit costs each year and the determination of these inputs requires judgment:

- discount rate – used to determine the net present value of our pension and other post-retirement benefit obligations and to determine the interest cost component of our net periodic pension and other post-retirement benefit costs;

- return on assets – used to estimate the growth in the value of invested assets that are available to satisfy pension obligations and to determine the expected return on the plan assets component of our net periodic pension costs;
- mortality rate – used to estimate the impact of mortality on pension and other post-retirement benefit obligations;
- rate of compensation increase – used to calculate the impact future pay increases will have on pension benefit obligations; and
- health care cost trend rate – used to calculate the impact of future health care costs on other post-retirement benefit obligations.

For the discount rate, we use the rates available on high-quality corporate bonds with a duration that is expected to match the timing of expected pension and other post-retirement benefit obligations. High-quality corporate bonds are those with a rating of “AA” or better.

In determining the expected return on assets, we consider the historical long-term returns, expected asset mix and the active management premium.

For the mortality rate we use actuarially-determined mortality tables that are consistent with our historical mortality experience and future expectations for mortality of the employees who participate in our pension and other post-retirement benefit plans.

In determining the rate of compensation increase, we review historical compensation increases and promotions, while considering current industry conditions, the terms of collective bargaining agreements with employees and the outlook for the industry.

For the health care cost trend rate, we consider historical trends for these costs, as well as recently enacted health care legislation. We also compare our health care rate to those of our industry.

Variations in assumptions described above could have a significant effect on the pension and other post-retirement benefits net periodic benefit cost and obligation reported in our consolidated financial statements. For example, a one-percentage point change in any one of the following assumptions would have increased (decreased) our 2019 net periodic benefit cost and our accrued benefit obligation as follows:

	<u>Net periodic benefit cost</u>		<u>Accrued benefit obligation</u>	
	<u>1% increase</u>	<u>1% decrease</u>	<u>1% increase</u>	<u>1% decrease</u>
	(in thousands)			
Assumption				
Discount rate	\$ 2,418	\$ (3,062)	\$ (70,872)	\$ 96,932
Return on assets	\$ (2,277)	\$ 3,366	\$ —	\$ —
Rate of compensation	\$ 2,896	\$ (2,145)	\$ 80,087	\$ (72,642)
Health care cost trend rate	\$ 29	\$ (32)	\$ 557	\$ (534)

Deferred Taxes

As of December 31, 2019, we had \$1.2 million in deferred tax assets and \$89.8 million in deferred tax liabilities, resulting in a net deferred tax liability of \$88.6 million. Our tax assets are net of a \$22.8 million valuation allowance. Our deferred tax assets are comprised primarily of tax loss and interest carryforwards and deductible temporary differences, all of which will reduce taxable income in the future. We assess the realization of these deferred tax assets at each reporting period to determine whether it is more likely than not that the deferred tax assets will be realized. Our assessment includes a review of all available positive and negative evidence, including, but not limited to, the following:

- the history of the tax loss carryforwards and their expiry dates;
- future reversals of temporary differences;

- our historical and projected earnings; and
- tax planning opportunities.

Significant judgment is required when evaluating the positive and negative evidence, specifically the Company's estimates of future earnings. The weight given to negative and positive evidence is commensurate with the extent to which it can be objectively verified. Operating results during the most recent three-year period are generally given more weight than expectations of future profitability, which are inherently uncertain. A cumulative loss position during the most recent three-year period is considered significant negative evidence in assessing the realizability of deferred income tax assets that is difficult to overcome.

Once our evaluation of the evidence is complete, if we believe that it is more likely than not that some of the deferred tax assets will not be realized, based on currently available information, an income tax valuation allowance is recorded against the deferred tax assets.

If market conditions improve or tax planning opportunities arise in the future, we may reduce our valuation allowance, resulting in future tax benefits. If market conditions deteriorate in the future, we may increase our valuation allowance, resulting in future tax expenses. Any change in tax laws may change the valuation allowances in future periods.

Long-Lived Assets

As of December 31, 2019, we had long-lived assets recorded in our Consolidated Balance Sheet of \$1,127.6 million. These long-lived assets include property, plant and equipment, net and amortizable intangible assets, net. In 2019, we recorded depreciation and amortization of \$126.4 million and no impairment charges. Depreciation and amortization and impairment charges are based on accounting estimates.

The calculation of depreciation and amortization of long-lived assets requires us to apply judgment in selecting the remaining useful lives of the assets. The remaining useful life of an asset must address both physical and economic considerations. The remaining economic life of a long-lived asset may be shorter than its physical life. The pulp industry has historically been characterized by considerable uncertainty in business conditions. Estimates of future economic conditions for our long-lived assets and therefore, their remaining useful economic life, require considerable judgment.

If our estimate of the remaining useful life changes, such a change is accounted for prospectively in our determination of depreciation and amortization. Actual depreciation and amortization charges for an individual asset may therefore be significantly accelerated if the outlook for its remaining useful life is shortened considerably.

The unit of accounting for impairment testing for long-lived assets is its "Asset Group", which includes property, plant and equipment, net, amortizable intangible assets, net and liabilities directly related to those assets. We evaluate an Asset Group for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable, such as continuing operating losses. When an indicator that the carrying value of an Asset Group may not be recoverable is triggered, we compare the carrying value of the Asset Group to its forecasted undiscounted future cash flows. If the carrying value of the Asset Group is greater than the undiscounted future cash flows an impairment charge is recorded based on the excess of the Asset Group's carrying value over its fair value.

Impairment testing for long-lived assets requires us to apply judgement in estimating the future cash flows of the Asset Group. The significant estimates in the future cash flows include periods of operation, projections of product pricing, production levels, fiber and other production costs, market supply and demand, foreign exchange rates and maintenance spending. When performing impairment tests, we estimate the fair values of the assets using management's best assumptions, which we believe would be consistent with the assumptions that a hypothetical marketplace participant would use. Estimates and assumptions used in these tests are evaluated and updated each period an impairment indicator is triggered.

Actual asset impairment losses could vary considerably from estimated impairment losses if actual results are not consistent with the assumptions and judgements used in estimating future cash flows.

Business Combination

We allocate the total purchase of the assets acquired and liabilities assumed based on their estimated fair values as of the business combination date. In developing estimates of fair values for long-lived assets, including identifiable intangible assets, we utilize a variety of inputs including forecasted cash flows, discount rates, estimated replacement costs and depreciation and obsolescence factors. Determining the fair value for specifically identified intangible assets, such as contracts, involves judgment. We may refine our estimates and make adjustments to the assets acquired and liabilities assumed over a measurement period, not to exceed one year. Upon the conclusion of the measurement period or the final determination of the values of assets acquired and liabilities assumed, whichever comes first, any subsequent adjustments are charged to earnings. Subsequent actual results of the underlying business activity supporting the specifically identified intangible assets could change, requiring us to record impairment charges or accelerate the remaining useful life.

Contingent Liabilities

We are subject to lawsuits, investigations and other claims related to environmental, product and other matters, and are required to assess the likelihood of any adverse judgments or outcomes to these matters, as well as potential ranges of probable losses. We disclose contingent liabilities when there is a reasonable possibility that an ultimate loss may occur and we record contingent liabilities when it becomes probable that we will have to make payments and the amount of loss can be reasonably estimated.

Assessing probability of loss and estimating probable losses requires analysis of multiple factors, including, but not limited to, the following:

- historical experience;
- judgments about the potential actions of third-party claimants and courts; and
- recommendations of legal counsel.

Contingent liabilities are based on the best information available and actual losses in any future period are inherently uncertain. If estimated probable future losses or actual losses exceed our recorded liability for such claims, we would record additional charges. These exposures and proceedings can be significant and the ultimate negative outcomes could be material to our operating results or liquidity in any given quarter or year.

New Accounting Standards

See Note 1 to our consolidated financial statements included in Item 15 of this annual report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to risks associated with fluctuations in:

- foreign currency exchange rates;
- prices for the products we manufacture;
- fiber costs;
- credit risk; and
- interest rates.

For a discussion of our earnings sensitivities to foreign exchange rates, pulp and lumber prices and fiber costs, see Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Sensitivities” on page 62 hereof.

Foreign Currency Exchange Risk

We compete with producers from around the world, particularly Europe and North America, in our product lines. We sell our principal product, pulp, mainly in transactions denominated in dollars but sell certain other products including energy, chemicals and European lumber in local currencies, being euros and Canadian dollars. Changes in the relative strength or weakness of the dollar versus the euro and the Canadian dollar affect our operating costs and margins. A stronger dollar lowers our operating costs but can in turn increase the cost of pulp to our customers and thereby create downward pressure on prices. On the other hand, a weaker dollar tends to increase our operating costs but tends to support higher pulp prices.

We are particularly sensitive to changes in the value of the dollar versus the euro and Canadian dollar. We expect exchange rate fluctuations to continue to impact costs and revenues, but we cannot predict the magnitude or direction of this effect for any period, and there can be no assurance of any future effects.

Furthermore, certain of our assets and liabilities are denominated in euros and Canadian dollars. A depreciation of these currencies against the dollar will decrease the fair value of such financial instrument assets and an appreciation of these currencies against the dollar will increase the fair value of such financial instrument liabilities, thereby decreasing our fair value. An appreciation of these currencies against the dollar will increase the fair value of such financial instrument assets and a depreciation of these currencies against the dollar will decrease the fair value of financial instrument liabilities, thereby increasing our fair value. As a result, our earnings can be subject to the potentially significant effect of foreign currency translation gains or losses in respect of these euros and Canadian dollar items.

The following table provides information about our exposure to foreign currency exchange rate fluctuations for the carrying amount of financial instruments sensitive to such fluctuations as of December 31, 2019 and expected cash flows from these instruments:

	As of December 31, 2019							
	Carrying Value	Fair Value	Expected maturity date					Thereafter
			2020	2021	2022	2023	2024	
(in thousands)								
Financial Instruments								
in euros								
Cash and cash equivalents	32,498	32,498	32,498	—	—	—	—	—
Accounts receivable	72,555	72,555	72,555	—	—	—	—	—
Accounts payable and other	92,210	92,210	92,210	—	—	—	—	—
Finance lease liabilities	29,863	29,863	2,656	2,641	2,805	3,032	3,061	15,668
Operating lease liabilities	1,286	1,286	438	376	306	94	27	45
in Canadian dollars								
Cash and cash equivalents	36,355	36,355	36,355	—	—	—	—	—
Accounts receivable	43,886	43,886	43,886	—	—	—	—	—
Accounts payable and other	130,576	130,576	130,576	—	—	—	—	—
Finance lease liabilities	619	619	293	314	12	—	—	—
Operating lease liabilities	3,340	3,340	879	747	543	395	188	588
in Australian dollars								
Cash and cash equivalents	1,991	1,991	1,991	—	—	—	—	—
Accounts payable and other	3,391	3,391	3,391	—	—	—	—	—
Operating lease liabilities	12,838	12,838	1,957	2,085	2,242	1,897	1,378	3,279

Product Price Risk

Historically, economic and market shifts, fluctuations in capacity and changes in foreign currency exchange rates have created cyclical changes in prices, sales volume and margins for our principal products, being kraft pulp and lumber. In general, our products are commodities that are widely available from other producers and, because these products have few distinguishing qualities from producer to producer, competition is based primarily on price which is determined by supply relative to demand. The overall levels of demand for the products we manufacture, and consequently our sales and profitability, reflect fluctuations in end user demand.

Fiber Price Risk

Fiber in the form of wood chips, pulp logs and sawlogs represents our largest operating cost. Fiber is a market-priced commodity and, as such, is subject to fluctuations in prices based on supply and demand. Increases in the prices of fiber will tend to increase our operating costs and reduce our operating margins.

Interest Rate Risk

Fluctuations in interest rates may affect the fair value of fixed interest rate financial instruments which are sensitive to such fluctuations. A decrease in interest rates may increase the fair value of such fixed interest rate financial instrument assets and an increase in interest rates may decrease the fair value of such fixed interest rate financial instrument liabilities, thereby increasing our fair value. An increase in interest rates may decrease the fair value of such fixed interest rate financial instrument assets and a decrease in interest rates may increase the fair value of such fixed interest rate financial instrument liabilities, thereby decreasing our fair value. We may seek to manage our interest rate risks through the use of interest rate derivatives.

The following tables provide information about our exposure to interest rate fluctuations for the financial instruments sensitive to such fluctuations as of December 31, 2019 and expected cash flows from these instruments:

	As of December 31, 2019							
	Total	Fair Value	Expected maturity date					Thereafter
			2020	2021	2022	2023	2024	
(in thousands other than percentages)								
Liabilities								
Long-term debt:								
Fixed rate (\$) ⁽¹⁾⁽²⁾⁽³⁾	1,100,000	1,156,673	—	—	—	—	250,000	850,000
Average interest rate	6.66%	6.66%					6.50%	6.71%

- (1) 2024 Senior Notes bearing interest at 6.50%, principal amount \$250.0 million.
(2) 2025 Senior Notes bearing interest at 7.375%, principal amount \$550.0 million.
(3) 2026 Senior Notes bearing interest at 5.50%, principal amount \$300.0 million.

Credit Risk

We are exposed to credit risk on the accounts receivable from our customers. In order to manage our credit risk, we have adopted policies which include the analysis of the financial position of our customers and the regular review of their credit limits. We also subscribe to credit insurance and, in some cases, require bank letters of credit. Our customers are mainly in the business of tissue, printing, paper converting and other consumer products, as well as lumber wholesale and retail.

Risk Management and Derivatives

We seek to manage these risks through internal risk management policies as well as, from time to time, through the periodic use of derivatives. We may use derivatives to reduce or limit our exposure to interest rate and currency risks. We may also use derivatives to reduce or limit our exposure to fluctuations in pulp and lumber prices. We use derivatives to reduce our potential losses or to augment our potential gains, depending on our management's perception of future economic events and developments. These types of derivatives are generally highly speculative in nature. They are also very volatile as they are highly leveraged given that margin requirements are relatively low in proportion to notional amounts.

Many of our strategies, including the use of derivatives, and the types of derivatives selected by us, are based on historical trading patterns and correlations and our management's expectations of future events. However, these strategies may not be effective in all market environments or against all types of risks. Unexpected market developments may affect our risk management strategies during this time, and unanticipated developments could impact our risk management strategies in the future. If any of the variety of instruments and strategies we utilize is not effective, we may incur significant losses.

Derivatives are contracts between two parties where payments between the parties are dependent upon movements in the price of an underlying asset, index or financial rate. Examples of derivatives include swaps, options and forward rate agreements. The notional amount of the derivatives is the contract amount used as a reference point to calculate the payments to be exchanged between the two parties and the notional amount itself is not generally exchanged by the parties.

The principal derivatives we periodically use are interest rate derivatives, pulp price derivatives, energy derivatives and foreign exchange derivatives.

Interest rate derivatives include interest rate forwards (forward rate agreements) which are contractual obligations to buy or sell an interest-rate-sensitive financial instrument on a future date at a specified price. They also include interest rate swaps which are over-the-counter contracts in which two counterparties exchange interest payments based upon rates applied to a notional amount.

Pulp price derivatives include fixed price pulp swaps which are contracts in which two counterparties exchange payments based upon the difference between the market price of pulp and the notional amount in the contract.

Energy derivatives include fixed electricity forward sales and purchase contracts which are contractual obligations to buy or sell electricity at a future specified date. Our mills produce surplus electricity that we sell to third parties. As a result, we monitor the electricity market closely. Where possible and to the extent we think it is advantageous, we may sell into the forward market through forward contracts.

Foreign exchange derivatives include currency swaps which involve the exchange of fixed payments in one currency for the receipt of fixed payments in another currency. Such cross currency swaps involve the exchange of both interest and principal amounts in two different currencies. They also include foreign exchange forwards which are contractual obligations in which two counterparties agree to exchange one currency for another at a specified price for settlement at a pre-determined future date. Forward contracts are effectively tailor-made agreements that are transacted between counterparties in the over-the-counter market.

As of each of December 31, 2019 and 2018, we had no outstanding derivatives.

However, in the future, we may from time to time use foreign exchange derivatives to convert some of our costs (including currency swaps relating to our long-term indebtedness) from euros to dollars as our principal product is priced in dollars. We have also converted some of our costs to dollars by issuing long-term dollar-denominated debt in the form of our Senior Notes. We may also from time to time use pulp or lumber derivatives to fix price realizations and interest rate derivatives to fix the rate of interest on indebtedness.

We record unrealized gains and losses on our outstanding derivatives when they are marked to market at the end of each reporting period and realized gains or losses on them when they are settled. We determine market valuations based primarily upon valuations provided by our counterparties.

We are exposed to modest credit related risks in the event of non-performance by counterparties to derivative contracts.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements and supplementary data required with respect to this Item 8, and as listed in Item 15 of this annual report on Form 10-K, are included in this annual report on Form 10-K commencing on page 85.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this annual report on Form 10-K. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based on such evaluation, our principal executive officer and principal financial officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures are effective in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed by us in the reports that we file or submit under the Exchange Act.

It should be noted that any system of controls is based in part upon certain assumptions designed to obtain reasonable (and not absolute) assurance as to its effectiveness, and there can be no assurance that any design will succeed in achieving its stated goals.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Mercer's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of Mercer;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures are being made only in accordance with authorizations of management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of 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.

Management assessed the effectiveness of Mercer's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth in *Internal Control-Integrated Framework*, as issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment and those criteria, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2019.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their attestation report which appears in this annual report on Form 10-K.

Changes in Internal Controls

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the period that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Executive Chairman, Chief Executive Officer and Directors

We are governed by a board of directors, referred to as the “Board”, each member of which is elected annually. The following sets forth information relating to our directors and executive officers.

Jimmy S.H. Lee, Executive Chairman and Director, age 62, has served as a director since May 1985, as President and Chief Executive Officer from 1992 to July 2015 and as Executive Chairman since July 2015. In March 2016, Mr. Lee was appointed a director of Golden Valley Mines Ltd. Previously, during the period when MFC Bancorp Ltd. was our affiliate, he served as a director from 1986 and President from 1988 to December 1996 when it was spun out. Mr. Lee was also a director of Quinsam Capital Corp. from March 2004 to November 2007 and Fortress Paper Ltd. from August 2006 to April 2008. During Mr. Lee’s tenure with Mercer, we acquired the Rosenthal mill and converted it to the production of kraft pulp, constructed and commenced operations at the Stendal mill and acquired the Celgar mill, the Friesau mill and MPR. He holds a Bachelor of Science degree in Chemical Engineering from the University of British Columbia, Canada. Mr. Lee possesses particular knowledge and experience in our business as a “founder” and as our Chief Executive Officer for over 24 years. He also has broad knowledge and experience in finance and banking, credit markets, international pulp markets, derivative risk management and capital allocation. Through his experience and background, Mr. Lee provides vision and leadership to the Board. Mr. Lee also provides the Board with insight and information regarding our strategy, operations and business.

David M. Gandossi, Chief Executive Officer, President and Director, age 62, has served as a director and as Chief Executive Officer and President since July 2015 and served as Executive Vice-President, Chief Financial Officer and Secretary from August 2003 to July 2015. His previous roles included Chief Financial Officer and other senior executive positions with Formation Forest Products and Pacifica Papers Inc. Mr. Gandossi has previously chaired a number of industry working committees or groups including the B.C. Pulp and Paper Task Force, the B.C. Bio-economy Transformation Council and the FPI National Research Advisory Committee. He also participated in the Pulp and Paper Advisory Committee to the B.C. Competition Council and was a member of B.C.’s Working Roundtable on Forestry. He is currently a director of The Forest Products Association of Canada (FPAC) and The Council of Forest Industries (COFI). Mr. Gandossi holds a Bachelor of Commerce degree from the University of British Columbia and is a Fellow of the Institute of Chartered Accountants of British Columbia (ICABC).

William D. McCartney, age 64, has served as a director since January 2003. He has been the President and Chief Executive Officer of Pemcorp Management Inc., a corporate finance and management consulting firm, since its inception in 1990. From 1984 to 1990, he was a founding partner of Davidson & Company, Chartered Accountants, where he specialized in business advisory services. He has been involved with numerous capital restructuring and financing events involving several public companies and brings substantial knowledge relating to the financial accounting and auditing processes. He is a chartered accountant and has been a member of the Chartered Professional Accountants of Canada since 1980. He holds a Bachelor of Arts degree in Business Administration from Simon Fraser University. Mr. McCartney has extensive experience in accounting, financial and capital markets. He provides the Board with insight and leads its review and understanding of accounting, financial and reporting matters. Mr. McCartney provides the Board experience and leadership on accounting and financial matters in his role as Chair of the Board’s Audit Committee.

James Shepherd, age 67, has served as a director since June 2011. He is also currently a director of Buckman Laboratories International Inc. Mr. Shepherd was President and Chief Executive Officer of Canfor Corporation from 2004 to 2007 and Slocan Forest Products Ltd. from 1999 to 2004. He is also the former President of Crestbrook Forest Industries Ltd. and Finlay Forest Industries Limited and the former Chairman of the Forest Products Association of Canada. Mr. Shepherd has previously served as a director of Conifex Timber Inc., Canfor Corporation and Canfor Pulp Income Fund (now Canfor Pulp Products Inc.). Mr. Shepherd holds a degree in Mechanical Engineering from Queen’s University. Mr. Shepherd has held several chief executive officer leadership and other senior positions in the forest industry. As a result, Mr. Shepherd brings to the Board extensive senior executive experience relevant to our operations and an understanding of all aspects of the forest products business, ranging from fiber harvesting to lumber and pulp and paper operations. He also brings to our Board significant experience and background in the designing, execution and implementation of large, complex capital projects at large manufacturing facilities like our mills.

R. Keith Purchase, age 75, has served as a director since June 2012. Mr. Purchase was Executive Vice-President and Chief Operating Officer for MacMillan Bloedel Ltd. from 1998 to 1999, President and Chief Executive Officer of TimberWest Forest Ltd. from 1994 to 1998 and Managing Director of Tasman Pulp and Paper from 1990 to 1994. Mr. Purchase was previously a director of Catalyst Paper Corporation and Chair of its board of directors. Mr. Purchase has held several very senior positions in significant companies involved in the forestry industry. He brings to the Board extensive senior executive experience relevant to the Company's operations, as well as significant board of director leadership experience from a wide variety of companies.

Marti Morfitt, age 62, has served as a director since May 2017. Ms. Morfitt is currently the President and Chief Executive Officer of River Rock Partners, Inc., a business consulting group based in Naples, Florida. Ms. Morfitt was the Chief Executive Officer of Airborne, Inc. from 2009 to 2012, the President and Chief Executive Officer and director of CNS, Inc. from 2001 to 2007, the Chief Operating Officer of CNS, Inc. from 1998 to 2001 and the VP, Meals US of the Pillsbury Company from 1982 to 1998. She currently serves as a director of Graco Inc. and lululemon athletica, inc. She was a director of Life Time Fitness, Inc. from 2008 to 2015. Ms. Morfitt brings a track record of industry leading business performance in the consumer packaged goods industry. She brings to the Board extensive senior executive experience, as well as significant public company board experience from a wide variety of companies.

Alan Wallace, age 60, has served as a director since June 2018. Mr. Wallace is currently the Chief Executive Officer of Peloton Advisors Inc., a financial advisory firm working with private and public companies on mergers and acquisitions, financial and strategic transactions and he is based in Vancouver, British Columbia. Mr. Wallace was the Vice Chairman, Investment Banking, CIBC World Markets Inc. from 1987 to 2013 where he was also the Co-Head of its Paper and Forest Products Group from 1995 to 2013. Mr. Wallace holds a Master of Business Administration from the University of Chicago and a Bachelor of Applied Science from the University of Toronto. Mr. Wallace has significant capital markets and mergers and acquisitions experience, including relating to debt and equity financings, corporate credit facilities and financial advisory assignments. He also has extensive forest products experience relating to financings and strategic transactions in the industry. He brings to the Board extensive experience in the capital markets and corporate strategic review.

Linda Welty, age 64, has served as a director since June 2018. Ms. Welty is currently an independent director of Huber Engineered Materials, a global manufacturer of engineered specialty ingredients, a portfolio company of J.M. Huber Corporation and has served in that role since 2014. She is the President and Chief Executive Officer of Welty Strategic Consulting, LLC, an advisory firm focused on the development and execution of value creation strategies. She formerly served as chairperson and a director of the Atlanta Chapter of the National Association of Corporate Directors, whose mission is to advance excellence in corporate governance. From 2010 to 2011 she served as a director and member of the special committee of Massey Energy Company. She served as an independent director of Vertellus Specialties, Inc. from 2007 to 2016. Ms. Welty was President and Chief Operating Officer of Flint Ink Corp., a global producer of printing inks for packaging and publication from 2003 to 2005. From 1998 to 2003, she served as President of the Specialty Group of H.B. Fuller Company, a global manufacturer of adhesives, sealants and coatings. She also served for over twenty years in global leadership roles for Hoechst AG and its former U.S. subsidiary, Celanese. She holds a Bachelor of Science in Chemical Engineering from the University of Kansas.

Other Executive Officers

David K. Ure, age 52, returned to Mercer in September 2013, assuming the role of Senior Vice President, Finance from September 2013 to July 2015 and the role of Chief Financial Officer and Secretary from July 2015. Prior to serving as Vice President, Finance of Sierra Wireless Inc., Mr. Ure was Vice President, Controller at Mercer from 2006 to 2010. He has also served as Controller at various companies including Catalyst Paper Corp., Pacifica Papers Inc. and Trojan Lithograph Corporation, as well as Chief Financial Officer and Secretary of Finlay Forest Industries Inc. Mr. Ure has over 15 years' experience in the forest products industry. He is currently a director of FPInnovations and has also served on various non-profit boards in the neuro developmental research, child disability and family support spaces and currently sits on the boards of Kids Brain Health Network Inc., Semiahmoo House Society and Peninsula Estates Housing Society. He holds a Bachelor of Commerce in Finance from the University of British Columbia, Canada and is a member of the Chartered Professional Accountants of Canada.

Adolf Koppensteiner, age 58, has been Chief Operating Officer since January 1, 2018 and has served as Managing Director, Operations and Technical of the Stendal mill since October 2013, prior to which he served as Mill Manager at the Rosenthal mill since joining Mercer in 2007. In the past, Mr. Koppensteiner was Managing Director of Kvaerner Central Europe, where he was responsible for sales and service for fifteen years. His whole career has been in the pulp and paper industry, where he has held a variety of positions building up significant experience in engineering, project work, and pulp mill start-ups, as well as the development and optimization of operating processes.

Leonhard Nossol, age 62, has served as our Group Controller for Europe since August 2005. He has also been Managing Director of Rosenthal since 1997 and the sole Managing Director of Rosenthal since 2005. Before joining Mercer, Mr. Nossol was Director, Finance and Administration for a German household appliance producer from 1992 to 1997. Prior to this, he was Operations Controller at Grundig AG (consumer electronics) in Nürnberg. Mr. Nossol has been a member of the board of directors of the Pulp and Paper Association of Germany since 2014 and was elected as the speaker of the forest and wood unit of such association since 2014. He has been a member of the German Industry Federation's (BDI) Tax Committee since 2003. He was elected President of the German Wood Users Association (AGR) in 2013. He is also a member of the Scientific Advisory Board of Germany's Thünen Institute, the Federal research institute for forestry, fishery and agriculture. Mr. Nossol holds a Political Science degree from Freie Universität Berlin and a degree in Business Management from the University of Applied Sciences in Berlin.

Richard Short, age 52, has served as Vice President, Controller since February 2014 and as Controller from November 2010 to February 2014, prior to which he served as Controller and Director, Corporate Finance since joining Mercer in 2007. Previous roles include Controller, Financial Reporting from 2006 to 2007 and Director, Corporate Finance from 2004 to 2006 with Catalyst Paper Corporation and Assistant Controller at The Alderwoods Group Inc. Mr. Short holds a Bachelor of Arts in Psychology from the University of British Columbia and has been a member of the Chartered Professional Accountants of Canada since 1993.

Eric X. Heine, age 56, has served as Vice President, Sales, Marketing and Logistics for Asia and North America since June 2005. Mr. Heine was previously Vice President Pulp and International Paper Sales and Marketing for Domtar Inc. from 1999 to 2005. Mr. Heine has over twenty-five years of experience in the pulp and paper industry, including developing strategic sales channels and market partners to build corporate brands. He holds a Bachelor of Science in Forestry (Wood Science) from the University of Toronto, Canada.

Wolfram Ridder, age 58, has served as Vice President of Business Development since 2005, prior to which he served as Managing Director at Mercer's Stendal mill from 2001 to 2005. Mr. Ridder also served as Vice President Pulp Operations, Assistant to CEO from 1999 to 2005 and Assistant Managing Director at the Rosenthal mill from 1995 to 1998. Prior to joining Mercer, Mr. Ridder worked as a Scientist for pulping technology development at the German Federal Research Center for Wood Science and Technology in Hamburg from 1988 to 1995. Mr. Ridder has a Master of Business Administration and a Master of Wood Science and Forest Product Technology from Hamburg University.

Genevieve Stannus, age 49, has served as Treasurer since July 2005, prior to which she served as Senior Financial Analyst since joining Mercer in August 2003. Prior to her role at Mercer, Ms. Stannus held Senior Treasury Analyst positions with Catalyst Paper Corporation and Pacifica Papers Inc. Ms. Stannus has over twenty years of experience in the forest products industry. She is a member of the Chartered Professional Accountants of Canada.

Brian Merwin, age 46, has served as Vice President, Corporate Development, since February 2019 and was previously Vice President, Strategic Initiatives since February 2009. Mr. Merwin previously held roles within Mercer such as Director, Strategic and Business Initiatives, and Business Analyst. Mr. Merwin has a Master of Business Administration from the Richard Ivey School of Business in Ontario, Canada and a Bachelor of Commerce degree from the University of British Columbia, Canada. He has over 15 years of industry experience, including M&A, corporate development, strategy, capital projects, innovation and business integration.

We also have experienced mill managers at all of our mills who have operated through multiple business cycles in the pulp industry.

The Board met six times during 2019 and each current member of the Board attended 100% of the total number of such meetings and meetings of the committees of the Board on which they serve during their term. In addition, our independent directors regularly meet in separate executive sessions without any member of our management present. The Lead Director presides over these meetings. Although we do not have a formal policy with respect to attendance of directors at our annual meetings, all directors are encouraged and expected to attend such meetings if possible. All of our current directors attended our 2019 annual meeting.

The Board has developed corporate governance guidelines in respect of: (i) the duties and responsibilities of the Board, its committees and officers; and (ii) practices with respect to the holding of regular quarterly and strategic meetings of the Board including separate meetings of non-management directors. The Board has established four standing committees, the Audit Committee, the Compensation and Human Resources Committee, the Governance and Nominating Committee and the Environmental, Health and Safety Committee.

Audit Committee

The Audit Committee was established in accordance with Section 3(a)(58)(A) of the Exchange Act and functions pursuant to a charter adopted by the directors, a copy of which is available on our website at www.mercerint.com/investors/governance. The function of the Audit Committee generally is to meet with and review the results of the audit of our financial statements performed by the independent registered public accounting firm and to recommend the selection of an independent registered public accounting firm. The members of the Audit Committee are Mr. McCartney, Ms. Morfitt and Mr. Wallace, each of whom is independent under applicable laws and regulations and the listing requirements of the NASDAQ Global Select Market. Mr. McCartney is a Chartered Professional Accountant and a “financial expert” within the meaning of such term under the *Sarbanes-Oxley Act of 2002*. The Audit Committee met four times in 2019.

The Audit Committee has established procedures for: (i) the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters; and (ii) the confidential and anonymous submission by our employees and others of concerns regarding questionable accounting or auditing matters. A person wishing to notify us of such a complaint or concern should send a written notice thereof, marked “Private & Confidential”, to the Chairman of the Audit Committee, Mercer International Inc., c/o Suite 1120, 700 West Pender Street, Vancouver, British Columbia, Canada V6C 1G8.

Compensation and Human Resources Committee

The Board has established a Compensation and Human Resources Committee. The Compensation and Human Resources Committee is responsible for reviewing and approving the strategy and design of our compensation, equity-based and benefits programs. The Compensation and Human Resources Committee functions pursuant to a charter adopted by the directors, a copy of which is available on our website at www.mercerint.com/investors/governance in the Corporate Governance Guidelines. The Compensation and Human Resources Committee is also responsible for approving all compensation actions relating to executive officers. The members of the Compensation and Human Resources Committee are Ms. Morfitt, Mr. Shepherd and Mr. Wallace, each of whom is independent under applicable laws and regulations and the listing requirements of the NASDAQ Global Select Market. The Compensation and Human Resources Committee met six times in 2019.

Governance and Nominating Committee

The Board has established a Governance and Nominating Committee comprised of Mr. Purchase, Mr. McCartney and Ms. Welty, each of whom is independent under applicable laws and regulations and the listing requirements of the NASDAQ Global Select Market. The Governance and Nominating Committee functions pursuant to a charter adopted by the directors, a copy of which is available on our website at www.mercerint.com/investors/governance in the Corporate Governance Guidelines. The purpose of the committee is to: (i) manage the corporate governance system of the Board; (ii) assist the Board in fulfilling its duties to meet applicable legal and regulatory and self-regulatory business principles and codes of best practice; (iii) assist in the creation of a corporate culture and environment of integrity and accountability; (iv) in conjunction with the Lead Director, monitor the quality of the

relationship between the Board and management; (v) review management succession plans; (vi) recommend to the Board nominees for appointment to the Board; (vii) lead the Board's annual review of the Chief Executive Officer's performance; and (viii) set the Board's forward meeting agenda. The Governance and Nominating Committee met four times in 2019.

Environmental, Health and Safety Committee

The Board established an Environmental, Health and Safety Committee in 2006, currently comprised of Mr. Shepherd, Mr. Purchase, Ms. Welty, Mr. Lee and Mr. Gandossi, to review on behalf of the Board the policies and processes implemented by management, and the resulting impact and assessments of all our environmental, health and safety related activities. The Environmental, Health and Safety Committee functions pursuant to a charter adopted by the directors, a copy of which is available on our website at www.mercerint.com/investors/governance in the Corporate Governance Guidelines. More specifically, the purpose of the Environmental, Health and Safety Committee is to: (i) review and approve, and if necessary revise, our environmental, health and safety policies and environmental compliance programs; (ii) monitor our environmental, health and safety management systems including internal and external audit results and reporting; and (iii) provide direction to management on the frequency and focus of external independent environmental, health and safety audits. The Environmental, Health and Safety Committee met four times in 2019.

Lead Director/Deputy Chairman

The Board appointed Mr. Purchase as Lead Director in 2018. The role of the Lead Director is to provide leadership to the non-management directors on the Board and to ensure that the Board can operate independently of management and that directors have an independent leadership contact. The duties of the Lead Director include, among other things: (i) ensuring that the Board has adequate resources to support its decision-making process and ensuring that the Board is appropriately approving strategy and supervising management's progress against that strategy; (ii) ensuring that the independent directors have adequate opportunity to meet to discuss issues without management being present; (iii) chairing meetings of directors in the absence of the Chairman and Chief Executive Officer; (iv) ensuring that delegated committee functions are carried out and reported to the Board; and (v) communicating to management, as appropriate, the results of private discussions among outside directors and acting as a liaison between the Board and the Chief Executive Officer.

Code of Business Conduct and Ethics and Anti-Corruption Policy

The Board has adopted a Code of Business Conduct and Ethics that applies to our directors, employees and executive officers and an Anti-Corruption Policy. The code and the policy are available on our website at www.mercerint.com/investors/governance. Copies of the code and the policy may also be obtained without charge upon request to Investor Relations, Mercer International Inc., Suite 1120, 700 West Pender Street, Vancouver, British Columbia, Canada V6C 1G8 (Telephone: (604) 684-1099).

Section 16(a) Beneficial Ownership Reporting Compliance

The information required under "Section 16(a) Beneficial Ownership Reporting Compliance" is incorporated by reference from the proxy statement relating to our annual meeting to be held in 2020, which will be filed with the SEC within 120 days of our most recently completed fiscal year.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is incorporated by reference from the proxy statement relating to our annual meeting to be held in 2020, which will be filed with the SEC within 120 days of our most recently completed fiscal year.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 is incorporated by reference from the proxy statement relating to our annual meeting to be held in 2020, which will be filed with the SEC within 120 days of our most recently completed fiscal year.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Review, Approval or Ratification of Transactions with Related Persons

Pursuant to the terms of the Audit Committee Charter, the Audit Committee is responsible for reviewing and approving the terms and conditions of all proposed transactions between us, any of our officers, directors or shareholders who beneficially own more than 5% of our outstanding shares of common stock, or relatives or affiliates of any such officers, directors or shareholders, to ensure that such related party transactions are fair and are in our overall best interest and that of our shareholders. In the case of transactions with employees, a portion of the review authority is delegated to supervising employees pursuant to the terms of our written Code of Business Conduct and Ethics.

The Audit Committee has not adopted any specific procedures for conduct of reviews and considers each transaction in light of the facts and circumstances. In the course of its review and approval of a transaction, the Audit Committee considers, among other factors it deems appropriate:

- whether the transaction is fair and reasonable to us;
- the business reasons for the transaction;
- whether the transaction would impair the independence of one of our non-employee directors; and
- whether the transaction is material, taking into account the significance of the transaction.

Any member of the Audit Committee who is a related person with respect to a transaction under review may not participate in the deliberations or vote respecting approval or ratification of the transaction, provided, however, that such director may be counted in determining the presence of a quorum at a meeting of the committee that considers the transaction.

The information called for by Items 404(a) and 407(a) of Regulation S-K required to be included under this Item 13 is incorporated by reference from the proxy statement relating to our annual meeting to be held in 2020, which will be filed with the SEC within 120 days of our most recently completed fiscal year.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item 14 is incorporated by reference from the proxy statement relating to our annual meeting to be held in 2020, which will be filed with the SEC within 120 days of our most recently completed fiscal year.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	85
Consolidated Statements of Operations	87
Consolidated Statements of Comprehensive Income	87
Consolidated Balance Sheets	88
Consolidated Statements of Changes in Shareholders' Equity	89
Consolidated Statements of Cash Flows	90
Notes to the Consolidated Financial Statements	91

(a)(2) Financial Statement Schedules

All schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

Exhibits that are not filed herewith have been previously filed with the SEC and are incorporated herein by reference.

- 3.1 [Articles of Incorporation of Mercer International Inc., as amended. Incorporated by reference from Form 8-A filed March 2, 2006.](#)
- 3.2 [Bylaws of Mercer International Inc. Incorporated by reference from Form 10-Q filed August 1, 2019.](#)
- 4.1 [Indenture dated February 3, 2017 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2024 Senior Notes. Incorporated by reference from Form 8-K filed February 3, 2017.](#)
- 4.2 [Indenture dated December 20, 2017 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2026 Senior Notes. Incorporated by reference from Form 8-K filed December 20, 2017.](#)
- 4.3 [Indenture dated December 7, 2018 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2025 Senior Notes. Incorporated by reference from Form 8-K filed December 7, 2018.](#)
- 4.4* [Description of Securities.](#)
- 10.1 [Revolving Credit Facility Agreement dated December 19, 2018 among Zellstoff-und Papierfabrik Rosenthal GmbH, Mercer Timber Products GmbH, Zellstoff Stendal GmbH, Mercer Holz GmbH, Stendal Pulp Holding GmbH, D&Z Holding GmbH, Zellstoff Stendal Transport GmbH, Mercer Pulp Sales GmbH, UniCredit Bank AG, Commerzbank AG, Luxembourg Branch, Credit Suisse AG, London Branch, Landesbank Baden-Württemberg and Royal Bank of Canada. Incorporated by reference from Form 10-K filed February 14, 2019.](#)
- 10.2 [Revolving Credit Facility Agreement dated November 25, 2014 among Zellstoff Stendal GmbH, UniCredit Bank AG, Credit Suisse AG, London Branch, Royal Bank of Canada and Barclays Bank PLC. Incorporated by reference from Form 8-K filed November 28, 2014.](#)
- 10.3 [Form of Trustee's Indemnity Agreement between Mercer International Inc. and its Trustees. Incorporated by reference from Form 10-K filed March 31, 2003.](#)
- 10.4† [Mercer International Inc. 2010 Stock Incentive Plan, as amended. Incorporated by reference from Appendix A to Mercer International Inc.'s definitive proxy statement on Schedule 14A filed April 24, 2014.](#)
- 10.5† [Employment Agreement dated October 2, 2006 between Stendal Pulp Holding GmbH and Wolfram Ridder. Incorporated by reference from Form 8-K filed October 3, 2006.](#)

- 10.6 [Electricity Purchase Agreement effective January 27, 2009 between Zellstoff Celgar Limited Partnership and British Columbia Hydro and Power Authority. Incorporated by reference from Form 10-K filed March 2, 2009. Certain non-public information has been omitted from the appendices to Exhibit 10.6 pursuant to a request for confidential treatment filed with the SEC. Such non-public information was filed with the SEC on a confidential basis. The SEC approved the request for confidential treatment in March 2009.](#)
- 10.7 [Third Amended and Restated Credit Agreement dated as of July 16, 2018 among Zellstoff Celgar Limited Partnership, as borrower, and the lenders from time to time parties thereto, as lenders, and Canadian Imperial Bank of Commerce, as agent. Incorporated by reference from Form 10-Q filed July 26, 2018.](#)
- 10.8 [Share Purchase Agreement by and among Marubeni Corporation, Nippon Paper Industries Co., Ltd. and Daishowa North America Corporation and Mercer International Inc. dated as of October 3, 2018. Incorporated by reference from Form 8-K filed October 9, 2018.](#)
- 10.9† [Employment Agreement between Mercer International Inc. and David Ure dated August 12, 2013. Incorporated by reference from Form 8-K filed on July 20, 2015.](#)
- 10.10 [First Amending Agreement dated October 21, 2014 among Zellstoff Celgar Limited Partnership, Mercer International Inc., as guarantor, and Canadian Imperial Bank of Commerce. Incorporated by reference from Form 10-Q filed October 31, 2014.](#)
- 10.11† [Amendment to Employment Agreement between Mercer International Inc. and David Ure, dated July 17, 2015. Incorporated by reference from Form 8-K filed July 20, 2015.](#)
- 10.12† [Second Amended and Restated Employment Agreement between Mercer International Inc. and Jimmy S.H. Lee, dated for reference September 29, 2015. Incorporated by reference from Form 8-K filed September 29, 2015.](#)
- 10.13† [Amended and Restated Employment Agreement between Mercer International Inc. and David M. Gandossi, dated for reference September 29, 2015. Incorporated by reference from Form 8-K filed September 29, 2015.](#)
- 10.14 [Registration Rights Agreement dated October 3, 2019 between Mercer International Inc. and Credit Suisse Securities \(USA\) LLC, related to the 2025 Senior Notes. Incorporated by reference from Form 8-K filed on October 3, 2019.](#)
- 10.15*† [Chief Operating Officer and Managing Director Service Agreement, as amended, dated June 1, 2019 between Stendal Pulp Holding GmbH and Adolf Koppensteiner.](#)
- 21.1* [List of Subsidiaries of Registrant.](#)
- 23.1* [Consent of PricewaterhouseCoopers LLP.](#)
- 31.1* [Section 302 Certificate of Chief Executive Officer.](#)
- 31.2* [Section 302 Certificate of Chief Financial Officer.](#)
- 32.1* [Section 906 Certificate of Chief Executive Officer.](#)
- 32.2* [Section 906 Certificate of Chief Financial Officer.](#)
- 101* The following financial statements from the Company's annual report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 13, 2020, formatted in inline Extensible Business Reporting Language (iXBRL): (i) Consolidated Statements of Operations; (ii) Consolidated Statements of Comprehensive Income; (iii) Consolidated Balance Sheets; (iv) Consolidated Statements of Changes in Shareholders' Equity; (v) Consolidated Statements of Cash Flows; and (vi) Notes to the Consolidated Financial Statements.
- 104* The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2019, has been formatted in Inline XBRL.

* Filed herewith.

† Denotes management contract or compensatory plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

None.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Mercer International Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Mercer International Inc. and its subsidiaries (together, the Company) as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A of the 2019 Annual Report on Form 10-K. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

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

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated 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.

Impairment assessment of the Canadian pulp mills' long-lived assets

As described in Notes 1 and 5 to the consolidated financial statements, the Company's Canadian pulp mills' long-lived assets at December 31, 2019 amounted to \$448 million. The unit of accounting for impairment testing for long-lived assets is its asset group, which includes property, plant and equipment, net, amortizable intangible assets, net and liabilities directly related to those assets. Management evaluates an asset group for impairment whenever events or changes in circumstances indicate that the carrying value of the asset group may not be recoverable. When an indicator that the carrying value of an asset group may not be recoverable is triggered, management compares the carrying value of the asset group to its forecast undiscounted future cash flows. The sustained decline in pulp prices and increased fiber costs at the Canadian pulp mills were identified as indicators of impairment, as a result, the Company performed impairment tests on the long-lived assets of the Canadian pulp mills as of December 31, 2019. If the carrying value of an asset group is greater than its undiscounted future cash flows an impairment charge is recorded based on the excess of the asset group's carrying value over its fair value. Forecast undiscounted future cash flows include significant assumptions related to periods of operation, projections of product pricing, production levels, fiber and other production costs, market supply and demand, foreign exchange rates and maintenance spending.

The principal considerations for our determination that performing procedures relating to the impairment assessment of the Canadian pulp mills' long-lived assets is a critical audit matter are i) the significant judgment required by management when developing the forecast undiscounted future cash flows ii) the high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate management's significant assumptions related to periods of operation, projections of product pricing, production levels, fiber and other production costs, market supply and demand, foreign exchange rates and maintenance spending.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's impairment test including controls relating to the significant assumptions used in the test. These procedures also included, among others: testing management's process for developing the forecast undiscounted future cash flows; evaluating the appropriateness of the undiscounted cash flow model; testing the completeness, accuracy, and relevance of underlying data used in the undiscounted cash flow model; and evaluating the reasonableness of significant assumptions used by management, related to periods of operation, projections of product pricing, production levels, fiber and other production costs, market supply and demand, foreign exchange rates and maintenance spending. Evaluating the reasonableness of these assumptions involved considering: (i) the historical performance of the Company's Canadian pulp mills, (ii) management's strategic plan, (iii) comparability of key market-related assumptions, such as projections of product pricing and foreign exchange rates, used in the model to external market and third party data, and (iv) consistency with evidence obtained in other areas of the audit.

/s/ PricewaterhouseCoopers LLP
Chartered Professional Accountants
Vancouver, Canada
February 13, 2020

We have served as the Company's auditor since 2007.

MERCER INTERNATIONAL INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands of U.S. dollars, except per share data)

	For the Year Ended December 31,		
	2019	2018	2017
Revenues	\$ 1,624,411	\$ 1,457,718	\$ 1,169,145
Costs and expenses			
Cost of sales, excluding depreciation and amortization	1,340,380	1,032,101	866,019
Cost of sales depreciation and amortization	125,801	96,288	84,893
Selling, general and administrative expenses	74,227	61,462	49,679
Operating income	84,003	267,867	168,554
Other income (expenses)			
Interest expense	(75,750)	(51,464)	(54,796)
Loss on settlement of debt (Note 9(a))	(4,750)	(21,515)	(10,696)
Legal cost award	—	(6,951)	—
Acquisition commitment fee (Note 2)	—	(5,250)	—
Other income (expenses)	6,084	(5,417)	873
Total other expenses, net	(74,416)	(90,597)	(64,619)
Income before provision for income taxes	9,587	177,270	103,935
Provision for income taxes	(19,226)	(48,681)	(33,452)
Net income (loss)	<u>\$ (9,639)</u>	<u>\$ 128,589</u>	<u>\$ 70,483</u>
Net income (loss) per common share			
Basic	\$ (0.15)	\$ 1.97	\$ 1.09
Diluted	\$ (0.15)	\$ 1.96	\$ 1.08
Dividends declared per common share	\$ 0.5375	\$ 0.5000	\$ 0.4700

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands of U.S. dollars)

	For the Year Ended December 31,		
	2019	2018	2017
Net income (loss)	\$ (9,639)	\$ 128,589	\$ 70,483
Other comprehensive income (loss), net of taxes			
Foreign currency translation adjustment	12,291	(76,899)	120,505
Change in unrecognized losses and prior service costs related to defined benefit pension plans, net of tax of \$901 (2018 – \$424 and 2017 – \$nil)	(681)	7,730	5,763
Other comprehensive income (loss), net of taxes	11,610	(69,169)	126,268
Total comprehensive income	<u>\$ 1,971</u>	<u>\$ 59,420</u>	<u>\$ 196,751</u>

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

MERCER INTERNATIONAL INC.
CONSOLIDATED BALANCE SHEETS
(In thousands of U.S. dollars, except share and per share data)

	December 31,	
	2019	2018
ASSETS		
Current assets		
Cash and cash equivalents	\$ 351,085	\$ 240,491
Accounts receivable	208,740	252,692
Inventories	272,599	303,813
Prepaid expenses and other	12,273	13,703
Total current assets	844,697	810,699
Property, plant and equipment, net	1,074,242	1,029,257
Investment in joint ventures	53,122	62,574
Amortizable intangible assets, net	53,371	53,927
Operating lease right-of-use assets	13,004	—
Other long-term assets	26,038	17,904
Deferred income tax	1,246	1,374
Total assets	<u>\$ 2,065,720</u>	<u>\$ 1,975,735</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable and other	\$ 255,544	\$ 194,484
Pension and other post-retirement benefit obligations	768	904
Total current liabilities	256,312	195,388
Debt	1,087,932	1,041,389
Pension and other post-retirement benefit obligations	25,489	25,829
Finance lease liabilities	31,103	24,669
Operating lease liabilities	10,520	—
Other long-term liabilities	14,114	13,924
Deferred income tax	89,847	93,107
Total liabilities	1,515,317	1,394,306
Shareholders' equity		
Common shares \$1 par value; 200,000,000 authorized; 65,629,000 issued and outstanding (2018 – 65,202,000)	65,598	65,171
Additional paid-in capital	344,994	342,438
Retained earnings	256,371	301,990
Accumulated other comprehensive loss	(116,560)	(128,170)
Total shareholders' equity	550,403	581,429
Total liabilities and shareholders' equity	<u>\$ 2,065,720</u>	<u>\$ 1,975,735</u>

Commitments and contingencies (Note 18,19)

Subsequent event (Note 12)

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

MERCER INTERNATIONAL INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(In thousands of U.S. dollars)

	<u>Common Shares</u>				<u>Accumulated Other Comprehensive Loss</u>	<u>Total Shareholders' Equity</u>
	<u>Number (thousands of shares)</u>	<u>Amount, at Par Value</u>	<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>		
Balance as of December 31, 2016	64,694	\$ 64,656	\$ 333,673	\$ 166,068	\$ (185,269)	\$ 379,128
Shares issued on grants of restricted shares	43	38	(38)	—	—	—
Shares issued on grants of performance share units	280	280	(280)	—	—	—
Stock compensation expense	—	—	2,890	—	—	2,890
Net income	—	—	—	70,483	—	70,483
Dividends declared	—	—	—	(30,553)	—	(30,553)
Settlement of short-swing trade profit claim	—	—	2,450	—	—	2,450
Other comprehensive income	—	—	—	—	126,268	126,268
Balance as of December 31, 2017	65,017	64,974	338,695	205,998	(59,001)	550,666
Shares issued on grants of restricted shares	31	43	(43)	—	—	—
Shares issued on grants of performance share units	154	154	(154)	—	—	—
Stock compensation expense	—	—	3,940	—	—	3,940
Net income	—	—	—	128,589	—	128,589
Dividends declared	—	—	—	(32,597)	—	(32,597)
Other comprehensive loss	—	—	—	—	(69,169)	(69,169)
Balance as of December 31, 2018	65,202	65,171	342,438	301,990	(128,170)	581,429
Shares issued on grants of restricted shares	31	31	(31)	—	—	—
Shares issued on grants of performance share units	449	449	(449)	—	—	—
Stock compensation expense	—	—	3,036	—	—	3,036
Net loss	—	—	—	(9,639)	—	(9,639)
Dividends declared	—	—	—	(35,279)	—	(35,279)
Repurchase of common shares	(53)	(53)	—	(701)	—	(754)
Other comprehensive income	—	—	—	—	11,610	11,610
Balance as of December 31, 2019	<u>65,629</u>	<u>\$ 65,598</u>	<u>\$ 344,994</u>	<u>\$ 256,371</u>	<u>\$ (116,560)</u>	<u>\$ 550,403</u>

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

MERCER INTERNATIONAL INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of U.S. dollars)

	For the Year Ended December 31,		
	2019	2018	2017
Cash flows from (used in) operating activities			
Net income (loss)	\$ (9,639)	\$ 128,589	\$ 70,483
Adjustments to reconcile net income (loss) to cash flows from operating activities			
Depreciation and amortization	126,394	96,729	85,294
Deferred income tax provision (benefit)	(7,873)	16,596	22,056
Inventory impairment	9,200	—	—
Loss on settlement of debt	4,750	21,515	10,696
Defined benefit pension plans and other post-retirement benefit plan expense	3,449	1,868	2,179
Stock compensation expense	3,036	3,940	2,890
Foreign exchange transaction losses (gains)	7,116	746	(875)
Other	5,834	2,419	3,372
Defined benefit pension plans and other post-retirement benefit plan contributions	(4,467)	(1,133)	(2,031)
Changes in working capital			
Accounts receivable	41,369	(10,370)	(64,949)
Inventories	24,683	(58,082)	(19,994)
Accounts payable and accrued expenses	45,256	37,959	37,170
Other	(4,825)	(4,108)	(4,365)
Net cash from (used in) operating activities	<u>244,283</u>	<u>236,668</u>	<u>141,926</u>
Cash flows from (used in) investing activities			
Purchase of property, plant and equipment	(132,034)	(87,012)	(57,915)
Purchase of amortizable intangible assets	(623)	(600)	(1,777)
Acquisitions (Note 2)	(6,380)	(380,312)	(61,627)
Other	(321)	445	(232)
Net cash from (used in) investing activities	<u>(139,358)</u>	<u>(467,479)</u>	<u>(121,551)</u>
Cash flows from (used in) financing activities			
Redemption of senior notes	(103,875)	(317,439)	(234,945)
Proceeds from issuance of senior notes	205,500	350,000	550,000
Proceeds from (repayment of) revolving credit facilities, net	(58,404)	36,560	22,281
Dividend payments	(35,279)	(40,724)	(29,866)
Payment of interest rate derivative liability	—	—	(6,887)
Repurchase of common shares	(754)	—	—
Payment of debt issuance costs	(4,213)	(10,074)	(11,620)
Proceeds from government grants	6,467	—	600
Other	(3,344)	(3,462)	(812)
Net cash from (used in) financing activities	<u>6,098</u>	<u>14,861</u>	<u>288,751</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(429)	(4,297)	10,716
Net increase (decrease) in cash, cash equivalents and restricted cash	110,594	(220,247)	319,842
Cash, cash equivalents and restricted cash, beginning of year	240,491	460,738	140,896
Cash, cash equivalents and restricted cash, end of year	<u>\$ 351,085</u>	<u>\$ 240,491</u>	<u>\$ 460,738</u>
Supplemental cash flow disclosure			
Cash paid for interest	\$ 59,707	\$ 40,278	\$ 45,908
Cash paid for income taxes	\$ 52,877	\$ 16,149	\$ 10,866
Supplemental schedule of non-cash investing and financing activities:			
Leased production equipment	\$ 8,739	\$ 12,145	\$ 145

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

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies

Background

Mercer International Inc. (“Mercer Inc.”) is a Washington corporation and its shares of common stock are quoted and listed for trading on the NASDAQ Global Market.

Since acquiring Mercer Peace River Pulp Ltd. (“MPR”) in December 2018 it now owns and operates four pulp manufacturing facilities, two in Canada and two in Germany, has a 50% joint venture interest in a northern bleached softwood kraft (“NBSK”) pulp mill in Canada and owns one sawmill in Germany.

In these consolidated financial statements, unless otherwise indicated, all amounts are expressed in U.S. dollars (“\$”). The symbol “€” refers to euros and the symbol “C\$” refers to Canadian dollars.

Basis of Presentation

These consolidated financial statements contained herein include the accounts of Mercer Inc. and all of its subsidiaries (collectively, the “Company”). The Company’s consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the U.S. (“GAAP”). All significant intercompany balances and transactions have been eliminated upon consolidation.

The Company owns 100% of the economic interest in its subsidiaries with the exception of the 50% joint venture interest in an NBSK pulp mill with West Fraser Mills Ltd., which is accounted for using the equity method.

Use of Estimates

Preparation of financial statements and related disclosures in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant management judgment is required in determining the accounting for, among other things, pension and other post-retirement benefit obligations, deferred income taxes (valuation allowance and permanent reinvestment), depreciation and amortization, future cash flows associated with impairment testing for long-lived assets, the allocation of the purchase price in a business combination to the assets acquired and liabilities assumed, legal liabilities and contingencies. Actual results could differ materially from these estimates, and changes in these estimates are recorded when known.

Significant Accounting Policies

Cash and Cash Equivalents

Cash and cash equivalents include cash held in bank accounts and highly liquid investments with original maturities of three months or less.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

Accounts Receivable

Accounts receivable are recorded at cost, net of an allowance for doubtful accounts. The Company reviews the collectability of accounts receivable at each reporting date. The Company maintains an allowance for doubtful accounts at an amount estimated to cover the potential losses on certain uninsured accounts receivable. Any amounts that are determined to be uncollectible and uninsured are offset against the allowance. The allowance is based on the Company's evaluation of numerous factors, including the payment history and financial position of the debtors. For certain customers, the Company receives a letter of credit prior to shipping its product.

Inventories

Inventories of raw materials, finished goods and work in progress are valued at the lower of cost, using the weighted-average cost method, or net realizable value. Spare parts and other materials are valued at the lower of cost and replacement cost. Cost includes labor, materials and production overhead and is determined by using the weighted average cost method. Raw materials inventories include pulp logs, sawlogs and wood chips. These inventories are located both at the mills and at various offsite locations. In accordance with industry practice, physical inventory counts utilize standardized techniques to estimate quantities of pulp logs, sawlogs and wood chip inventory volumes. These techniques historically have provided reasonable estimates of such inventories.

Property, Plant and Equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation of buildings and production equipment is based on the estimated useful lives of the assets and is computed using the straight-line method. The amortization periods have been provided in the Property, Plant and Equipment Note.

The costs of major rebuilds, replacements and those expenditures that substantially increase the useful lives of existing property, plant and equipment are capitalized, as well as interest costs associated with major capital projects until ready for their intended use. The cost of repairs and maintenance as well as planned shutdown maintenance performed on manufacturing facilities, composed of labor, materials and other incremental costs, is recognized as an expense in the Consolidated Statements of Operations as incurred.

The Company provides for asset retirement obligations when there is a legislated or contractual basis for those obligations. An obligation is recorded as a liability at fair value in the period in which the Company incurs a legal obligation associated with the retirement of an asset. The associated costs are capitalized as part of the carrying value of the related asset and amortized over its remaining useful life. The liability is accreted using a credit adjusted risk-free interest rate.

Impairment of Long-Lived Assets

Long-lived assets include property, plant and equipment, net and amortizable intangible assets, net. The unit of accounting for impairment testing for long-lived assets is its "Asset Group", which includes property, plant and equipment, net, amortizable intangible assets, net and liabilities directly related to those assets. The Company evaluates an Asset Group for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable, such as continuing operating losses. When an indicator that the carrying value of an Asset Group may not be recoverable is triggered, the Company compares the carrying value of the Asset Group to its forecasted undiscounted future cash flows. If the carrying value of the Asset Group is greater than the undiscounted future cash flows an impairment charge is recorded based on the excess of the Asset Group's carrying value over its fair value.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

Leases

The Company determines if a contract contains a lease at inception. Leases are classified as either operating or finance leases. Operating leases are included in “Operating lease right-of-use assets”, “Accounts payable and other”, and “Operating lease liabilities” in the Consolidated Balance Sheets. Finance leases are included in “Property, plant and equipment, net”, “Accounts payable and other”, and “Finance lease liabilities” in the Consolidated Balance Sheets. Leases with a term of less than 12 months are not recorded in the Consolidated Balance Sheets, and are expensed over the term of the lease in the Consolidated Statements of Operations.

Operating lease right-of-use assets represent the Company’s right to use an underlying asset for the term of the lease, and the related liabilities represent the Company’s obligation to make the lease payments arising from the lease. Operating lease right-of-use assets and the related liabilities are recognized at the lease commencement date based on the present value of the lease payments over the term of the lease. Renewal and termination options are included in the lease terms when it is reasonably certain that they will be exercised. In determining the present value of lease payments, the Company uses the implicit rate when readily determinable, or the Company’s estimated incremental borrowing rate, which is based on information available at the lease commencement date. Lease payments are expensed in the Consolidated Statements of Operations on a straight-line basis over the term of the lease.

Government Grants

The Company records investment grants from federal and state governments when the conditions of their receipt are complied with and there is reasonable assurance that the grants will be received. Grants related to assets are government grants whose primary condition is that the company qualifying for them should purchase, construct or otherwise acquire long-term assets. Secondary conditions may also be attached, including restricting the type or location of the assets and/or other conditions that must be met. Grants related to assets are deducted from the cost of the assets in the Consolidated Balance Sheets. Grants related to income are government grants which are either unconditional, related to reduced environmental emissions or related to the Company’s normal business operations, and are reported as a reduction of related expenses in the Consolidated Statements of Operations.

The Company is required to pay certain fees based on wastewater emissions at its German mills. Accrued fees can be reduced upon the mills’ demonstration of reduced wastewater emissions. The fees are expensed as incurred and the fee reduction is recognized once the Company has reasonable assurance that the German regulators will accept the reduced level of wastewater emissions. There may be a significant period of time between recognition of the wastewater expense and recognition of the wastewater fee reduction.

Amortizable Intangible Assets

Amortizable intangible assets are stated at cost less accumulated amortization. Amortization is provided on a straight-line basis over the estimated useful lives of the assets. The amortization periods have been provided in the Amortizable Intangible Assets Note.

Sandalwood Tree Plantations

Sandalwood tree plantations are measured at the lower of cost, which includes both direct and indirect costs of growing and harvesting the sandalwood trees, and net realizable value. The cost of the sandalwood plantations is recorded in “Other long-term assets” and the cost of the harvested sandalwood is recorded in “Inventories” in the Consolidated Balance Sheets.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

The sandalwood tree plantations are carried at historical cost and are evaluated for impairment whenever events or changes in circumstances indicate the carrying value may be higher than the net realizable value, such as a sustained drop in sales price.

Pension Plans

The Company maintains defined benefit pension plans for its MPR employees and its salaried employees at the Celgar mill which are funded and non-contributory. The cost of the benefits earned by the employees is determined using the projected unit credit benefit method prorated on years of service. The pension expense reflects the current service cost, the interest on the unfunded liability and the amortization over the estimated average remaining service life of the employees of: (i) prior service costs, and (ii) the net actuarial gain or loss that exceeds 10% of the greater of the accrued benefit obligation and the fair value of plan assets as at the beginning of the year. The Company recognizes the net funded status of the plan.

In addition, hourly-paid employees at the Celgar mill are covered by a multiemployer pension plan for which contributions are expensed in the Consolidated Statements of Operations.

Foreign Operations and Currency Translation

The Company determines its foreign subsidiaries' functional currency by reviewing the currency of the primary economic environment in which the foreign subsidiaries operate, which is normally the currency of the environment in which the foreign subsidiaries generate and expend cash. The Company translates assets and liabilities of its non-U.S. dollar functional currency subsidiaries into U.S. dollars using the rate in effect at the balance sheet date and revenues and expenses are translated at the average rate of exchange throughout the period. Foreign currency translation gains and losses are recognized within "Accumulated other comprehensive loss" in shareholders' equity.

Transactions in foreign currencies are translated to the respective functional currencies of each operation using exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency using the exchange rate at that date. Non-monetary assets and liabilities denominated in foreign currencies are translated to the functional currency using historical exchange rates. Gains and losses resulting from foreign currency transactions related to operating activities are included in "Cost of sales, excluding depreciation and amortization" while those related to non-operating activities are included in "Other income (expenses)" in the Consolidated Statements of Operations.

Where intercompany loans are of a long-term investment nature, exchange rate changes are included as a foreign currency translation adjustment within "Accumulated other comprehensive loss" in shareholders' equity.

Revenue Recognition

The Company recognizes revenue when obligations under the terms of a contract with its customer are satisfied; generally this occurs with the transfer of control of the products sold. Transfer of control to the customer is based on the standardized shipping terms in the contract as this determines when the Company has the right to payment, the customer has legal title to the asset and the customer has the risks of ownership. Payment is due, and a receivable is recognized after control has transferred to the customer and revenue is recognized. Payment terms are defined in the contract as typically due within three months after control has transferred to the customer, and as such, the contracts do not have a significant financing component.

The Company has elected to exclude value added, sales and other taxes it collects concurrent with revenue-producing activities from revenues.

The Company may arrange shipping and handling activities as part of the sale of its products. The Company has elected to account for shipping and handling activities that occur after the customer has obtained control of the product as a fulfillment cost rather than as an additional promised service.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

The following is a description of the principal activities from which the Company generates its revenues. For a breakdown of revenues by product and geographic location see the Business Segment Information Note.

Pulp and Lumber Revenues

For European sales sent by truck or train from the mills directly to the customer, the contracted sales terms are such that control transfers once the truck or train leaves the mill. For orders sent by ocean freighter, the contract terms state that control transfers at the time the product passes the ship's rail. For North American sales shipped by truck or train, the contracts state that control transfers once the truck or train has arrived at the customer's specified location.

The transaction price is included in the sales contract and is net of customer discounts, rebates and other selling concessions.

The Company's pulp sales are to tissue and paper producers and the Company's lumber sales are to manufacturers and retailers. The Company's sales to Europe and North America are direct to the customer. The Company's pulp sales to overseas customers are primarily through third party sales agents and the Company's lumber sales to overseas customers are either direct to the customer or through third party sales agents. The Company is the principal in all of the arrangements with third party sales agents.

By-Product Revenues

Energy sales are to utility companies in Canada and Germany. Sales of energy are recognized as the electricity is consumed by the customer and is based on contractual usage rates and meter readings that measure electricity consumption.

Chemicals and wood residuals from the German mills are sold into the European market direct to the customer and have shipping terms where control transfers once the chemicals or wood residuals are loaded onto the truck at the mill.

Shipping and Handling Costs

Amounts charged to customers for shipping and handling costs are recognized in "Revenues" in the Consolidated Statements of Operations. Shipping and handling costs incurred by the Company are included in "Cost of sales, excluding depreciation and amortization" in the Consolidated Statements of Operations at the time the related revenue is recognized.

Stock-Based Compensation

The Company recognizes stock-based compensation expense over an award's requisite service period based on the award's fair value in "Selling, general, and administrative expenses" in the Consolidated Statements of Operations. The Company issues new shares upon the exercise of stock-based compensation awards.

For performance share units ("PSUs") which have the same grant and service inception date, the fair value is based upon the targeted number of shares to be awarded and the quoted market price of the Company's shares at that date. For PSUs where the service inception date precedes the grant date, the fair value is based upon the targeted number of shares awarded and the quoted price of the Company's shares at each reporting date up to the grant date. The target number of shares is determined using management's best estimate. The final determination of the number of shares to be granted is made by the Company's board of directors. The Company estimates forfeitures of PSUs based on management's expectations and recognizes compensation cost only for those awards expected to vest. Estimated forfeitures are adjusted to actual experience at each balance sheet date.

The fair value of restricted shares is determined based upon the number of shares granted and the quoted price of the Company's shares on the date of grant.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

Deferred Income Taxes

Deferred income taxes are recognized using the asset and liability method, whereby deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis, and operating loss and tax credit carryforwards. Valuation allowances are provided if, after considering both positive and negative available evidence, it is more likely than not that some or all of the net deferred tax assets will not be realized.

Deferred income taxes are determined separately for each tax-paying component of the Company. For each tax-paying component, all deferred tax liabilities and assets are offset and presented as a single net amount.

Derivative Financial Instruments

The Company occasionally enters into derivative financial instruments to manage certain market risks. These derivative instruments are not designated as hedging instruments and accordingly, are recorded at fair value in the Consolidated Balance Sheets with the changes in fair value recognized in "Other income (expenses)" in the Consolidated Statements of Operations. Periodically, the Company enters into derivative contracts to supply materials for its own use and as such are exempt from mark-to-market accounting.

Fair Value Measurements

The fair value methodologies and, as a result, the fair value of the Company's financial instruments are determined based on the fair value hierarchy provided in the Fair Value Measurements and Disclosures topic of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification, and are as follows:

Level 1 – Valuations based on quoted prices in active markets for identical assets and liabilities.

Level 2 – Valuations based on observable inputs in active markets for similar assets and liabilities, other than Level 1 prices, such as quoted commodity prices or interest or currency exchange rates.

Level 3 – Valuations based on significant unobservable inputs that are supported by little or no market activity, such as discounted cash flow methodologies based on internal cash flow forecasts.

The financial instrument's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Net Income (Loss) Per Common Share

Basic net income (loss) per common share is computed by dividing net income (loss) by the weighted average number of common shares outstanding in the period. Diluted net income (loss) per common share is calculated to give effect to all potentially dilutive common shares outstanding by applying the "Treasury Stock" and "If-Converted" methods. Instruments that could have a potentially dilutive effect on the Company's weighted average shares outstanding include all or a portion of outstanding stock options, restricted shares, restricted share units, performance shares and PSUs.

Business Combinations

The Company uses the acquisition method in accounting for a business combination that meets the definition of a business. Under this approach, identifiable assets acquired and liabilities assumed are recorded at their respective fair market values at the date of acquisition. In developing estimates of fair market values for long-lived assets, including identifiable intangible assets, the Company utilizes a variety of inputs including forecasted cash flows, discount rates, estimated replacement costs and depreciation and obsolescence factors. Valuations are performed by management or independent valuation specialists under management's supervision, where appropriate. Acquisition costs, as well as costs to integrate acquired companies, are expensed as incurred in the Consolidated Statements of Operations.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 1. The Company and Summary of Significant Accounting Policies (continued)

New Accounting Pronouncements

Accounting Pronouncements Adopted

In February 2016, the FASB established Topic 842, Leases, by issuing Accounting Standards Update (“ASU”) 2016-02, Leases, which requires lessees to recognize virtually all leases on the balance sheet, by recording a right-of-use asset and corresponding liability. Additionally, the update also requires additional disclosures in regards to the nature, timing and uncertainty of cash flows arising from leases. Topic 842 was subsequently amended by ASU 2018-01, Land Easement Practical Expedient for Transition to Topic 842; ASU 2018-10, Codification Improvements to Topic 842, Leases; and ASU 2018-11, Leases: Targeted Improvements. These updates were effective for financial statements issued for fiscal years beginning after December 15, 2018. The Company adopted these updates on January 1, 2019 using the modified retrospective method with no restatement of comparative financial information. The new standard provides a number of optional practical expedients in transition and the Company elected to use all of them on adoption. Adoption of the standard resulted in recognition of right-of-use assets and lease liabilities for operating leases of \$14,700 as of January 1, 2019. The standard did not impact the Consolidated Statements of Operations or the Consolidated Statements of Cash Flows. The Company’s lease disclosure has been included in the Lease Commitments Note.

Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which replaces the current incurred loss impairment method with a method that reflects expected credit losses. In May 2019, the FASB issued ASU 2019-05, Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief, which provides entities with targeted transition relief that is intended to increase comparability of financial statement information for some entities that otherwise would have measured similar financial instruments using different measurement methodologies. These updates are effective for financial statements issued after December 15, 2019, with early adoption permitted. This guidance should be applied using the modified-retrospective approach. The Company will adopt these updates on January 1, 2020. The Company is currently evaluating the provisions of this guidance but believes the adoption of these updates will not have a significant impact on the consolidated financial statements as the Company’s credit risk associated with its sales is currently managed through the purchase of credit insurance, letters of credit and setting credit limits prior to the sale. The Company reviews new customers’ credit history before granting credit and conducts regular reviews of existing customers’ credit performance. The Company is exposed to credit risk in the event of non-performance by counterparties to its financial instruments. The Company attempts to minimize this exposure by entering into contracts with counterparties that are believed to be of high credit quality.

In December 2019, the FASB issued ASU 2019-12, Income Taxes – Simplifying the Accounting for Income Taxes, which removes certain exceptions for investments, intraperiod tax allocations and interim calculations, and adds guidance to reduce complexity in accounting for income taxes. This update is effective for financial statements issued for fiscal years beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact of this update but believes it will not have a significant impact on the consolidated financial statements.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 2. Acquisitions

Mercer Forestry Services

On October 31, 2019, the Company acquired a log harvesting, road building and trucking services business for \$6,938 cash. The acquired business will be called Mercer Forestry Services Ltd. (“MFS”).

Significantly all of the purchase price was allocated to the fair value of logging equipment. MFS qualifies as a business under GAAP and accordingly, the Company began consolidating its results of operations, financial position and cash flows in the consolidated financial statements as of the acquisition date. In the year ended December 31, 2019, \$265 of acquisition related costs were recognized in “Selling, general and administrative expenses” in the Consolidated Statements of Operations.

Pro forma information related to the acquisition of MFS has not been provided as it does not have a material effect on the Company’s Consolidated Statements of Operations.

MPR

On December 10, 2018, the Company acquired all of the issued and outstanding shares of MPR. The purchase price was cash consideration of \$344,030, after certain customary working capital adjustments. The acquisition resulted in 100% ownership of a bleached kraft pulp mill in Peace River, Alberta, a 50% joint venture interest in the Cariboo Pulp & Paper Company (“CPP”) (being an NBSK pulp mill, in Quesnel, British Columbia) and a 50% interest in a logging and chipping operation for the areas underlying MPR’s forest management agreements and timber allocations. The acquisition of MPR expands the Company’s sales presence in Asia and adds northern bleached hardwood kraft to its product mix.

The following table summarizes the Company’s allocation of the purchase price to the fair value of the assets acquired and liabilities assumed at the acquisition date:

	Purchase Price Allocation
Current assets	\$ 134,748
Property, plant and equipment	214,260
Investment in joint ventures	55,325
Amortizable intangible assets, timber cutting rights (a)	37,634
Other long term-assets	392
Total assets acquired	442,359
Current liabilities	35,578
Pension obligations	9,747
Deferred income tax	49,907
Other long-term liabilities	3,097
Total liabilities assumed	98,329
Net assets acquired	<u>\$ 344,030</u>

(a) The timber cutting rights are being amortized on a straight-line basis over 30 years. The fair value of the timber cutting rights was determined through the market approach utilizing comparable market data. The values were then discounted at a rate of 12% for 30 years to arrive at the fair value.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 2. Acquisitions (continued)

During 2019, immaterial adjustments were made to the purchase price allocation to reflect the final valuation of the assets acquired and liabilities assumed.

MPR meets the definition of a business under GAAP and accordingly, the Company began consolidating its results of operations, financial position and cash flows in the consolidated financial statements as of the acquisition date. The amounts of MPR's revenues and net loss included in the Consolidated Statements of Operations for the year ended December 31, 2018 were \$29,907 and \$978, respectively. In the year ended December 31, 2018, \$1,871 of acquisition related costs were recognized in "Selling, general and administrative expenses" in the Consolidated Statements of Operations. The Company also incurred an acquisition commitment fee of \$5,250 for a senior unsecured bridge facility to ensure financing was in place for the acquisition. However, the bridge facility was not used as the Company issued senior notes due 2025.

The following unaudited pro forma information represents the Company's results of operations as if the acquisition of MPR had occurred on January 1, 2017. This pro forma information does not purport to be indicative of the results that would have occurred for the periods presented or that may be expected in the future.

	For the Year Ended December 31,	
	2018	2017
Revenues	\$ 1,906,697	\$ 1,503,446
Net income	\$ 189,431	\$ 42,267

The unaudited pro forma information includes additional interest expense related to debt issued to finance the acquisition of \$25,190 and \$26,989 for the years ended December 31, 2018 and December 31, 2017, respectively and additional depreciation expense of \$11,679 and \$9,776 for the years ended December 31, 2018 and December 31, 2017, respectively. Other adjustments also include those related to increasing the December 31, 2018 net income and decreasing the December 31, 2017 net income by the non-recurring acquisition commitment fee of \$5,250 and acquisition costs of \$1,871.

Mercer Sandalwood

On October 18, 2018, the Company acquired Mercer Sandalwood Pty Ltd ("Mercer Sandalwood") (formerly Santanol) for \$35,724 cash. Mercer Sandalwood owns and leases existing Indian sandalwood plantations and a processing extraction plant in Australia. The acquisition presents the opportunity to expand the Company's operations to include plantation harvesting as well as production and marketing of solid wood chemical extractives.

The following table summarizes the Company's allocation of the purchase price to the fair value of the assets acquired and liabilities assumed from Mercer Sandalwood at the acquisition date:

	Purchase Price Allocation
Net working capital	\$ 5,111
Property, plant and equipment	18,490
Sandalwood tree plantations (a)	14,587
Deferred income tax liability	(2,464)
Net assets acquired	\$ 35,724

(a) The fair value of the sandalwood tree plantations was determined using the discounted cash flows method using a rate of 10.5%.

During 2019, immaterial adjustments were made to the purchase price allocation to reflect the final valuation of the assets acquired and liabilities assumed.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 2. Acquisitions (continued)

Mercer Sandalwood meets the definition of a business under GAAP and accordingly, the Company began consolidating its results of operations, financial position and cash flows in the consolidated financial statements as of the acquisition date. The amount of Mercer Sandalwood's revenues and net loss included in the Consolidated Statements of Operations for the year ended December 31, 2018 was \$478 and \$907, respectively. In the year ended December 31, 2018, \$777 of acquisition related costs were recognized in "Selling, general and administrative expenses" in the Consolidated Statements of Operations.

Pro forma information related to the acquisition of Santanol has not been provided as it does not have a material effect on the Company's Consolidated Statements of Operations.

Note 3. Accounts Receivable

Accounts receivable as of December 31, 2019 and December 31, 2018, was comprised of the following:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Trade, net of allowance of \$164 (2018 – \$nil)	\$ 172,626	\$ 230,426
Other	36,114	22,266
	<u>\$ 208,740</u>	<u>\$ 252,692</u>

Note 4. Inventories

Inventories as of December 31, 2019 and December 31, 2018, were comprised of the following:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Raw materials	\$ 99,754	\$ 103,983
Finished goods	77,815	114,304
Spare parts and other	95,030	85,526
	<u>\$ 272,599</u>	<u>\$ 303,813</u>

In the second half of 2019, as a result of the decline in pulp prices and increased fiber costs for the Canadian mills, the Company recorded inventory impairment charges of \$23,000 at the Canadian mills. These charges were recorded in "Cost of sales, excluding depreciation and amortization" in the Consolidated Statements of Operations. As of December 31, 2019, \$3,500 of the write-down was recorded in raw materials inventory and \$5,700 of the write-down was recorded in finished goods inventory.

Note 5. Property, Plant and Equipment

Property, plant and equipment as of December 31, 2019 and December 31, 2018, was comprised of the following:

	<u>Estimated Useful Lives (Years)</u>	<u>December 31,</u>	
		<u>2019</u>	<u>2018</u>
Land		\$ 54,385	\$ 54,832
Buildings	10 - 50	255,233	251,408
Production and other equipment	5 - 25	1,850,377	1,698,132
		2,159,995	2,004,372
Less: accumulated depreciation		<u>(1,085,753)</u>	<u>(975,115)</u>
		<u>\$ 1,074,242</u>	<u>\$ 1,029,257</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 5. Property, Plant and Equipment (continued)

As of December 31, 2019, property, plant and equipment was net of \$190,571 of unamortized government grants (2018 – \$211,532).

As a result of the sustained decline in pulp prices and increased fiber costs for the Canadian mills in 2019, the Company performed impairment tests, as of December 31, 2019 on the long-lived assets of the Canadian pulp mills which had a combined carrying value of \$447,510. The Company compared the carrying values of the Canadian mills' long-lived assets to their estimated future undiscounted cash flows. An impairment assessment requires management to apply judgement in estimating the future cash flows. The significant estimates in the future cash flows include periods of operation, projections of product pricing, production levels, fiber and other production costs, market supply and demand, foreign exchange rates and maintenance spending. As the carrying values of these long-lived assets were less than the undiscounted cash flows, no impairment was recorded.

The Company maintains industrial landfills on its premises for the disposal of waste, primarily from the mills' pulp processing activities. The mills have obligations under their landfill permits to decommission these disposal facilities pursuant to certain regulations. As of December 31, 2019, the Company had recorded \$9,516 (2018 – \$8,752) of asset retirement obligations in "Other long-term liabilities" in the Consolidated Balance Sheets.

Note 6. Amortizable Intangible Assets

Amortizable intangible assets as of December 31, 2019 and December 31, 2018, were comprised of the following:

	Estimated Useful Lives (Years)	December 31, 2019			December 31, 2018		
		Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Energy sales agreement	11	\$ 16,909	\$ (4,182)	\$ 12,727	\$ 17,234	\$ (1,977)	\$ 15,257
Timber cutting rights	30	38,767	(1,369)	37,398	34,139	—	34,139
Software and other intangible assets	5	24,999	(21,753)	3,246	23,731	(19,200)	4,531
		<u>\$ 80,675</u>	<u>\$ (27,304)</u>	<u>\$ 53,371</u>	<u>\$ 75,104</u>	<u>\$ (21,177)</u>	<u>\$ 53,927</u>

Amortization expense related to intangible assets for the year ended December 31, 2019 was \$5,930 (2018 – \$5,022; 2017 – 4,030).

Amortization expense for the next five years related to intangible assets as of December 31, 2019 is expected to be as follows:

	2020	2021	2022	2023	2024
Amortization expense	\$ 4,284	\$ 4,007	\$ 3,272	\$ 2,919	\$ 2,907

Note 7. Other Long-Term Assets

Other long-term assets as of December 31, 2019 and December 31, 2018, were comprised of the following:

	December 31,	
	2019	2018
Sandalwood tree plantations	\$ 21,603	\$ 13,258
Other	4,435	4,646
	<u>\$ 26,038</u>	<u>\$ 17,904</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 8. Accounts Payable and Other

Accounts payable and other as of December 31, 2019 and December 31, 2018, was comprised of the following:

	December 31,	
	2019	2018
Trade payables	\$ 73,721	\$ 36,333
Accrued expenses	111,696	95,936
Interest payable	33,198	16,861
Income tax payable	28,080	29,818
Legal cost award payable	—	6,951
Other	8,849	8,585
	<u>\$ 255,544</u>	<u>\$ 194,484</u>

Note 9. Debt

Debt as of December 31, 2019 and December 31, 2018, was comprised of the following:

	December 31,	
	2019	2018
2022 Senior Notes, principal amount \$100,000 (a)	\$ —	\$ 98,918
2024 Senior Notes, principal amount \$250,000 (a)	246,911	246,154
2025 Senior Notes, principal amount \$550,000 (a)	545,665	342,761
2026 Senior Notes, principal amount \$300,000 (a)	295,356	294,588
Credit arrangements		
€200 million joint revolving credit facility (b)	—	58,968
C\$60 million revolving credit facility (c)	—	—
C\$40 million revolving credit facility (d)	—	—
€2.6 million demand loan (e)	—	—
	<u>\$ 1,087,932</u>	<u>\$ 1,041,389</u>

The maturities of the principal portion of debt as of December 31, 2019 were as follows:

2020	\$ —
2021	—
2022	—
2023	—
2024	250,000
Thereafter	850,000
	<u>\$ 1,100,000</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 9. Debt (continued)

Certain of the Company's debt instruments were issued under agreements which, among other things, may limit its ability and the ability of its subsidiaries to make certain payments, including dividends. These limitations are subject to specific exceptions. As of December 31, 2019, the Company was in compliance with the terms of its debt agreements.

- (a) In 2018, the Company issued \$350,000 in aggregate principal amount of 7.375% senior notes which mature on January 15, 2025 (the "2025 Senior Notes"). The 2025 Senior Notes were issued at a price of 100% of their principal amount. The net proceeds of the offering were \$342,682 after deducting the underwriter's discount and offering expenses. The net proceeds together with cash on hand were used to finance the acquisition of MPR.

In October 2019, the Company issued an additional \$200,000 in aggregate principal amount of 2025 Senior Notes at a price of 102.75% of their principal amount for a yield to worst of 6.435%. The net proceeds of the offerings were \$202,063 after deducting the underwriter's discount and offering expenses. The net proceeds were used to redeem \$100,000 of remaining aggregate principal amount of outstanding senior notes due 2022 (the "2022 Notes") and for general corporate purposes. In connection with this redemption, the Company recorded a loss on settlement of debt of \$4,750 in the Consolidated Statements of Operations.

In 2017, the Company issued \$300,000 in aggregate principal amount of 5.50% senior notes which mature on January 15, 2026 (the "2026 Senior Notes"). The 2026 Senior Notes were issued at a price of 100% of their principal amount. The net proceeds of the offering were \$293,795 after deducting the underwriter's discount and offering expenses. In 2018, the net proceeds, together with cash on hand, were used to redeem \$300,000 in aggregate principal amount of the 2022 Senior Notes. In connection with this redemption, the Company recorded a loss on settlement of debt of \$21,515 in the Consolidated Statements of Operations.

In 2017, the Company issued \$250,000 in aggregate principal amount of 6.50% senior notes which mature on February 1, 2024 (the "2024 Senior Notes" and collectively with the 2025 Senior Notes and 2026 Senior Notes, the "Senior Notes"). The 2024 Senior Notes were issued at a price of 100% of their principal amount. The net proceeds of the offering were \$244,711 after deducting the underwriter's discount and offering expenses. The net proceeds, together with cash on hand, were used to redeem \$227,000 of remaining aggregate principal amount of outstanding senior notes due 2019, to finance the acquisition of the Friesau mill and for general working capital purposes. In connection with this redemption, the Company recorded a loss on settlement of debt of \$10,696 in the Consolidated Statements of Operations.

The Senior Notes are general unsecured senior obligations of the Company. They rank equal in right of payment with all existing and future unsecured senior indebtedness of the Company and are senior in right of payment to any current or future subordinated indebtedness of the Company. The Senior Notes are effectively junior in right of payment to all existing and future secured indebtedness, to the extent of the assets securing such indebtedness, and all indebtedness and liabilities of the Company's subsidiaries.

The Company may redeem all or a part of the 2025 Senior Notes or 2026 Senior Notes, upon not less than 10 days' or more than 60 days' notice and the Company may redeem all or a part of the 2024 Senior Notes, upon not less than 30 days' or more than 60 days' notice at the redemption price plus accrued and unpaid interest to (but not including) the applicable redemption date.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 9. Debt (continued)

The following table presents the redemption prices (expressed as percentages of principal amount) and the redemption periods of the outstanding Senior Notes:

2024 Senior Notes		2025 Senior Notes		2026 Senior Notes	
12 Month Period Beginning	Percentage	12 Month Period Beginning	Percentage	12 Month Period Beginning	Percentage
February 1, 2020	103.250%	January 15, 2021	103.688%	January 15, 2021	102.750%
February 1, 2021	101.625%	January 15, 2022	101.844%	January 15, 2022	101.375%
February 1, 2022 and thereafter	100.000%	January 15, 2023 and thereafter	100.000%	January 15, 2023 and thereafter	100.000%

- (b) A €200.0 million joint revolving credit facility with all of the Company's German mills that matures in December 2023. Borrowings under the facility are unsecured and bear interest at Euribor plus a variable margin ranging from 1.05% to 2.00% dependent on conditions including but not limited to a prescribed leverage ratio. As of December 31, 2019, approximately €11.0 million (\$12,410) of this facility was supporting bank guarantees leaving approximately €189.0 million (\$212,270) available.
- (c) A C\$60.0 million revolving credit facility for MPR that matures in February 2024. The facility is available by way of: (i) Canadian denominated advances, which bear interest at a designated prime rate per annum; (ii) banker's acceptance equivalent loans, which bear interest at the applicable Canadian dollar banker's acceptance plus 1.25% to 1.50% per annum; (iii) dollar denominated base rate advances at the greater of the federal funds rate plus 0.50%, a designated LIBOR rate plus 1.00% and the bank's applicable reference rate for U.S. dollar loans; and (iv) dollar LIBOR advances, which bear interest at LIBOR plus 1.25% to 1.50% per annum. Borrowings under the facility are collateralized by, among other things, the mill's inventories and accounts receivable. As of December 31, 2019, approximately C\$1.0 million (\$754) was supporting letters of credit leaving approximately C\$59.0 million (\$45,440) available.
- (d) A C\$40.0 million revolving credit facility for the Celgar mill that matures in July 2023. Borrowings under the facility are collateralized by the mill's inventory, accounts receivable, general intangibles and capital assets and are restricted by a borrowing base calculated on the mill's inventories and accounts receivable. When the borrowing capacity is less than 25% of the total facility the Canadian dollar denominated amounts bear interest at bankers acceptance plus 1.50% or Canadian prime and the U.S. dollar denominated amounts bear interest at LIBOR plus 1.50% or U.S. base. When the borrowing capacity is greater than or equal to 25% of the total facility, the respective bankers acceptance or LIBOR margins are reduced by 0.25% and the Canadian prime or U.S. base margins are reduced by 0.125%. As of December 31, 2019, approximately C\$1.7 million (\$1,308) was supporting letters of credit leaving approximately C\$38.3 million (\$29,488) available.
- (e) A €2.6 million demand loan at the Rosenthal mill that does not have a maturity date. Borrowings under this facility are unsecured and bear interest at the rate of the three-month Euribor plus 2.50%. As of December 31, 2019, approximately €2.6 million (\$2,867) of this facility was supporting bank guarantees leaving approximately \$nil available.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 10. Pension and Other Post-Retirement Benefit Obligations

Defined Benefit Plans

Pension benefits are based on employees' earnings and years of service. The defined benefit plans are funded by contributions from the Company based on actuarial estimates and statutory requirements. Information about the Celgar and MPR defined benefit plans, in aggregate for the year ended December 31, 2019 was as follows:

	2019		
	Pension	Other Post-Retirement Benefits	Total
Change in benefit obligation			
Benefit obligation, December 31, 2018	\$ 95,996	\$ 14,859	\$ 110,855
Service cost	2,868	271	3,139
Interest cost	3,516	548	4,064
Benefit payments	(3,703)	(647)	(4,350)
Actuarial losses (gains)	9,228	(2,477)	6,751
Foreign currency exchange rate changes	5,091	698	5,789
Benefit obligation, December 31, 2019	<u>112,996</u>	<u>13,252</u>	<u>126,248</u>
Reconciliation of fair value of plan assets			
Fair value of plan assets, December 31, 2018	84,122	—	84,122
Actual returns	11,269	—	11,269
Contributions	3,820	647	4,467
Benefit payments	(3,703)	(647)	(4,350)
Foreign currency exchange rate changes	4,483	—	4,483
Fair value of plan assets, December 31, 2019	<u>99,991</u>	<u>—</u>	<u>99,991</u>
Funded status, December 31, 2019	<u>\$ (13,005)</u>	<u>\$ (13,252)</u>	<u>\$ (26,257)</u>
Components of the net benefit cost recognized			
Service cost	\$ 2,868	\$ 271	\$ 3,139
Interest cost	3,516	548	4,064
Expected return on plan assets	(4,017)	—	(4,017)
Amortization of unrecognized items	941	(678)	263
Net benefit cost	<u>\$ 3,308</u>	<u>\$ 141</u>	<u>\$ 3,449</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 10. Pension and Other Post-Retirement Benefit Obligations (continued)

Information about the Celgar and, from the date of acquisition, MPR defined benefit plans, in aggregate for the year ended December 31, 2018 was as follows:

	2018		
	Pension	Other Post-Retirement Benefits	Total
Change in benefit obligation			
Benefit obligation, December 31, 2017	\$ 38,330	\$ 20,788	\$ 59,118
Benefit obligation transferred, MPR	62,545	—	62,545
Service cost	269	467	736
Interest cost	1,409	709	2,118
Benefit payments	(2,346)	(594)	(2,940)
Actuarial losses (gains)	456	(5,065)	(4,609)
Foreign currency exchange rate changes	(4,667)	(1,446)	(6,113)
Benefit obligation, December 31, 2018	<u>95,996</u>	<u>14,859</u>	<u>110,855</u>
Reconciliation of fair value of plan assets			
Fair value of plan assets, December 31, 2017	37,057	—	37,057
Fair value plan assets transferred, MPR	52,740	—	52,740
Actual returns	378	—	378
Contributions	539	594	1,133
Benefit payments	(2,346)	(594)	(2,940)
Foreign currency exchange rate changes	(4,246)	—	(4,246)
Fair value of plan assets, December 31, 2018	84,122	—	84,122
Funded status, December 31, 2018	<u>\$ (11,874)</u>	<u>\$ (14,859)</u>	<u>\$ (26,733)</u>
Components of the net benefit cost recognized			
Service cost	\$ 269	\$ 467	\$ 736
Interest cost	1,409	709	2,118
Expected return on plan assets	(1,694)	—	(1,694)
Amortization of unrecognized items	915	(207)	708
Net benefit cost	<u>\$ 899</u>	<u>\$ 969</u>	<u>\$ 1,868</u>

The components of the net benefit cost other than service cost are recorded in “Other income (expenses)” in the Consolidated Statements of Operations. The amortization of unrecognized items relates to net actuarial losses and prior service costs.

The Company anticipates that it will make contributions to the defined benefit plans of approximately \$3,715 in 2020. Estimated future benefit payments under these plans as of December 31, 2019 was as follows:

	Pension	Other Post-Retirement Benefits
2020	\$ 4,355	\$ 516
2021	\$ 4,510	\$ 544
2022	\$ 4,696	\$ 568
2023	\$ 4,844	\$ 593
2024	\$ 5,052	\$ 618
2025-2029	\$ 28,198	\$ 3,450

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 10. Pension and Other Post-Retirement Benefit Obligations (continued)

Weighted Average Assumptions

The weighted-average assumptions used to determine the benefit obligations at the measurement dates and the net benefit costs for the years ended December 31, 2019, 2018 and 2017 were as follows for Celgar’s defined benefit plan:

	December 31,		
	2019	2018	2017
Benefit obligations			
Discount rate	3.00%	3.14%	3.50%
Rate of compensation increase	2.50%	2.50%	2.50%
Net benefit cost for year ended			
Discount rate	3.14%	3.50%	3.80%
Rate of compensation increase	2.50%	2.50%	2.50%
Expected rate of return on plan assets	3.90%	4.40%	6.00%

The weighted-average assumptions used to determine the benefit obligations at the measurement dates and the net benefit costs for the years ended December 31, 2019 and 2018 were as follows for MPR’s defined benefit plan:

	December 31,	
	2019	2018
Benefit obligations		
Discount rate	3.20%	3.90%
Rate of compensation increase	2.75%	2.75%
Net benefit cost for year ended		
Discount rate	3.90%	3.95%
Rate of compensation increase	2.75%	3.25%
Expected rate of return on plan assets	5.12%	5.15%

The discount rate assumption is adjusted annually to reflect the rates available on high-quality debt instruments, with a duration that is expected to match the timing of expected pension and other post-retirement benefit obligations. High-quality debt instruments are corporate bonds with a rating of “AA” or better.

The expected rate of return on plan assets is a management estimate based on, among other factors, historical long-term returns, expected asset mix and active management premium.

The expected rate of compensation increase is a management estimate based on, among other factors, historical compensation increases and promotions, while considering current industry conditions, the terms of collective bargaining agreements with employees and the outlook for the industry.

The assumed health care cost trend rates used to determine the other post-retirement benefit obligations as of December 31, 2019 and December 31, 2018 were as follows:

	December 31,	
	2019	2018
Health care cost trend rate assumed for next year	5.00%	5.50%
Rate to which the cost trend is assumed to decline (ultimate trend rate)	4.50%	4.50%
Year that the rate reaches the ultimate trend rate	2021	2021

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 10. Pension and Other Post-Retirement Benefit Obligations (continued)

The expected health care cost trend rates are based on historical trends for these costs, as well as recently enacted health care legislation. The Company also compares health care cost trend rates to those of the industry.

Investment Objective and Asset Allocation

The investment objective for the defined benefit pension plan is to sufficiently diversify invested plan assets to maintain a reasonable level of risk without imprudently sacrificing the return on the invested funds, and ultimately to achieve a long-term total rate of return, net of fees and expenses, at least equal to the long-term interest rate assumptions used for funding actuarial valuations. To achieve this objective, the Company's overall investment strategy is to maintain an investment allocation mix of long-term growth investments (equities) and fixed income investments (debt securities). Investment allocation targets have been established by asset class after considering the nature of the liabilities, long-term return expectations, the risks associated with key asset classes, funded position, inflation and interest rates and related management fees and expenses. In addition, the defined benefit pension plan's investment strategy seeks to minimize risk beyond legislated requirements by constraining the investment managers' investment options. There are a number of specific constraints based on investment type, but they all have the general purpose of ensuring that the investments are fully diversified and that risk is appropriately managed. For example, there are constraints on the book value of assets that can be invested in any one entity or group, and all equity holdings must be listed on a public exchange. Reviews of the investment objectives, key assumptions and the independent investment managers are performed periodically.

Pension De-Risking Actions

During 2017, the Company initiated a pension de-risking strategy for Celgar's defined benefit plan. The first step of the strategy resulted in changing the target investment mix to 80% debt securities, to more effectively hedge the plan liabilities for inactive members, and 20% equity securities, to consider the inflationary effect of future salary increases for the remaining active members.

In 2018, the Company used the debt security investments in Celgar's defined benefit plan to purchase buy-in annuities for all inactive members. This transaction fully hedges the plan liabilities for inactive members.

Concentrations of Risk in the Defined Benefit Pension Plan's Assets

The Company has reviewed the defined benefit pension plan's equity investments and determined that they are allocated based on the specific investment managers' stated investment strategies with only slight over- or under-weightings within any specific category, and that those investments are within the constraints that have been set by the Company. Those constraints include a limitation on the value that can be invested in any one entity or investment category. The Company has concluded that there are no significant concentrations of risk.

The following table presents the Celgar and MPR defined benefit pension plans' assets fair value measurements as of December 31, 2019 under the fair value hierarchy:

<u>Asset Category</u>	<u>Fair value measurements as of December 31, 2019 using:</u>			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Equity securities	\$ 43,800	\$ —	\$ —	\$ 43,800
Debt securities	55,757	—	—	55,757
Cash	69	—	—	69
Other	365	—	—	365
Total assets	\$ 99,991	\$ —	\$ —	\$ 99,991

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 10. Pension and Other Post-Retirement Benefit Obligations (continued)

The following table presents the Celgar and MPR defined benefit pension plans' assets fair value measurements as of December 31, 2018 under the fair value hierarchy:

Asset Category	Fair value measurements as of December 31, 2018 using:			
	Level 1	Level 2	Level 3	Total
Equity securities	\$ 31,230	\$ —	\$ —	\$ 31,230
Debt securities, including buy-in annuities	49,724	—	—	49,724
Cash	2,054	—	—	2,054
Other	1,114	—	—	1,114
Total assets	\$ 84,122	\$ —	\$ —	\$ 84,122

Defined Contribution Plan

Effective December 31, 2008, the defined benefit plans at the Celgar mill were closed to new members. In addition, the related defined benefit service accrual ceased on December 31, 2008, and members began to receive pension benefits, at a fixed contractual rate, under a new defined contribution plan effective January 1, 2009. During the year ended December 31, 2019, the Company made contributions of \$1,400 (2018 – \$1,024; 2017 – \$959).

Multiemployer Plan

The Company participates in a multiemployer plan for the hourly-paid employees at the Celgar mill. The contributions to the plan are determined based on a percentage of pensionable earnings pursuant to a collective bargaining agreement. The Company has no current or future contribution obligations in excess of the contractual contributions. Contributions during the year ended December 31, 2019 totaled \$2,203 (2018 – \$2,218; 2017 – \$1,969).

Plan details for the years ended December 31, 2019, 2018 and 2017 were as follows:

Legal name	Provincially Registered Plan Number	Expiration Date of Collective Bargaining Agreement	Are the Company's Contributions Greater Than 5% of Total Contributions		
			2019	2018	2017
The Pulp and Paper Industry Pension Plan	P085324	April 30, 2021	Yes	No	No

Note 11. Income Taxes

Income (loss) before provision for income taxes by taxing jurisdiction for the years ended December 31, 2019, 2018 and 2017 was as follows:

	Year Ended December 31,		
	2019	2018	2017
U.S.	\$ (43,408)	\$ (69,202)	\$ (41,635)
Foreign	52,995	246,472	145,570
	\$ 9,587	\$ 177,270	\$ 103,935

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 11. Income Taxes (continued)

Provision for income taxes recognized in the Consolidated Statements of Operations for the years ended December 31, 2019, 2018 and 2017 was comprised of the following:

	Year Ended December 31,		
	2019	2018	2017
U.S. Federal and State current income tax provision	\$ 342	\$ —	\$ —
Foreign current income tax provision	26,757	32,085	11,396
Total current income tax provision	27,099	32,085	11,396
Foreign deferred income tax provision (benefit)	(7,873)	16,596	22,056
Total income tax provision	<u>\$ 19,226</u>	<u>\$ 48,681</u>	<u>\$ 33,452</u>

During the year ended December 31, 2019, the foreign current income tax provision is primarily for the German entities.

The Company's effective income tax rate can be affected by many factors, including but not limited to, changes in the mix of earnings in tax jurisdictions with differing statutory rates, changes in corporate structure, changes in the valuation of deferred tax assets and liabilities, the result of audit examinations of previously filed tax returns and changes in tax laws and rates. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities.

The Company and/or one or more of its subsidiaries file income tax returns in the U.S., Germany, Canada and Australia. Currently, the Company does not anticipate that the expiration of the statute of limitations or the completion of audits in the next fiscal year will result in liabilities for uncertain income tax positions that are materially different than the amounts accrued or disclosed as of December 31, 2019. However, this could change as tax years are examined by taxing authorities, the timing of which are uncertain at this time. The German tax authorities have completed examinations up to and including the 2015 tax year for all but three German entities. For these three entities the German tax authorities have completed examinations up to and including the 2013 tax year. The Company is generally not subject to U.S. or Canadian income tax examinations for tax years before 2016 and 2015, respectively. The Company believes that it has adequately provided for any reasonable foreseeable outcomes related to its tax audits and that any settlement will not have a material adverse effect on its consolidated results.

The liability in the Consolidated Balance Sheets related to unrecognized tax benefits was \$nil as of December 31, 2019 (2018 – \$nil). The Company recognizes interest and penalties related to unrecognized tax benefits in "Provision for income taxes" in the Consolidated Statements of Operations. During the years ended December 31, 2019, 2018 and 2017 the Company did not record any interest and penalties related to unrecognized tax benefits.

The Tax Cuts and Jobs Act

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 was signed into law making significant changes to the Internal Revenue Code. Changes included, but were not limited to, a corporate tax rate decrease from 35% to 21% effective January 1, 2018, a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017, and a minimum tax on certain foreign earnings.

As a result of the reduction of the corporate tax rate, the Company revalued its U.S. net deferred tax asset balance, excluding after tax credits, as of December 31, 2017. Based on this revaluation, the net deferred tax asset was reduced by \$27,445 and the Company recorded an offsetting reduction to the valuation allowance as the Company had a full valuation allowance against its U.S. deferred tax assets. The amount related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings was \$3,473 based on cumulative foreign earnings of \$22,398. The Company had loss carryforwards which were used to offset the tax.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 11. Income Taxes (continued)

The minimum tax on certain foreign earnings includes a provision to tax global intangible low-taxed income (“GILTI”) of foreign subsidiaries. The GILTI provisions impose a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. The Company has elected to treat the GILTI inclusions as a period cost.

Differences between the U.S. Federal statutory and the Company’s effective rates for the years ended December 31, 2019, 2018 and 2017 were as follows:

	Year Ended December 31,		
	2019	2018	2017
U.S. Federal statutory rate	21%	21%	35%
U.S. Federal statutory rate on income before provision for income taxes	\$ (2,013)	\$ (37,227)	\$ (36,377)
Tax differential on foreign income	(5,368)	(17,511)	10,398
Effect of foreign earnings (a)	(13,747)	(51,639)	(3,584)
Change in undistributed earnings	—	—	13,297
Change in tax rate	—	—	(26,627)
Valuation allowance	(11,643)	64,573	5,750
Tax benefit of partnership structure	3,841	4,208	4,937
Non-taxable foreign subsidiaries	3,200	2,908	2,735
True-up of prior year taxes	6,031	(9,877)	(3,685)
Foreign exchange on valuation allowance	356	(878)	1,953
Foreign exchange on settlement of debt	—	879	1,342
Other	117	(4,117)	(3,591)
Provision for income taxes	<u>\$ (19,226)</u>	<u>\$ (48,681)</u>	<u>\$ (33,452)</u>

(a) Primarily due to the impact of the GILTI provision.

Deferred income tax assets and liabilities as of December 31, 2019 and December 31, 2018 were comprised of the following:

	December 31,	
	2019	2018
German tax loss carryforwards	\$ 31,317	\$ 35,364
U.S. tax loss carryforwards and credits	4,671	8,982
Canadian tax loss carryforwards	16,392	—
Basis difference between income tax and financial reporting with respect to operating pulp mills	(132,100)	(138,541)
Long-term debt	(7,388)	(7,232)
Payable and accrued expenses	577	4,582
Deferred pension liability	11,270	9,657
Finance leases	10,072	8,269
Research and development expense pool	3,397	3,150
Other	(4,050)	(4,848)
	<u>(65,842)</u>	<u>(80,617)</u>
Valuation allowance	(22,759)	(11,116)
Net deferred income tax liability	<u>\$ (88,601)</u>	<u>\$ (91,733)</u>
Comprised of:		
Deferred income tax asset	\$ 1,246	\$ 1,374
Deferred income tax liability	(89,847)	(93,107)
Net deferred income tax liability	<u>\$ (88,601)</u>	<u>\$ (91,733)</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 11. Income Taxes (continued)

The following table details the scheduled expiration dates of the Company's net operating loss, interest and income tax credit carryforwards as of December 31, 2019:

	Amount	Expiration
U.S.		
Interest	\$ 21,800	Indefinite
Germany		
Net operating loss	\$ 69,300	Indefinite
Interest	\$ 82,000	Indefinite
Canada		
Net operating loss	\$ 60,700	2036 – 2039
Scientific research and experimental development tax credit	\$ 4,700	2030 – 2037
Australia		
Net operating loss	\$ 11,100	Indefinite

At each reporting period, the Company assesses whether it is more likely than not that the deferred tax assets will be realized, based on the review of all available positive and negative evidence, including future reversals of existing taxable temporary differences, estimates of future taxable income, past operating results and prudent and feasible tax planning strategies. The carrying value of the Company's deferred tax assets reflects its expected ability to generate sufficient future taxable income in certain tax jurisdictions to utilize these deferred income tax benefits. Significant judgment is required when evaluating this positive and negative evidence.

Changes in valuation allowances related to net deferred tax assets for the years ended December 31, 2019 and 2018 were as follows:

	December 31,	
	2019	2018
Balance as of January 1	\$ 11,116	\$ 75,689
Additions (reversals)		
U.S.	(4,503)	(37,709)
Canada	16,188	(26,384)
Australia	(398)	398
The impact of changes in foreign exchange rates	356	(878)
Balance as of December 31	<u>\$ 22,759</u>	<u>\$ 11,116</u>

As of December 31, 2019, the Company has recognized the deferred tax assets of its German entities and has a full valuation allowance against the deferred tax assets of its U.S., Canadian and Australian entities.

The Company has not recognized a tax liability on the undistributed earnings of foreign subsidiaries as of December 31, 2019 because these earnings are expected to be permanently reinvested outside the U.S. or repatriated without incurring a tax liability. As of December 31, 2019, the cumulative amount of undistributed earnings upon which U.S. income taxes have not been provided was approximately \$284,745.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 12. Shareholders' Equity

Dividends

The Company's board of directors declared quarterly dividends during the years ended December 31, 2019 and 2018 as follows:

Date Declared	Dividend Per Common Share	Amount
February 14, 2019	\$ 0.1250	\$ 8,204
May 2, 2019	0.1375	9,025
August 1, 2019	0.1375	9,025
October 31, 2019	0.1375	9,025
	<u>\$ 0.5375</u>	<u>\$ 35,279</u>

Date Declared	Dividend Per Common Share	Amount
February 15, 2018	\$ 0.1250	\$ 8,147
May 3, 2018	0.1250	8,150
July 26, 2018	0.1250	8,150
October 25, 2018	0.1250	8,150
	<u>\$ 0.5000</u>	<u>\$ 32,597</u>

In February 2020, the Company's board of directors declared a quarterly dividend of \$0.1375 per common share. Payment of the dividend will be made on April 1, 2020 to all shareholders of record on March 25, 2020. Future dividends are subject to approval by the board of directors and may be adjusted as business and industry conditions warrant.

Share Capital

Preferred shares

The Company has authorized 50,000,000 preferred shares (2018 – 50,000,000) with \$1 par value issuable in series, of which 2,000,000 shares have been designated as Series A. The preferred shares may be issued in one or more series.

Designations and preferences for each series shall be stated in the resolutions providing for the designation and issuance of each such series adopted by the Company's board of directors. The board of directors is authorized by the Company's articles of incorporation to determine the voting, dividend, redemption and liquidation preferences pertaining to each such series. As of December 31, 2019, no preferred shares had been issued by the Company.

Share Repurchase Program

In May 2019, the Company's board of directors authorized a common stock repurchase program under which the Company may repurchase up to \$50,000 of its shares until May 2020.

For the year ended December 31, 2019, the Company paid \$754 to acquire 52,879 common shares at an average repurchase price of \$14.25. The shares were retired upon repurchase.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 12. Shareholders' Equity (continued)

Stock Based Compensation

In June 2010, the Company adopted a stock incentive plan which provides for options, restricted stock rights, restricted shares, performance shares, PSUs and stock appreciation rights to be awarded to employees, consultants and non-employee directors. During the year ended December 31, 2019, there were no issued and outstanding options, restricted stock rights, performance shares or stock appreciation rights. As of December 31, 2019, after factoring in all allocated shares, there remain approximately 2.6 million common shares available for grant.

PSUs

PSUs comprise rights to receive common shares at a future date that are contingent on the Company and the grantee achieving certain performance objectives. The performance objective period is generally three years.

For the year ended December 31, 2019, the Company recognized an expense of \$2,557 related to PSUs (2018 – \$3,422; 2017 – \$2,437).

PSU activity during the year ended December 31, 2019 was as follows:

	Number of PSUs	Weighted Average Grant Date Fair Value Per Unit
Outstanding as of January 1, 2019	2,036,008	\$ 9.59
Granted	641,206	15.34
Vested and issued	(449,395)	6.02
Forfeited	(462,843)	6.20
Outstanding as of December 31, 2019	<u>1,764,976</u>	<u>\$ 13.48</u>

The weighted-average grant date fair value per unit of all PSUs granted in 2018 and 2017 was \$12.75 and \$12.00, respectively. The total fair value of PSUs vested and issued in 2019, 2018 and 2017 was \$6,754, \$1,992 and \$3,445, respectively.

Restricted Shares

Restricted shares generally vest at the end of one year.

Expense recognized for the year ended December 31, 2019 was \$479 (2018 – \$518; 2017 – \$453). As of December 31, 2019, the total remaining unrecognized compensation cost related to restricted shares amounted to approximately \$188 which will be amortized over the remaining vesting periods.

Restricted share activity during the year ended December 31, 2019 was as follows:

	Number of Restricted Shares	Weighted Average Grant Date Fair Value Per Share
Outstanding as of January 1, 2019	31,130	\$ 16.70
Granted	31,405	14.33
Vested	(31,130)	16.70
Outstanding as of December 31, 2019	<u>31,405</u>	<u>\$ 14.33</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 12. Shareholders' Equity (continued)

The weighted-average grant date fair value per share of all restricted shares granted in 2018 and 2017 was \$16.70 and \$11.80, respectively. The total fair value of restricted shares vested and issued in 2019, 2018 and 2017 was \$466, \$703 and \$437, respectively.

Note 13. Net Income (Loss) Per Common Share

The reconciliation of basic and diluted net income (loss) per share for the years ended December 31, 2019, 2018 and 2017 was as follows:

	Year Ended December 31,		
	2019	2018	2017
Net income (loss)			
Basic and diluted	\$ (9,639)	\$ 128,589	\$ 70,483
Net income (loss) per common share			
Basic	\$ (0.15)	\$ 1.97	\$ 1.09
Diluted	\$ (0.15)	\$ 1.96	\$ 1.08
Weighted average number of common shares outstanding:			
Basic (a)	65,553,196	65,133,467	64,915,955
Effect of dilutive shares:			
PSUs	—	619,411	458,236
Restricted shares	—	17,962	18,914
Diluted	<u>65,553,196</u>	<u>65,770,840</u>	<u>65,393,105</u>

(a) For the year ended December 31, 2019, the basic weighted average number of common shares outstanding excludes 31,405 restricted shares which have been issued, but have not vested as of December 31, 2019 (2018 – 31,130 restricted shares; 2017 – 43,635 restricted shares).

The calculation of diluted net income (loss) per common share does not assume the exercise of any instruments that would have an anti-dilutive effect on net income (loss) per common share. Instruments excluded from the calculation of net income (loss) per common share because they were anti-dilutive for the years ended December 31, 2019, 2018 and 2017 were as follows:

	Year Ended December 31,		
	2019	2018	2017
PSUs	1,764,976	—	—
Restricted shares	31,405	—	—

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 14. Accumulated Other Comprehensive Loss

The change in accumulated other comprehensive loss by component (net of tax) for the years ended December 31, 2019 and 2018 was as follows:

	Foreign Currency Translation Adjustment	Defined Benefit Pension and Other Post- Retirement Benefit Items	Total
Balance as of December 31, 2017	\$ (50,101)	\$ (8,900)	\$ (59,001)
Other comprehensive income (loss) before reclassifications	(76,899)	7,022	(69,877)
Amounts reclassified from accumulated other comprehensive loss	—	708	708
Other comprehensive income (loss), net of taxes	(76,899)	7,730	(69,169)
Balance as of December 31, 2018	(127,000)	(1,170)	(128,170)
Other comprehensive income (loss) before reclassifications	12,291	(944)	11,347
Amounts reclassified from accumulated other comprehensive loss	—	263	263
Other comprehensive income (loss), net of taxes	12,291	(681)	11,610
Balance as of December 31, 2019	<u>\$ (114,709)</u>	<u>\$ (1,851)</u>	<u>\$ (116,560)</u>

Note 15. Related Party Transactions

The Company enters into related party transactions with its joint ventures. For the year ended December 31, 2019, pulp purchases from the Company's 50% owned CPP mill, which are transacted at the CPP mill's cost, were \$96,763 (2018 – \$6,044; 2017 – \$nil) and as of December 31, 2019 the Company had a receivable balance from the CPP mill of \$3,462 (December 31, 2018 – \$1,167). For the year ended December 31, 2019, services from the Company's 50% owned logging and chipping operation, which are transacted at arm's length negotiated prices, were \$16,681 (2018 – \$2,232; 2017 – \$nil) and as of December 31, 2019 the Company had a payable balance to the operation of \$1,151 (December 31, 2018 – \$2,343).

Note 16. Business Segment Information

The Company is managed based on the primary products it manufactures: pulp and wood products. Accordingly, the Company's four pulp mills and its 50% interest in the CPP mill are aggregated into the pulp business segment, and the Friesau mill is a separate reportable business segment, wood products. The Company's sandalwood business is included in Corporate and Other as it does not meet the criteria to be reported as a separate segment.

None of the income or loss items following operating income in the Company's Consolidated Statements of Operations are allocated to the segments, as those items are reviewed separately by management.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 16. Business Segment Information (continued)

Information about certain segment data for the years ended December 31, 2019, 2018 and 2017, was as follows:

December 31, 2019	Pulp	Wood Products	Corporate and Other	Consolidated
Revenues from external customers	\$ 1,457,123	\$ 159,937	\$ 7,351	\$ 1,624,411
Operating income (loss)	\$ 90,583	\$ 7,349	\$ (13,929)	\$ 84,003
Depreciation and amortization	\$ 117,108	\$ 7,966	\$ 1,320	\$ 126,394
Purchase of property, plant and equipment	\$ 103,066	\$ 28,425	\$ 543	\$ 132,034
Total assets (a)	\$ 1,782,105	\$ 83,102	\$ 200,513	\$ 2,065,720
Revenues by major products				
Pulp	\$ 1,370,742	\$ —	\$ —	\$ 1,370,742
Lumber	—	142,243	—	142,243
Energy and chemicals	86,381	9,721	7,351	103,453
Wood residuals	—	7,973	—	7,973
Total revenues	<u>\$ 1,457,123</u>	<u>\$ 159,937</u>	<u>\$ 7,351</u>	<u>\$ 1,624,411</u>
Revenues by geographical markets (b)				
U.S.	\$ 168,197	\$ 54,098	\$ —	\$ 222,295
Germany	419,472	53,734	—	473,206
China	430,508	—	—	430,508
Other countries	438,946	52,105	7,351	498,402
Total revenues	<u>\$ 1,457,123</u>	<u>\$ 159,937</u>	<u>\$ 7,351</u>	<u>\$ 1,624,411</u>

(a) Total assets for the pulp segment includes the Company's \$53,122 investment in joint ventures, primarily for the CPP mill.

(b) Sales are attributed to countries based on the ship-to location provided by the customer.

December 31, 2018	Pulp	Wood Products	Corporate and Other	Consolidated
Revenues from external customers	\$ 1,268,204	\$ 189,036	\$ 478	\$ 1,457,718
Operating income (loss)	\$ 274,356	\$ 6,203	\$ (12,692)	\$ 267,867
Depreciation and amortization	\$ 87,628	\$ 8,485	\$ 616	\$ 96,729
Purchase of property, plant and equipment	\$ 66,207	\$ 20,682	\$ 123	\$ 87,012
Total assets (a)	\$ 1,698,071	\$ 131,754	\$ 145,910	\$ 1,975,735
Revenues by major products				
Pulp	\$ 1,190,588	\$ —	\$ —	\$ 1,190,588
Lumber	—	168,663	—	168,663
Energy and chemicals	77,616	10,831	478	88,925
Wood residuals	—	9,542	—	9,542
Total revenues	<u>\$ 1,268,204</u>	<u>\$ 189,036</u>	<u>\$ 478</u>	<u>\$ 1,457,718</u>
Revenues by geographical markets (b)				
U.S.	\$ 55,692	\$ 52,770	\$ —	\$ 108,462
Germany	499,620	73,854	—	573,474
China	291,657	—	—	291,657
Other countries	421,235	62,412	478	484,125
Total revenues	<u>\$ 1,268,204</u>	<u>\$ 189,036</u>	<u>\$ 478</u>	<u>\$ 1,457,718</u>

(a) Total assets for the pulp segment includes the Company's \$62,574 investment in joint ventures, primarily for the CPP mill.

(b) Sales are attributed to countries based on the ship-to location provided by the customer.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 16. Business Segment Information (continued)

December 31, 2017	Pulp	Wood Products	Corporate and Other	Consolidated
Revenues from external customers	\$ 1,071,715	\$ 97,430	\$ —	\$ 1,169,145
Operating income (loss)	\$ 171,279	\$ 5,610	\$ (8,335)	\$ 168,554
Depreciation and amortization	\$ 80,833	\$ 4,060	\$ 401	\$ 85,294
Purchase of property, plant and equipment	\$ 54,534	\$ 3,197	\$ 184	\$ 57,915
Total assets	\$ 1,253,545	\$ 116,320	\$ 354,845	\$ 1,724,710
Revenues by major products				
Pulp	\$ 979,645	\$ —	\$ —	\$ 979,645
Lumber	—	82,176	—	82,176
Energy and chemicals	92,070	8,872	—	100,942
Wood residuals	—	6,382	—	6,382
Total revenues	<u>\$ 1,071,715</u>	<u>\$ 97,430</u>	<u>\$ —</u>	<u>\$ 1,169,145</u>
Revenues by geographical markets (a)				
U.S.	\$ 23,572	\$ 20,060	\$ —	\$ 43,632
Germany	421,895	47,146	—	469,041
China	292,231	—	—	292,231
Other countries	334,017	30,224	—	364,241
Total revenues	<u>\$ 1,071,715</u>	<u>\$ 97,430</u>	<u>\$ —</u>	<u>\$ 1,169,145</u>

(a) Sales are attributed to countries based on the ship-to location provided by the customer.

Revenues between segments are accounted for at prices that approximate fair value. These include revenues from the sale of residual fiber from the wood products segment to the pulp segment for use in the pulp production process and from the sale of residual fuel from the pulp segment to the wood products segment for use in energy production. For the year ended December 31, 2019, the pulp segment sold \$531 of residual fuel to the wood products segment (2018 – \$1,343; 2017 – \$1,350) and the wood products segment sold \$15,190 of residual fiber to the pulp segment (2018 – \$18,537; 2017 – \$12,697).

The Company's long-lived assets by geographic area based on location of the asset as of December 31, 2019 and December 31, 2018 were as follows:

	December 31,	
	2019	2018
Germany	\$ 646,101	\$ 655,260
Canada	410,468	355,817
Australia	17,673	18,180
	<u>\$ 1,074,242</u>	<u>\$ 1,029,257</u>

In 2019, no single customer accounted for greater than 10% of the Company's total revenues (2018 – one customer for the pulp segment through several of their operations accounted for 13%; 2017 – one customer for the pulp segment through several of their operations accounted for 13%).

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 17. Financial Instruments and Fair Value Measurement

Due to their short-term maturity, the carrying amounts of cash and cash equivalents, accounts receivable and accounts payable and other, approximates their fair value.

The estimated fair values of the Company's outstanding debt under the fair value hierarchy as of December 31, 2019 and December 31, 2018 were as follows:

Description	Fair value measurements as of December 31, 2019 using:			
	Level 1	Level 2	Level 3	Total
Senior notes	\$ —	\$ 1,156,673	\$ —	\$ 1,156,673

Description	Fair value measurements as of December 31, 2018 using:			
	Level 1	Level 2	Level 3	Total
Revolving credit facility	\$ —	\$ 58,968	\$ —	\$ 58,968
Senior notes	—	965,000	—	965,000
	<u>\$ —</u>	<u>\$ 1,023,968</u>	<u>\$ —</u>	<u>\$ 1,023,968</u>

The carrying value of the revolving credit facility classified as Level 2 approximates its fair value as the variable interest rates reflect current interest rates for financial instruments with similar characteristics and maturities.

The fair value of the Senior Notes classified as Level 2 was determined using quoted prices in a dealer market, or using recent market transactions. The Company's Senior Notes are not carried at fair value on the Consolidated Balance Sheets as of December 31, 2019 and December 31, 2018. However, fair value disclosure is required. The carrying value of the Company's Senior Notes, net of note issuance costs is \$1,087,932 as of December 31, 2019 (December 31, 2018 – \$982,421).

Credit Risk

The Company's credit risk is primarily attributable to cash held in bank accounts and accounts receivable. The Company maintains cash balances in foreign financial institutions in excess of insured limits. The Company limits its credit exposure on cash held in bank accounts by periodically investing cash in excess of short-term operating requirements and debt obligations in low risk government bonds, or similar debt instruments. The Company's credit risk associated with the sale of pulp, lumber and other wood residuals is managed through setting credit limits, the purchase of credit insurance and for certain customers, a letter of credit is received prior to shipping the product. Concentrations of credit risk on the sale of pulp, lumber and other wood residuals are with customers and agents based primarily in Germany, China, the U.S. and Italy.

The carrying amount of cash and cash equivalents of \$351,085 and accounts receivable of \$208,740, net of any allowances for losses, as of December 31, 2019, represents the Company's maximum exposure to credit risk.

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 18. Lease Commitments

The Company has finance leases primarily for rail cars and production equipment. The rail cars primarily have a remaining lease term of nine to 12 years with annual renewal options thereafter. The production equipment has a weighted average remaining lease term of nine years. The Company has operating leases primarily for land to support the sandalwood tree plantations and for offices. The land leases have remaining terms of five to 12 years with options to renew for up to six years. The office leases have remaining terms of four to eight years with options to renew primarily for an additional five years. A majority of the operating leases are subject to annual changes to the Consumer Price Index (“CPI”). Changes to the CPI are treated as variable lease payments and recognized in the period in which the obligation for those payments was incurred. A 100-basis-point increase in CPI would not have a material impact on lease costs.

The components of lease expense for the years ended December 31, 2019, 2018 and 2017 were as follows:

	Year Ended December 31,		
	2019	2018	2017
Lease cost:			
Operating lease cost	\$ 3,322	\$ 2,655	\$ 2,994
Finance lease cost:			
Amortization of right-of-use assets	3,768	3,595	3,435
Interest on lease liabilities	1,370	1,299	934
Total lease cost	<u>\$ 8,460</u>	<u>\$ 7,549</u>	<u>\$ 7,363</u>

Supplemental cash flow information related to leases for the years ended December 31, 2019, 2018 and 2017 were as follows:

	Year Ended December 31,		
	2019	2018	2017
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 3,322	\$ 2,655	\$ 2,994
Operating cash flows from finance leases	\$ 1,370	\$ 1,299	\$ 934
Financing cash flows from finance leases	\$ 3,344	\$ 3,462	\$ 3,262

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 18. Lease Commitments (continued)

Other information related to leases for the years ended December 31, 2019, 2018 and 2017 was as follows:

	Year Ended December 31,		
	2019	2018	2017
Weighted average remaining lease term:			
Operating leases	7 years	7 years	8 years
Finance leases	10 years	9 years	9 years
Weighted average discount rate:			
Operating leases	7%		
Finance leases	4%	6%	4%

The discount rate used to calculate the present value of the minimum lease payments is the incremental borrowing rate that the subsidiary entering into the lease would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment.

Supplemental balance sheet information related to leases as of December 31, 2019 and December 31, 2018 was as follows:

	December 31,	
	2019	2018
Operating Leases		
Operating lease right-of-use assets	\$ 13,004	
Other current liabilities	\$ 2,484	
Operating lease liabilities	10,520	
Total operating lease liabilities	<u>\$ 13,004</u>	
Finance Leases		
Property and equipment, gross	\$ 49,393	\$ 44,756
Accumulated depreciation	(16,571)	(15,963)
Property and equipment, net	<u>\$ 32,822</u>	<u>\$ 28,793</u>
Other current liabilities	\$ 3,382	\$ 4,911
Finance lease liabilities	31,103	24,669
Total finance lease liabilities	<u>\$ 34,485</u>	<u>\$ 29,580</u>

As of December 31, 2019, maturities of lease liabilities were as follows:

	Finance Leases	Operating Leases
2020	\$ 4,472	\$ 3,218
2021	4,343	3,071
2022	4,169	2,809
2023	4,288	2,087
2024	4,184	1,378
Thereafter	19,142	3,410
Total lease payments	40,598	15,973
Less: imputed interest	(6,113)	(2,969)
Total lease liability	<u>\$ 34,485</u>	<u>\$ 13,004</u>

MERCER INTERNATIONAL INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands of U.S. dollars, except share and per share data)

Note 18. Lease Commitments (continued)

As of December 31, 2018, minimum lease payments under non-cancellable finance and operating leases were as follows:

	Finance Leases	Operating Leases
2019	\$ 6,302	\$ 3,309
2020	3,601	2,963
2021	3,441	2,717
2022	3,278	2,557
2023	3,410	2,057
Thereafter	17,025	5,360
Total lease payments	<u>37,057</u>	<u>\$ 18,963</u>
Less: imputed interest	(7,477)	
Total lease liability	<u>\$ 29,580</u>	

As of December 31, 2019, the Company has additional finance leases for rail cars that have not yet commenced. The leases have a term of 12 years with annual renewal options thereafter. The total payments over the term of the leases will be approximately \$31,200. The leases will commence in 2020.

Note 19. Commitments and Contingencies

- (a) The Company has purchase obligations relating to take-or-pay contracts, primarily for purchases of fiber, made in the ordinary course of business. As of December 31, 2019, commitments under these contracts was approximately \$209,533.
- (b) The Company is involved in legal actions and claims arising in the ordinary course of business. While the outcome of any legal actions and claims cannot be predicted with certainty, it is the opinion of management that the outcome of any such claims which are pending or threatened, either individually or on a combined basis, will not have a material adverse effect on the consolidated financial condition, results of operations or liquidity of the Company.
- (c) The Company is subject to regulations that require the handling and disposal of asbestos in a prescribed manner if a property undergoes a major renovation or demolition. Otherwise, the Company is not required to remove asbestos from its facilities. Generally asbestos is found on steam and condensate piping systems as well as certain cladding on buildings and in building insulation throughout older facilities. The Company's obligation for the proper removal and disposal of asbestos products from the Company's mills is a conditional asset retirement obligation. As a result of the longevity of the Company's mills, due in part to the maintenance procedures and the fact that the Company does not have plans for major changes that require the removal of asbestos, the timing of the asbestos removal is indeterminate. As a result, the Company is currently unable to reasonably estimate the fair value of its asbestos removal and disposal obligation. The Company will recognize a liability in the period in which sufficient information is available to reasonably estimate its fair value.

**SUPPLEMENTARY FINANCIAL INFORMATION
(UNAUDITED)**

**Selected Quarterly Financial Data
(In thousands of U.S. dollars, except per share data)**

	Quarters Ended			
	March 31	June 30	September 30	December 31
2019				
Revenues	\$ 483,950	\$ 425,753	\$ 383,536	\$ 331,172
Cost of sales, excluding depreciation and amortization	343,033	336,433	314,894	346,020
Cost of sales depreciation and amortization	30,136	32,038	31,934	31,693
Gross profit (loss)	110,781	57,282	36,708	(46,541)
Selling, general and administrative expenses	17,229	19,472	17,961	19,565
Operating income (loss)	93,552	37,810	18,747	(66,106)
Net income (loss)	51,616	10,259	1,207	(72,721)
Diluted net income (loss) per common share	\$ 0.78	\$ 0.16	\$ 0.02	\$ (1.11)
2018				
Revenues	\$ 367,903	\$ 346,532	\$ 331,058	\$ 412,225
Cost of sales, excluding depreciation and amortization	254,285	271,134	230,009	276,673
Cost of sales depreciation and amortization	23,209	22,906	23,197	26,976
Gross profit	90,409	52,492	77,852	108,576
Selling, general and administrative expenses	14,361	15,016	14,506	17,579
Operating income	76,048	37,476	63,346	90,997
Net income	25,649	16,755	41,176	45,009
Diluted net income per common share	\$ 0.39	\$ 0.26	\$ 0.63	\$ 0.68

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
3.1	<u>Articles of Incorporation of Mercer International Inc., as amended. Incorporated by reference from Form 8-A filed March 2, 2006.</u>
3.2	<u>Bylaws of Mercer International Inc. Incorporated by reference from Form 10-Q filed August 1, 2019.</u>
4.1	<u>Indenture dated February 3, 2017 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2024 Senior Notes. Incorporated by reference from Form 8-K filed February 3, 2017.</u>
4.2	<u>Indenture dated December 20, 2017 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2026 Senior Notes. Incorporated by reference from Form 8-K filed December 20, 2017.</u>
4.3	<u>Indenture dated December 7, 2018 between Mercer International Inc. and Wells Fargo Bank, National Association, as trustee, relating to the 2025 Senior Notes. Incorporated by reference from Form 8-K filed December 7, 2018.</u>
4.4*	<u>Description of Securities.</u>
10.1	<u>Revolving Credit Facility Agreement dated December 19, 2018 among Zellstoff-und Papierfabrik Rosenthal GmbH, Mercer Timber Products GmbH, Zellstoff Stendal GmbH, Mercer Holz GmbH, Stendal Pulp Holding GmbH, D&Z Holding GmbH, Zellstoff Stendal Transport GmbH, Mercer Pulp Sales GmbH, UniCredit Bank AG, Commerzbank AG, Luxembourg Branch, Credit Suisse AG, London Branch, Landesbank Baden-Württemberg and Royal Bank of Canada. Incorporated by reference from Form 10-K filed February 14, 2019.</u>
10.2	<u>Revolving Credit Facility Agreement dated November 25, 2014 among Zellstoff Stendal GmbH, UniCredit Bank AG, Credit Suisse AG, London Branch, Royal Bank of Canada and Barclays Bank PLC. Incorporated by reference from Form 8-K filed November 28, 2014.</u>
10.3	<u>Form of Trustee's Indemnity Agreement between Mercer International Inc. and its Trustees. Incorporated by reference from Form 10-K filed March 31, 2003.</u>
10.4†	<u>Mercer International Inc. 2010 Stock Incentive Plan, as amended. Incorporated by reference from Appendix A to Mercer International Inc.'s definitive proxy statement on Schedule 14A filed April 24, 2014.</u>
10.5†	<u>Employment Agreement dated October 2, 2006 between Stendal Pulp Holding GmbH and Wolfram Ridder. Incorporated by reference from Form 8-K filed October 3, 2006.</u>
10.6	<u>Electricity Purchase Agreement effective January 27, 2009 between Zellstoff Celgar Limited Partnership and British Columbia Hydro and Power Authority. Incorporated by reference from Form 10-K filed March 2, 2009. Certain non-public information has been omitted from the appendices to Exhibit 10.6 pursuant to a request for confidential treatment filed with the SEC. Such non-public information was filed with the SEC on a confidential basis. The SEC approved the request for confidential treatment in March 2009.</u>
10.7	<u>Third Amended and Restated Credit Agreement dated as of July 16, 2018 among Zellstoff Celgar Limited Partnership, as borrower, and the lenders from time to time parties thereto, as lenders, and Canadian Imperial Bank of Commerce, as agent. Incorporated by reference from Form 10-Q filed July 26, 2018.</u>
10.8	<u>Share Purchase Agreement by and among Marubeni Corporation, Nippon Paper Industries Co., Ltd. and Daishowa North America Corporation and Mercer International Inc. dated as of October 3, 2018. Incorporated by reference from Form 8-K filed October 9, 2018.</u>
10.9†	<u>Employment Agreement between Mercer International Inc. and David Ure dated August 12, 2013. Incorporated by reference from Form 8-K filed on July 20, 2015.</u>

- 10.10 [First Amending Agreement dated October 21, 2014 among Zellstoff Celgar Limited Partnership, Mercer International Inc., as guarantor, and Canadian Imperial Bank of Commerce. Incorporated by reference from Form 10-Q filed October 31, 2014.](#)
- 10.11† [Amendment to Employment Agreement between Mercer International Inc. and David Ure, dated July 17, 2015. Incorporated by reference from Form 8-K filed July 20, 2015.](#)
- 10.12† [Second Amended and Restated Employment Agreement between Mercer International Inc. and Jimmy S.H. Lee, dated for reference September 29, 2015. Incorporated by reference from Form 8-K filed September 29, 2015.](#)
- 10.13† [Amended and Restated Employment Agreement between Mercer International Inc. and David M. Gandossi, dated for reference September 29, 2015. Incorporated by reference from Form 8-K filed September 29, 2015.](#)
- 10.14 [Registration Rights Agreement dated October 3, 2019 between Mercer International Inc. and Credit Suisse Securities \(USA\) LLC, related to the 2025 Senior Notes. Incorporated by reference from Form 8-K filed on October 3, 2019.](#)
- 10.15*† [Chief Operating Officer and Managing Director Service Agreement, as amended, dated June 1, 2019 between Stendal Pulp Holding GmbH and Adolf Koppensteiner.](#)
- 21.1* [List of Subsidiaries of Registrant.](#)
- 23.1* [Consent of PricewaterhouseCoopers LLP.](#)
- 31.1* [Section 302 Certificate of Chief Executive Officer.](#)
- 31.2* [Section 302 Certificate of Chief Financial Officer.](#)
- 32.1* [Section 906 Certificate of Chief Executive Officer.](#)
- 32.2* [Section 906 Certificate of Chief Financial Officer.](#)
- 101* The following financial statements from the Company's annual report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 13, 2020, formatted in inline Extensible Business Reporting Language (iXBRL): (i) Consolidated Statements of Operations; (ii) Consolidated Statements of Comprehensive Income; (iii) Consolidated Balance Sheets; (iv) Consolidated Statements of Changes in Shareholders' Equity; (v) Consolidated Statements of Cash Flows; and (vi) Notes to the Consolidated Financial Statements.
- 104* The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2019, has been formatted in Inline XBRL.

* Filed herewith.

† Denotes management contract or compensatory plan or arrangement.

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.

MERCER INTERNATIONAL INC.

Dated: February 13, 2020

By: /s/ JIMMY S.H. LEE
Jimmy S.H. Lee
Executive Chairman

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

/s/ JIMMY S.H. LEE Date: February 13, 2020
Jimmy S.H. Lee
Executive Chairman and Director

/s/ DAVID M. GANDOSI Date: February 13, 2020
David M. Gandossi
Chief Executive Officer, Principal Executive Officer and
Director

/s/ DAVID K. URE Date: February 13, 2020
David K. Ure
Executive Vice President,
Chief Financial Officer, Principal Financial
Officer and Principal Accounting Officer

/s/ WILLIAM D. MCCARTNEY Date: February 13, 2020
William D. McCartney
Director

/s/ JAMES SHEPHERD Date: February 13, 2020
James Shepherd
Director

/s/ KEITH PURCHASE Date: February 13, 2020
Keith Purchase
Director

/s/ MARTHA MORFITT Date: February 13, 2020
Martha Morfitt
Director

/s/ ALAN WALLACE Date: February 13, 2020
Alan Wallace
Director

/s/ LINDA WELTY Date: February 13, 2020
Linda Welty
Director