

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 NUMBER 1-4825

WEYERHAEUSER COMPANY

A WASHINGTON CORPORATION

91-0470860

(IRS EMPLOYER IDENTIFICATION NO.)

220 OCCIDENTAL AVENUE SOUTH, SEATTLE, WASHINGTON 98104-7800 TELEPHONE (206) 539-3000

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

TITLE OF EACH CLASS	TRADING SYMBOL(S)	NAME OF EACH EXCHANGE ON WHICH REGISTERED
Common Shares (\$1.25 par value)	WY	New York Stock Exchange

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, smaller reporting company, or an 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 Accelerated filer Non-accelerated filer

Smaller reporting company Emerging growth company

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

Indicate by 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 common stock held by non-affiliates of the registrant based on the closing sale price as of the last business day of the most recently completed second fiscal quarter ended on June 30, 2019, as reported on the New York Stock Exchange Composite Price Transactions, was approximately \$19.6 billion.

As of February 3, 2020, 745,519 thousand shares of the registrant's common stock (\$1.25 par value) were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the *Notice of 2020 Annual Meeting of Shareholders and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020, are incorporated by reference into Part II and III.

WEYERHAEUSER COMPANY > 2019 ANNUAL REPORT AND FORM 10-K

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OUR BUSINESS

We are one of the world's largest private owners of timberlands. We own or control 11.5 million acres of timberlands in the U.S. and manage an additional 14.0 million acres of timberlands under long-term licenses in Canada. We manage these timberlands on a sustainable basis in compliance with internationally recognized forestry standards. Our objective is to maximize the long-term value of timberlands we own. We analyze each timberland acre comprehensively to understand its highest-value use. We realize this value in many ways, particularly through growing and harvesting the trees, but also by selling properties when we can create incremental value. In addition, we focus on opportunities to realize value through lease and royalty agreements for the surface and subsurface rights that exist in our ownership.

We are also one of the largest manufacturers of wood products in North America. We manufacture and distribute high-quality wood products, including structural lumber, oriented strand board, engineered wood products and other specialty products. These products are primarily supplied to the residential, multi-family, industrial, light commercial as well as repair and remodel markets. We operate 35 manufacturing facilities in the United States and Canada.

Our company is a real estate investment trust (REIT).

Sustainability and citizenship are part of our core values. In addition to practicing sustainable forestry, we focus on increasing energy and resource efficiency, reducing greenhouse gas emissions, reducing water consumption, conserving natural resources and offering sustainable products that meet our customers' needs. We operate with world-class safety results, actively support the communities in which we operate and strive to communicate transparently with our investors and other stakeholders. We are the only North American forest products company included on the Dow Jones Sustainability North America Index, and we are also recognized for our leading performance in the areas of ethics, citizenship and gender equality.

In 2019, we generated \$6.6 billion in net sales and employed approximately 9,400 people who serve customers worldwide.

This portion of our Annual Report on Form 10-K provides detailed information about who we are, what we do and where we are headed. Unless otherwise specified, current information reported in this Form 10-K is as of or for the fiscal year ended December 31, 2019.

We break out financial information such as revenues, earnings and assets by the business segments that form our company. We also discuss the geographic areas where we do business.

Throughout this Form 10-K, unless specified otherwise, references to "we," "our," "us" and "the company" refer to the consolidated company.

WE CAN TELL YOU MORE

AVAILABLE INFORMATION

We meet the information reporting requirements of the Securities Exchange Act of 1934 by filing periodic reports (annual reports on Form 10-K, quarterly reports on Form 10-Q), current reports on Form 8-K, proxy statements and other information with the Securities and Exchange Commission (SEC). These reports and statements, which contain information about our company's business, financial results, corporate governance and other matters, as well as amendments to these reports and statements, are available at:

- the SEC website — www.sec.gov and
- our website (free of charge) — www.weyerhaeuser.com

When we file or furnish information electronically with the SEC, it is also posted to our website.

WHO WE ARE

We were incorporated as *Weyerhaeuser Timber Company* in the state of Washington in January 1900, when Frederick Weyerhaeuser and 15 partners bought 900,000 acres of timberland. Today, we are working to be the world's premier timber, land and forest products company for our shareholders, customers and employees.

REAL ESTATE INVESTMENT TRUST (REIT) ELECTION

Starting with our 2010 fiscal year, we elected to be taxed as a REIT. REIT income can be distributed to shareholders without first paying corporate level tax, substantially eliminating the double taxation on income. We expect to derive most of our REIT income from our timberlands, including gains from the sales of our standing timber and rent from recreational leases. We continue to be required to pay federal corporate income taxes on earnings of our Taxable REIT Subsidiaries (TRSs), which include our Wood Products segment and a portion of our Timberlands and Real Estate, Energy and Natural Resources segments.

OUR BUSINESS SEGMENTS

In our [Management's Discussion and Analysis of Financial Condition and Results of Operations \(MD&A\)](#) section you will find discussion of our overall performance results for our business segments, which are as follows:

- Timberlands;
- Real Estate, Energy and Natural Resources (Real Estate & ENR) and
- Wood Products.

Detailed financial information about our business segments and our geographic locations is provided in [Note 2: Business Segments](#) and [Note 22: Geographic Areas](#).

EFFECT OF MARKET CONDITIONS

The health of the U.S. housing market strongly affects the performance of all our business segments. Wood Products primarily sells into the new residential building and repair and remodel markets. Demand for logs from our Timberlands segment is affected by production levels of domestic wood-based building products as well as export markets. Real Estate is affected by local real estate market conditions, such as the level of supply or demand for properties sharing the same or similar characteristics as our timberlands. Energy and Natural Resources is affected by underlying demand for commodities, including oil, gas and minerals.

COMPETITION IN OUR MARKETS

We operate in highly competitive domestic and foreign markets, with numerous companies selling similar products. Many of our products also face competition from substitutes for wood products. We compete in our markets primarily through product quality, service levels and price. We are relentlessly focused on operational excellence, producing quality products customers want and are willing to pay for, at the lowest possible cost.

Our business segments' competitive strategies are as follows:

- Timberlands — Deliver maximum timber value from every acre we own or manage.
- Real Estate & ENR — Deliver premiums to timberland value by identifying and monetizing higher and better use lands and capturing the full value of surface and subsurface assets.
- Wood Products — Manufacture high-quality structural lumber, oriented strand board and engineered wood products, as well as deliver complementary building products for residential, multi-family, industrial and light commercial applications at competitive costs.

OUR EMPLOYEES

We have approximately 9,400 employees. Of these employees, approximately 2,400 are members of unions covered by multi-year collective-bargaining agreements.

WHAT WE DO

This section provides information about how we:

- grow and harvest trees,
- maximize the value of every acre we own and
- manufacture and sell wood products.

For each of our business segments, we provide details about what we do, where we do it, how much we sell and where we are headed.

TIMBERLANDS

Our Timberlands segment manages 11.5 million acres of private commercial timberlands in the U.S. We own 10.8 million of those acres and control the remaining acres through long-term contracts. In addition, we have renewable, long-term licenses on 14.0 million acres of Canadian timberlands.

WHAT WE DO

Forestry Management

Our Timberlands segment:

- plants seedlings to reforest harvested areas using the most effective regeneration method for the site and species (natural regeneration is employed and managed in parts of Canada and the northern U.S.);
- manages our timberlands as the trees grow to maturity;
- harvests trees to be converted into lumber, wood products, pellets, pulp and paper;

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- manages the health of our forests to sustainably maximize harvest volumes, minimize risks, and protect unique environmental, cultural, historical and recreational value and offers recreational access.

We seek to maximize the returns from our timberlands by selling delivered logs and through stumpage sales to both internal and external customers. We leverage our expertise in forestry using research and planning systems to optimize log production and innovative planting and harvesting techniques across varying terrain. We use intensive, customized silviculture to increase forest productivity and returns while managing our forests on a sustainable basis. We use our scale, infrastructure and supply chain expertise to deliver reliable and consistent supply to our customers.

Competitive factors within each of our market areas generally include price, species, grade, quality, proximity to wood consuming facilities and the ability to consistently meet customer requirements. We compete in the marketplace through our ability to provide customers with a consistent and reliable supply of high-quality logs at scale volumes and competitive prices. Our customers also value our status as a Sustainable Forestry Initiative® (SFI) certified supplier.

Sustainable Forestry Practices

We manage our forests intensively to maximize the value of every acre and produce a sustainable supply of wood fiber for our customers. At the same time, we are careful to protect biological diversity, water quality and other ecosystem values. Our working forests also provide unique environmental, cultural, historical and recreational value. We work hard to protect these and other qualities, while still managing our forests to produce financially mature timber. We follow regulatory requirements, voluntary standards and certify 100 percent of our North American timberlands under the SFI Forest Management Standard.

Canadian Forestry Operations

In Canada, we manage timberlands under long-term licenses that provide the primary source of the raw material for our manufacturing facilities in various provinces. When we harvest trees, we pay the provinces at stumpage rates set by the government. We transfer logs to our manufacturing facilities at cost and do not generate any significant profit from the harvest of timber from the licensed acres in Canada.

Timberlands Products

PRODUCTS	HOW THEY'RE USED
Delivered logs: <ul style="list-style-type: none">• Grade logs• Fiber logs	Grade logs are made into lumber, plywood, veneer and other products used in residential homes, commercial structures, furniture, industrial and decorative applications. Fiber logs are sold to pulp, paper and oriented strand board mills to make products used for printing, writing, packaging, homebuilding and consumer products, as well as into renewable energy and pellets.
Timber	Standing timber is sold to third parties through stumpage sales.
Recreational leases	Timberlands are leased or permitted for recreational purposes.
Other products	Seed and seedlings grown in the U.S. and wood chips.

HOW WE MEASURE OUR PRODUCT

We use multiple units of measure when transacting business including:

- Thousand board feet (MBF) — used in the West to measure the expected lumber recovery from a tree or log and
- Green tons (GT) — used in the South to measure weight; factors used for conversion to product volume can vary by species, size, location and season.

We report Timberlands volumes in ton equivalents.

WHERE WE DO IT

As of December 31, 2019, we sustainably managed timberlands in 19 states. This included owned or contracted acres in the following locations:

- 2.9 million acres in the western U.S. (Oregon and Washington);
- 6.8 million acres in the southern U.S. (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Texas and Virginia) and
- 1.8 million acres in the northern U.S. (Maine, Montana, New Hampshire, Vermont, West Virginia and Wisconsin).

In Canada, we manage timberlands under long-term licenses that provide raw material for our manufacturing facilities. These licenses are in Alberta, British Columbia, Ontario and Saskatchewan.

Our total timber inventory — including timber on owned and contracted land — is approximately 595 million tons. The amount of timber inventory does not translate into an amount of lumber or panel products because the quantity of end products varies according to the species, size and quality of the timber and will change over time as these variables adjust.

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We maintain our timber inventory in an integrated resource inventory system and geographic information system (GIS). The resource inventory component of the system is proprietary and is largely based on internally developed methods, including growth and yield models developed by our research and development organization. The GIS component is based on GIS software that is viewed as the standard in our industry.

Timber inventory data collection and verification techniques include the use of industry standard field sampling procedures as well as proprietary remote sensing technologies in some geographies. The data is collected and maintained at the timber stand level.

We also own and operate nurseries and seed orchards in Alabama, Arkansas, Georgia, Louisiana, Mississippi, Oregon, South Carolina and Washington.

Summary of 2019 Standing Timber Inventory

GEOGRAPHIC AREA	MILLIONS OF TONS AT DECEMBER 31, 2019
	TOTAL INVENTORY ⁽¹⁾
U.S.:	
West	
Douglas fir/Cedar	161
Whitewood	31
Hardwood	13
Total West	205
South	
Southern yellow pine	258
Hardwood	82
Total South	340
North	
Conifer	25
Hardwood	25
Total North	50
Total Company	595

(1) Inventory includes all conservation and non-harvestable areas.

Summary of 2019 Timberland Locations

GEOGRAPHIC AREA	THOUSANDS OF ACRES AT DECEMBER 31, 2019		
	FEE OWNERSHIP	LONG-TERM CONTRACTS	TOTAL ACRES ⁽¹⁾
U.S.:			
West			
Oregon	1,591	—	1,591
Washington	1,297	—	1,297
Total West	2,888	—	2,888
South			
Alabama	385	201	586
Arkansas	1,208	18	1,226
Florida	222	83	305
Georgia	601	50	651
Louisiana	1,017	351	1,368
Mississippi	1,128	52	1,180
North Carolina	561	—	561
Oklahoma	494	—	494
South Carolina	275	—	275
Texas	16	2	18
Virginia	123	—	123
Total South	6,030	757	6,787
North			
Maine	834	—	834
Montana ⁽²⁾	631	—	631
New Hampshire	24	—	24
Vermont	86	—	86
West Virginia	255	—	255
Wisconsin	4	—	4
Total North	1,834	—	1,834
Total Company	10,752	757	11,509

(1) Acres include all conservation and non-harvestable areas.

(2) In December 2019, we announced an agreement to sell our Montana timberlands. The sale is expected to close in second quarter 2020. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on the Montana timberlands sale.

We provide a year-round flow of logs to internal and external customers. We sell grade and fiber logs to manufacturers that produce a diverse range of products. We also sell standing timber to third parties and lease land for recreational purposes. Our timberlands are generally well located to take advantage of road, logging and transportation systems for efficient delivery of logs to customers.

Western United States

Our Western timberlands are well situated to serve the wood products and pulp markets in Oregon and Washington. Additionally, our location on the West Coast provides access to higher-value export markets for Douglas fir and whitewood logs to Japan, China and Korea. Our largest export market is Japan, where Douglas fir is the preferred species for higher-valued post and beam homebuilding. The size and quality of our Western timberlands, coupled with their proximity to several deep-water port facilities, competitively positions us to meet the needs of Pacific Rim log markets. For the year ended December 31, 2019, we sold 28 percent of our total Western log sales volume internally.

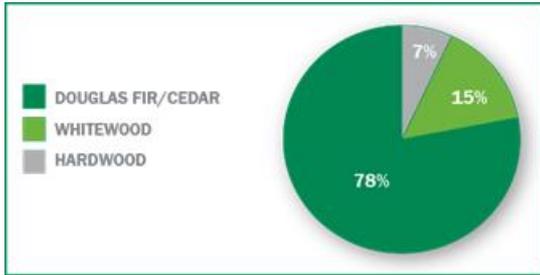
Our holdings are composed primarily of Douglas fir, a species highly valued for its structural strength, stiffness and appearance. Most of our lands are located on the west side of the Cascade Mountain Range with soil and rainfall conditions considered favorable for growing this species. Approximately 80 percent of our lands are in established Douglas fir plantations. Our remaining holdings include a mix of whitewood and hardwood.

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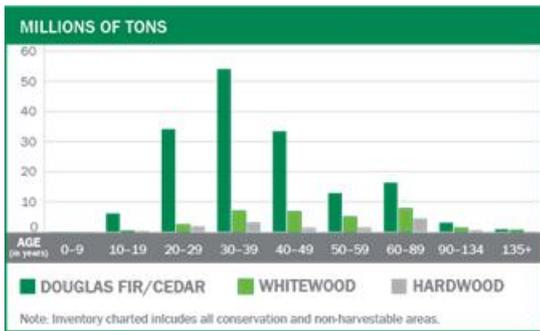
Our management systems and supply chain expertise provide us a competitive operating advantage in a number of areas including forestry and research, harvesting, marketing and logistics. Additionally, our scale, diversity of timberlands ownership and infrastructure on the West Coast allow us to consistently and reliably supply logs to our internal and external customers year-round.

We sell recreational use permits covering approximately 2 million acres of our owned Western timberlands.

2019 Western U.S. Inventory by Species



2019 Western U.S. Inventory by Age / Species



The average age of timber harvested from our Western timberlands in 2019 was 50 years. In accordance with our sustainable forestry practices, we harvest approximately 2 percent of our Western acreage each year.

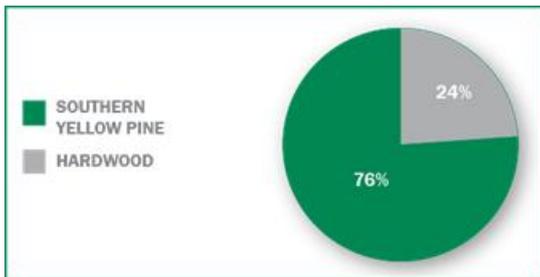
Southern United States

Our Southern timberland ownership, covering 11 states, is well situated to serve domestic wood products and pulp markets, including third-party customers and our own mills. For the year ended December 31, 2019, we sold 24 percent of our total Southern log sales volume internally. Additionally, our Atlantic and Gulf coastal locations position us to serve an emerging Asian log export market. Our log inventory is comprised of 76 percent Southern yellow pine and 24 percent hardwoods.

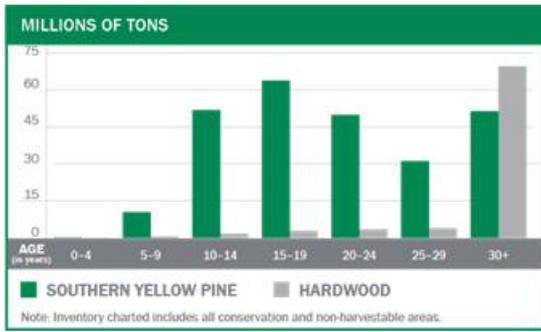
Operationally, we focus on efficiently harvesting and hauling logs from our ownership and capitalizing on our scale and supply chain expertise to consistently and reliably serve a broad range of customers through seasonal and weather-related events year-round.

We lease approximately 95 percent of our owned Southern acreage for recreational purposes.

2019 Southern U.S. Inventory by Species



2019 Southern U.S. Inventory by Age / Species



The average age of timber harvested from our Southern timberlands in 2019 was 29 years. In accordance with our sustainable forestry practices, we harvest approximately 3 percent of our acreage each year in the South.

Northern United States

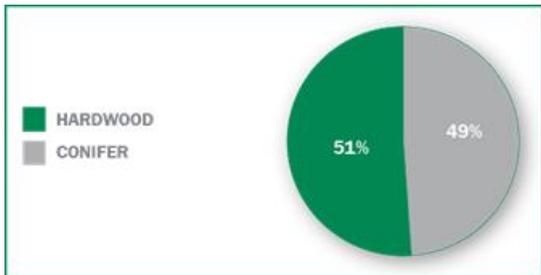
We are one of the largest private owners of northern hardwood timberlands. Our Northern acres contain a diverse mix of temperate broadleaf hardwoods and mixed conifer species across timberlands located in six states. We grow over 50 species and market over 500 product grades to a diverse mix of customers.

Our large-diameter cherry, red oak and hard maple sawlogs and veneer logs serve domestic and export furniture markets. Our maple and other appearance woods are used in furniture and high-value decorative applications. In addition to high-value hardwood sawlogs, our mix includes hardwood fiber logs for pulp and oriented strand board applications. Hardwood pulpwood is a significant market in the Northern region and we have long-term supply agreements, primarily at market rates, for nearly 95 percent of our hardwood pulp production.

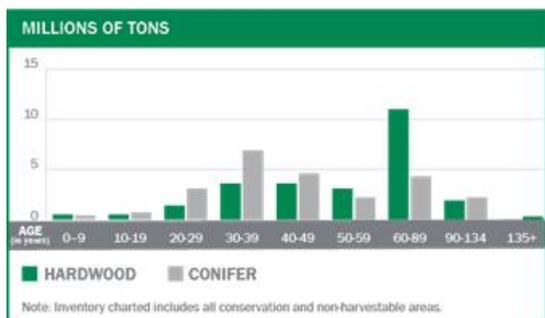
We also grow softwood logs that supply our lumber and plywood mills and other customers. Our competitive advantages include a merchandising program to capture the value of the premium hardwood logs.

Regeneration is predominantly natural, augmented by planting where appropriate.

2019 Northern U.S. Inventory by Species



2019 Northern U.S. Inventory by Age / Species



The average age of timber harvested from our Northern timberlands in 2019 was 63 years. Timber harvested in the North is sold predominantly as delivered logs to domestic mills, including our manufacturing facilities. For the year ended December 31, 2019, we sold 9 percent of our total Northern log sales volume internally. In accordance with our sustainable forestry practices, we harvest approximately 1 percent of our acreage each year in the North.

Canada — Licensed Forestlands

We manage forestlands in Canada under long-term licenses from the provincial governments to secure volume for our manufacturing facilities in various provinces. The provincial governments regulate the volume of timber that may be harvested each year through Annual Allowable Cuts (AAC), which are updated every 10 years. As of December 31, 2019, our AAC by province was:

- Alberta — 2,221 thousand tons,
- British Columbia — 547 thousand tons,
- Ontario — 154 thousand tons and
- Saskatchewan — 633 thousand tons.

When the volume is harvested, we pay the province for that volume at stumpage rates set by the government. The harvested logs are transferred to our manufacturing facilities at cost (stumpage plus harvest, haul and overhead costs less any margin on selling logs to third parties). Any profit from harvesting the log through converting to finished products is recognized at the respective mill in our Wood Products segment.

In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands or Wood Products segment. We have conformed prior year presentations with the current year.

Summary of License Arrangements

GEOGRAPHIC AREA	THOUSANDS OF ACRES AT DECEMBER 31, 2019
TOTAL ACRES	
Province:	
Alberta	5,399
British Columbia	1,014
Ontario ⁽¹⁾	2,574
Saskatchewan ⁽¹⁾	4,987
Total Canada	13,974

⁽¹⁾ License is managed by partnership.

HOW MUCH WE HARVEST

Our fee harvest volumes are managed sustainably across all regions to ensure the preservation of long-term economic value of the timber and to capture maximum value from the markets. This is accomplished by ensuring annual harvest schedules target financially mature timber and reforestation activities align with the growing of timber through its life cycle to financial maturity.

Five-Year Summary of Timberlands Fee Harvest Volumes

FEE HARVEST VOLUMES IN THOUSANDS OF TONS ⁽¹⁾					
	2019	2018	2017	2016	2015
West	9,237	9,571	10,083	11,083	10,563
South	26,278	26,708	27,149	26,343	14,113
North ⁽²⁾	2,042	2,129	2,205	2,044	—
Uruguay ⁽³⁾	—	—	822	1,119	980
Other ⁽⁴⁾	—	—	1,384	701	—
Total	37,557	38,408	41,643	41,290	25,656

(1) In February 2016, we merged with Plum Creek.

(2) In November 2019, we sold our Michigan timberlands. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

(3) Our Uruguay operations were divested in September 2017. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

(4) Other consisted of volumes managed for the Twin Creeks Venture. Our management agreement for the Twin Creeks Venture began in April 2016 and terminated in December 2017. For additional information see [Note 8: Related Parties](#).

Five-Year Summary of Timberlands Fee Harvest Volumes - Percentage of Grade and Fiber

PERCENTAGE OF GRADE AND FIBER ⁽¹⁾			2019	2018	2017	2016	2015
West	Grade	89%	90%	89%	87%	87%	
	Fiber	11%	10%	11%	13%	13%	
South	Grade	49%	51%	52%	52%	59%	
	Fiber	51%	49%	48%	48%	41%	
North ⁽²⁾	Grade	37%	46%	49%	47%	—%	
	Fiber	63%	54%	51%	53%	—%	
Uruguay ⁽³⁾	Grade	—%	—%	69%	66%	65%	
	Fiber	—%	—%	31%	34%	35%	
Other ⁽⁴⁾	Grade	—%	—%	47%	45%	—%	
	Fiber	—%	—%	53%	55%	—%	
Total	Grade	59%	62%	63%	64%	73%	
	Fiber	41%	38%	37%	36%	27%	

(1) In February 2016, we merged with Plum Creek.

(2) In November 2019, we sold our Michigan timberlands. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

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HOW MUCH WE SELL

Our net sales to unaffiliated customers over the last two years were:

- \$1.6 billion in 2019 and
- \$1.9 billion in 2018.

Our intersegment sales over the last two years were:

- \$503 million in 2019 and
- \$537 million in 2018.

Five-Year Summary of Net Sales for Timberlands

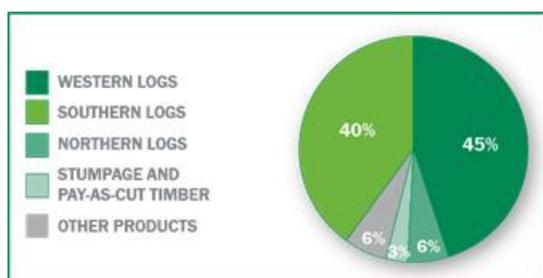
NET SALES IN MILLIONS OF DOLLARS ⁽¹⁾⁽²⁾					
	2019	2018	2017	2016	2015
Net sales to unaffiliated customers:					
Delivered logs:					
West	\$ 740	\$ 987	\$ 915	\$ 865	\$ 830
South	640	625	616	566	241
North ⁽³⁾	92	99	95	91	—
Other ⁽⁴⁾	—	—	23	14	13
Total	1,472	1,711	1,649	1,536	1,084
Stumpage and pay-as-cut timber	42	59	73	85	37
Uruguay operations ⁽⁵⁾	—	—	63	79	87
Recreational lease revenue	61	59	59	44	25
Other products ⁽⁶⁾	43	44	49	36	16
Subtotal net sales to unaffiliated customers	1,618	1,873	1,893	1,780	1,249
Intersegment net sales	503	537	522	592	560
Total	\$ 2,121	\$ 2,410	\$ 2,415	\$ 2,372	\$ 1,809

- (1) In February 2016, we merged with Plum Creek.
- (2) In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands segment. We have conformed prior year presentations with the current year.
- (3) In November 2019, we sold our Michigan timberlands. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.
- (4) Other delivered logs included sales from timberlands managed for the Twin Creeks Venture. Our management agreement for the Twin Creeks Venture began in April 2016 and terminated in December 2017. For additional information see [Note 8: Related Parties](#).
- (5) Our Uruguay operations were divested in September 2017. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.
- (6) Other products include sales of seeds and seedlings from our nursery operations and wood chips.

Five-Year Trend for Total Net Sales in Timberlands



Percentage of 2019 Sales Dollars to Unaffiliated Customers



Log Sales Volume

Our sales volume includes fee timber, as well as logs purchased in the open market. Domestic and export logs are sold at market prices to both unaffiliated customers and our internal mills.

Our log sales volumes to unaffiliated customers over the last two years were:

- 26,963 thousand tons in 2019 and
- 27,494 thousand tons in 2018.

We sell three grades of logs — domestic grade, domestic fiber and export. Factors that may affect log sales in each of these categories include:

- domestic grade log sales — lumber usage, primarily for housing starts and repair and remodel activity, the needs of our own mills and the availability of logs from both outside markets and our own timberlands;
- domestic fiber log sales — demand for wood chips by pulp, containerboard mills, pellet mills and oriented strand board mills and
- export log sales — the level of housing starts in Japan and construction in China, as well as availability of logs from other countries, particularly for China.

Five-Year Summary of Log Sales Volume to Unaffiliated Customers

SALES VOLUME IN THOUSANDS ⁽¹⁾⁽²⁾					
	2019	2018	2017	2016	2015
Logs – tons:					
West	7,173	7,858	8,202	8,713	8,212
South	18,232	18,008	17,895	15,967	6,480
North ⁽³⁾	1,558	1,628	1,574	1,500	—
Uruguay ⁽⁴⁾	—	—	291	470	714
Other ⁽⁵⁾	—	—	693	122	—
Total	26,963	27,494	28,655	26,772	15,406

(1) In February 2016, we merged with Plum Creek.

(2) In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands segment. We have conformed prior year presentations with the current year.

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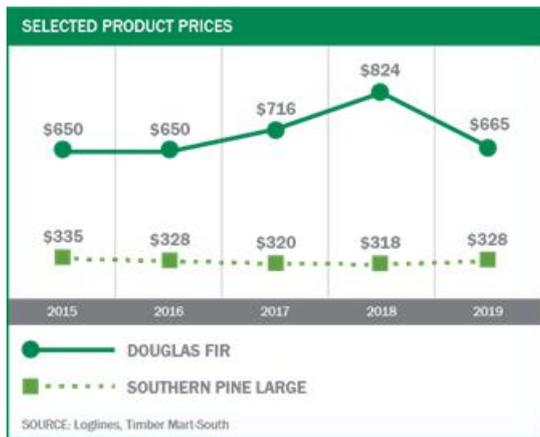
(4) Our Uruguay operations were divested in September 2017. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

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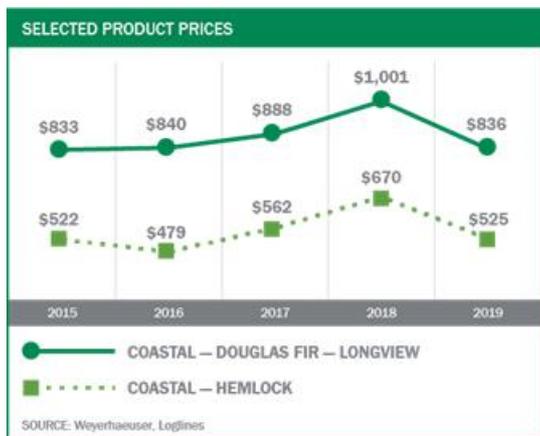
Log Prices

The majority of our log sales to unaffiliated customers involve sales to domestic saw mills and the export market. Log prices in the following tables are on a delivered (mill) basis.

Five-Year Summary of Published Domestic Log Prices (#2 Sawlog Bark On — \$/MBF)



Five-Year Summary of Export Log Prices (#2 Sawlog Bark On — \$/MBF)



Log prices are affected by the supply of and demand for grade and fiber logs. Export log prices are particularly affected by the Japanese housing market, Chinese construction activity and the availability of logs.

WHERE WE'RE HEADED

Our competitive strategies include:

- continuing to capitalize on our scale of operations, silviculture and supply chain expertise and sustainability practices;
- improving cash flow through operational excellence initiatives including merchandising for value, harvest and transportation efficiencies as well as focused silviculture investments to improve forest productivity;
- leveraging our export and domestic market access, infrastructure and strong customer relationships;
- increasing our recreational lease revenue and
- continuing to maximize the value of our timberlands portfolio by managing the acres to achieve the highest and best use.

REAL ESTATE, ENERGY AND NATURAL RESOURCES

Our Real Estate & ENR segment maximizes the value of our timberland ownership through application of our asset value optimization (AVO) process and captures the full value of surface and subsurface assets, such as oil, natural gas, minerals and wind and solar resources.

WHAT WE DO

Real Estate

Properties that exhibit higher use value than as commercial timberlands are monetized by our Real Estate business over time. We analyze our existing U.S. timberland holdings using a process we call AVO. We start with understanding the value of a parcel operating as commercial timberlands and then assess the specific real estate attributes of the parcel and its corresponding market. The assessment includes demographics, infrastructure and proximity to amenities and recreation to determine the potential to realize a premium value to commercial timberland. Attributes can evolve over time, and accordingly, the assignment of value and opportunity can change. We continually revisit our AVO assessment of all our timberland acres.

These properties are acres we expect to sell for recreational, conservation, commercial or residential purposes over time. We will entitle a small amount of acres to support development. Development, outside of entitlement activities, is typically performed by third parties. Some of our real estate activities are conducted through our TRSs.

Occasionally, we sell a small amount of timberlands acreage in areas where we choose to reduce our market presence and capture a price that exceeds the value derivable from holding and operating as commercial timberlands. These transactions will vary based on factors including the locations and physical characteristics of the timberlands.

The timing of real estate sales is a function of many factors, including the general state of the economy, demand in local real estate markets, the ability of buyers to obtain financing, the number of competing properties listed for sale, the seasonal nature of sales (particularly in the Northern states), the plans of adjacent landowners, our expectation of future price appreciation, the timing of the harvesting activities and the availability of government and not-for-profit funding. In any period, the average sales price per acre will vary based on the location and physical characteristics of parcels sold.

Energy and Natural Resources

We focus on maximizing potential opportunities for oil, natural gas, construction materials, industrial minerals, renewable energy (including wind and solar energy), rights of way easements on our timberlands portfolio and retained mineral interests.

As the owner of mineral rights and interests, we typically do not invest in development or operations but, instead, enter into contracts with operators granting them the rights to explore and sell energy and natural resources produced from our property in exchange for rents and royalties.

We generally reserve mineral rights when selling timberlands acreage. Some Energy and Natural Resources activities are conducted through our TRSs.

Real Estate, Energy and Natural Resources Sources of Revenue

SOURCES	ACTIVITIES
Real Estate	• Select timberland tracts are sold for recreational, conservation, commercial or residential purposes.
Energy and Natural Resources	• Rights are granted to explore, extract and sell construction aggregates (rock, sand and gravel), industrial materials and oil and natural gas. • Ground leases and easements are granted to wind and solar developers to generate renewable electricity from our timberlands. • Rights are granted to access and utilize timberland acreage for communications, pipeline, powerline and transportation rights of way.

WHERE WE DO IT

Our Real Estate business identifies opportunities to realize premium value for our U.S. owned timberland acreage.

The majority of our Energy and Natural Resources revenue sources are located in Oregon, Washington, South Carolina and Georgia (construction material royalties); as well as the Gulf South and West Virginia (oil and natural gas royalties).

HOW MUCH WE SELL

Our net sales to unaffiliated buyers over the last two years were:

- \$313 million in 2019 and
- \$306 million in 2018.

Five-Year Summary of Net Sales for Real Estate, Energy and Natural Resources

NET SALES IN MILLIONS OF DOLLARS ⁽¹⁾⁽²⁾					
	2019	2018	2017	2016	2015
Net Sales:					
Real Estate	\$ 225	\$ 229	\$ 208	\$ 172	\$ 75
Energy and Natural Resources	89	78	73	54	26
Total	\$ 314	\$ 307	\$ 281	\$ 226	\$ 101

(1) In February 2016, we merged with Plum Creek.

(2) Amounts include net sales to unaffiliated buyers as well as intersegment sales.

Five-Year Summary of Real Estate Sales Statistics

REAL ESTATE SALES STATISTICS ⁽¹⁾					
	2019	2018	2017	2016	2015
Acres sold	113,315	131,575	97,235	82,687	27,390
Average price per acre	\$ 1,848	\$ 1,701	\$ 2,079	\$ 2,072	\$ 2,490

(1) In February 2016, we merged with Plum Creek.

WHERE WE'RE HEADED

Our competitive strategies include:

- continuing to apply the AVO process to identify opportunities to capture a premium to timber value;
- maintaining a flexible, low-cost execution model by continuing to leverage strategic relationships with outside real estate brokers;
- capturing the full value of our oil and natural gas, aggregates and industrial minerals and wind renewable energy resources and delivering the most value from every acre.

WOOD PRODUCTS

We are a large manufacturer and distributor of wood products in North America.

WHAT WE DO

Our wood products segment:

- manufactures high-quality structural lumber, oriented strand board, engineered wood products and other specialty products for the residential, multi-family, industrial, light commercial and repair and remodel markets;
- distributes our products as well as complementary building products that we purchase from other manufacturers and
- exports our structural lumber and engineered wood products, primarily to Asia.

Wood Products Sources of Revenue

PRODUCTS	HOW THEY'RE USED
Structural lumber	Structural framing for new residential, repair and remodel, treated applications, industrial and commercial structures.
Oriented strand board	Structural sheathing, subflooring and stair tread for residential, multi-family and commercial structures.
Engineered wood products <ul style="list-style-type: none"> • Solid section • I-joists • Softwood plywood • Medium density fiberboard 	Structural elements for residential, multi-family and commercial structures such as floor and roof joists, headers, beams, subflooring and sheathing. Medium density fiberboard products for store fixtures, molding, doors and cabinet components.
Other products	Wood chips and other byproducts.
Complementary building products	Complementary building products such as cedar, decking, siding, insulation and rebar sold in our distribution facilities.

WHERE WE DO IT

We operate manufacturing facilities in the United States and Canada. We distribute through a combination of Weyerhaeuser distribution centers and third-party distributors. Information about the locations, capacities and actual production of our manufacturing facilities is included below.

Summary of Wood Products Capacities and Principal Manufacturing Locations as of December 31, 2019

CAPACITIES IN MILLIONS				
	PRODUCTION CAPACITY	NUMBER OF FACILITIES	FACILITY LOCATIONS	
Structural lumber – board feet	5,188	19	Alabama, Arkansas, Louisiana (2), Mississippi (3), Montana, North Carolina (3), Oklahoma, Oregon (2), Washington (2), Alberta (2), British Columbia	
Oriented strand board – square feet (3/8")	3,035	6	Louisiana, Michigan, North Carolina, West Virginia, Alberta, Saskatchewan	
Engineered solid section – cubic feet ⁽¹⁾	42	6	Alabama, Louisiana, Oregon, West Virginia, British Columbia, Ontario	
Softwood plywood – square feet (3/8")	610	3	Arkansas, Louisiana, Montana	
Medium density fiberboard – square feet (3/4")	265	1	Montana	

(1) This represents total press capacity. Three facilities also produce I-joist to meet market demand. In 2019, approximately 25 percent of the total press production was converted into 182 lineal feet of I-joist.

Production capacities listed represent annual production volume under normal operating conditions and producing a normal product mix for each individual facility.

We also own or lease 18 distribution centers in the U.S. where our products and complementary building products are sold.

Five-Year Summary of Wood Products Production

PRODUCTION IN MILLIONS ⁽¹⁾					
	2019	2018	2017	2016	2015
Structural lumber – board feet	4,705	4,541	4,509	4,516	4,252
Oriented strand board – square feet (3/8")	2,969	2,837	2,995	2,910	2,847
Engineered solid section – cubic feet ⁽²⁾	22.6	24.3	25.1	22.8	20.9
Engineered I-joists – lineal feet ⁽²⁾	182	191	213	184	185
Softwood plywood – square feet (3/8") ⁽³⁾	386	404	370	396	248
Medium density fiberboard – square feet (3/4")	202	220	232	209	—

(1) In February 2016, we merged with Plum Creek.

(2) Our engineered solid section facilities also may produce engineered I-joists.

(3) All of our plywood facilities also produce veneer.

HOW MUCH WE SELL

Revenues of our Wood Products segment come from sales to wood products dealers, do-it-yourself retailers, builders and industrial users. Wood Products net sales were \$4.6 billion in 2019 and \$5.3 billion in 2018.

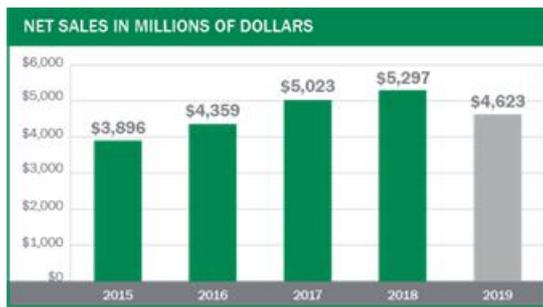
Five-Year Summary of Net Sales for Wood Products

NET SALES IN MILLIONS OF DOLLARS ⁽¹⁾					
	2019	2018	2017	2016	2015
Structural lumber	\$ 1,892	\$ 2,258	\$ 2,058	\$ 1,839	\$ 1,741
Oriented strand board	632	891	904	707	595
Engineered solid section	510	521	500	450	428
Engineered I-joists	323	336	336	290	284
Softwood plywood	161	200	176	174	129
Medium density fiberboard	166	177	183	158	—
Other products produced ⁽²⁾	337	330	325	226	213
Complementary building products	602	584	541	515	506
Total	\$ 4,623	\$ 5,297	\$ 5,023	\$ 4,359	\$ 3,896

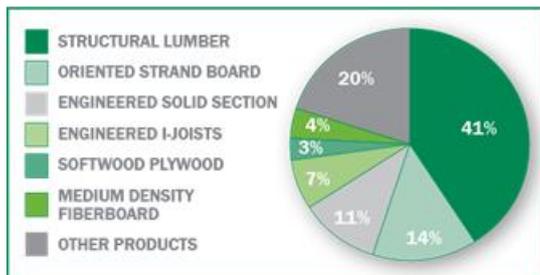
(1) In February 2016, we merged with Plum Creek.

(2) Other products produced sales include wood chips, other byproducts and third-party residual log sales from our Canadian Forestlands operations. In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales within other products produced. We have conformed prior year presentations with the current year.

Five-Year Trend for Total Net Sales in Wood Products



Percentage of 2019 Net Sales Dollars in Wood Products



Wood Products Volume

Five-Year Summary of Sales Volume for Wood Products

SALES VOLUME IN MILLIONS ⁽¹⁾⁽²⁾					
	2019	2018	2017	2016	2015
Structural lumber – board feet	4,857	4,684	4,658	4,723	4,588
Oriented strand board – square feet (3/8")	2,916	2,827	2,971	2,934	2,972
Engineered solid section – cubic feet	23.2	24.3	25.1	23.3	21.3
Engineered I-joists – lineal feet	192	204	220	195	188
Softwood Plywood – square feet (3/8")	445	459	453	481	381
Medium density fiberboard – square feet (3/4")	200	212	222	206	—

(1) Sales volume includes sales of internally produced products as well as complementary building products sold primarily through our distribution centers.

(2) In February 2016, we merged with Plum Creek.

Wood Products Prices

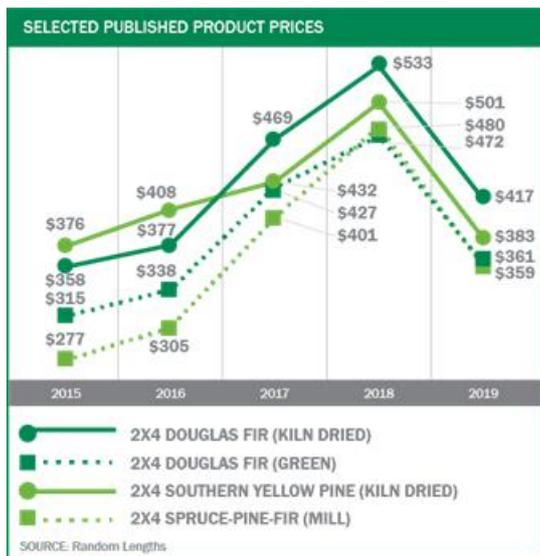
Prices for commodity wood products — structural lumber, oriented strand board (OSB) and softwood plywood — declined in 2019 from 2018.

In general, the following factors influence sales realizations for wood products:

- Demand for wood products used in residential and multi-family construction and the repair and remodel of existing homes affects prices. Residential and multi-family construction is influenced by factors such as population growth and other demographics, availability of labor and lots, the level of employment, consumer confidence, consumer income, availability of financing and interest rate levels, and the supply and pricing of existing homes on the market. Repair and remodel activity is affected by the size and age of existing housing inventory and access to home equity financing and other credit.
- The supply of commodity building products such as structural lumber, OSB and softwood plywood affects prices. A number of factors can influence supply, including changes in production capacity and utilization rates, weather, raw material supply and availability of transportation.

The following graphs reflect product price trends for the past five years.

Five-Year Summary of Published Lumber Prices —\$/MBF



Five-Year Summary of Published Oriented Strand Board Prices —\$/MSF



WHERE WE'RE HEADED

Our competitive strategies include:

- achieving industry-leading controllable manufacturing costs through operational excellence and disciplined capital execution;
- aligning strongly with fiber supply;
- leveraging our brand and reputation as the preferred provider of quality building products and
- pursuing disciplined, profitable sales growth in target markets.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Adrian M. Blocker, 63, has been senior vice president, Timberlands, since January 2019. Previously, he served as senior vice president, Wood Products, from January 2015 to January 2019. He joined the company in May 2013 as vice president, Lumber. Prior to joining the company, he served as CEO of the Wood Products Council. He has held numerous leadership positions in the industry focused on forest management, fiber procurement, consumer packaging, strategic planning, business development and manufacturing, at companies including West Fraser, International Paper and Champion International.

Russell S. Hagen, 54, has been senior vice president and chief financial officer since February 2016. Previously, he served as senior vice president, Business Development, at Plum Creek from December 2011 to February 2016. Prior to this he was vice president, Real Estate Development, overseeing the development activities of the company's real estate, oil and gas, construction materials and bioenergy businesses. Mr. Hagen began his career in 1988 with Coopers and Lybrand, where he was a certified public accountant and led the audits of public clients in technology, banking and natural resource industries. He joined Plum Creek in 1993 as Manager of Internal Audit and held director-level positions in accounting, financial operations, risk management and information technology.

Kristy T. Harlan, 46, has been senior vice president, general counsel and corporate secretary since January 2017. She leads the company's Law department, with responsibility for global legal, compliance, enterprise risk management, procurement and land title functions. Before joining the company, she was a partner at K&L Gates LLP from January 2007 to November 2016. Previously, she worked as an attorney at Preston Gates & Ellis LLP and Akin Gump Strauss Hauer & Feld LLP.

James A. Kilberg, 63, has been senior vice president, Real Estate, Energy and Natural Resources, since April 2016. In this position, he oversees the company's real estate development, land asset management, conservation, mitigation banking, recreational lease management, oil and gas, construction materials, heavy minerals, wind and solar. Prior to joining the company, he served as Plum Creek's senior vice president, Real Estate, Energy and Natural Resources, from 2006 to February 2016, and as Plum Creek's vice president, Land Management, from 2001 to 2006. Prior to joining Plum Creek, Mr. Kilberg held several executive positions in real estate, asset management and development.

Denise M. Merle, 56, has been senior vice president and chief administration officer since February 2018. Previously, she served as senior vice president, Human Resources and Information Technology, from February 2016 to February 2018 and senior vice president, Human Resources and Investor Relations, from February 2014 to February 2016. She was director, Finance and Human Resources, for the Lumber business from 2013 to 2016. Prior to that, she was director, Compliance & Enterprise Planning, from 2009 to 2013, and director, Internal Audit, from 2004 to 2009. She has also held various roles in the company's paper and packaging businesses, including finance, capital planning and analysis, and business development. She is a licensed CPA in the state of Washington.

Keith J. O'Rear, 57, has been senior vice president, Wood Products, since January 2019. Previously, he was vice president of Wood Products sales and marketing from 2017 to 2018 and vice president of Wood Products Manufacturing for the company's Mid-South region from 2014 to 2017. Mr. O'Rear led the company's Timberlands operations in Oklahoma and Arkansas from 2013 to 2014, and prior to that he held various manufacturing leadership roles at the company's lumber mills in Dierks, Arkansas, and Idabel, Oklahoma. He also led a variety of initiatives for the company in the areas of safety, reliability, strategic planning and large capital projects.

Devin W. Stockfish, 46, has been president and chief executive officer and a member of the company's board of directors since January 2019. Previously, he served as senior vice president, Timberlands, from January 2018 to December 2018 and as vice president, Western timberlands, from January 2017 to December 2017. He also served as senior vice president, general counsel and corporate secretary, from July 2014 to December 2016 and as assistant general counsel from March 2013 to July 2014. Before joining the company in March 2013, he was vice president and associate general counsel at Univar Inc. where he focused on mergers and acquisitions, corporate governance and securities law. Previously, he was an attorney in the law department at Starbucks Corporation and practiced corporate law at K&L Gates LLP. Before he began practicing law, Mr. Stockfish was an engineer with the Boeing Company.

NATURAL RESOURCE AND ENVIRONMENTAL MATTERS

We are subject to a multitude of laws and regulations in the operation of our businesses. We also participate in voluntary certification of our timberlands to ensure that we sustain their overall quality, including the protection of wildlife and water quality. Changes in law and regulation, or certification standards, can significantly affect our business.

REGULATIONS AFFECTING FORESTRY PRACTICES

In the United States, regulations established by federal, state and local government agencies to protect water quality, wetlands and other wildlife habitat could affect future harvests and forest management practices on our timberlands. Forest practice laws and regulations that affect present or future harvest and forest management activities in certain states include:

- limits on the size of clearcuts,
- requirements that some timber be left unharvested to protect water quality and fish and wildlife habitat,
- regulations regarding construction and maintenance of forest roads,
- rules requiring reforestation following timber harvest,
- regulations on the use of pesticides and herbicides and
- various related permit programs.

Each state in which we own timberlands has developed best management practices to reduce the effects of forest practices on water quality and aquatic habitats. Additional and more stringent regulations may be adopted by various state and local governments to achieve water-quality standards under the federal Clean Water Act, protect fish and wildlife habitats, human health, or achieve other public policy objectives.

In Canada, our forest operations are carried out on public timberlands under forest licenses with the provinces. All forest operations in Canada are subject to:

- forest practices and environmental regulations and
- license requirements established by contract between us and the relevant province designed to:
 - protect environmental values and
 - encourage other stewardship values.

In Canada, 21 member companies of the Forest Products Association of Canada (FPAC), including Weyerhaeuser's Canadian subsidiary, announced in May 2010 the signing of a Canadian Boreal Forest Agreement (CBFA) with nine environmental organizations. The CBFA applies to approximately 72 million hectares of public forests licensed to FPAC members and, when fully implemented, was expected to lead to the conservation of significant areas of Canada's boreal forest and protection of boreal species at risk, in particular, woodland caribou. While the CBFA mandate came to an end in 2017, CBFA signatories continue to work on management plans with provincial governments and seek the participation of aboriginal and local communities in advancing the goals of the CBFA.

ENDANGERED SPECIES PROTECTIONS

In the United States, a number of fish and wildlife species that inhabit geographic areas near or within our timberlands have been listed as threatened or endangered under the federal Endangered Species Act (ESA) or similar state laws, including but not limited to:

- the northern spotted owl, the marbled murrelet, a number of salmon species, bull trout and steelhead trout in the Pacific Northwest;
- several freshwater mussel and sturgeon species and
- the red-cockaded woodpecker, gopher tortoise, dusky gopher frog, American burying beetle and Northern long-eared bat in the South or Southeast.

Additional species or populations may be listed as threatened or endangered as a result of pending or future citizen petitions or petitions initiated by federal or state agencies. In addition, significant citizen litigation seeks to compel the federal agencies to designate "critical habitat" for ESA-listed species, and many cases have resulted in settlements under which designations will be implemented over time. Such designations may adversely affect some management activities and options. Restrictions on timber harvests can result from

- federal and state requirements to protect habitat for threatened and endangered species;
- regulatory actions by federal or state agencies to protect these species and their habitat and
- citizen suits under the ESA.

Such actions could increase our operating costs and affect timber supply and prices in general. To date, we do not believe that these measures have had, and we do not believe that in 2020 they will have, a significant effect on our harvesting operations. We anticipate that likely future actions will not disproportionately affect Weyerhaeuser as compared with comparable operations of U.S. competitors.

In Canada:

- The federal Species at Risk Act (SARA) requires protective measures for species identified as being at risk and for their critical habitat. Pursuant to SARA, Environment Canada continues to identify and assess species deemed to be at risk and their critical habitat.

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- In October 2012, the Canadian Minister of the Environment released a strategy for the recovery of the boreal population of woodland caribou under the SARA. The population and distribution objectives for boreal caribou across Canada are to (1) maintain the current status of existing, self-sustaining local caribou populations and (2) stabilize and achieve self-sustaining status for non-self-sustaining local caribou populations. Critical habitat for boreal caribou is identified for all boreal caribou ranges, except for northern Saskatchewan's Boreal Shield range (SK1) where additional information is required for that population. Species assessment and recovery plans are developed in consultation with aboriginal communities and stakeholders.
- In 2017, the Provinces were required to update the federal government on any progress associated with their draft caribou range plans. These draft plans will be further evaluated in 2020, and any additional information on potential effects to forest harvest operations will be released.

The identification and protection of habitat and the implementation of range plans and land use action plans may, over time, result in additional restrictions on timber harvests and other forest management practices that could increase operating costs for operators of timberlands in Canada. To date, we do not believe that these Canadian measures have had, and we do not believe that in 2020 they will have, a significant effect on our harvesting operations. We anticipate that likely future measures will not disproportionately affect Weyerhaeuser as compared with similar operations of Canadian competitors.

FOREST CERTIFICATION STANDARDS

We operate in North America under the Sustainable Forestry Initiative® (SFI). This is a certification standard designed to supplement government regulatory programs with voluntary landowner initiatives to further protect certain public resources and values. SFI is an independent standard, overseen by a governing board consisting of:

- conservation organizations,
- academia,
- the forest industry and
- large and small forest landowners.

Ongoing compliance with SFI may result in some increases in our operating costs and reduction of our timber harvests in some areas. There is also competition from other private certification systems, primarily the Forest Stewardship Council (FSC), coupled with efforts by supporters to further those systems by persuading customers of forest products to require products certified to their preferred system. Certain features of the FSC system could impose additional operating costs on timberland management. Because of the considerable variation in FSC standards, and variability in how those standards are interpreted and applied, if sufficient marketplace demand develops for products made from raw materials sourced from other than SFI-certified forests, we could incur substantial additional costs for operations and be required to reduce harvest levels.

WHAT THESE REGULATIONS AND CERTIFICATION PROGRAMS MEAN TO US

The regulatory and non-regulatory forest management programs described above have:

- increased our operating costs;
- resulted in changes in the value of timber and logs from our timberlands;
- contributed to increases in the prices paid for wood products and wood chips during periods of high demand;
- sometimes made it more difficult for us to respond to rapid changes in markets, extreme weather or other unexpected circumstances and
- potentially encouraged further reductions in the use of, or substitution of other products for, lumber, oriented strand board, engineered wood products and plywood.

We believe that these regulations and programs have not had, and in 2020 will not have, a significant effect on our total harvest of timber in the United States or Canada. However, these kinds of programs may have such an effect in the future. We expect we will not be disproportionately affected by these programs as compared with typical owners of comparable timberlands. We also expect that these programs will not significantly disrupt our planned operations over large areas or for extended periods.

CANADIAN ABORIGINAL RIGHTS

Many of the Canadian timberlands are subject to the constitutionally protected treaty or common-law rights of aboriginal peoples of Canada. Most of British Columbia (B.C.) is not covered by treaties, and as a result the claims of B.C.'s aboriginal peoples relating to forest resources have been largely unresolved. Nonetheless, the Supreme Court of Canada ruled that the Tsilhqot'in Nation holds aboriginal title to approximately 1,900 square kilometers in B.C., the first time the court has declared title to exist based on historical occupation by aboriginal peoples. Many aboriginal groups continue to be engaged in treaty discussions with the governments of B.C., other provinces and Canada.

Final or interim resolution of claims brought by aboriginal groups can be expected to result in:

- additional restrictions on the sale or harvest of timber,
- potential increase in operating costs and
- effect on timber supply and prices in Canada.

We believe that such claims will not have a significant effect on our total harvest of timber or production of forest products in 2020, although they may have such an effect in the future.

POLLUTION-CONTROL REGULATIONS

Our operations are subject to various federal, state, provincial and local pollution control laws and regulations.

These laws and regulations, as well as market demands, impose controls with regard to:

- air, water and land;
- solid and hazardous waste management;
- waste disposal;
- remediation of contaminated sites and
- the chemical content of some of our products.

Compliance with these laws, regulations and demands usually 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, regulations and demands or the effects on our operating costs because in some instances compliance standards have not been developed or have not become final or definitive. In addition, it is difficult to isolate the environmental component of most manufacturing capital projects.

Our capital projects typically are designed to:

- enhance safety,
- extend the life of a facility,
- lower costs and improve efficiency,
- improve reliability,
- increase capacity,
- facilitate raw material changes and handling requirements,
- increase the economic value of assets or products, and
- comply with regulatory standards.

ENVIRONMENTAL CLEANUP

We are involved in the environmental investigation or remediation of numerous sites. Of these sites:

- we may have the sole obligation to remediate,
- we may share that obligation with one or more parties,
- several parties may have joint and several obligations to remediate and
- we may have been named as a potentially responsible party for contaminated sites, including those designated as U.S. Superfund sites.

Our liability with respect to these various sites ranges from insignificant to substantial. The amount of liability depends on the:

- quantity, toxicity and nature of materials at the site and
- number and economic viability of the other responsible parties.

We spent approximately \$5 million in 2019 and expect to spend approximately \$9 million in 2020 on environmental remediation of these sites.

It is our policy to accrue for environmental-remediation costs when we:

- determine it is probable that such an obligation exists and
- can reasonably estimate the amount of the obligation.

Based on currently available information and analysis, we believe it is reasonably possible that our costs to remediate all the identified sites may exceed our current accruals of \$61 million by up to \$124 million. This estimate of the upper end of the range of reasonably possible additional costs is much less certain than the estimates we currently are using to determine how much to accrue. The estimate of the upper range also relies on assumptions less favorable to us among the range of reasonably possible outcomes.

REGULATION OF AIR EMISSIONS IN THE U.S.

The United States Environmental Protection Agency (EPA) has promulgated regulations for air emissions from:

- wood products facilities and
- industrial boilers.

These regulations cover:

- hazardous air pollutants that require use of maximum achievable control technology (MACT) and
- controls and/or monitoring for pollutants that contribute to smog, haze and more recently, greenhouse gases.

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The EPA has issued several rules relating to MACT standards and the emission of greenhouse gases from various energy-producing sources. Several court decisions have made the extent of applicability of these rules uncertain. Depending on the final outcomes of these decisions, these regulatory programs could affect our operations by increasing the cost of purchasing electricity or from mandated energy demand reductions that could apply to our mills and other facilities that we operate. The EPA is also expected to issue rules relating to biomass emissions, which is a significant source of energy at our mills. The effect of these existing and future emissions regulations, as well as related court decisions, on our operations remains uncertain. We continue to track and evaluate the litigation and regulatory developments but are not able to predict whether the regulations, when complete and implemented, will have a material effect on our operations.

To address concerns about greenhouse gases as a pollutant, we:

- closely monitor legislative, regulatory and scientific developments pertaining to climate change;
- adopted in 2006, as part of the company's sustainability program, a goal of reducing greenhouse gas emissions by 40 percent by 2020 compared with our emissions in 2000, assuming a comparable portfolio and regulations;
- determined to achieve this goal by increasing energy efficiency and using more greenhouse gas-neutral, biomass fuels instead of fossil fuels and
- reduced greenhouse gas emissions by over 50 percent considering changes in the asset portfolio according to 2018 data, compared to our 2000 baseline.

Additional factors that could affect regulation of greenhouse gas emissions in the future include:

- policy proposals by federal or state governments regarding regulation of greenhouse gas emissions,
- Congressional legislation regulating or taxing greenhouse gas emissions within the next several years and
- establishment of a multistate or federal greenhouse gas emissions reduction trading system with potentially significant implications for all U.S. businesses.

We believe these developments 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 maintain an active forestry research program to track and understand any potential effect from actual climate change related parameters that could affect the forests we own and manage and do not anticipate any disruptions to our planned operations.

REGULATION OF AIR EMISSIONS IN CANADA

Our wood products facilities are regulated in Canada under provincial air quality rules. The Canadian federal government has also proposed an air quality management system (AQMS) as a comprehensive national approach for improving air quality in Canada to go along with existing provincial air quality regulations. The AQMS includes:

- ambient air quality standards for outdoor air quality management across the country;
- a framework for air zone air management within provinces and territories that targets specific sources of air emissions;
- regional airsheds that facilitate coordinated action across borders;
- industrial sector-based emission requirements that set a national base level of performance for major industries in Canada and
- improved intergovernmental collaboration to reduce emissions from the transportation sector.

In addition to these existing and proposed regulations, Environment and Climate Change Canada, a Canadian federal agency, released the Pan-Canadian Framework on Clean Growth and Climate Change, a "Greenhouse Gas Emission Framework." The framework put in place a national, sector-based greenhouse gas reduction program applicable to a number of industries, including ours.

All Canadian provincial governments:

- have greenhouse gas reporting requirements,
- are working on reduction strategies and
- together with the Canadian federal government, are considering new or revised emission standards.

Along with clean air regulations, British Columbia, a province in which we operate, has adopted a carbon tax and Alberta, where we also have operations, has a mandatory greenhouse gas emission reduction regulation.

Although these and related regulations and measures have not had, and we do not expect in 2020 that they will have, a material effect on our operations, they could in the future.

REGULATION OF WATER IN THE U.S.

Our operations are regulated under the Clean Water Act, which regulates the discharge of pollutants into the waters of the U.S. This generally means obtaining permits for certain of our silviculture activities and abiding by applicable restrictions. Federal agency rulemaking and related litigation under the act has led to increased jurisdiction of the act by expanding the definition of waterways subject to the act's regulation. This, in turn, has increased the number of required federal and state permits in some areas of our operations as it relates to the application of pesticides and herbicides on timberlands, which has increased operating costs. Pending and future federal and state rulemaking, and judicial challenges thereto, could make application of the Clean Water Act, as well as comparable state laws, more or less costly to Weyerhaeuser, and we are not able to predict the final resolution of these matters. Although this and related regulations have not had, and we do not expect in 2020 that they will have, a material effect on our operations, they could in the future.

REGULATION OF WATER IN CANADA

Changes to the Canadian Federal Fisheries Act have moved the focus of that legislation from habitat protection to fisheries protection and increased penalties. We expect further changes to these regulations, but we cannot predict the scope or potential effect, if any, on our operations. Although this and related Canadian regulations have not had, and we do not expect in 2020 that they will have, a material effect on our operations, they could in the future.

POTENTIAL CHANGES IN POLLUTION REGULATION

State governments in the U.S. continue to promulgate total maximum daily load (TMDL) requirements for pollutants in water bodies that do not meet state or EPA water quality standards. State TMDL requirements may set:

- limits on pollutants that may be discharged to a body of water; or
- additional requirements, such as best management practices for nonpoint sources, including timberland operations, to reduce the amounts of pollutants.

Moreover, some states, including at least two in which we operate, have adopted or have introduced legislation to adopt human-health-based water quality standards. These requirements may alter or introduce restrictions on some of our silviculture activities, notably the application of pesticides and herbicides to our timberlands in some areas. In Canada, various levels of government have been working to address water issues including use, quality and management. Recent areas of focus include water allocation, regional watershed protection, protection of drinking water, water pricing and a national water quality index.

Although these developments have not had, and we do not expect in 2020 that they will have, a material effect on our operations, they could in the future.

FORWARD-LOOKING STATEMENTS

This report contains statements concerning our future results and performance that are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements often reference or describe our expected future financial and operating performance; our plans, strategies, intentions and expectations; our operational excellence and other strategic initiatives, including those pertaining to operating and other costs, product development and production; estimated taxes and tax rates; future debt payments; future restructuring charges; expected results of litigation and other legal proceedings and contingent liabilities, and the sufficiency of litigation and other contingent liability reserves; expected uses of cash, including future dividends and share repurchases; expected capital expenditures; expected economic conditions, including markets, pricing and demand for our products; laws and regulations relevant to our businesses and our expectations relating to pension contributions, returns on invested pension plan assets and expected benefit payments.

Forward-looking statements can be identified by the fact that they do not relate strictly to historical or current facts. They often involve use of words such as expects, may, should, will, believes, anticipates, estimates, projects, intends, plans, targets or approximately, or similar words or terminology. They may use the positive, negative or another variation of those and similar words. These forward-looking statements are based on our current expectations and assumptions and are not guarantees of future events or performance. The realization of our expectations and the accuracy of our assumptions are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. The factors listed below and those described under [Risk Factors](#) and [Management's Discussion and Analysis of Financial Condition and Results of Operations \(MD&A\)](#), as well as other factors not described herein because they are not currently known to us or we currently judge them to be immaterial, may cause our actual results to differ significantly from our forward-looking statements. There is no guarantee that any of the events anticipated by our forward-looking statements will occur. Or if any of the events occur, there is no guarantee what effect it will have on our operations, cash flows, or financial condition. We undertake no obligation to update our forward-looking statements after the date of this report.

RISKS, UNCERTAINTIES AND ASSUMPTIONS

Major risks and uncertainties, and assumptions that we make, that affect our business and may cause actual results to differ materially from the content of these forward-looking statements include, but are not limited to:

- the effect of general economic conditions, including employment rates, interest rate levels, housing starts, general availability of financing for home mortgages and the relative strength of the U.S. dollar;
- market demand for the company's products, including market demand for our timberland properties with higher and better uses, which is related to, among other factors, the strength of the various U.S. business segments and U.S. and international economic conditions;
- changes in currency exchange rates, particularly the relative value of the U.S. dollar to the Japanese yen, the Chinese yuan, and the Canadian dollar, and the relative value of the euro to the yen;
- restrictions on international trade and tariffs imposed on imports or exports;
- the availability and cost of shipping and transportation;
- economic activity in Asia, especially Japan and China;
- performance of our manufacturing operations, including maintenance and capital requirements;
- potential disruptions in our manufacturing operations;
- the level of competition from domestic and foreign producers;
- the successful execution of our internal plans and strategic initiatives, including restructuring and cost reduction initiatives;
- the successful and timely execution and integration of our strategic acquisitions, including our ability to realize expected benefits and synergies, and the successful and timely execution of our strategic divestitures, each of which is subject to a number of risks and conditions beyond our control including, but not limited to, timing and required regulatory approvals;
- raw material availability and prices;
- the effect of weather;
- changes in global or regional climate conditions and governmental response to such changes;
- the risk of loss from fires, floods, windstorms, hurricanes, pest infestation and other natural disasters;
- energy prices;
- transportation and labor availability and costs;
- federal tax policies;
- the effect of forestry, land use, environmental and other governmental regulations;
- legal proceedings;
- performance of pension fund investments and related derivatives;
- the effect of timing of employee retirements and changes in the market price of our common stock on charges for share-based compensation;
- the accuracy of our estimates of costs and expenses related to contingent liabilities;
- changes in accounting principles and
- other factors described in this report under [Risk Factors](#) and [Management's Discussion and Analysis of Financial Condition and Results of Operations \(MD&A\)](#).

RISK FACTORS

We are subject to various risks and events that could adversely affect our business, our financial condition, our results of operations, our cash flows and the price of our common stock.

You should consider the following risk factors, in addition to the information presented elsewhere in this report, particularly in [Our Business](#), [Forward-Looking Statements](#) and [Management's Discussion and Analysis of Financial Condition and Results of Operations \(MD&A\)](#), as well as in the filings we make from time to time with the SEC, in evaluating us, our business and an investment in our securities.

The risks discussed below are not the only risks we face. Additional risks not currently known to us or that we currently deem immaterial also may adversely affect our business.

RISKS RELATED TO OUR INDUSTRY

MACROECONOMIC CONDITIONS

The industries in which we operate are sensitive to macroeconomic conditions and consequently are highly cyclical.

The overall levels of demand for the products we manufacture and distribute reflect fluctuations in levels of end-user demand, which consequently affect our sales and profitability. End-user demand depends in large part on general macroeconomic conditions, both in the U.S. and globally, as well as on local economic conditions. The length and magnitude of industry cycles vary over time, both by market and by product, but generally reflect changes in macroeconomic conditions and levels of industry capacity. Any decline or stagnation in macroeconomic conditions could cause us to experience lower sales volume and reduced margins.

COMMODITY PRODUCTS

Many of our products are commodities that are widely available from other producers.

Because commodity products have few distinguishing properties from producer to producer, competition for these products is based primarily on price, which is determined by supply relative to demand and competition from substitute products. In addition, prices for our products are affected by many other factors outside of our control. As a result, we have little influence over the timing and extent of price changes, which often are volatile. Our profitability with respect to these products depends, in part, on managing our costs, particularly raw material, labor (including contract labor) and energy costs, which represent significant components of our operating costs and can fluctuate based upon factors beyond our control. Both sales and profitability of our products are subject to volatility due to market forces beyond our control.

INDUSTRY SUPPLY OF LOGS AND WOOD PRODUCTS

Excess supply of logs and wood products may adversely affect prices and margins.

Our industry may increase harvest levels, which could lead to an oversupply of logs. Wood products producers may likewise expand manufacturing capacity, which could lead to an oversupply of manufactured wood products. Any increase of industry supply to our markets could adversely affect our prices and margins.

HOMEBUILDING MARKET AND ECONOMIC RISKS

Low demand for new homes and home repair and remodeling can adversely affect our business and results of operations.

Our business is dependent upon the health of the U.S. housing market, and in particular on demand for new homes and home repair and remodeling. Demand in these markets is sensitive to changes in economic conditions such as the level of employment, consumer confidence, consumer income, the availability of financing and interest rate levels. Other factors that could limit or adversely affect demand for new homes and home repair and remodeling, and hence demand for our products, include factors such as changes in consumer preferences, limited wage growth, increases in non-mortgage consumer debt, any weakening in consumer confidence, and any increase in foreclosure rates and distress sales of houses.

Homebuyers' ability to qualify for and obtain affordable mortgages could be affected by changes in interest rates, changes in home loan underwriting standards and government sponsored entities and private mortgage insurance companies supporting the mortgage market.

Access to affordable mortgage financing is critical to the health of the U.S. housing market. Generally, increases in interest rates make it more difficult for home buyers to obtain mortgage financing, which could negatively affect demand for housing and, in turn, negatively affect demand for our wood products. Interest rates have remained at historically low levels for an extended period of time, although the U.S. Federal Reserve has made both upward and downward adjustments in recent years. We cannot predict the timing, number, extent or direction of future rate adjustments.

Along with prevailing interest rates, other significant factors affecting the demand for new homes relate to the ability of home buyers to obtain mortgage financing. During the last U.S. recession, credit requirements for home lending were severely tightened, and the number of mortgage loans available for financing home purchases were thereby severely reduced. Although the availability of credit has improved since that time, the housing market could be limited or adversely affected if credit requirements were to again tighten or become more restrictive for any reason.

Additionally, the liquidity provided to the mortgage industry by Fannie Mae and Freddie Mac, both of which purchase home mortgages and mortgage-backed securities originated by mortgage lenders, has been critical to the home lending market. Any political or other developments that would have the effect of limiting or restricting the availability of financing by these government sponsored entities could also adversely affect interest rates and the availability of mortgage financing. Whether resulting from direct increases in borrowing rates, tightened underwriting standards on mortgage loans or reduced federal support of the mortgage lending industry, a challenging mortgage financing environment could reduce demand for housing and, therefore, adversely affect demand for our products.

Changes in regulations relating to tax deductions for mortgage interest expense and real estate taxes could harm our future sales and earnings.

Significant costs of homeownership include mortgage interest expense and real estate taxes, both of which are generally deductible for an individual's federal and, in some cases, state income taxes. Recent federal legislation reduced the amount of mortgage interest and real estate taxes that certain taxpayers may deduct. These and any similar changes to income tax laws by the federal government or by a state government to eliminate or substantially reduce these income tax deductions, or any significant increase in real property taxes by local governments, may increase the cost of homeownership and thus could adversely affect the demand for our products.

THIRD-PARTY SERVICE PROVIDERS

We depend heavily on third parties for logging and transportation services, and any increase in the cost or any disruption in the availability of these services could materially adversely affect our business and operations and our financial results.

Our businesses depend heavily on the availability of third-party service providers for the harvest of our timber and the transportation of our wood products and wood fiber. We are therefore considerably affected by the availability and cost of these services. Any significant increase in the operating costs to our service providers, including without limitation an increase in the cost of fuel or labor, could have a material negative effect on our financial results by increasing the cost of these services to us, as well as result in an overall reduction in the availability of these services altogether.

Our third-party transportation providers are also subject to several events outside of their control, such as disruption of transportation infrastructure, labor issues and natural disasters. Any failure of a third-party transportation provider to timely deliver our products, including delivery of our wood products and wood fiber to our customers and delivery of wood fiber to our mills, could harm our supply chain, negatively affect our customer relationships and have a material adverse effect on our financial condition, results of operations and our reputation.

As a result of weak business conditions in the timber industry that persisted for several years, there are fewer third-party service providers in certain markets to harvest and deliver our logs. This shortage has resulted in an overall increase in logging and hauling costs and, in some cases, compromised the general availability of these contractors. Any increase in harvest levels due to positive changes in macroeconomic conditions driving demand for logs could further strain the existing supply of third-party logging and hauling service providers. This, in turn, could increase the cost of log supply and delivery, or prevent us from fully capitalizing on favorable market conditions by limiting our ability to access and deliver our logs to market.

WORKFORCE

Our business is dependent upon attracting, retaining and developing key personnel.

Our success depends, to a significant extent, upon our ability to attract, retain and develop senior management, operations management and other key personnel. Our financial condition or results of operations could be significantly adversely affected if we were to fail to recruit, retain, and develop such personnel, or if there were to occur any significant increase in the cost of providing such personnel with competitive total compensation and benefits.

A strike or other work stoppage, or our inability to renew collective bargaining agreements on favorable terms, could adversely affect our financial results.

As of December 31, 2019, a significant number of employees in our Western Timberlands and Wood Products businesses were covered by a collective bargaining agreement. If these workers were to engage in a strike or other work stoppage, or if our non-unionized operations were to become unionized, we could experience a significant disruption of operations at our facilities or higher ongoing labor costs. A significant customer or supplier strike or other work stoppage could also have similar effects on us.

RISKS RELATED TO OUR BUSINESS

MANAGING COMMERCIAL TIMBERLANDS RISKS

Our ability to harvest and deliver timber may be subject to limitations which could adversely affect our results of operations.

Our primary assets are our timberlands. Weather conditions, timber growth cycles, access limitations, and availability of contract loggers and haulers may adversely affect our ability to harvest our timberlands. Other factors that may adversely affect our timber harvest include damage to our standing timber by fire or by insect infestation, disease, prolonged drought, flooding, severe weather and other natural disasters. Changes in global climate conditions could intensify one or more of these factors. Although damage from such causes usually is localized and affects only a limited percentage of standing timber, there can be no assurance that any damage affecting our timberlands will in fact be limited. As is common in the forest products industry, we do not maintain insurance coverage for damage to our timberlands. Our revenues, net income and cash flow

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from operations are dependent to a significant extent on the pricing of our products and our continued ability to harvest timber at adequate levels. Therefore, if we were to be restricted from harvesting on a significant portion of our timberlands for a prolonged period of time, or if material damage to a significant portion of our standing timber were to occur, we could suffer materially adverse effects to our results of operations.

Our timber harvest levels may be affected by acquisitions of additional timberlands, sales of existing timberlands and shifts in harvest from one region to another. Future timber harvest levels may also be affected by our ability to timely and effectively replant harvested areas, which depends on several factors including changes in estimates of long-term sustainable yield because of silvicultural advances, natural disasters, fires, pests, insects and other hazards, regulatory constraints, availability of contractors and other factors beyond our control.

Timber harvest activities are also subject to a number of federal, state and local regulations pertaining to the protection of fish, wildlife, water and other resources. Regulations, government agency policy and guidelines, and litigation, can restrict timber harvest activities and increase costs. Examples include federal and state laws protecting threatened, endangered and "at-risk" species, harvesting and forestry road building activities that may be restricted under the U.S. Federal Clean Water Act, state forestry practices laws, laws protecting aboriginal rights, and other similar regulations.

Our estimates of timber inventories and growth rates may be inaccurate and include risks inherent in calculating such estimates, which may impair our ability to realize expected revenues.

Whether in connection with managing our existing timberland portfolio or assessing potential timberland acquisitions, we make and rely on important estimates of merchantable timber inventories. These include estimates of timber inventories that may be lawfully and economically harvested, timber growth rates and end-product yields. Timber growth rates and yield estimates are developed by forest biometricians and other experts using statistical measurements of tree samples on given property. These estimates are central to forecasting our anticipated timber harvests, revenues and expected cash flows. While the company has confidence in its timber inventory processes and the professionals in the field who administer it, future growth and yield estimates are inherently inexact and uncertain and subject to many external variables that could further affect their accuracy. These include, among other things, disease, infestation, natural disasters and changes in weather patterns. If these estimates are inaccurate, our ability to manage our timberlands in a sustainable or profitable manner may be compromised, which may cause our results of operations and our stock price to be adversely affected.

Our operating results and cash flows will be materially affected by supply and demand for timber.

A variety of factors affect prices for timber, including available supply, changes in economic conditions that affect demand, the level of domestic new construction and remodeling activity, interest rates, credit availability, population growth, weather conditions and pest infestation, and other factors. These factors vary by region, by timber type (i.e., sawlogs or pulpwood logs) and by species.

Timber prices are affected by changes in demand on a local, national and international level. The closure of a mill in a region where we own timber could have a material adverse effect on demand in that region, and therefore pricing. For example, as the demand for paper continues to decline, closures of pulp mills in some of our operating regions have adversely affected the regional demand for pulpwood and wood chips. Additionally, some of our Asian log export markets, particularly China, have a history of significant volatility. Lower demand for our export logs could have a negative effect on timber prices, particularly in the western region.

Timber prices are also affected by changes in timber supply and availability at the local, national and international level. Our timberland ownership is concentrated in Alabama, Arkansas, Louisiana, Mississippi, North Carolina, Oklahoma, Oregon and Washington. In some of these states, much of the timberland is privately owned. Increases in timber prices often result in substantial increases in harvesting on private timberlands, including lands not previously made available for commercial timber operations, causing a short-term increase in supply that moderates such price increases. In western states such as Oregon and Washington, where a greater proportion of timberland is government-owned, any substantial increase in timber harvesting from government-owned land could significantly reduce timber prices. On a local level, timber supplies can fluctuate depending on factors such as changes in weather conditions and harvest strategies of local timberland owners, as well as occasionally high timber salvage efforts due to events such as pest infestations, fires or other natural disasters. Demand for timber in foreign markets can fluctuate due to a variety of factors as well, including but not limited to: changes in the fundamental economic conditions that affect demand for logs in a given export market country or region; any substantial increase in supply of logs from local or regional sources, including such sources that periodically supply large amounts of salvage timber as a result of disease or infestation, and other factors.

Timberlands make up a significant portion of our business portfolio.

Our real property holdings are primarily timberlands and we may make additional timberlands acquisitions in the future. As the owner and manager of over 11 million acres of timberlands, we are subject to the risks that are inherent in concentrated real estate investments. A downturn in the real estate industry generally, or the timber or forest products industries specifically, could reduce the value of our properties and adversely affect our results of operations. Such a downturn could also adversely affect our customers and reduce the demand for our products, as well as our ability to execute upon our strategy of selling nonstrategic timberlands and timberland properties that have higher and better uses at attractive prices. These risks may be more pronounced than if we diversified our investments outside of real property holdings.

MANUFACTURING AND SELLING WOOD PRODUCTS RISKS

A material disruption at one of our manufacturing facilities could prevent us from meeting customer demand, reduce our sales, and negatively affect our results of operation and financial condition.

Any of our manufacturing facilities, or any of our machines within an otherwise operational facility, could cease operations unexpectedly due to a number of events, including:

- unscheduled maintenance outages;
- prolonged power failures;
- equipment failure;
- chemical spill or release;
- explosion of a boiler;
- fires, floods, windstorms, earthquakes, hurricanes or other severe weather conditions or catastrophes, affecting the production of goods or the supply of raw materials (including fiber);
- the effect of drought or reduced rainfall on water supply;
- labor difficulties;
- disruptions in transportation or transportation infrastructure, including roads, bridges, rail, tunnels, shipping and port facilities;
- terrorism or threats of terrorism;
- cyber attack;
- governmental regulations and
- other operational problems.

We cannot predict the duration of any such downtime or extent of facility damage. If one of our facilities or machines were to incur significant downtime, our ability to meet our production targets and satisfy customer demand could be impaired, resulting in lower sales and income. Additionally, we may be required to make significant unplanned capital expenditures. Although some risks are not insurable and some coverage is limited, we purchase insurance on our manufacturing facilities for damage from fires, floods, windstorms, earthquakes, equipment failures and boiler explosions. Such insurance may not be sufficient to recover all of our damages.

Some of our wood products are vulnerable to declines in demand due to competing technologies or materials.

Our products compete with non-fiber based alternatives or with alternative products in certain market segments. For example, plastic, wood/plastic or composite materials may be used by builders as alternatives to our wood products such as lumber, veneer, plywood and oriented strand board. Changes in prices for oil, chemicals and wood-based fiber can change the competitive position of our products relative to available alternatives and could increase substitution of those products for our products. If use of these or other alternative products grows, demand for and pricing of our products could be adversely affected.

Our results of operations and financial condition could be materially adversely affected by changes in product mix or pricing.

Our results may be materially adversely affected by a change in our product mix or pricing. Some of our wood products, such as lumber, veneer, plywood and oriented strand board, are commodities and are subject to fluctuations in market pricing. If pricing on our commodity products decreases and if we are not successful in increasing sales of higher-priced, higher-value products, or if we are not successful in implementing price increases, or there are delays in acceptance of price increases or higher-priced products, our results of operations and financial condition could be materially and adversely affected. Price discounting, if required to maintain our competitive position in one or more markets, could result in lower than anticipated price realizations and margins.

We face intense competition in our markets; any failure to compete effectively could have a material adverse effect on our business, financial condition and results of operations.

We compete with North American producers and, for some of our product lines, global producers, some of which may have greater financial resources and lower production costs than do we. The principal basis for competition for many of our products is selling price. Our industries also are particularly sensitive to other factors including innovation, design, quality and service, with varying emphasis on these factors depending on the product line. To the extent that any of our competitors are more successful with respect to any key competitive factor, our ability to attract and retain customers and maintain and increase sales could be materially adversely affected. Any failure to compete effectively could have a material adverse effect on our business, financial condition and results of operations.

Competition from lumber imports could vary significantly and have a material effect on U.S. lumber and timber prices.

The future amount and pricing of lumber imports entering U.S. markets remain uncertain. Historically, Canada has been the most significant source of lumber for the U.S. market, particularly in the new home construction market. We produce lumber in our Canadian mills, but the bulk of our lumber production is in the U.S. There have been many disputes and subsequent trade agreements regarding sales of softwood lumber between Canada and the U.S. The last agreement, which required Canadian softwood lumber facilities, including our mills, to pay an export tax when the price of lumber is at or below a threshold price, expired in October 2015. Since that time, the U.S. Department of Commerce has issued countervailing and antidumping duties on softwood lumber imports from Canada based on findings of injury to U.S. lumber producers.

We are not able to predict when, or if, a new softwood lumber agreement will be reached or, if reached, what the terms of the agreement would be. Similarly, we are not able to predict if the current U.S. policy of imposing import duties on Canadian softwood lumber will continue. We could, therefore, experience significant downward pressure on timber and lumber prices caused by Canadian lumber imports.

Another form of competition is between brands of sustainably produced products; customer demand for certain brands could reduce competition among buyers for our products or cause other adverse effects.

We have adopted the Sustainable Forestry Initiative (SFI) standard for wood fiber supplied to our manufacturing facilities, both from our timberlands and from third-party suppliers. If customer preference for a sustainability standard other than SFI increases, or if the SFI standard falls into disfavor, there may be reduced demand and lower prices for our products relative to competitors who can supply products sourced from forests certified to competing certification standards. If we seek to comply with such other standards, we could incur materially increased costs for our operations or be required to modify our operations, such as reducing harvest levels. FSC, in particular, employs standards that are geographically variable and could cause a material reduction in the harvest levels of some of our timberlands, most notably in the Pacific Northwest.

Our business and operations could be materially adversely affected by changes in the cost or availability of raw materials and energy.

We rely heavily on certain raw materials (principally wood fiber and chemicals) and energy sources (principally natural gas, electricity and fuel oil) in our manufacturing processes. Our ability to increase earnings has been, and will continue to be, affected by changes in the costs and availability of such raw materials and energy sources. We may not be able to fully offset the effects of higher raw material or energy costs through price increases, productivity improvements, cost-reduction programs or hedging arrangements.

RISKS RELATED TO CAPITAL MARKETS

CAPITAL MARKETS

Deterioration in economic conditions and capital markets could adversely affect our access to capital.

Challenging market conditions could impair the company's ability to raise debt or equity capital or otherwise access capital markets on terms acceptable to us, which may, among other effects, reduce our ability to refinance debt maturities or take advantage of growth and expansion opportunities. Likewise, our customers and suppliers may be unable to raise capital to fund their operations, which could, in turn, adversely affect their ability to purchase products or sell products to us.

CREDIT RATINGS

Changes in credit ratings issued by nationally recognized 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 and balance sheet, actions that we take, their view of the general outlook for our industry and their view of the general outlook for the economy. Ratings decisions by these agencies include maintaining, upgrading or downgrading our current rating, as well as placing the company on a "watch list" for possible future ratings actions. Any downgrade of our credit rating, or decision by a rating agency to place us on a "watch list" for possible future downgrading could have an adverse effect on our ability to access credit markets, increase our cost of financing, and have an adverse effect on the market price of our securities.

CAPITAL REQUIREMENTS AND ACCESS TO CAPITAL

Access to capital required for our operations may be costly or impaired.

Our businesses require substantial capital for expansion and for repair or replacement of existing facilities or equipment. Although we maintain our production equipment with regular scheduled maintenance, key pieces of equipment may need to be repaired or replaced periodically. The costs of repairing or replacing such equipment and the associated downtime of the affected production line could have a significant effect on our financial condition, results of operations and cash flows.

While we believe our capital resources will be adequate to meet our current projected operating needs, capital expenditures and other cash requirements, if for any reason we are unable to access capital for our operating needs, capital expenditures and other cash requirements on acceptable economic terms, or at all, we could experience a material adverse effect on our business, financial condition, results of operations and cash flows.

FOREIGN CURRENCY

We will be affected by changes in currency exchange rates.

We have manufacturing operations in Canada. We are also an exporter and compete with global producers of products very similar to ours. Therefore, we are affected by changes in the strength of the U.S. dollar, particularly relative to the Canadian dollar, euro, yuan and yen, and the strength of the euro relative to the yen. Changes in exchange rates could materially and adversely affect our sales volume, margins and results of operations.

RISKS RELATED TO LEGAL, REGULATORY AND TAX

ENVIRONMENTAL LAWS AND REGULATIONS

We could incur substantial costs as a result of compliance with, violations of, or liabilities under applicable environmental laws and other laws and regulations.

We are subject to a wide range of general and industry-specific laws and regulations relating to the protection of the environment, including those governing:

- air emissions,
- wastewater discharges,
- harvesting,
- silvicultural activities, including use of pesticides and herbicides,
- forestry operations and endangered species habitat protection,
- surface water management,
- the storage, usage, management and disposal of hazardous substances and wastes,
- the cleanup of contaminated sites,
- landfill operation and closure obligations,
- building codes, and
- health and safety matters.

We have incurred, and we expect to continue to incur, significant capital, operating and other expenditures complying with applicable environmental laws and regulations and as a result of remedial obligations, and there can be no assurances that existing reserves for specific matters will be adequate to cover future costs. We also could incur substantial costs, such as civil or criminal fines, sanctions and enforcement actions (including orders limiting our operations or requiring corrective measures, installation of pollution control equipment or other remedial actions), cleanup and closure costs, and third-party claims for property damage and personal injury as a result of violations of, or liabilities under, environmental laws and regulations.

As the owner and operator of real estate, we may be liable under environmental laws for cleanup, closure and other damages resulting from the presence and release of hazardous substances on or from our properties or operations. In addition, surface water management regulations may present liabilities and are subject to change. The amount and timing of environmental expenditures is difficult to predict, and in some cases, our liability may exceed forecasted amounts or the value of the property itself. The discovery of additional contamination or the imposition of additional cleanup obligations at our sites or third-party sites may result in significant additional costs.

We also lease some of our properties to third-party operators for the purpose of exploring, extracting, developing and producing oil, gas, rock and other minerals in exchange for fees and royalty payments. These activities are also subject to federal, state and local laws and regulations. These operations may create risk of environmental liabilities for any unlawful discharge of oil, gas or other chemicals into the air, soil or water. Generally, these third-party operators indemnify us against any such liability, and we require that they maintain liability insurance during the term of our lease with them. However, if for any reason our third-party operators are not able to honor their indemnity obligation, or if the required liability insurance were not in effect, then it is possible that we could be deemed responsible for costs associated with environmental liability caused by such third-party operators.

Any material liability we incur as a result of activities conducted on our properties by us or by others with whom we have a business relationship could adversely affect our financial condition.

We also anticipate public policy developments at the state, federal and international level regarding climate change and energy access, security and competitiveness. We expect these developments to address emission of carbon dioxide, renewable energy and fuel standards, and the monetization of carbon. Compliance with regulations that implement new public policy in these areas might require significant expenditures. These developments may also include mandated changes to energy use and building codes which could affect homebuilding practices. Enactment of new environmental laws or regulations or changes in existing laws or regulations, or the interpretation of these laws or regulations, might require significant expenditures. We also anticipate public policy developments at the state, federal and international level regarding taxes and a number of other areas that could require significant expenditures.

Changes in global or regional climate conditions and governmental response to such changes at the international, U.S. federal and state levels may affect our operations or our planned or future growth activities.

There continue to be numerous international, U.S. federal and state-level initiatives and proposals to address domestic and global climate issues. Within the U.S. and Canada, some of these proposals would regulate (and in some Canadian provinces do regulate) and/or tax the

production of carbon dioxide and other greenhouse gases to facilitate the reduction of carbon compound emissions into the atmosphere and provide tax and other incentives to produce and use cleaner energy. Climate change effects, if they occur, and governmental initiatives, laws and regulations to address potential climate concerns, could increase our costs and have a long-term adverse effect on our businesses and results of operations. Future legislation or regulatory activity in this area remains uncertain, and its effect on our operations is unclear at this time. However, it is possible that legislation or government mandates, standards or regulations intended to mitigate or reduce carbon compound or greenhouse gas emissions or other climate change effects could adversely affect our operations. For example, such activities could limit harvest levels or result in significantly higher costs for energy and other raw materials. Because our manufacturing operations depend upon significant amounts of energy and raw materials, these initiatives could have an adverse effect on our results of operations and profitability.

LEGAL MATTERS

We are involved in various environmental, regulatory, product liability and other legal matters, disputes and proceedings that, if determined or concluded in a manner adverse to our interests, could have a material adverse effect on our financial condition.

We are, from time to time, involved in a number of legal matters, disputes and proceedings (legal matters), some of which involve on-going litigation. These include, without limitation, legal matters involving environmental clean-up and remediation, warranty and non-warranty product liability claims, regulatory issues, contractual and personal injury claims and other legal matters. In some cases, all or a portion of any loss we experience in connection with any such legal matters will be covered by insurance; in other cases, any such losses will not be covered.

The outcome, costs and other effects of current legal matters in which we are involved, and any related insurance recoveries, cannot be determined with certainty. Although the disclosures in [Note 14: Legal Proceedings, Commitments and Contingencies](#) and [Note 21: Income Taxes](#) contain management's current views of the effect such legal matters could have on our financial results, there can be no assurance that the outcome of such legal matters will be as currently expected. It is possible that there could be adverse judgments against us in some or all major litigation matters against us, and that we could be required to take a charge and make cash payments for all or a portion of any related awards of damages. Any one or more of such charges or cash payment could materially and adversely affect our results of operations or cash flows for the quarter or year in which we record or pay it.

REIT STATUS AND TAX IMPLICATIONS

If we fail to remain qualified as a REIT, our taxable income would be subject to tax at corporate rates and we would not be able to deduct dividends to shareholders.

In any taxable year in which we fail to qualify as a REIT, unless we are entitled to relief under the Internal Revenue Code:

- We would not be allowed to deduct dividends to shareholders in computing our taxable income.
- We would be subject to federal and state income tax on our taxable income at applicable corporate rates.
- We also would be disqualified from treatment as a REIT for the four taxable years following the year during which we lost qualification.

Qualification as a REIT involves the application of highly technical and complex provisions of the Internal Revenue Code to our operations and the determination of various factual matters and circumstances not entirely within our control. There are only limited judicial or administrative interpretations of these provisions. Although we operate in a manner consistent with the REIT qualification rules, we cannot assure you that we are or will remain so qualified.

Certain of our business activities are subject to corporate-level income tax and potentially subject to prohibited transactions tax.

Under the Internal Revenue Code, REITs generally must engage in the ownership and management of income producing real estate. For the company, this generally includes owning and managing a timberland portfolio for the production and sale of standing timber. Any activities that generate non-qualifying REIT income could constitute "prohibited transactions." Prohibited transactions are defined by the Internal Revenue Code generally to be sales or other dispositions of property to customers in the ordinary course of a trade or business. Accordingly, the harvesting and sale of logs, the development or sale of certain timberlands and other real estate, and the manufacture and sale of wood products are conducted through one or more of our wholly-owned TRSs, the net income of which is subject to corporate-level tax. By conducting our business in this manner, we believe that we satisfy the REIT requirements of the Internal Revenue Code. However, if the IRS were to successfully assert that these or any of our activities conducted at the REIT constituted prohibited transactions, we could be subject to the 100 percent tax on the net income from such activities.

The extent of our use of our TRSs may affect the price of our common shares relative to the share price of other REITs.

We conduct a significant portion of our business activities through one or more TRSs. The use of our TRSs enables us to engage in non-REIT qualifying business activities such as the harvesting and sale of logs, manufacture and sale of wood products, and the development and sale of certain higher and better use (HBU) property. Our TRSs are subject to corporate-level income tax. Under the Code, no more than 20 percent of the value of the gross assets of a REIT may be represented by securities of one or more TRSs. This limitation may affect our ability to increase the size of our TRSs' operations. Furthermore, our use of TRSs may cause the market to value our common shares differently than the shares of other REITs, which may not use TRSs at all, or as extensively as we use them.

We may be limited in our ability to fund distributions using cash generated through our TRSs.

The ability of the REIT to receive dividends from our TRSs is limited by the rules with which we must comply to maintain our status as a REIT. In particular, at least 75 percent of gross income for each taxable year as a REIT must be derived from real estate sources including sales of our standing timber and other types of qualifying real estate income, and no more than 25 percent of our gross income may consist of dividends from our TRSs and other non-real estate income.

This limitation on our ability to receive dividends from our TRSs may affect our ability to fund cash distributions to our shareholders using cash flows from our TRSs. The net income of our TRSs is not required to be distributed, and income of our TRSs that is not distributed to the REIT will not be subject to the REIT income distribution requirement.

To maintain our qualification as a REIT, we are generally required to distribute substantially all of our taxable income to our shareholders.

Generally, REITs are required to distribute 90 percent of their ordinary taxable income and 95 percent of their net capital gains income. Capital gains may be retained by the REIT but would be subject to corporate income taxes. If capital gains were retained rather than distributed, our shareholders would be deemed to have received a taxable distribution (about which we would notify them), with a refundable credit for any federal income tax paid by the REIT. Accordingly, we believe that we are not required to distribute material amounts of cash since substantially all of our taxable income is treated as capital gains income. As previously discussed in these Risk Factors, our board of directors, in its sole discretion, determines the amount, timing and frequency of our dividends to shareholders.

Changes in tax laws or their interpretation could adversely affect our shareholders and our results of operations.

Federal and state tax laws are constantly under review by persons involved in the legislative process, the Internal Revenue Service, the United States Department of the Treasury, and state taxing authorities. Changes to tax laws could adversely affect our shareholders or increase our effective tax rates. We cannot predict with certainty whether, when, in what forms, or with what effective dates, the tax laws applicable to us or our shareholders may be changed.

IMPORT/EXPORT TAXES AND DUTIES

We may be required to pay significant taxes or tariffs on our exported products or countervailing and anti-dumping duties or tariffs on our imported products.

We export logs and finished wood products to foreign markets, and our ability to do so profitably is affected by U.S. and foreign trade policy. International trade disputes occur frequently and can be taken to an International Trade Court for resolution of unfair trade practices between countries.

U.S. international trade policy could result in one or more of our foreign export market jurisdictions adopting trade policy making it more difficult or costly for us to export our products to those countries. We could therefore experience reduced revenues and margins in any of our businesses that is adversely affected by international trade tariffs, duties, taxes, customs or dispute settlement terms. To the extent such trade policies increase prices, they could also reduce the demand for our products and could have a material adverse effect on our business, financial results and financial condition, including facility closures or impairments of assets. We cannot predict future trade policy or the terms of any settlements of international trade disputes and their effect on our business.

OUR MERGER WITH PLUM CREEK TIMBER COMPANY, INC.

We could incur substantial U.S. federal tax liability in connection with our merger with Plum Creek.

On February 19, 2016, Plum Creek Timber Company, Inc. merged with and into Weyerhaeuser Company, with Weyerhaeuser continuing as the surviving company. Both companies have operated in a manner intended to qualify them as "REITs" for U.S. federal income tax purposes under the Internal Revenue Code. See "REIT Status and Tax Implications" above for a description of the consequences of our failure to maintain REIT status. However, even if we have operated in a manner that allows us to retain our REIT status, if Plum Creek were deemed to have lost its REIT status for a taxable year before the merger or the taxable year in which the merger occurred, we could face serious tax consequences that could substantially reduce cash available for distribution to our shareholders and significantly impair our ability to expand our business and raise capital. In addition, if the merger were determined not to qualify as a tax-free merger, we could incur substantial federal tax liability that could materially and adversely affect the company's cash flows, financial condition and results of operations.

RISKS RELATED TO OUR STOCK

The market price of our common stock may be influenced by many factors, some of which are beyond our control.

The market price of our common stock may be influenced by many factors, some of which are beyond our control, including without limitation those described above and elsewhere in this report, as well as the following:

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- 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;
- general economic conditions;
- conditions in the financial markets;
- market interest rates and the relative yields on other financial instruments;
- general perceptions and expectations regarding housing markets, interest rates, commodity prices, and currencies;
- 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 our common stock by our executive officers, directors and significant shareholders;
- sales or repurchases of substantial amounts of common stock;
- changes in accounting principles and
- changes in tax 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 individual company operating performance. Some companies that have experienced 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 divert management's attention and resources.

Our cash dividends are not guaranteed and may fluctuate.

Our board of directors, in its sole discretion, determines the amount of quarterly dividends to be provided to our shareholders based on consideration of a number of factors. These factors include, but are not limited to: our results of operations and cash flow; current and forecasted economic conditions; changes in the price and demand for our products and the general market demand for timberlands, including those timberland properties that have higher and better uses; current and forecasted harvest levels; balancing various capital allocation priorities and considerations including without limitation the company's capital requirements and debt repayment obligations; various finance considerations, including the company's credit ratings, borrowing capacity, debt covenant restrictions that may impose limitations on cash payments and other related factors and tax considerations. Consequently, the amount, timing and frequency of our dividends may fluctuate.

OTHER RISKS

INFORMATION SYSTEMS AND CYBERSECURITY

We rely on information technology to support our operations and reporting environments. Any failure of that technology, whether by means of a security breach or other cause, could affect our ability to operate our businesses effectively, adversely affect our reported financial results, affect our reputation and expose us to potential liability or litigation.

We use information systems to carry out our operational activities, maintain our business records, and collect and store sensitive data, including intellectual property and other proprietary and personally identifiable information. Some of our systems are internally managed and some are maintained by third-party service providers. We employ, and we believe our third-party service providers employ, what we deem to be reasonably adequate security measures; but notwithstanding these efforts, our systems could be compromised as a result of: a cyber incident, including but not limited to the occurrence in our system of malicious code (such as malware, viruses and ransomware); a natural disaster; a hardware or software corruption, failure or error; a telecommunications system failure; a service provider failure or error; an intentional or unintentional personnel action; or any one or more other causes of system breach, failure or disruption. If by any one or more causes our systems or information resources were disrupted, shutdown or otherwise compromised, or if our data were destroyed, misappropriated or inappropriately disclosed, our financial results or our business operations, or both, could be negatively affected. Additionally, we could suffer significant losses or incur significant liabilities, including without limitation: damage to our reputation; loss of customer confidence or goodwill and significant expenditures of time and money to address and remediate resulting damages to affected individuals or business partners or to defend ourselves in resulting litigation or other legal proceedings, by affected individuals, business partners or regulators.

PENSION PLAN LIABILITY

Investment returns on our pension assets may be lower than expected, or interest rates may decline, requiring us to make significant additional cash contributions to our benefit plans.

A portion of our current and former employees have accrued benefits under our defined benefit pension plans. Although the plans are not open to employees hired on or after January 1, 2014, current employees hired before that time continue to accrue benefits. Requirements for funding our pension plan liabilities are based on a number of actuarial assumptions, including the expected rate of return on our plan assets and the discount rate applied to our pension plan obligations. Fluctuations in equity market returns and changes in long-term interest rates could increase our costs under our defined benefit pension plans and may significantly affect future contribution requirements. It is unknown what the actual investment return on our pension assets will be in future years and what interest rates may be at any given point in time. We cannot therefore provide any assurance of what our actual pension plan costs will be in the future, or whether we will be required under applicable law to make future material plan contributions. See [Note 9: Pension and Other Postretirement Benefit Plans](#) for additional information about these plans, including funding status.

STRATEGIC INITIATIVES

Our business and financial results may be adversely affected if we are unable to successfully execute on important strategic initiatives.

Our strategic initiatives are designed to improve our results of operations and drive long-term shareholder value. These initiatives include, among others, optimizing cash flow through operational excellence, reducing costs to achieve industry-leading cost structure and innovating in higher-margin products. There can be no assurance that we will be able to successfully implement any one or more of our important strategic initiatives in accordance with our expectations, which could result in an adverse effect on our business and financial results.

We may be unsuccessful in carrying out our acquisition strategy.

We intend to strategically pursue acquisitions when market conditions warrant. As with any investment, our acquisitions may not perform in accordance with our expectations. In addition, we anticipate financing such acquisitions through cash from operations, borrowings under our unsecured credit facilities, proceeds from equity or debt offerings or proceeds from asset dispositions, or any combination thereof. Our inability to finance future acquisitions on favorable terms could adversely affect our results of operations.

UNRESOLVED STAFF COMMENTS

There are no unresolved comments that were received from the SEC staff relating to our periodic or current reports under the Securities Exchange Act of 1934.

PROPERTIES

Details about our facilities, production capacities and locations are found in the [Our Business — What We Do](#) section of this report.

- For details about our Timberlands properties, go to [Our Business/What We Do/Timberlands/Where We Do It](#).
- For details about our Real Estate, Energy and Natural Resources properties, go to [Our Business/What We Do/Real Estate, Energy and Natural Resources/Where We Do It](#).
- For details about our Wood Products properties, go to [Our Business/What We Do/Wood Products/Where We Do It](#).

LEGAL PROCEEDINGS

See [Note 14: Legal Proceedings, Commitments and Contingencies](#) and [Note 21: Income Taxes](#) for a summary of legal proceedings.

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

Our common stock trades on the New York Stock Exchange under the symbol WY.

As of December 31, 2019, there were 14,000 holders of record of our common shares. Dividend-per-share data for each of the four quarters in 2019 and 2018 are included in [Note 23: Selected Quarterly Financial Information \(Unaudited\)](#).

INFORMATION ABOUT SECURITIES AUTHORIZED FOR ISSUANCE UNDER OUR EQUITY COMPENSATION PLAN

SHARES IN THOUSANDS	NUMBER OF SECURITIES TO BE ISSUED UPON EXERCISE OF OUTSTANDING OPTIONS, WARRANTS AND RIGHTS	WEIGHTED AVERAGE EXERCISE PRICE OF OUTSTANDING OPTIONS, WARRANTS AND RIGHTS	NUMBER OF SECURITIES REMAINING AVAILABLE FOR FUTURE ISSUANCE UNDER EQUITY COMPENSATION PLANS (EXCLUDING SECURITIES TO BE ISSUED UPON EXERCISE)
Equity compensation plans approved by security holders ⁽¹⁾	8,253	\$ 21.15	20,239
Equity compensation plans not approved by security holders	NA	NA	NA
Total	8,253	\$ 21.15	20,239

(1) Includes 1,789 thousand restricted stock units and 1,049 thousand performance share units. Because there is no exercise price associated with restricted stock units and performance share units, excluding these units the weighted average exercise price would be \$32.24.

INFORMATION ABOUT COMMON SHARE REPURCHASES

On February 7, 2019, our board of directors approved and announced a new share repurchase program (the 2019 Repurchase Program) under which we are authorized to repurchase up to \$500 million of outstanding shares. Concurrently, the board terminated the remaining repurchase authorization under the share repurchase program approved by the board in November 2015 and authorized to begin subsequent to the closing of our 2016 merger with Plum Creek (the 2016 Repurchase Program).

There were no share repurchases during fourth quarter 2019.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL SHAREHOLDER RETURN

Weyerhaeuser Company, S&P 500 and S&P Global Timber & Forestry Index



PERFORMANCE GRAPH ASSUMPTIONS

- Assumes \$100 invested on December 31, 2014, in Weyerhaeuser common stock, the S&P 500 Index and the S&P Global Timber & Forestry Index.
- Total return assumes dividends received are reinvested immediately.
- Measurement dates are the last trading day of the calendar year shown.

SELECTED FINANCIAL DATA

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES

PER COMMON SHARE					
	2019	2018	2017	2016	2015
Diluted earnings (loss) from continuing operations attributable to Weyerhaeuser common shareholders	\$ (0.10)	\$ 0.99	\$ 0.77	\$ 0.55	\$ 0.71
Diluted earnings from discontinued operations attributable to Weyerhaeuser common shareholders	—	—	—	0.84	0.18
Diluted net earnings (loss) attributable to Weyerhaeuser common shareholders	\$ (0.10)	\$ 0.99	\$ 0.77	\$ 1.39	\$ 0.89
Dividends paid	\$ 1.36	\$ 1.32	\$ 1.25	\$ 1.24	\$ 1.20
Weyerhaeuser shareholders' interest (end of year)	\$ 10.97	\$ 12.12	\$ 11.78	\$ 12.26	\$ 9.54
FINANCIAL POSITION					
	2019	2018	2017	2016	2015
Total assets	\$ 16,406	\$ 17,249	\$ 18,059	\$ 19,243	\$ 12,470
Total long-term debt, net and borrowings on line of credit ⁽¹⁾	\$ 6,377	\$ 6,344	\$ 5,992	\$ 6,610	\$ 4,787
Weyerhaeuser shareholders' interest	\$ 8,177	\$ 9,046	\$ 8,899	\$ 9,180	\$ 4,869
Percent earned (lost) on average year-end Weyerhaeuser shareholders' interest	(0.9)%	8.3%	6.4%	14.3%	9.1%
OPERATING RESULTS					
	2019	2018	2017	2016	2015
Net sales	\$ 6,554	\$ 7,476	\$ 7,196	\$ 6,365	\$ 5,246
Earnings (loss) from continuing operations	\$ (76)	\$ 748	\$ 582	\$ 415	\$ 411
Earnings from discontinued operations, net of income taxes	—	—	—	612	95
Net earnings (loss)	(76)	748	582	1,027	506
Dividends on preference shares	—	—	—	(22)	(44)
Net earnings (loss) attributable to Weyerhaeuser common shareholders	\$ (76)	\$ 748	\$ 582	\$ 1,005	\$ 462
CASH FLOWS					
	2019	2018	2017	2016	2015
Net cash from operations	\$ 966	\$ 1,112	\$ 1,201	\$ 735	\$ 1,075
Net cash from investing activities	187	(440)	367	2,559	(487)
Net cash from financing activities	(1,348)	(1,162)	(1,420)	(3,630)	(1,156)
Net change in cash and cash equivalents	\$ (195)	\$ (490)	\$ 148	\$ (336)	\$ (568)
STATISTICS					
	2019	2018	2017	2016	2015
Number of employees	9,400	9,300	9,300	10,400	12,600
Number of common shareholder accounts at year-end	14,000	14,525	15,138	15,504	7,700
Number of common shares outstanding at year-end (thousands)	745,300	746,391	755,223	748,528	510,483
Weighted average common shares outstanding – diluted (thousands)	745,897	756,827	756,666	722,401	519,618

(1) Amount includes current maturities of long-term debt but does not include nonrecourse debt held by our variable interest entities (VIEs). See [Note 8: Related Parties](#) for further information on our VIEs and the related nonrecourse debt.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

WHAT YOU WILL FIND IN THIS MD&A

Our MD&A includes the following major sections:

- economic and market conditions affecting our operations;
- financial performance summary;
- results of our operations;
- liquidity and capital resources;
- off-balance sheet arrangements;
- environmental matters, legal proceedings and other contingencies;
- accounting matters and
- performance measures.

For Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) related to the year ended December 31, 2017, refer to this same section (Part II, Item 7) in our 2018 annual report on Form 10-K as filed with the Securities and Exchange Commission on February 15, 2019.

ECONOMIC AND MARKET CONDITIONS AFFECTING OUR OPERATIONS

The demand for grade saw logs within our Timberlands segment is directly affected by production levels of domestic wood-based building products. The strength of the U.S. housing market strongly affects demand in our Wood Products segment, as does repair and remodeling activity. Our Timberlands segment, specifically the Western region, is also affected by export demand and trade policy. Japanese housing starts are a key driver of export log demand in Japan. The demand for pulpwood from our Timberlands segment is directly affected by the production of pulp, paper and oriented strand board as well as the demand for biofuels, such as pellets made from pulpwood.

Housing starts for 2019 were 1.29 million total units, which was 3 percent above the 2018 total of 1.25 million units according to the U.S. Census Bureau. Single family units totaled 888 thousand in 2019, a 1 percent improvement over the 2018 total of 876 thousand. Multi-family starts were 402 thousand units for 2019, which was 7 percent higher than 2018. Our outlook is for continued modest growth in U.S. housing activity. For 2020, we anticipate just over 1.3 million housing starts, with the improvement driven primarily by additional single family activity. Our expectation for continued improvement in housing is based on ongoing employment growth, strong household formations, high consumer confidence and favorable mortgage rates, which have declined over 100 basis points since late 2018 and remain low on a historic basis.

According to the Joint Center for Housing Studies of Harvard University, the Leading Indicator of Remodeling Activity (LIRA) estimates that residential remodeling expenditures increased 4.8 percent year-over-year during 2019 and will increase by 1.5 percent during 2020.

Prices for lumber and oriented strand board declined sharply in late 2018 after reaching record highs in the first half of the year due to weather and transportation constraints in the supply chain. During 2019, lumber pricing improved modestly compared with year-end 2018 levels, while pricing for oriented strand board remained generally flat. According to Random Lengths, the Framing Lumber Composite indicator price averaged \$356/MBF in 2019, a 23 percent decrease compared with the 2018 average. The Oriented Strand Board Composite indicator price for 2019 averaged \$238/MSF, a 38 percent decrease from 2018.

In Western log markets, Douglas fir saw log prices declined by 19 percent in 2019 compared with 2018, which was directionally consistent with Western domestic lumber pricing. Conversely, in the South, delivered saw log prices increased 2 percent in 2019 compared with 2018 as rising lumber output drove incremental demand for saw logs and wet weather in the first half of the year constrained supply.

Average Western export log prices declined moderately compared with 2018, falling 11 percent for China logs and 14 percent for Japan grade logs. Exchange rates, available supply from other countries and trade policy also affect our export businesses. The volume of logs imported to China from New Zealand and Europe increased in 2019 over 2018, primarily at the expense of U.S. and Russian volume. A weaker yuan relative to the U.S. dollar reduces the competitiveness of U.S. logs relative to those imported from other countries whose currencies have not appreciated in a similar manner. The yuan weakened 4 percent relative to the U.S. dollar in 2019 averaging 6.91 yuan per U.S. dollar, from 6.61 yuan per U.S. dollar in 2018.

In Japan, housing starts for November 2019 year to date decreased 3.6 percent from the same period in 2018. However, starts in the key Post and Beam segment declined only 1.5 percent. The decline in housing starts in 2019 is likely due to an increase in the consumption tax which became effective in October 2019. We expect demand from Japan and China in 2020 will be comparable to demand experienced in 2019.

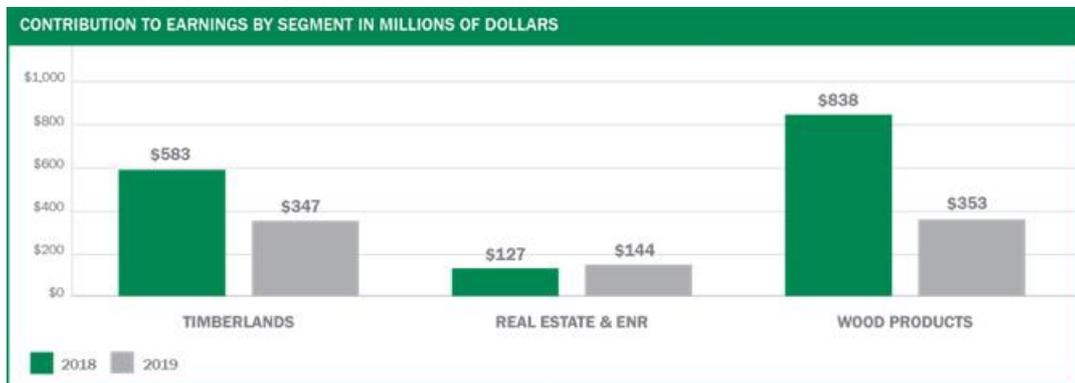
Our Real Estate & ENR segment is affected by the health of the U.S. economy and especially the U.S. housing sector. According to the Realtors Land Institute (RLI) of the National Association of Realtors (NAR), the dollar volume of rural properties sold increased by 2.2 percent in 2019 over 2018, and per acre prices grew 2.1 percent on average. Additionally, RLI expects these trends to continue with prices and volumes of land transactions forecasted to rise 2.2 percent, with timber expected to rise by 1.5 percent in 2020.

FINANCIAL PERFORMANCE SUMMARY

Net Sales by Segment



Contribution to Earnings by Segment



RESULTS OF OPERATIONS

In reviewing our results of operations, it is important to understand these terms:

- Sales realizations refer to net selling prices — this includes selling price plus freight minus normal sales deductions.
- Net contribution (charge) to earnings refers to earnings (loss) before interest expense and income taxes.

CONSOLIDATED RESULTS**HOW WE DID****Summary of Financial Results**

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES			
	AMOUNT OF CHANGE		
	2019	2018	2019 vs. 2018
Net sales	\$ 6,554	\$ 7,476	\$ (922)
Costs of sales	\$ 5,412	\$ 5,592	\$ (180)
Operating income	\$ 651	\$ 1,394	\$ (743)
Net earnings (loss)	\$ (76)	\$ 748	\$ (824)
Basic and diluted earnings (loss) per share	\$ (0.10)	\$ 0.99	\$ (1.09)

COMPARING 2019 WITH 2018**Net Sales**

Net sales decreased \$922 million — 12 percent — primarily due to:

- a \$674 million decrease in Wood Products net sales to unaffiliated customers, primarily attributable to decreased sales realizations across the majority of our product lines, and
- a \$255 million decrease in Timberlands net sales to unaffiliated customers, primarily attributable to decreased log prices as well as decreased sales volumes in the West.

These decreases were slightly offset by a \$7 million increase in Real Estate & ENR net sales to unaffiliated customers, primarily attributable to increased production-based royalties.

Costs of Sales

Costs of sales decreased \$180 million — 3 percent — primarily due to lower per unit costs within our Wood Products segment, decreased sales volumes within our Timberlands segment and decreased acres sold in our Real Estate & ENR segment. Refer to additional analysis of fluctuations within our [Wood Products](#), [Timberlands](#) and [Real Estate, Energy and Natural Resources](#) discussions below.

Operating Income

Operating income decreased \$743 million — 53 percent — primarily due to:

- a \$742 million decrease in consolidated gross margin, as described above, and
- an \$80 million impairment charge related to our Montana timberlands assets (refer to [Note 18: Charges for Integration and Restructuring, Closures and Asset Impairments](#)).

These were partially offset by a \$68 million product remediation insurance recovery and a \$48 million gain related to the sale of our Michigan timberland assets (refer to [Note 19: Charges \(Recoveries\) for Product Remediation, Net](#) and [Note 4: Divestitures and Assets Held for Sale](#), respectively).

Net Earnings

Net earnings decreased \$824 million — 110 percent — primarily due to:

- a \$743 million decrease in operating income, as described above;
- a \$244 million increase in non-operating pension and other postretirement benefit costs primarily attributable to a \$255 million increase in pension settlement charges (refer to [Note 9: Pension and Other Postretirement Benefit Plans](#)) and
- a \$30 million decrease in interest income and other primarily attributable to the maturity of buyer-sponsored SPE investments in 2019 (refer to [Note 8: Related Parties](#)).

These were partially offset by a \$196 million change in income taxes resulting from a \$137 million income tax benefit in 2019 compared to a \$59 million income tax charge in 2018 (refer to [Income Taxes](#)).

TIMBERLANDS

HOW WE DID

We report sales volume and annual production data for our Timberlands segment in [Our Business/What We Do/Timberlands](#).

Net Sales and Net Contribution to Earnings for Timberlands

DOLLAR AMOUNTS IN MILLIONS ⁽¹⁾			
			AMOUNT OF CHANGE
	2019	2018	2019 vs. 2018
Net sales to unaffiliated customers:			
Delivered logs:			
West	\$ 740	\$ 987	\$ (247)
South	640	625	15
North ⁽²⁾	92	99	(7)
Total	1,472	1,711	(239)
Stumpage and pay-as-cut timber	42	59	(17)
Recreational and other lease revenue	61	59	2
Other products ⁽³⁾	43	44	(1)
Subtotal net sales to unaffiliated customers	1,618	1,873	(255)
Intersegment net sales	503	537	(34)
Total segment net sales	\$ 2,121	\$ 2,410	\$ (289)
Costs of sales	\$ 1,649	\$ 1,735	\$ (86)
Operating income and Net contribution to earnings	\$ 347	\$ 583	\$ (236)

(1) In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands segment. We have conformed prior year presentations with the current year.

(2) In November 2019, we sold our Michigan timberlands. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

(3) Other products include sales of seeds and seedlings from our nursery operations and wood chips.

COMPARING 2019 WITH 2018

Net Sales — Unaffiliated Customers

Net sales to unaffiliated customers decreased \$255 million —14 percent— primarily due to:

- a \$247 million decrease in Western log sales, attributable to an 18 percent decrease in log prices, as well as a 9 percent decrease in sales volumes;
- a \$17 million decrease in stumpage and pay-as-cut timber sales and
- a \$7 million decrease in Northern log sales, attributable to a 4 percent decrease in sales volumes, as well as a 3 percent decrease in log prices.

These decreases were partially offset by a \$15 million increase in Southern log sales, attributable to a 1 percent increase in log prices, as well as a 1 percent increase in sales volumes.

Intersegment Sales

Intersegment sales decreased \$34 million —6 percent— primarily due to a decrease in Western log prices, as discussed above.

Costs of Sales

Costs of sales decreased \$86 million —5 percent— primarily due to a decrease in Western log sales volumes, partially offset by an increase in Southern log sales volumes, as discussed above.

Operating Income and Net Contribution to Earnings

Operating income and net contribution to earnings decreased \$236 million —40 percent— primarily due to the change in gross margin, as discussed above, as well as an \$80 million impairment charge related to our Montana timberlands assets (refer to [Note 18: Charges for Integration and Restructuring, Closures and Asset Impairments](#)).

These decreases were partially offset by a \$48 million gain related to the sale of our Michigan timberlands assets (refer to [Note 4: Divestitures and Assets Held for Sale](#)).

REAL ESTATE, ENERGY AND NATURAL RESOURCES

HOW WE DID

We report acres sold and average price per acre for our Real Estate, Energy and Natural Resources segment in [Our Business/What We Do/Real Estate, Energy and Natural Resources](#).

Net Sales and Net Contribution to Earnings for Real Estate, Energy and Natural Resources

DOLLAR AMOUNTS IN MILLIONS			
			AMOUNT OF CHANGE
	2019	2018	2019 vs. 2018
Net sales to unaffiliated buyers:			
Real estate	\$ 225	\$ 229	\$ (4)
Energy and natural resources	88	77	11
Subtotal net sales to unaffiliated buyers	313	306	7
Intersegment net sales	1	1	—
Total segment net sales	\$ 314	\$ 307	\$ 7
Costs of sales	\$ 145	\$ 155	\$ (10)
Net contribution to earnings	\$ 144	\$ 127	\$ 17

The timing of real estate sales is a function of many factors, including:

- the general state of the economy,
- demand in local real estate markets,
- the ability to obtain entitlements,
- the ability of buyers to obtain financing,
- the number of competing properties listed for sale,
- the seasonal nature of sales (particularly in the northern states),
- the plans of adjacent landowners,
- our expectations of future price appreciation,
- the timing of harvesting activities and
- the availability of government and not-for-profit funding (especially for conservation sales).

In any period, the average sales price per acre will vary based on the location and physical characteristics of parcels sold.

COMPARING 2019 WITH 2018

Net Sales — Unaffiliated Buyers

Net sales to unaffiliated buyers increased \$7 million — 2 percent — primarily attributable to an \$11 million increase in energy and natural resources sales from an increase in production-based royalties, partially offset by a decrease in real estate acres sold.

Costs of Sales

Costs of sales decreased \$10 million — 6 percent — primarily attributable to decreased real estate acres sold.

Net Contribution to Earnings

Net contribution to earnings increased \$17 million — 13 percent — attributable to the increase in gross margin as discussed above.

WOOD PRODUCTS

HOW WE DID

We report sales volume and annual production data for our Wood Products segment in [Our Business/What We Do/Wood Products](#).

Net Sales and Net Contribution to Earnings for Wood Products

DOLLAR AMOUNTS IN MILLIONS			
			AMOUNT OF CHANGE
	2019	2018	2019 vs. 2018
Net sales:			
Structural lumber	\$ 1,892	\$ 2,258	\$ (366)
Oriented strand board	632	891	(259)
Engineered solid section	510	521	(11)
Engineered I-joists	323	336	(13)
Softwood plywood	161	200	(39)
Medium density fiberboard	166	177	(11)
Complementary building products	602	584	18
Other products produced ⁽¹⁾	337	330	7
Total segment net sales	\$ 4,623	\$ 5,297	\$ (674)
Costs of sales	\$ 4,098	\$ 4,228	\$ (130)
Operating income and Net contribution to earnings	\$ 353	\$ 838	\$ (485)

(1) Other products produced sales include wood chips, other byproducts and third-party residual log sales from our Canadian Forestlands operations. In 2019, we changed the way we report our Canadian Forestlands operations, which are primarily operated to supply our Canadian Wood Products manufacturing facilities. As a result, we now record the minimal associated third-party log sales in the Wood Products segment. These transactions do not contribute any earnings to the Wood Products segment. We have conformed prior year presentations with the current year.

COMPARING 2019 WITH 2018

Net Sales

Net sales decreased \$674 million — 13 percent — primarily due to:

- a \$366 million decrease in structural lumber sales attributable to a 19 percent decrease in realizations, partially offset by a 4 percent increase in sales volumes;
- a \$259 million decrease in oriented strand board sales attributable to a 31 percent decrease in realizations, partially offset by a 3 percent increase in sales volumes;
- a \$39 million decrease in softwood plywood sales attributable to a 17 percent decrease in realizations, as well as a 3 percent decrease in sales volumes;
- a \$13 million decrease in engineered I-joists sales attributable to a 6 percent decrease in sales volumes, partially offset by a 2 percent increase in realizations;
- an \$11 million decrease in engineered solid section sales attributable to a 5 percent decrease in sales volumes, partially offset by a 2 percent increase in realizations and
- an \$11 million decrease in medium density fiberboard sales attributable to a 6 percent decrease in sales volumes.

These decreases were partially offset by an \$18 million increase in sales for complementary building products and a \$7 million increase in sales for other products produced.

Costs of Sales

Costs of sales decreased \$130 million — 3 percent — primarily attributable to lower per unit costs across most product lines.

Operating Income and Net Contribution to Earnings

Operating income and net contribution to earnings decreased \$485 million — 58 percent — primarily due to the change in gross margin, as discussed above, partially offset by a \$68 million product remediation insurance recovery in 2019 with no similar activity in 2018 (refer to [Note 19: Charges \(Recoveries\) for Product Remediation, Net](#)).

UNALLOCATED ITEMS

Unallocated items are gains or charges related to company level initiatives or previous businesses that are not allocated to our current business segments. They include all or a portion of items such as:

- share-based compensation,
- pension and postretirement costs,
- elimination of intersegment profit in inventory and LIFO,
- foreign exchange transaction gains and losses resulting from changes in exchange rates primarily related to our U.S. dollar denominated cash and debt balances that are held by our Canadian subsidiary,
- interest income and other, as well as
- legacy obligations, such as environmental remediation and workers compensation.

Net Charge to Earnings for Unallocated Items

DOLLAR AMOUNTS IN MILLIONS			
	AMOUNT OF CHANGE		
	2019	2018	2019 vs. 2018
Unallocated corporate function and variable compensation expense	\$ (80)	\$ (84)	\$ 4
Liability classified share-based compensation	(7)	10	(17)
Foreign exchange gain (loss)	(2)	3	(5)
Elimination of intersegment profit in inventory and LIFO	(5)	6	(11)
Other	(99)	(88)	(11)
Operating loss	(193)	(153)	(40)
Non-operating pension and other postretirement benefit costs	(516)	(272)	(244)
Interest income and other	30	59	(29)
Net charge to earnings	\$ (679)	\$ (366)	\$ (313)

Net charge to earnings increased by \$313 million — 86 percent — primarily due to:

- a \$244 million increase in non-operating pension and other postretirement benefit costs primarily attributable to a \$255 million increase in pension settlement charges (refer to [Note 9: Pension and Other Postretirement Benefit Plans](#));
- a \$29 million decrease in interest income and other primarily attributable to the maturity of buyer-sponsored SPE investments in 2019 (refer to [Note 8: Related Parties](#)) and
- a \$17 million increase in expense related to liability classified share-based compensation attributable to the company's stock price increasing for the year-to-date period ended December 31, 2019 compared to the stock price decreasing for the year-to-date period ended December 31, 2018.

INTEREST EXPENSE

Our net interest expense incurred for the last two years was:

- \$378 million in 2019 and
- \$375 million in 2018.

Interest expense increased by \$3 million compared to 2018 primarily due to a \$12 million charge related to the early extinguishment of debt recorded in 2019, partially offset by the decreased weighted average interest rate on our debt portfolio.

INCOME TAXES

As a REIT, we generally are not subject to federal corporate level income taxes on REIT taxable income that is distributed to shareholders. Historical distributions to shareholders, including amounts and tax characteristics, are summarized in the table below.

AMOUNTS PER SHARE			
	2019	2018	
Common - capital gain distribution	\$ 1.36	\$ 1.32	

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We are required to pay corporate income taxes on earnings of our TRSs, which include our Wood Products segment and portions of our Timberlands and Real Estate & ENR segments' earnings. Our provision for income taxes is primarily driven by earnings generated by our TRSs.

Our provision (benefit) for income taxes the last two years was:

- \$(137) million in 2019 and
- \$59 million in 2018.

During 2019, we recorded a \$109 million tax benefit related to the noncash pretax settlement charge recorded in connection with our U.S. pension plan and a \$17 million tax expense related to an insurance recovery received in connection with prior product remediation efforts.

During 2018, we recorded a \$41 million tax benefit related to contributions made to our pension plan and deducted on our 2017 U.S. federal tax return and a \$21 million charge related to a tax settlement.

See [Note 21: Income Taxes](#), which outlines the major components related to our income tax provision.

LIQUIDITY AND CAPITAL RESOURCES

We are committed to maintaining an appropriate capital structure that enables us to:

- protect the interests of our shareholders and lenders and
- have access to major financial markets.

CASH FROM OPERATIONS

Consolidated net cash from operations was:

- \$966 million in 2019 and
- \$1,112 million in 2018.

COMPARING 2019 WITH 2018

Net cash from operations decreased by \$146 million, primarily due to a decrease in cash inflows from our business segments.

This decrease in net cash was partially offset by:

- a \$336 million decrease in pension and postretirement contributions and benefit payments, which is primarily related to the \$300 million voluntary contribution to our U.S. qualified pension plan in 2018 (refer to [Note 9: Pension and Other Postretirement Benefit Plans](#) for further information) and
- a \$97 million decrease in cash paid for taxes.

Pension Contributions and Benefit Payments Made and Expected

During 2019, we contributed a total of \$45 million to our pension and postretirement plans. During 2018, we contributed a total of \$381 million to our pension and postretirement plans, including a voluntary contribution of \$300 million to our U.S. qualified plan.

For 2020, we expect to contribute approximately \$30 million to our pension and postretirement benefit plans. Refer to [Note 9: Pension and Other Postretirement Benefit Plans](#) for further information.

INVESTING IN OUR BUSINESS

Cash from investing activities includes items such as:

- acquisitions of property, equipment, timberlands and reforestation and
- proceeds from sales of assets and operations.

Consolidated net cash from investing activities was:

- \$187 million in 2019 and
- \$(440) million in 2018.

COMPARING 2019 WITH 2018

Net cash from investing activities increased by \$627 million primarily due to:

- \$297 million of cash proceeds received from the sale of our Michigan timberlands in 2019, with no similar activity in 2018 (refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information);
- \$253 million of cash proceeds received related to our buyer-sponsored variable interest entities (VIEs) in 2019, with no similar activity in 2018 (refer to [Note 8: Related Parties](#)) and
- a \$43 million decrease in cash outflow for capital expenditures.

Summary of Capital Spending by Business Segment

DOLLAR AMOUNTS IN MILLIONS		
	2019	2018
Timberlands	\$ 112	\$ 117
Wood Products	257	306
Unallocated Items	15	4
Total	\$ 384	\$ 427

We expect our net capital expenditures for 2020 to be approximately \$360 million. The amount we spend on capital expenditures could change due to:

- future economic conditions,
- environmental regulations,
- changes in the composition of our business,
- weather,
- timing of equipment purchases and
- capital needs related to other business opportunities.

FINANCING

Cash from financing activities includes items, such as:

- issuances and payments of debt,
- borrowings and payments on our revolving line of credit,
- proceeds from option exercises and
- payments for cash dividends and repurchasing stock.

Consolidated net cash from financing activities was:

- \$(1,348) million in 2019 and
- \$(1,162) million in 2018.

COMPARING 2019 WITH 2018

Net cash from financing activities decreased \$186 million in 2019, primarily due to the following:

- a \$620 million decrease in net cash received related to borrowings on our line of credit (refer to [Note 11: Line of Credit](#));
- a \$93 million increase in payments on debt held by VIEs (refer to [Note 8: Related Parties](#));
- a \$39 million decrease in cash received from exercise of stock options and
- an \$18 million increase in cash used for payments of dividends.

These were partially offset by the following:

- a \$289 million increase in net cash proceeds received related to long-term debt (refer to [Note 12: Long-Term Debt](#)) and
- a \$306 million decrease in cash used to repurchase common shares.

LONG-TERM DEBT

Our consolidated long-term debt (including current portion) was:

- \$6.1 billion as of December 31, 2019 and
- \$5.9 billion as of December 31, 2018.

The increase in our long-term debt during 2019 is attributable to the issuance of \$750 million of 4.00 percent notes due in November 2029 offset by the repayment of our \$500 million 7.38 percent note.

The weighted average interest rate and the weighted average maturity on our long-term debt (excluding line of credit) as of December 31, 2019 were 5.90 percent and 6.9 years, respectively.

See [Note 12: Long-Term Debt](#) for more information about the long-term debt discussed above.

LINE OF CREDIT

In March 2017, we entered into a \$1.5 billion five-year senior unsecured revolving credit facility that expires in March 2022. As of December 31, 2019, we had \$230 million of outstanding borrowings on the revolving credit facility and had an additional \$1,270 million available. As of December 31, 2018, we had \$425 million of outstanding borrowings on the revolving credit facility. We were in compliance with the revolving credit facility covenants as of December 31, 2019 and December 31, 2018.

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In January 2020, we amended and restated our \$1.5 billion five-year senior unsecured revolving credit facility, which now expires in January 2025.

Our revolving credit agreement and our 2017 term loan agreement utilize the London Inter-bank Offered Rate (LIBOR) as a basis for one of the interest rate options available to the company to apply to outstanding borrowings. LIBOR is expected to be discontinued at some point during 2021, and we are closely monitoring ongoing market developments in the identification or creation of a widely accepted replacement rate. We have included provisions in our new revolving credit agreement that specifically contemplate the transition from LIBOR to a replacement benchmark rate. We have also discussed the impending discontinuation of LIBOR with our 2017 term loan lenders, and based on those discussions, we expect to amend our term loan agreement to reflect a new reference rate to replace LIBOR, but we do not know with any certainty when that will occur.

As of December 31, 2019, of our \$6.1 billion long-term debt and \$230 million line of credit borrowings, only \$455 million in borrowings are governed by debt agreements that utilize LIBOR as one of the alternative applicable rates. We therefore do not believe that the discontinuation of LIBOR as a reference rate in our debt agreements will have a material adverse effect on our financial position or materially affect our interest expense.

Our Covenants

Our key covenants include the requirement to maintain:

- a minimum total adjusted shareholders' equity of \$3.0 billion and
- a defined debt-to-total-capital ratio of 65 percent or less.

Our total adjusted shareholders' equity is comprised of:

- total shareholders' equity,
- excluding accumulated comprehensive income (loss),
- minus our investment in our unrestricted subsidiaries.

Our capitalization is comprised of:

- total debt
- plus total adjusted shareholders' equity.

As of December 31, 2019, we had:

- a defined total adjusted shareholders' equity of \$8.7 billion and
- a defined debt-to-total-capital ratio of 42.24 percent.

When calculating compliance in accordance with financial debt covenants as of December 31, 2019, we excluded the full amount of accumulated other comprehensive loss of \$904 million. When calculating compliance in accordance with financial debt covenants as of December 31, 2018, we excluded the full amount of accumulated other comprehensive loss of \$1,152 million. See [Note 15: Shareholders' Interest](#).

There are no other significant financial debt covenants related to our third-party debt.

CREDIT RATINGS

As of December 31, 2019, our long-term issuer credit rating was BBB and Baa2 from S&P and Moody's, respectively.

OPTION EXERCISES

Our cash proceeds from the exercise of stock options were:

- \$13 million in 2019 and
- \$52 million in 2018.

Our average stock price was \$26.45 and \$33.30 in 2019 and 2018, respectively.

DIVIDENDS

We paid cash dividends on common shares of:

- \$1,013 million in 2019 and
- \$995 million in 2018.

The increase in dividends paid is primarily due to an increase in our year-to-date dividends from \$1.32 per share for 2018 to \$1.36 per share for 2019.

SHARE REPURCHASES

We repurchased over 2.3 million shares for approximately \$60 million (including transaction fees) during the year ended December 31, 2019, under the 2019 Repurchase Program. We repurchased over 11.4 million shares for approximately \$366 million (including transaction fees) during the year ended December 31, 2018, under the 2016 Repurchase Program. There were no unsettled repurchases as of December 31, 2019, or December 31, 2018. For information on share repurchases, see [Note 15: Shareholders' Interest](#).

OUR CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

More details about our contractual obligations and commercial commitments are in [Note 9: Pension and Other Postretirement Benefit Plans](#), [Note 11: Line of Credit](#), [Note 12: Long-Term Debt](#), [Note 14: Legal Proceedings, Commitments and Contingencies](#) and [Note 21: Income Taxes](#).

Significant Contractual Obligations as of December 31, 2019

	DOLLAR AMOUNTS IN MILLIONS				
	TOTAL	PAYMENTS DUE BY PERIOD			
		LESS THAN 1 YEAR	1-3 YEARS	3-5 YEARS	MORE THAN 5 YEARS
Long-term debt obligations, including current portion ⁽¹⁾	\$ 6,144	\$ —	\$ 719	\$ 1,876	\$ 3,549
Borrowings on line of credit ⁽²⁾	230	—	—	—	—
Interest ⁽³⁾	2,618	358	651	525	1,084
Lease obligations	188	34	52	32	70
Purchase obligations ⁽⁴⁾	382	136	146	29	71
Employee-related obligations ⁽⁵⁾	362	118	40	27	72
Total	\$ 9,924	\$ 646	\$ 1,608	\$ 2,489	\$ 4,846

- (1) Does not include nonrecourse debt held by our VIEs. See [Note 8: Related Parties](#) for further information on our VIEs and the related nonrecourse debt.
- (2) All outstanding amounts are required to be repaid upon the line of credit expiration. The timing of the repayment of the current outstanding balance is uncertain. See [Note 11: Line of Credit](#) for further information on our line of credit.
- (3) Amounts presented for interest payments assume that all long-term debt obligations 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) Purchase obligations include agreements to purchase goods or services that are enforceable and legally binding on the company and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions and the approximate timing of the transaction. Purchase obligations exclude arrangements that the company can cancel without penalty.
- (5) The timing of certain payments within this category will be triggered by retirements or other events. These payments can include workers' compensation, deferred compensation and banked vacation, among other obligations. When the timing of payment is uncertain, the amounts are included in the total column only. Minimum pension funding is required by established funding standards and estimates are not made beyond 2020. Estimated payments of contractually obligated postretirement benefits are not included due to the uncertainty of payment timing.

OFF-BALANCE SHEET ARRANGEMENTS

Off-balance sheet arrangements have not had — and are not reasonably likely to have — a material effect on our current or future financial condition, results of operations or cash flows. [Note 8: Related Parties](#), [Note 11: Line of Credit](#) and [Note 14: Legal Proceedings, Commitments and Contingencies](#) contain our disclosures of:

- surety bonds,
- letters of credit and guarantees and
- information regarding variable interest entities.

ENVIRONMENTAL MATTERS, LEGAL PROCEEDINGS AND OTHER CONTINGENCIES

See [Note 14: Legal Proceedings, Commitments and Contingencies](#).

ACCOUNTING MATTERS

CRITICAL ACCOUNTING POLICIES

In the preparation of our financial statements we follow established accounting policies and make estimates that affect both the amounts and timing of the recording of assets, liabilities, revenues and expenses. Some of these estimates require judgments about matters that are inherently uncertain. Accounting policies whose application may have a significant effect on the reported results of operations and financial position are considered critical accounting policies.

In accounting, we base our judgments and estimates on:

- historical experience and
- assumptions we believe are appropriate and reasonable under current circumstances.

Actual results, however, may differ from the estimated amounts we have recorded.

Our most critical accounting policies relate to our:

- pension and postretirement benefit plans;
- potential impairments of long-lived assets and
- legal, environmental and product liability reserves.

Details about our other significant accounting policies — what we use and how we estimate — are in [Note 1: Summary of Significant Accounting Policies](#).

PENSION AND POSTRETIREMENT BENEFIT PLANS

We sponsor several pension and postretirement benefit plans for our employees. Key estimates we use in accounting for the plans include the:

- fair value of our plan assets,
- expected long-term rate of return on plan assets and
- discount rates.

At the end of every year, we review our key estimates with external advisers and make adjustments as appropriate. We use these estimates to calculate plan asset and liability information as of year-end as well as pension and postretirement expense for the following year. Actual experience that differs from our estimates or any changes in our estimates could have a significant effect on our financial position, results of operations and cash flows.

Fair Value of Plan Assets

Plan assets are assets of the pension plan trusts that fund the benefits provided under the pension plans. The fair value of our plan assets estimates the amount that would be received if we were to sell each asset in an orderly transaction between market participants at the reporting date. We estimate the fair value of these assets based on the information available during the year-end reporting process. In some cases, primarily for private equity and hedge funds, the available information consists of net asset values as of an interim date, adjusted for known events occurring between the interim date and year-end.

We value the pension plan assets based on the observability of exit pricing inputs and classify them based on the lowest level input that is significant to the fair value measurement of the pension plan assets in their entirety. These inputs are classified within the fair value hierarchy as follows:

- Level 1: Inputs are unadjusted quoted prices for identical assets or liabilities traded in an active market.
- Level 2: Inputs are quoted prices in non-active markets for which pricing inputs are observable either directly or indirectly at the reporting date.
- Level 3: Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

Assets that are measured at fair value using the net asset value per share as a practical expedient are not categorized within the fair value hierarchy.

In general, we value our pension plan assets as follows:

- cash and short-term investments are valued at cost, which approximates market;
- fixed income and public equity investments are valued at exit prices quoted in the public market;
- hedge funds, private equity funds and related fund units are primarily valued based on the net asset value of the funds and
- derivative instruments are valued based upon valuation statements received from each derivative's counterparty.

Assets that do not have readily available quoted prices in an active market require more judgment to value and have increased valuation risk.

Expected Long-Term Rate of Return on Plan Assets

Our expected long-term rate of return is our estimate of the return that our plan assets will earn over time. This rate is important in determining the net periodic benefit or cost we recognize for our plans.

During the years ended December 31, 2018 and December 31, 2017, we utilized a long-term rate of return on plan assets of 8.0 percent. At the end of 2018, we began implementing a change in our asset strategy to an allocation that more closely aligns with the plan's liability profile moving forward. This results in a larger allocation of our assets into fixed income securities. With this change, we determined that it was appropriate to reduce our assumption of expected long-term rate of return on plan assets to 7.0 percent for the year ended December 31, 2019. As this strategy has been in place throughout 2019 and a larger percentage of our portfolio has been allocated to fixed income securities, we have determined that an additional reduction in our assumption of long-term rate of return on plan assets to 6.5 percent is appropriate for the year ended December 31, 2020.

Factors we considered include:

- historical returns for a portfolio of assets similar to our expected allocation and
- expected future performance of similar asset classes.

Every 50 basis point decrease in our expected long-term rate of return would increase expense or reduce a credit by approximately:

- \$14 million for our U.S. qualified pension plans and

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- \$4 million for our Canadian registered pension plans.

The actual return on plan assets in any given year may vary from our expected long-term rate of return. Actual returns on plan assets affect the funded status of the plans. Differences between actual returns on plan assets and the expected long-term rate of return are reflected as adjustments to accumulated other comprehensive loss, a component of total equity.

Discount Rates

The discount rate is used to estimate the net present value of our plan obligations. Our discount rates as of December 31, 2019 are:

- 3.4 percent for our U.S. pension plans — compared with 4.4 percent at December 31, 2018;
- 3.0 percent for our U.S. postretirement plans — compared with 4.2 percent at December 31, 2018;
- 3.1 percent for our Canadian pension plans — compared with 3.7 percent at December 31, 2018 and
- 3.0 percent for our Canadian postretirement plans — compared with 3.7 percent at December 31, 2018.

The discount rates are determined at the measurement date by matching current spot rates of high-quality corporate bonds with maturities similar to the timing of expected cash outflows for benefits.

Pension expenses for 2020 will be based on the 3.4 percent and 3.1 percent assumed discount rates for the U.S. pension plan and the Canadian pension plan, respectively, and 3.0 percent assumed discount rate for the U.S. and Canadian postretirement benefit plans.

Our discount rates are important in determining the cost of our plans. A 50 basis point decrease in our discount rate would increase expense or reduce a credit by approximately:

- \$19 million for our U.S. qualified pension plans and
- \$5 million for our Canadian registered pension plans.

IMPAIRMENT OF LONG-LIVED ASSETS

We review the carrying value of long-lived assets whenever an event or a change in circumstance indicates that the carrying value of the asset or asset group may not be recoverable through future operations. The carrying value is the original cost, less accumulated depreciation and any past impairments recorded. Refer to [Note 18: Charges for Integration and Restructuring, Closures and Asset Impairments](#) for information on an impairment recognized in 2019.

If we evaluate recoverability, we are required to estimate future cash flows and residual values of the asset or asset group. Key assumptions used in developing these estimates would include probability of alternative outcomes, product pricing, raw material cost and product sales.

An impairment occurs when the carrying value of a long-lived asset is greater than the amount that could be recovered from the estimated future cash flows of the asset and greater than fair market value (the amount we could receive if we were to sell the asset). Key assumptions used in developing estimates of fair value would include the estimated future cash flows used to assess recoverability, discount rates and probability of alternative outcomes.

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 the amount or range of potential loss.

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 the amount of loss requires analysis of multiple factors, including:

- historical experience,
- evaluations of relevant legal and environmental authorities and regulations,
- judgments about the potential actions of third-party claimants and courts and
- consideration of potential environmental remediation methods.

In addition to contingent liabilities recorded for probable losses, we disclose contingent liabilities when there is a reasonable possibility that a loss may have been incurred.

Recorded 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 record additional charges. These exposures and proceedings can be significant and the ultimate negative outcomes could be material to our operating results or cash flows in any given quarter or year. See [Note 14: Legal Proceedings, Commitments and Contingencies](#) for more information.

PROSPECTIVE ACCOUNTING PRONOUNCEMENTS

A summary of prospective accounting pronouncements is in [Note 1: Summary of Significant Accounting Policies](#).

PERFORMANCE MEASURES

We use adjusted earnings before interest, taxes, depreciation, depletion and amortization (Adjusted EBITDA) as a key performance measure to evaluate the performance of the consolidated company and our business segments. This measure should not be considered in isolation from, and is not intended to represent an alternative to, our results reported in accordance with U.S. generally accepted accounting principles (U.S. GAAP). However, we believe Adjusted EBITDA provides meaningful supplemental information for our investors about our operating performance, better facilitates period to period comparisons and is widely used by analysts, lenders, rating agencies and other interested parties. Our definition of Adjusted EBITDA may be different from similarly titled measures reported by other companies. Adjusted EBITDA, as we define it, is operating income adjusted for depreciation, depletion, amortization, basis of real estate sold and special items.

Adjusted EBITDA by Segment

DOLLAR AMOUNTS IN MILLIONS			
	2019		2018
Timberlands	\$	680	\$ 902
Real Estate & ENR		274	264
Wood Products		476	987
Unallocated Items		(154)	(121)
Total	\$	1,276	\$ 2,032

We reconcile Adjusted EBITDA to net earnings for the consolidated company and to operating income for the business segments, as those are the most directly comparable U.S. GAAP measures for each.

The table below reconciles Adjusted EBITDA by segment to net loss for the year ended December 31, 2019:

DOLLAR AMOUNTS IN MILLIONS					
	TIMBERLANDS	REAL ESTATE & ENR	WOOD PRODUCTS	UNALLOCATED ITEMS	TOTAL
Net loss					\$ (76)
Interest expense, net of capitalized interest ⁽¹⁾					378
Income taxes					(137)
Net contribution (charge) to earnings	\$ 347	\$ 144	\$ 353	\$ (679)	\$ 165
Non-operating pension and other postretirement benefit costs ⁽²⁾	—	—	—	516	516
Interest income and other	—	—	—	(30)	(30)
Operating income (loss)	347	144	353	(193)	651
Depreciation, depletion and amortization	301	14	191	4	510
Basis of real estate sold	—	116	—	—	116
Special items included in operating income (loss) ⁽³⁾⁽⁴⁾⁽⁵⁾	32	—	(68)	35	(1)
Adjusted EBITDA	\$ 680	\$ 274	\$ 476	\$ (154)	\$ 1,276

(1) Interest expense, net of capitalized interest includes a pretax special item of \$12 million related to a charge for the early extinguishment of debt.

(2) Non-operating pension and other postretirement benefit costs includes pretax special items consisting of \$455 million noncash settlement charges related to the transfers of pension plan assets and liabilities to an insurance company through the purchase of group annuity contracts.

(3) Operating income (loss) for Timberlands includes pretax special items consisting of an \$80 million noncash impairment charge related to the agreement to sell our Montana timberlands and a \$48 million gain on sale of our Michigan timberlands.

(4) Operating income (loss) for Wood Products includes a pretax special item consisting of a \$68 million product remediation insurance recovery.

(5) Operating income (loss) for Unallocated Items includes pretax special items consisting of \$35 million of legal charges.

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The table below reconciles Adjusted EBITDA by segment to net earnings for the year ended December 31, 2018:

DOLLAR AMOUNTS IN MILLIONS					
	TIMBERLANDS	REAL ESTATE & ENR	WOOD PRODUCTS	UNALLOCATED ITEMS	TOTAL
Net earnings					\$ 748
Interest expense, net of capitalized interest					375
Income taxes ⁽¹⁾					59
Net contribution (charge) to earnings	\$ 583	\$ 127	\$ 838	\$ (366)	\$ 1,182
Non-operating pension and other postretirement benefit costs ⁽²⁾	—	—	—	272	272
Interest income and other ⁽³⁾	—	(1)	—	(59)	(60)
Operating income (loss)	583	126	838	(153)	1,394
Depreciation, depletion and amortization	319	14	149	4	486
Basis of real estate sold	—	124	—	—	124
Special items included in operating income (loss) ⁽⁴⁾	—	—	—	28	28
Adjusted EBITDA	\$ 902	\$ 264	\$ 987	\$ (121)	\$ 2,032

(1) Income taxes include special items consisting of a \$41 million tax benefit related to our pension contribution and a \$21 million tax adjustment charge.

(2) Non-operating pension and other postretirement benefit costs include a pretax special item consisting of a \$200 million noncash settlement charge related to our U.S. qualified pension plan lump sum offer.

(3) Interest income and other includes a pretax special item consisting of a \$13 million gain on sale of a nonstrategic asset.

(4) Operating income (loss) for Unallocated Items includes a pretax special item consisting of a \$28 million environmental remediation expense.

We also reconcile net earnings before special items to net earnings and net earnings per diluted share before special items to net earnings per diluted share, as those are the most directly comparable U.S. GAAP measures. We believe the measures provide meaningful supplemental information for investors about our operating performance, better facilitate period to period comparisons, and are widely used by analysts, lenders, rating agencies and other interested parties.

The table below reconciles net earnings before special items to net earnings (loss):

DOLLAR AMOUNTS IN MILLIONS		
	2019	2018
Net earnings (loss)	\$ (76)	\$ 748
Early extinguishment of debt charge	9	—
Environmental remediation charge	—	21
Gain on sale of timberlands and other nonstrategic assets	(48)	(10)
Legal charges	26	—
Pension settlement charges	345	152
Product remediation recoveries, net	(51)	—
Restructuring, impairments and other charges	80	—
Tax adjustments	—	(20)
Net earnings before special items	\$ 285	\$ 891

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The table below reconciles net earnings per diluted share before special items to net earnings (loss) per diluted share:

AMOUNTS PER SHARE		
	2019	2018
Net earnings (loss) per diluted share	\$ (0.10)	\$ 0.99
Early extinguishment of debt charge	0.01	—
Environmental remediation charge	—	0.03
Gain on sale of timberlands and other nonstrategic assets	(0.07)	(0.01)
Legal charges	0.04	—
Pension settlement charges	0.47	0.20
Product remediation recoveries, net	(0.07)	—
Restructuring, impairments and other charges	0.11	—
Tax adjustments	—	(0.03)
Net earnings per diluted share before special items	\$ 0.39	\$ 1.18

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

LONG-TERM DEBT OBLIGATIONS

The following summary of our long-term debt obligations includes:

- scheduled principal repayments for the next five years and after,
- weighted average interest rates for debt maturing in each of the next five years and after and
- estimated fair values of outstanding obligations.

We estimate the fair value of long-term debt based on quoted market prices we receive for the same types and issues of our debt or on the discounted value of the future cash flows using market yields for the same type and comparable issues of debt. Changes in market rates of interest affect the fair value of our fixed-rate debt.

SUMMARY OF LONG-TERM DEBT OBLIGATIONS AS OF DECEMBER 31, 2019

DOLLAR AMOUNTS IN MILLIONS								
	2020	2021	2022	2023	2024	THEREAFTER	TOTAL ⁽¹⁾	FAIR VALUE
Fixed-rate debt	\$ —	\$ 719	\$ —	\$ 1,876	\$ —	\$ 3,324	\$ 5,919	\$ 6,986
Average interest rate	—%	5.60%	—%	4.91%	—%	6.69%	5.99%	N/A
Variable-rate debt ⁽²⁾	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 225	\$ 225	\$ 225
Average interest rate	—%	—%	—%	—%	—%	3.40%	3.40%	N/A

(1) Excludes \$3 million of unamortized discounts, capitalized debt expense and business combination fair value adjustments.

(2) Excludes borrowings under our line of credit of \$230 million as of December 31, 2019. All outstanding amounts are required to be repaid upon the line of credit expiration. The timing of the repayment of the current outstanding balance is uncertain. See [Note 11: Line of Credit](#) for further information on our line of credit.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
Weyerhaeuser Company:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Weyerhaeuser Company and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 14, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Notes 1 and 17 to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of FASB ASC Topic 842, *Leases*.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter 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.

Evaluation of projected pension benefit obligations and associated plan assets

As discussed in Notes 1 and 9 to the consolidated financial statements, the Company's projected pension and postretirement benefit obligations and the associated plan assets were \$4,411 million and \$3,738 million, respectively, as of December 31, 2019.

We identified the evaluation of the Company's projected pension benefit obligations and associated plan assets to be a critical audit matter. This is due to the sensitivity of the obligations to changes in the discount rates used, the subjectivity in evaluating those rates, and the need to involve actuarial professionals with specialized skills and knowledge. Additionally, the assessment of the estimated fair value of plan assets, specifically hedge fund and private equity investments which are based on the Net Asset Value ("NAV"), required a higher degree of auditor judgment. The NAV for these investments are obtained from the most recent unaudited capital statements prepared by fund managers and there is judgment and estimation involved in evaluating adjustments made to those capital statement values necessary for purposes of year-end reporting.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's pension process, including controls related to the actuarial determination of the discount rates and the estimated fair value of hedge fund and private equity investments recorded at NAV. We involved actuarial professionals with specialized skills and knowledge who assisted in the evaluation of the Company's discount rates by understanding the methodology used by the Company, assessing changes in the discount rates from the prior year against changes in published indices, and evaluating the discount rates based on the pattern of future cash flows. In regard to the fair value of plan assets recorded at NAV, we evaluated the reliability of these values by assessing the Company's ability to accurately estimate fair value in prior years by comparing the prior year estimated fair value (NAV) to prior year audited financial statements. We also involved valuation professionals with specialized skills and knowledge who assisted in evaluating the Company's estimated fair value (NAV) for hedge fund and private equity investments by comparing the estimated returns for the period since the most recent capital statement against relevant publicly available information. Additionally, we inspected trust statements for observable transactions near year-end to compare to the estimated fair value.

/s/ KPMG LLP

We have served as the Company's auditor since 2002.

Seattle, Washington
February 14, 2020

CONSOLIDATED STATEMENT OF OPERATIONS

FOR THE THREE-YEAR PERIOD ENDED DECEMBER 31, 2019

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES			
	2019	2018	2017
Net sales	\$ 6,554	\$ 7,476	\$ 7,196
Costs of sales	5,412	5,592	5,298
Gross margin	1,142	1,884	1,898
Selling expenses	84	88	87
General and administrative expenses	348	318	310
Charges for integration and restructuring, closures and asset impairments (Note 18)	80	2	194
Charges (recoveries) for product remediation, net (Note 19)	(68)	—	290
Other operating costs (income), net (Note 20)	47	82	(114)
Operating income	651	1,394	1,131
Non-operating pension and other postretirement benefit costs (Note 9)	(516)	(272)	(62)
Interest income and other	30	60	40
Interest expense, net of capitalized interest	(378)	(375)	(393)
Earnings (loss) before income taxes	(213)	807	716
Income taxes (Note 21)	137	(59)	(134)
Net earnings (loss)	\$ (76)	\$ 748	\$ 582
Basic and diluted earnings (loss) per share (Note 5):	\$ (0.10)	\$ 0.99	\$ 0.77
Weighted average shares outstanding (in thousands) (Note 5):			
Basic	745,897	754,556	753,085
Diluted	745,897	756,827	756,666

See accompanying [Notes to Consolidated Financial Statements](#).

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**FOR THE THREE-YEAR PERIOD ENDED DECEMBER 31, 2019**

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Comprehensive income:			
Net earnings (loss)	\$ (76)	\$ 748	\$ 582
Other comprehensive income (loss):			
Foreign currency translation adjustments	26	(54)	32
Changes in unamortized actuarial loss, net of tax (expense) benefit of (\$73) in 2019, (\$235) in 2018 and \$2 in 2017	225	733	(132)
Changes in unamortized net prior service credit, net of tax (expense) benefit of (\$1) in 2019, \$3 in 2018 and \$2 in 2017	(3)	(7)	(5)
Unrealized gains on available-for-sale securities	—	—	2
Total comprehensive income	\$ 172	\$ 1,420	\$ 479

See accompanying [Notes to Consolidated Financial Statements](#).

CONSOLIDATED BALANCE SHEET

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PAR VALUE		
	DECEMBER 31, 2019	DECEMBER 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 139	\$ 334
Receivables, net	309	337
Receivables for taxes	98	137
Inventories (Note 6)	416	389
Assets held for sale (Note 4)	140	—
Prepaid expenses and other current assets	147	152
Current restricted financial investments held by variable interest entities (Note 8)	362	253
Total current assets	1,611	1,602
Property and equipment, net (Note 7)	1,969	1,857
Construction in progress	130	136
Timber and timberlands at cost, less depletion	11,929	12,671
Minerals and mineral rights, less depletion	281	294
Deferred tax assets (Note 21)	72	15
Other assets	414	312
Restricted financial investments held by variable interest entities (Note 8)	—	362
Total assets	\$ 16,406	\$ 17,249
LIABILITIES AND EQUITY		
Current liabilities:		
Current maturities of long-term debt (Notes 12 and 13)	\$ —	\$ 500
Current debt (nonrecourse to the company) held by variable interest entities (Note 8)	—	302
Borrowings on line of credit (Notes 11 and 13)	230	425
Accounts payable	246	222
Accrued liabilities (Note 10)	530	490
Total current liabilities	1,006	1,939
Long-term debt, net (Notes 12 and 13)	6,147	5,419
Deferred tax liabilities (Note 21)	6	43
Deferred pension and other postretirement benefits (Note 9)	693	527
Other liabilities	377	275
Commitments and contingencies (Note 14)		
Total liabilities	8,229	8,203
Equity:		
Weyerhaeuser shareholders' interest (Notes 15 and 16):		
Common shares: \$1.25 par value; authorized 1,360 million shares; issued and outstanding: 745,300 thousand shares at December 31, 2019 and 746,391 thousand shares at December 31, 2018	932	933
Other capital	8,152	8,172
Retained earnings (accumulated deficit)	(3)	1,093
Accumulated other comprehensive loss (Note 15)	(904)	(1,152)
Total equity	8,177	9,046
Total liabilities and equity	\$ 16,406	\$ 17,249

See accompanying [Notes to Consolidated Financial Statements](#).

CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE THREE-YEAR PERIOD ENDED DECEMBER 31, 2019

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Cash flows from operations:			
Net earnings (loss)	\$ (76)	\$ 748	\$ 582
Noncash charges (credits) to income:			
Depreciation, depletion and amortization	510	486	521
Basis of real estate sold	116	124	81
Deferred income taxes, net (Note 21)	(169)	72	44
Pension and other postretirement benefits (Note 9)	548	309	97
Share-based compensation expense (Note 16)	30	42	40
Charges for impairment of assets (Note 18)	80	1	154
Net gains on sale of nonstrategic assets	(5)	(16)	(16)
Net gains on sale of nonstrategic timberlands (Notes 4 and 8)	(48)	—	(99)
Change in:			
Receivables, less allowances	13	62	(35)
Receivable and payable for taxes	33	(103)	(50)
Inventories	(23)	(14)	(39)
Prepaid expenses and other current assets	6	(18)	(12)
Accounts payable and accrued liabilities	37	(154)	106
Pension and postretirement contributions / benefit payments	(45)	(381)	(78)
Other	(41)	(46)	(95)
Net cash from operations	966	1,112	1,201
Cash flows from investing activities:			
Capital expenditures for property and equipment	(327)	(368)	(358)
Capital expenditures for timberlands reforestation	(57)	(59)	(61)
Proceeds from note receivable held by variable interest entities (Note 8)	253	—	—
Proceeds from disposition of operations (Note 4)	—	—	403
Proceeds from sale of nonstrategic assets	6	4	26
Proceeds from sale of nonstrategic timberlands (Notes 4 and 8)	297	—	203
Proceeds from redemption of ownership in related party (Note 8)	—	—	108
Other	15	(17)	46
Net cash from investing activities	187	(440)	367
Cash flows from financing activities:			
Cash dividends on common shares	(1,013)	(995)	(941)
Proceeds from issuance of long-term debt (Note 12)	739	—	225
Payments on long-term debt (Note 12)	(512)	(62)	(831)
Proceeds from borrowings on line of credit (Note 11)	1,095	425	100
Payments on line of credit (Note 11)	(1,290)	—	(100)
Payments on debt held by variable interest entities (Note 8)	(302)	(209)	—
Proceeds from exercise of stock options	13	52	128
Repurchases of common shares (Note 15)	(60)	(366)	—
Other	(18)	(7)	(1)
Net cash from financing activities	(1,348)	(1,162)	(1,420)
Net change in cash and cash equivalents	\$ (195)	\$ (490)	\$ 148
Cash and cash equivalents at beginning of year	\$ 334	\$ 824	\$ 676
Cash and cash equivalents at end of year	\$ 139	\$ 334	\$ 824
Cash paid (received) during the year for:			
Interest, net of amounts capitalized of \$5 in 2019, \$9 in 2018 and \$9 in 2017	\$ 370	\$ 358	\$ 381
Income taxes, net of refunds	\$ (2)	\$ 95	\$ 169

 See accompanying [Notes to Consolidated Financial Statements](#).

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE THREE-YEAR PERIOD ENDED DECEMBER 31, 2019

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES			
	2019	2018	2017
Common shares:			
Balance at beginning of year	\$ 933	\$ 944	\$ 936
Issued for exercise of stock options and vested restricted stock units	2	4	8
Repurchases of common shares (Note 15)	(3)	(15)	—
Balance at end of year	932	933	944
Other capital:			
Balance at beginning of year	8,172	8,439	8,282
Issued for exercise of stock options	12	49	128
Repurchases of common shares (Note 15)	(57)	(351)	—
Share-based compensation	30	42	35
Other transactions, net	(5)	(7)	(6)
Balance at end of year	8,152	8,172	8,439
Retained earnings (accumulated deficit):			
Balance at beginning of year	1,093	1,078	1,421
Net earnings (loss)	(76)	748	582
Dividends on common shares	(1,013)	(995)	(944)
Adjustments related to new accounting pronouncements (Note 17)	(7)	262	19
Balance at end of year	(3)	1,093	1,078
Accumulated other comprehensive loss:			
Balance at beginning of year	(1,152)	(1,562)	(1,459)
Other comprehensive income	248	672	(103)
Adjustments related to new accounting pronouncements and other (Note 15)	—	(262)	—
Balance at end of year	(904)	(1,152)	(1,562)
Total equity:			
Balance at end of year	\$ 8,177	\$ 9,046	\$ 8,899
Dividends paid per common share	\$ 1.36	\$ 1.32	\$ 1.25

See accompanying [Notes to Consolidated Financial Statements](#).

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Our significant accounting policies describe:

- our election to be taxed as a real estate investment trust,
- how we report our results,
- changes in how we report our results and
- how we account for various items.

OUR ELECTION TO BE TAXED AS A REAL ESTATE INVESTMENT TRUST (REIT)

Starting with our 2010 fiscal year, we elected to be taxed as a REIT. REIT income can be distributed to shareholders without first paying corporate level tax, substantially eliminating the double taxation on income. We expect to derive most of our REIT income from investments in timberlands, including the sale of standing timber through pay-as-cut sales contracts and lump sum timber deeds.

We have not been subject to REIT built-in gains tax since December 31, 2014. We continue to be required to pay federal corporate income taxes on earnings of our Taxable REIT Subsidiaries (TRSs), which include our Wood Products segment and portions of our Timberlands and Real Estate, Energy and Natural Resources (Real Estate & ENR) segments.

HOW WE REPORT OUR RESULTS

Our report includes:

- consolidated financial statements,
- our business segments,
- estimates,
- fair value measurements and
- foreign currency translation.

Consolidated Financial Statements

Our consolidated financial statements provide an overall view of our results and financial condition. They include our accounts and the accounts of entities that we control, including:

- majority-owned domestic and foreign subsidiaries and
- variable interest entities in which we are the primary beneficiary.

They do not include our intercompany transactions and accounts, which are eliminated.

Throughout these [Notes to Consolidated Financial Statements](#), unless specified otherwise, references to "Weyerhaeuser," "the company," "we" and "our" refer to the consolidated company.

Our Business Segments

Reportable business segments are determined based on the company's "management approach," as defined by Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 280, *Segment Reporting*. The management approach is based on the way the chief operating decision maker organizes the segments within a company for making decisions about resources to be allocated and assessing their performance.

We are principally engaged in:

- growing and harvesting timber;
- manufacturing, distributing and selling products made from trees;
- maximizing the value of every acre we own through the sale of higher and better use (HBU) properties and
- monetizing the value of surface and subsurface assets through leases and royalties.

Our business segments are organized based primarily on products and services.

SEGMENT	PRODUCTS AND SERVICES
Timberlands	Logs, timber, recreational leases and other products
Real Estate & ENR	Real Estate (sales of timberlands) and ENR (rights to explore for and extract hard minerals, construction materials, oil and gas production, wind and solar)
Wood Products	Structural lumber, oriented strand board, engineered wood products and building materials distribution

We also transfer raw materials, semi-finished materials and end products among our business segments. Because of this intracompany activity, accounting for our business segments involves pricing products transferred between our business segments at current market values.

Unallocated items are gains or charges related to company level initiatives or previous businesses that are not allocated to our current business segments. They include all or a portion of items such as share-based compensation, pension and postretirement costs, elimination of

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intersegment profit in inventory and LIFO, foreign exchange transaction gains and losses, interest income and other as well as legacy obligations such as environmental remediation and workers compensation.

Estimates

We prepare our financial statements according to U.S. generally accepted accounting principles (U.S. GAAP). This requires us to make estimates and assumptions during our reporting periods and at the date of our financial statements. The estimates and assumptions affect our:

- reported amounts of assets, liabilities and equity;
- disclosure of contingent assets and liabilities and
- reported amounts of revenues and expenses.

While we do our best in preparing these estimates, actual results can and do differ from those estimates and assumptions.

Fair Value Measurements

We use a fair value hierarchy in accounting for certain nonfinancial assets and liabilities including:

- long-lived assets (asset groups) measured at fair value for an impairment assessment;
- pension plan assets measured at fair value and
- asset retirement obligations initially measured at fair value.

The fair value hierarchy is based on inputs to valuation techniques that are used to measure fair value that are either observable or unobservable. Observable inputs reflect assumptions market participants would use in pricing an asset or liability based on market data obtained from independent sources while unobservable inputs reflect a reporting entity's pricing based upon its own market assumptions.

The fair value hierarchy consists of the following three levels:

- Level 1: Inputs are unadjusted quoted prices for identical assets or liabilities traded in an active market.
- Level 2: Inputs are quoted prices in non-active markets for which pricing inputs are observable either directly or indirectly at the reporting date.
- Level 3: Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

Foreign Currency Translation

We translate foreign currencies into U.S. dollars in two ways:

- assets and liabilities — at the exchange rates in effect as of our balance sheet date and
- revenues and expenses — at average monthly exchange rates throughout the year.

CHANGES IN HOW WE REPORT OUR RESULTS

Changes in how we report our results come from:

- reclassification of certain balances and results from prior years to make them consistent with our current reporting and
- accounting changes made upon our adoption of new accounting guidance.

Reclassifications

We have reclassified certain balances and results from prior years to be consistent with our 2019 reporting. This makes year-to-year comparisons easier. Our reclassifications had no effect on consolidated net earnings or equity.

New Accounting Pronouncements

Lease Recognition

On January 1, 2019 we adopted FASB ASC Topic 842, *Leases*, which requires lessees to recognize assets and liabilities for the rights and obligations created by leases and requires leases to be recognized on the balance sheet. We adopted using the modified retrospective transition approach at the beginning of the adoption period through a cumulative-effect adjustment to retained earnings.

With this adoption approach, financial information was not updated and disclosures required under the new standard were not provided for dates and periods before January 1, 2019. The adoption resulted in the recognition of additional right-of-use assets and lease liabilities for leases that each constitute less than 2 percent of total assets on our [Consolidated Balance Sheet](#). These leases are primarily related to vehicles, equipment, office and warehouse locations as disclosed in [Note 17: Leases](#).

Benefit Plans Disclosure

In August 2018, the FASB issued ASU 2018-14, which requires certain new disclosures, such as an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period, as well as removes the requirement to disclose certain previously required information. The new guidance is effective retrospectively for all periods presented for fiscal periods starting after December 15, 2020, and early adoption is permitted. We adopted this ASU on December 31, 2019 and have updated our disclosures accordingly. This pronouncement does not have an effect on our consolidated financial statements. Refer to [Note 9: Pension and Other Postretirement Benefit Plans](#) for information about our postretirement benefit plans.

HOW WE ACCOUNT FOR VARIOUS ITEMS

This section provides information about how we account for certain key items related to:

- capital investments,
- financing our business and
- operations.

ITEMS RELATED TO CAPITAL INVESTMENTS

Key items related to accounting for capital investments pertain to property and equipment, timber and timberlands and impairment of long-lived assets.

Property and Equipment

We maintain property accounts on an individual asset basis and account for them as follows:

- Improvements to and replacements of major units of property are capitalized.
- Maintenance, repairs and minor replacements are expensed.
- Depreciation is calculated using a straight-line method at rates based on estimated service lives.
- Costs associated with logging roads that we intend to utilize for a period longer than one year are capitalized. These roads are then amortized over an estimated service life.
- Cost and accumulated depreciation of property sold or retired are removed from the accounts and the gain or loss is included in earnings.

Timber and Timberlands

We carry timber and timberlands at cost less depletion. Depletion refers to the carrying value of timber that is harvested, lost as a result of casualty or sold.

Key activities affecting how we account for timber and timberlands include:

- reforestation,
- depletion and
- forest management in Canada.

Reforestation. Generally, we capitalize initial site preparation and planting costs as reforestation and then expense costs after the first planting as they are incurred or over the period of expected benefit. These expensed costs include:

- fertilization,
- vegetation and insect control,
- pruning and precommercial thinning and
- property taxes.

Accounting practices for these costs do not change when timber becomes merchantable and harvesting starts.

Timber depletion. To determine depletion rates, we divide the net carrying value of timber by the related volume of timber estimated to be available over the growth cycle. To determine the growth cycle volume of timber, we consider:

- regulatory and environmental constraints,
- our management strategies,
- inventory data improvements,
- growth rate revisions and recalibrations and
- known dispositions and inoperable acres.

In addition, the duration of the harvest cycle varies by geographic region and species of timber.

Depletion rate calculations do not include estimates for:

- future silviculture or sustainable forest management costs associated with existing stands;
- future reforestation costs associated with a stand's final harvest and
- future volume in connection with the replanting of a stand subsequent to its final harvest.

We include the cost of timber harvested in the carrying values of raw materials and product inventories. As these inventories are sold to third parties, we include them in costs of sales.

Forest Management in Canada. We manage timberlands under long-term licenses in various Canadian provinces that are:

- granted by the provincial governments;
- granted for initial periods of 15 to 25 years and
- renewable provided we meet reforestation, operating and management guidelines.

Calculation of the fees we pay on the timber we harvest:

- varies from province to province,
- is tied to product market pricing and
- depends upon the allocation of land management responsibilities in the license.

Impairment of Long-Lived Assets

We review the carrying value of long-lived assets whenever an event or a change in circumstance indicates that the carrying value of the asset or asset group may not be recoverable through future operations. The carrying value is the original cost, less accumulated depreciation and any past impairments recorded. Impaired assets held for use are written down to fair value. Impaired assets held for sale are written down to fair value less cost to sell. We determine fair value based on:

- appraisals,
- market pricing of comparable assets,
- discounted value of estimated future cash flows from the asset,
- replacement values of comparable assets and
- agreed upon sale price or offer price.

ITEMS RELATED TO FINANCING OUR BUSINESS

Key items related to financing our business include financial instruments, cash and cash equivalents, accounts payable and concentration of risk.

Financial Instruments

We estimate the fair value of financial instruments where appropriate. The assumptions we use—including the discount rate and estimates of cash flows—can significantly affect our fair-value amounts. Our fair values are estimates and may not match the amounts we would realize upon sale or settlement of our financial positions.

Cash Equivalents

Cash equivalents are investments with maturities of 90 days or less at the date of purchase. We state cash equivalents at cost, which approximates market.

Accounts Payable

Our banking system replenishes our major bank accounts daily as checks we have issued are presented for payment. As a result, we may have negative book cash balances due to outstanding checks that have not yet been paid by the bank. These negative balances would be included in "Accounts payable" on our [Consolidated Balance Sheet](#). Changes in these negative cash balances would be reported as financing activities on our [Consolidated Statement of Cash Flows](#). We had no negative book cash balances as of December 31, 2019 or December 31, 2018.

Concentration of Risk

We disclose customers that represent a concentration of risk. As of December 31, 2019, and December 31, 2018, no customer accounted for 10 percent or more of our net sales.

ITEMS RELATED TO OPERATIONS

Key items related to operations include revenue recognition, inventories, shipping and handling costs, income taxes, pension and other postretirement benefit plans and environmental remediation.

Revenue Recognition

Refer to [Note 3: Revenue Recognition](#) for detail on how we account for revenue.

Inventories

We state inventories at the lower of cost or net realizable value. Cost includes labor, materials and production overhead. LIFO—the last-in, first-out method—applies to major inventory products held at our U.S. domestic locations. We began to use the LIFO method for domestic products in the 1940s as required to conform with the tax method elected. Subsequent acquisitions of entities added new products under the FIFO—the first-in, first-out method—or moving average cost methods that have continued under those methods. The FIFO or moving average cost method applies to the balance of our domestic raw material and product inventories as well as for all material and supply inventories and all foreign inventories.

Shipping and Handling Costs

We classify shipping and handling costs in "Costs of sales" on our [Consolidated Statement of Operations](#).

Income Taxes

We account for income taxes under the asset and liability method. Unrecognized tax benefits represent potential future funding obligations to taxing authorities if uncertain tax positions we have taken on previously filed tax returns are not sustained. Accrued interest and penalties related to unrecognized tax benefits are recognized as a component of income tax expense.

We recognize deferred tax assets and liabilities to reflect:

- future tax consequences due to differences between the carrying amounts for financial reporting purposes and the tax bases of certain items and
- net operating loss and tax credit carryforwards.

To measure deferred tax assets and liabilities, we:

- determine when the differences between the carrying amounts and tax bases of affected items are expected to be recovered or resolved and
- use enacted tax rates expected to apply to taxable income in those years.

Pension and Other Postretirement Benefit Plans

We recognize the overfunded or underfunded status of our defined benefit pension and other postretirement plans on our [Consolidated Balance Sheet](#) and recognize changes in the funded status through comprehensive income (loss) in the year in which the changes occur.

Actuarial valuations determine the amount of the pension and other postretirement benefit obligations and the net periodic benefit cost we recognize. The net periodic benefit cost includes:

- cost of benefits provided in exchange for employees' services rendered during the year;
- interest cost of the obligations;
- expected long-term return on plan assets;
- gains or losses on plan settlements and curtailments;
- amortization of prior service costs and plan amendments over the average remaining service period of the active employee group covered by the plans or the average remaining life expectancy in situations where the plan participants affected by the plan amendment are inactive and
- amortization of cumulative unrecognized net actuarial gains and losses — generally in excess of 10 percent of the greater of the benefit obligation or the combination of market-related and fair value of plan assets at the beginning of the year — over the average remaining service period of the active employee group covered by the plans or the average remaining life expectancy in situations where the plan participants are inactive.

Pension plans. We have defined benefit pension plans covering approximately half of our employees. Determination of benefits differs for salaried, hourly and union employees as follows:

- Salaried employee benefits are based on each employee's highest monthly earnings for five consecutive years during the final 10 years before retirement.
- Hourly and union employee benefits generally are stated amounts for each year of service.
- Union employee benefits are set through collective-bargaining agreements.

We contribute to our U.S. and Canadian pension plans according to established funding standards. The funding standards for the plans are:

- U.S. pension plans — according to the Employee Retirement Income Security Act of 1974 and
- Canadian pension plans — according to the applicable provincial pension act and the Income Tax Act.

Postretirement benefits other than pensions. We provide certain postretirement health care and life insurance benefits for some retired employees. In some cases, we pay a portion of the cost of the benefit. [Note 9: Pension and Other Postretirement Benefit Plans](#) provides additional information about our postretirement benefit plans.

Environmental Remediation

We accrue losses associated with environmental remediation obligations when such losses are probable and reasonably estimable. Future expenditures for environmental remediation obligations are not discounted to their present value. Recoveries of environmental remediation costs from other parties are recorded as assets when the recovery is deemed probable and does not exceed the amount of losses previously recorded.

NOTE 2: BUSINESS SEGMENTS

Our business segments and how we account for those segments are discussed in [Note 1: Summary of Significant Accounting Policies](#). This note provides key financial data by business segment.

KEY FINANCIAL DATA BY BUSINESS SEGMENT

Sales and Net Contribution (Charge) to Earnings

DOLLAR AMOUNTS IN MILLIONS						
	TIMBERLANDS	REAL ESTATE & ENR	WOOD PRODUCTS	UNALLOCATED ITEMS AND INTERSEGMENT ELIMINATIONS	CONSOLIDATED	
Sales to unaffiliated customers ⁽¹⁾						
2019	\$ 1,618	\$ 313	\$ 4,623	\$ —	\$ 6,554	
2018	\$ 1,873	\$ 306	\$ 5,297	\$ —	\$ 7,476	
2017	\$ 1,893	\$ 280	\$ 5,023	\$ —	\$ 7,196	
Intersegment sales ⁽¹⁾						
2019	\$ 503	\$ 1	\$ —	\$ (504)	\$ —	
2018	\$ 537	\$ 1	\$ —	\$ (538)	\$ —	
2017	\$ 522	\$ 1	\$ —	\$ (523)	\$ —	
Net contribution (charge) to earnings						
2019	\$ 347	\$ 144	\$ 353	\$ (679)	\$ 165	
2018	\$ 583	\$ 127	\$ 838	\$ (366)	\$ 1,182	
2017	\$ 532	\$ 146	\$ 569	\$ (138)	\$ 1,109	

⁽¹⁾ In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands or Wood Products segment. We have conformed prior year presentations with the current year.

Management evaluates segment performance based on the net contribution (charge) to earnings of the respective segments. An analysis and reconciliation of our business segment information to the consolidated financial statements follows:

Reconciliation of Net Contribution to Earnings to Net Earnings (Loss)

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Net contribution to earnings	\$ 165	\$ 1,182	\$ 1,109
Interest expense, net of capitalized interest	(378)	(375)	(393)
Income (loss) before income taxes	(213)	807	716
Income taxes	137	(59)	(134)
Net earnings (loss)	\$ (76)	\$ 748	\$ 582

Additional Financial Information

DOLLAR AMOUNTS IN MILLIONS						
	TIMBERLANDS	REAL ESTATE & ENR	WOOD PRODUCTS	UNALLOCATED ITEMS	CONSOLIDATED	
Depreciation, depletion and amortization						
2019	\$ 301	\$ 14	\$ 191	\$ 4	\$ 510	
2018	\$ 319	\$ 14	\$ 149	\$ 4	\$ 486	
2017	\$ 356	\$ 15	\$ 145	\$ 5	\$ 521	
Capital expenditures						
2019	\$ 112	\$ —	\$ 257	\$ 15	\$ 384	
2018	\$ 117	\$ —	\$ 306	\$ 4	\$ 427	
2017	\$ 115	\$ 2	\$ 299	\$ 3	\$ 419	

Total Assets

DOLLAR AMOUNTS IN MILLIONS					
	TIMBERLANDS and REAL ESTATE & ENR	WOOD PRODUCTS	UNALLOCATED ITEMS	CONSOLIDATED	
Total assets ⁽¹⁾⁽²⁾					
2019	\$ 13,130	\$ 2,452	\$ 824	\$ 16,406	
2018	\$ 13,792	\$ 2,280	\$ 1,177	\$ 17,249	

- (1) In 2019, we changed the way we report our Canadian Forestlands operations. As a result, Canadian Forestlands assets previously reported in the Timberlands segment are now recorded in the Wood Products segment. We have conformed prior year presentations with the current year.
- (2) Assets attributable to the Real Estate & ENR business segment are combined with total assets for the Timberlands segment as we do not produce separate balance sheets internally.

NOTE 3: REVENUE RECOGNITION

A majority of our revenue is derived from sales of delivered logs and manufactured wood products. We account for revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers*, which we adopted on January 1, 2018, using the cumulative effect method. The adoption of the new revenue recognition guidance did not materially affect our [Consolidated Statement of Operations](#), [Consolidated Balance Sheet](#) or [Consolidated Statement of Cash Flows](#).

PERFORMANCE OBLIGATIONS

A performance obligation, as defined in ASC Topic 606, is a promise in a contract to transfer a distinct good or service to a customer. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue at the point in time, or over the period, in which the performance obligation is satisfied.

Performance obligations associated with delivered log sales are typically satisfied when the logs are delivered to our customers' mills or delivered to an ocean vessel in the case of export sales. Performance obligations associated with the sale of wood products are typically satisfied when the products are shipped. We have elected, as an accounting policy, to treat shipping and handling that is performed after a customer obtains control of the product as an activity required to fulfill the promise to transfer the good; therefore we will not evaluate this requirement as a separate performance obligation.

Customers are generally invoiced shortly after logs are delivered or after wood products are shipped, with payment generally due within a month or less of the invoice date. ASC Topic 606 requires entities to consider significant financing components of contracts with customers, though allows for the use of a practical expedient when the period between satisfaction of a performance obligation and payment receipt is one year or less. Given the nature of our revenue transactions, we have elected to utilize this practical expedient.

Performance obligations associated with real estate sales are generally met when placed into escrow and all conditions of closing have been satisfied.

CONTRACT ESTIMATES

Substantially all of our performance obligations are satisfied as of a point in time. Therefore, there is little judgment in determining when control transfers for our business segments as described above.

The transaction price for log sales generally equals the amount billed to our customer for logs delivered during the accounting period. For the limited number of log sales subject to a long-term supply agreement, the transaction price is variable but is known at the time of billing. For wood products sales, the transaction price is generally the amount billed to the customer for the products shipped but may be reduced slightly for estimated cash discounts and rebates.

There are no significant contract estimates related to the real estate business.

CONTRACT BALANCES

In general, customers are billed and a receivable is recorded as we ship and/or deliver wood products and logs. We generally receive payment shortly after products have been received by our customers. Contract asset and liability balances are immaterial.

For real estate sales, the company receives the entire consideration in cash at closing.

MAJOR PRODUCTS

A Reconciliation of Revenue Recognized by our Major Products:

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Net sales to unaffiliated customers:			
Timberlands segment ⁽¹⁾			
Delivered logs:			
West			
Domestic sales	\$ 375	\$ 503	\$ 473
Export grade sales	365	484	442
Subtotal West	740	987	915
South	640	625	616
North ⁽²⁾	92	99	95
Other ⁽³⁾	—	—	23
Subtotal delivered logs sales	1,472	1,711	1,649
Stumpage and pay-as-cut timber	42	59	73
Recreational and other lease revenue	61	59	59
Other ⁽⁴⁾	43	44	112
Net sales attributable to Timberlands segment	1,618	1,873	1,893
Real Estate & ENR segment			
Real estate	225	229	208
Energy and natural resources	88	77	72
Net sales attributable to Real Estate & ENR segment	313	306	280
Wood Products segment ⁽¹⁾			
Structural lumber	1,892	2,258	2,058
Oriented strand board	632	891	904
Engineered solid section	510	521	500
Engineered I-joists	323	336	336
Softwood plywood	161	200	176
Medium density fiberboard	166	177	183
Complementary building products	602	584	541
Other ⁽⁵⁾	337	330	325
Net sales attributable to Wood Products segment	4,623	5,297	5,023
Total	\$ 6,554	\$ 7,476	\$ 7,196

(1) In 2019, we changed the way we report our Canadian Forestlands operations. As a result, we no longer report related intersegment sales in the Timberlands segment and we now record the minimal associated third-party log sales in the Wood Products segment. These collective transactions did not contribute any earnings to the Timberlands or Wood Products segment. We have conformed prior year presentations with the current year.

(2) In November 2019, we sold our Michigan timberlands. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

(3) Other delivered logs included sales from timberlands managed for the Twin Creeks Venture. Our management agreement for the Twin Creeks Venture began in April 2016 and terminated in December 2017. For additional information see [Note 8: Related Parties](#).

(4) Other Timberlands sales includes sales of seeds and seedlings from our nursery operations as well as wood chips. Prior to our Uruguay operations being divested in September 2017, sales from these operations were included within this amount as well. Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further information on this divestiture.

(5) Other Wood Products sales include wood chips, other byproducts and third-party residual log sales from our Canadian Forestlands operations.

NOTE 4: DIVESTITURES AND ASSETS HELD FOR SALE

DIVESTITURES

On September 16, 2019, we announced an agreement to sell 555,000 acres of Michigan timberlands, which was part of our Timberlands business segment. On November 13, 2019, we completed the sale to an affiliate of The Lyme Timber Company LP for \$297 million of cash proceeds, which is net of purchase price adjustments and closing costs. As a result of the sale, we recorded a \$48 million gain in the Timberlands segment.

On September 1, 2017, we completed the sale of our Uruguay timberlands and manufacturing operations to a consortium led by BTG Pactual's Timberland Investment Group, including other long-term investors, for \$403 million of cash proceeds. Due to the impairment of our Uruguay operations recorded during second quarter 2017 (refer to [Note 18: Charges for Integration and Restructuring, Closures and Asset Impairments](#)), no material gain or loss was recorded as a result of this sale.

Neither of the divestitures discussed above were considered strategic shifts that had or will have a major effect on our operations or financial results and therefore did not meet the requirements for presentation as discontinued operations.

ASSETS HELD FOR SALE

On December 17, 2019, we announced an agreement to sell 630,000 acres of Montana timberlands for \$145 million in cash, which is subject to customary closing conditions. This sale to Southern Pine Plantations is expected to close in second quarter 2020, and the transaction relates to the Timberlands segment.

The sale of our Montana timberlands is not considered a strategic shift that has, or will have, a major effect on our operations or financial results and therefore does not meet the requirements for presentation as discontinued operations. However, the related assets have met the relevant criteria to be classified as held for sale in the current period [Consolidated Balance Sheet](#). The designation as held for sale requires us to record the related net assets at the lower of their current cost basis or fair value, less an amount of estimated selling costs, and thus, we recognized a noncash pretax impairment charge of \$80 million in fourth quarter 2019 (refer to [Note 18: Charges for Integration and Restructuring, Closures and Asset Impairments](#)). Other than the impairment charge associated with held for sale classification, this classification does not affect the presentation in the [Consolidated Statement of Operations](#). The held for sale classification did change the presentation of the related assets from long-term to current on the [Consolidated Balance Sheet](#).

As of December 31, 2019, "Assets held for sale" had a balance of \$140 million, which consisted primarily of timberlands and other related assets, after an impairment of \$80 million.

NOTE 5: NET EARNINGS (LOSS) PER SHARE

Our basic and diluted earnings (loss) per share for the last three years were:

- \$(0.10) in 2019,
- \$0.99 in 2018 and
- \$0.77 in 2017.

HOW WE CALCULATE BASIC AND DILUTED NET EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is net earnings (loss) available to common shareholders divided by the weighted average number of our outstanding common shares, including stock equivalent units where there is no circumstance under which those shares would not be issued.

Diluted earnings (loss) per share is net earnings (loss) available to common shareholders divided by the sum of the:

- weighted average number of our outstanding common shares and
- the effect of our outstanding dilutive potential common shares.

Dilutive potential common shares may include:

- outstanding stock options,
- restricted stock units and
- performance share units.

Calculation of Weighted Average Number of Outstanding Common Shares – Dilutive

SHARES IN THOUSANDS			
	2019	2018	2017
Weighted average number of outstanding shares - basic	745,897	754,556	753,085
Dilutive potential common shares:			
Stock options	—	1,310	2,571
Restricted stock units	—	566	582
Performance share units	—	395	428
Total effect of outstanding dilutive potential common shares	—	2,271	3,581
Weighted average number of outstanding common shares - dilutive	745,897	756,827	756,666

We use the treasury stock method to calculate the dilutive effect of our outstanding stock options, restricted stock units and performance share units. Share-based payment awards that are contingently issuable upon the achievement of specified performance or market conditions are included in our diluted earnings per share calculation in the period in which the conditions are satisfied.

SHARES EXCLUDED FROM DILUTIVE EFFECT

The following shares were not included in the computation of diluted earnings (loss) per share because they were either antidilutive or the required performance or market conditions were not met. Some or all of these shares may be dilutive potential common shares in future periods.

Potential Shares Not Included in the Computation of Diluted Earnings (Loss) per Share

SHARES IN THOUSANDS			
	2019	2018	2017
Stock options	2,631	2,402	1,351
Restricted stock units	477	—	—
Performance share units	1,131	1,080	799

NOTE 6: INVENTORIES

Inventories include raw materials, work-in-process, finished goods as well as materials and supplies, as shown below:

DOLLAR AMOUNTS IN MILLIONS			
	DECEMBER 31, 2019		DECEMBER 31, 2018
LIFO inventories:			
Logs	\$	19	\$ 11
Lumber, plywood, panels and fiberboard		82	75
Other products		10	10
FIFO or moving average cost inventories:			
Logs		28	35
Lumber, plywood, panels, fiberboard and engineered wood products		84	86
Other products		98	83
Materials and supplies		95	89
Total	\$	416	\$ 389

If we used FIFO for all LIFO inventories, our stated inventories would have been higher by \$76 million as of December 31, 2019, and \$79 million as of December 31, 2018.

HOW WE ACCOUNT FOR OUR INVENTORIES

The Inventories section of [Note 1: Summary of Significant Accounting Policies](#) provides details about how we account for our inventories.

NOTE 7: PROPERTY AND EQUIPMENT

Property and equipment includes land, buildings and improvements, machinery and equipment, roads and other items.

Carrying Value of Property and Equipment and Estimated Service Lives

DOLLAR AMOUNTS IN MILLIONS			
	RANGE OF LIVES	DECEMBER 31, 2019	DECEMBER 31, 2018
Property and equipment, at cost:			
Land	NA	\$ 87	\$ 87
Buildings and improvements	15-40	999	942
Machinery and equipment	5-25	3,425	3,240
Roads	10-35	742	785
Other	3-10	193	179
Total cost		5,446	5,233
Accumulated depreciation and amortization		(3,477)	(3,376)
Property and equipment, net		\$ 1,969	\$ 1,857

SERVICE LIVES AND DEPRECIATION

In general, additions are classified into components, each with its own estimated useful life as determined at the time of purchase.

Depreciation and amortization expense for property and equipment was:

- \$240 million in 2019,
- \$197 million in 2018 and
- \$206 million in 2017.

NOTE 8: RELATED PARTIES

This note provides details about our transactions with related parties. For the years presented, our material related parties have consisted of:

- variable interest entities and
- our Twin Creeks Venture.

VARIABLE INTEREST ENTITIES

From 2002 through 2004, we sold certain nonstrategic timberlands. As a result of these sales, buyer-sponsored and monetization variable interest entities, or special purpose entities (SPEs), were formed. We are the primary beneficiary and consolidate the assets and liabilities of the SPEs involved in these transactions.

The assets of the buyer-sponsored SPEs are financial investments which consist of bank guarantees. These bank guarantees are in turn backed by bank notes, which are the liabilities of the monetization SPEs. Interest earned from the financial investments within the buyer-sponsored SPEs is used to pay interest accrued on the corresponding monetization SPEs note.

We have an equity interest in the monetization SPEs, but no ownership interest in the buyer-sponsored SPEs. The following disclosures refer to assets of buyer-sponsored SPEs and liabilities of monetization SPEs. However, because these SPEs are distinct legal entities:

- Assets of the SPEs are not available to satisfy our liabilities or obligations.
- Liabilities of the SPEs are not our liabilities or obligations.

During first quarter 2019, we received a \$253 million payment from a buyer-sponsored SPE. As of December 31, 2019, we had an asset totaling \$362 million related to one buyer-sponsored SPE remaining on our [Consolidated Balance Sheet](#). This asset matured and the related payment was received in January 2020.

We paid \$302 million and \$209 million related to liabilities from our monetized SPEs in third quarter 2019 and fourth quarter 2018, respectively. These payments were made upon maturity and there are no further obligations remaining.

Our [Consolidated Statement of Operations](#) includes:

- Interest income on buyer-sponsored SPE investments of:
 - \$22 million in 2019,
 - \$34 million in 2018 and
 - \$34 million in 2017.
- Interest expense on monetization SPE notes of:
 - \$12 million in 2019,
 - \$29 million in 2018 and
 - \$29 million in 2017.

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The weighted average interest rate on our buyer-sponsored SFES was 5.5 percent during 2019 and 2018. The interest rate on the monetization SPE that matured in 2019 and the weighted average interest rate on our monetization SFES during 2018 was 5.6 percent.

TWIN CREEKS VENTURE

Ownership Redemption, Agreement Termination and Sale Recognition

During October 2017, we redeemed our 21 percent ownership interest in the Twin Creeks Venture for \$108 million in cash. We did not recognize a material gain or loss on the redemption of our ownership interest. The cash received was classified as a cash flow from investing activities on our [Consolidated Statement of Cash Flows](#).

Effective December 31, 2017, we terminated the agreements under which we had managed the Twin Creeks timberlands. Following termination of these agreements, Weyerhaeuser has no further responsibilities or obligations related to the Twin Creeks Venture and our continuing involvement in the contributed timberlands ceased. In fourth quarter 2017, we recognized the sale of the original contribution of timberlands that occurred in April 2016.

Sale of Additional Timberlands to Twin Creeks

In conjunction with the redemption and termination discussed above, we also entered an agreement to sell 100,000 acres of Southern timberlands to Twin Creeks for \$203 million. The sale, which included 80,000 acres of timberlands in Mississippi and 20,000 acres in Georgia, closed December 29, 2017. The sale resulted in a \$99 million gain recognized during fourth quarter 2017.

NOTE 9: PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

This note provides details about defined benefit and defined contribution plans we sponsor for our employees. The "Pension and Other Postretirement Benefit Plans" section of [Note 1: Summary of Significant Accounting Policies](#) provides information about employee eligibility for pension plans and postretirement health care and life insurance benefits, as well as how we account for the plans and benefits.

DEFINED BENEFIT PLANS WE SPONSOR

OVERVIEW OF PLANS

The defined benefit pension plans we sponsor in the U.S. and Canada differ according to each country's requirements. In the U.S., we have plans that qualify under the Internal Revenue Code (qualified plans), as well as plans for select employees that provide additional benefits not qualified under the Internal Revenue Code (nonqualified plans). In Canada, we have plans that are registered under the Income Tax Act and applicable provincial pension acts (registered plans), as well as nonregistered plans for select employees that provide additional benefits that may not be registered under the Income Tax Act or provincial pension acts (nonregistered plans). We also offer other postretirement benefit plans in the U.S. and Canada, including retiree medical and life insurance plans.

Actions to Reduce Pension Plan Obligations

As a part of our continued efforts to reduce pension plan obligations, we transferred approximately \$1.5 billion of U.S. qualified pension plan assets and liabilities to an insurance company through the purchase of a group annuity contract in January 2019 (2019 Retiree Annuity Purchase). In connection with this transaction, we recorded a preliminary noncash pretax settlement charge of \$455 million during first quarter 2019, accelerating the recognition of previously unrecognized losses in "Accumulated other comprehensive loss", that would have been recognized in subsequent periods. In second quarter 2019, we finalized the prior year-end fair value of pension plan assets and obligations, which reduced the settlement charge by \$6 million for a final settlement charge of \$449 million.

This settlement triggered a remeasurement of plan assets and liabilities. We updated the discount rate used to measure our projected benefit obligation for the U.S. qualified pension plan as of January 31, 2019, as well as our discount rate used to calculate the related net periodic benefit cost for the remainder of 2019 to 4.30 percent from 4.40 percent. All other assumptions remained unchanged. The net effect of the remeasurement was a \$24 million reduction in funded status, primarily driven by the decrease in discount rate. This change in funded status was reflected in our first quarter 2019 [Consolidated Balance Sheet](#).

Additionally, we settled the assets and liabilities associated with three Canadian registered pension plans through the purchase of a group annuity contract in October 2019. As a result of the transaction, we recorded a noncash pretax settlement charge of \$6 million.

During 2018, we offered select U.S. terminated vested plan participants the opportunity to elect an immediate lump sum distribution. Lump sum distributions were paid from plan assets totaling \$664 million during fourth quarter 2018. We recorded a settlement charge of \$200 million during fourth quarter 2018 related to this transaction. The settlement triggered a plan remeasurement, however due to the short period between the settlement and our normal year-end remeasurement, the effect on net periodic benefit cost was insignificant.

To maintain the U.S. qualified pension plan's funded status in connection with these transactions, we contributed \$300 million to the plan during third quarter 2018. Refer to [Note 21: Income Taxes](#) for details on the tax effects of this transaction.

FUNDED STATUS OF PLANS

The funded status of the plans we sponsor is determined by comparing the projected benefit obligation with the fair value of plan assets at the end of the year. The following table demonstrates how our plans' funded status is reflected on the [Consolidated Balance Sheet](#).

DOLLAR AMOUNTS IN MILLIONS				
	PENSION		OTHER POSTRETIREMENT BENEFITS	
	2019	2018	2019	2018
Funded status:				
Fair value of plan assets ⁽¹⁾	\$ 3,719	\$ 4,930	\$ 19	\$ 18
Projected benefit obligations	(4,260)	(5,263)	(151)	(166)
Funded status	(541)	(333)	(132)	(148)
Presentation on our <i>Consolidated Balance Sheet</i> :				
Noncurrent assets	\$ 47	\$ 74	\$ —	\$ —
Current liabilities	(19)	(18)	(8)	(10)
Noncurrent liabilities	(569)	(389)	(124)	(138)
Funded status	\$ (541)	\$ (333)	\$ (132)	\$ (148)

(1) Fair value of plan assets as of December 31, 2018 includes amounts associated with the \$300 million voluntary contribution made during 2018 in anticipation of our 2018 term-vested lump sum and 2019 retiree annuity purchase transactions. Refer to the "Actions to Reduce Pension Plan Obligations" section for further details of this contribution and the related transactions.

Assets and liabilities on the [Consolidated Balance Sheet](#) are different from the cumulative income or expense that we have recorded associated with the plans. The differences are actuarial gains and losses and prior service costs and credits that are deferred and amortized into periodic benefit costs in future periods. Unamortized amounts are recorded in "Accumulated Other Comprehensive Loss", which is a component of total equity on our [Consolidated Balance Sheet](#). The "Accumulated Other Comprehensive Loss" section of [Note 15: Shareholders' Interest](#) details changes in these amounts by component.

Changes in Fair Value of Plan Assets

DOLLAR AMOUNTS IN MILLIONS				
	PENSION		OTHER POSTRETIREMENT BENEFITS	
	2019	2018	2019	2018
Fair value of plan assets at beginning of year (estimated)	\$ 4,930	\$ 5,514	\$ 18	\$ —
Adjustment for final fair value of plan assets	16	44	—	—
Actual return on plan assets	449	123	1	—
Foreign currency translation	38	(73)	—	—
Employer contributions and benefit payments	30	345	15	36
Plan participants' contributions	—	—	2	4
Plan transfers	1	1	—	—
Benefits paid (includes lump sum and annuity transfers)	(1,745)	(1,024)	(17)	(22)
Fair value of plan assets at end of year (estimated)	\$ 3,719	\$ 4,930	\$ 19	\$ 18

We estimate the fair value of pension plan assets based on the information available during the year-end reporting process. In some cases, primarily with regard to private equity funds, the available information consists of net asset values as of an interim date, plus cash flows and market events between the interim date and the end of the year. We update the year-end estimated fair value of pension plan assets during the first half of the next year to incorporate year-end net asset values received after we have filed our Annual Report on Form 10-K.

During second quarter 2019, we recorded an increase in the beginning of year fair value of the pension assets of \$16 million, or less than 1 percent. We also updated our census data that is used to estimate our beginning of year projected obligation for our pension plans, which resulted in a projected benefit obligation decrease of \$6 million, or less than 1 percent. The net effect of these updates was a \$22 million improvement in funded status as of December 31, 2018. This change in funded status was reflected in our second quarter 2019 [Consolidated Balance Sheet](#).

See additional details about the changes in the fair value of plan assets in the "Pension Assets" section below.

Changes in Projected Benefit Obligations of Our Pension and Other Postretirement Benefit Plans

DOLLAR AMOUNTS IN MILLIONS				
	PENSION		OTHER POSTRETIREMENT BENEFITS	
	2019	2018	2019	2018
Projected benefit obligation beginning of year	\$ 5,263	\$ 6,795	\$ 166	\$ 200
Service cost	32	37	—	—
Interest cost	160	236	6	7
Plan participants' contributions	—	—	2	4
Actuarial (gains) losses	510	(718)	(8)	(18)
Foreign currency translation	39	(69)	2	(5)
Benefits paid (includes lump sum and annuity transfers)	(1,745)	(1,024)	(17)	(22)
Plan amendments and other	—	5	—	—
Plan transfers	1	1	—	—
Projected benefit obligation at end of year	\$ 4,260	\$ 5,263	\$ 151	\$ 166

Generally, the largest changes in our "Actuarial (gains) losses" line within the table above are due to changes in discount rates year over year. See additional details about the actuarial assumptions and changes in the projected benefit obligation in the "Actuarial Assumptions" section below.

Projected Benefit Obligations Greater Than Plan Assets

As of December 31, 2019, pension plans with projected benefit obligations greater than plan assets had:

- \$3.4 billion in projected benefit obligations and assets with a fair value of \$2.8 billion.

As of December 31, 2018, pension plans with projected benefit obligations greater than plan assets had:

- \$4.5 billion in projected benefit obligations and assets with a fair value of \$4.1 billion.

Accumulated Benefit Obligations Greater Than Plan Assets

As of December 31, 2019, pension plans with accumulated benefit obligations greater than plan assets had:

- \$3.3 billion in accumulated benefit obligations and assets with a fair value of \$2.8 billion.

As of December 31, 2018, pension plans with accumulated benefit obligations greater than plan assets had:

- \$4.4 billion in accumulated benefit obligations and assets with a fair value of \$4.1 billion.

The accumulated benefit obligation for all of our defined benefit pension plans was:

- \$4.2 billion at December 31, 2019 and
- \$5.2 billion at December 31, 2018.

PENSION ASSETS

Our Investment Policies and Strategies

Our investment policies and strategies guide and direct how the funds are managed for the benefit plans we sponsor. These funds include our:

- U.S. Pension Trust — funds our U.S. qualified pension plans;
- Canadian Pension Trust — funds our Canadian registered pension plans and
- Retirement Compensation Arrangements — fund a portion of our Canadian nonregistered pension plans.

U.S. and Canadian Pension Trusts

At the end of 2018, we began to shift pension plan assets to an allocation that will more closely match the pension plan liability profile going forward. The former investment strategy included investments in hedge funds, private equity funds, derivative instruments and other investments. These asset classes are now generally in redemption and run-off mode however, given the long-term nature of these investments, they will continue to comprise a material portion of the plan assets for several years. We expect all investments in redemption to be redeemed at amounts materially consistent with their net asset values. As these investments are redeemed or liquidated, cash proceeds available for investment will be invested in accordance with our revised investment strategy.

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The revised investment strategy targets a percentage allocation to growth assets and a percentage allocation to liability hedging assets based on each plan's funded status. We expect to increase the allocation to liability hedging assets over time as the funded status of the pension plan improves. As of December 31, 2019, we reached a 50 percent allocation to growth assets and a 50 percent allocation to liability hedging assets in the U.S. qualified plan. Growth assets include investments in global equities, hedge funds, which are generally in redemption, and private equity assets, which are generally in run-off mode. Liability hedging assets include corporate credit and government issued fixed income securities and treasury futures selected to align with the plan liabilities.

Cash and short-term investments include highly liquid money market and government securities and are primarily held to fund benefit payments, capital calls, margin requirements or to meet regulatory requirements. Cash at December 31, 2019, includes amounts that will be invested in liability hedging assets such as fixed income investments.

Fixed income investments include publicly traded corporate and government issued debt. These bonds have varying maturities, credit quality and sector exposure and are selected to align with the duration of our plan liabilities. Additionally, our fixed income portfolio includes repurchase agreements, which represent short-term borrowings to hedge against interest rate risk. We have an obligation to return the cash related to these borrowings in accordance with the agreements, which are collateralized by our government bonds. Due to the nature of these agreements, the outstanding balance of the borrowing approximates fair value.

Public equity investments consist of investments in several publicly traded companies as well as exchange traded funds.

Hedge fund and related investments are privately-offered managed pools primarily structured as limited liability entities. General members or partners of these limited liability entities serve as portfolio managers and are thus responsible for the fund's underlying investment decisions. Underlying investments within these funds may include long and short public and private equities, corporate, mortgage and sovereign debt, options, swaps, forwards and other derivative positions. These funds have varying degrees of leverage, liquidity and redemption provisions.

Private equity and related investments are investments in private equity, mezzanine, distressed, co-investments and other structures. Private equity funds generally participate in buyouts and venture capital of limited liability entities through unlisted equity and debt instruments. These funds may also borrow at the underlying entity level. Mezzanine and distressed funds generally invest in the debt of public or private companies with additional participation through warrants or other equity options.

Derivative instruments have historically been comprised of swaps, futures, forwards or options. Consistent with our shift in asset strategy, our positions in derivative instruments have been significantly reduced. At December 31, 2019, only a small amount of futures remain in our portfolio.

Assets within our qualified and registered pension plans in our U.S. and Canadian pension trusts were invested as follows:

	DECEMBER 31, 2019	DECEMBER 31, 2018
Cash and short-term investments	3.2%	5.8%
Fixed income investments:		
Corporate	33.9	21.5
Government	25.4	8.6
Repurchase agreements	(4.7)	—
Public equity investments	0.1	—
Hedge funds and related investments	14.3	36.9
Private equity and related investments	27.7	21.9
Derivative instruments, net	0.3	5.6
Accrued liabilities	(0.2)	(0.3)
Total	100.0%	100.0%

Retirement Compensation Arrangements

Retirement compensation arrangements fund a portion of our Canadian nonregistered pension plans. As required by Canadian tax rules, approximately 50 percent of these assets are invested into a noninterest-bearing refundable tax account held by the Canada Revenue Agency. This portion of the portfolio does not earn returns. The remaining portion is invested in a portfolio of equities.

Managing Risk

Investments and contracts are subject to risks including market price, interest rate, credit, currency and liquidity risks. The following provides an overview of these risks and describes governance processes and actions we take to mitigate these risks on our pension plan asset portfolios.

Market price risk is the risk that market fluctuations will adversely affect the value of plan assets. The trusts mitigate market price risk by investing in a diversified portfolio. In addition, we and our investment advisers perform regular monitoring with ongoing qualitative assessments, quantitative assessments, and comprehensive investment and operational due diligence.

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Interest rate risk exists with respect to both assets and liabilities and is the risk that a change in interest rates will adversely affect the fair value of interest rate securities or liabilities, thereby affecting the overall funded status. With the change in investment strategy to more closely match the plan liabilities, interest rate risk will be reduced.

Credit risk is the risk that counterparties' failure to discharge their obligations could affect cash flows. The trusts have exposure primarily through investments in fixed income securities. This risk is mitigated by investing in a diversified portfolio.

We are also exposed to credit risk indirectly through counterparty relationships initiated by underlying managers of investments in limited liability pools. This risk is mitigated through initial due diligence and ongoing monitoring processes.

Currency risk arises from holding plan assets denominated in a currency other than the currency in which its liabilities are settled. With the change in investment strategy, currency risk will be mitigated going forward by investing more of the Canadian plan assets in Canadian dollar fixed income investments.

Liquidity risk is the risk that the trust will not be able to settle liabilities such as payments to participants, counterparties, and service providers. Private equity and hedge fund investments generally have less liquidity than publicly traded investments. With the change in investment strategy and a larger percentage of the plan assets invested in more liquid instruments such as publicly traded fixed income investments, liquidity risk is greatly reduced.

Valuation of Our Plan Assets

Pension assets are stated at fair value or net asset value (NAV) as of the reporting date. Fair value is based on the amount that would be received to sell an asset or paid to settle a liability in an orderly transaction between market participants at the reporting date. We do not consider forced or distressed sale scenarios. Instead, we consider both observable and unobservable inputs that reflect assumptions applied by market participants when setting the exit price of an asset or liability in an orderly transaction within the principal market for that asset or liability.

We value the pension plan assets based upon the observability of exit pricing inputs and classify pension plan assets based upon the lowest level input that is significant to the fair value measurement of the pension plan assets in their entirety. The fair value hierarchy is:

- Level 1: Inputs are unadjusted quoted prices for identical assets or liabilities traded in an active market.
- Level 2: Inputs are quoted prices in non-active markets for which pricing inputs are observable either directly or indirectly at the reporting date.
- Level 3: Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

Investments for which fair value is measured using the NAV per share as a practical expedient are not categorized within the fair value hierarchy.

Cash and short-term investments are valued at cost, which approximates market.

Fixed income and public equity investments are valued at exit prices quoted in active or non-active markets or based on observable inputs.

Hedge funds, private equities, and related fund units are valued based on the NAVs of the funds. These values represent the per-unit price at which new investors are permitted to invest and existing investors are permitted to exit. When NAVs as of the end of the year have not been received, we estimate fair value by adjusting the most recently reported NAVs for market events and cash flows between the interim date and the end of the year.

Derivative instruments are valued based upon valuation statements received from each derivative's counterparty.

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The net pension plan assets, when categorized in accordance with this fair value hierarchy, are as follows. Investments valued using NAV as a practical expedient are presented to reconcile with total plan assets.

DOLLAR AMOUNTS IN MILLIONS					
2019	LEVEL 1	LEVEL 2	LEVEL 3	NAV	TOTAL
Pension trust investments:					
Cash and short-term investments	\$ 120	\$ —	\$ —	\$ —	\$ 120
Fixed income investments:					
Corporate	—	1,260	—	—	1,260
Government	—	941	—	—	941
Repurchase agreements	—	(176)	—	—	(176)
Public equity investments	4	—	—	—	4
Hedge fund and related investments	—	—	13	518	531
Private equity and related investments	—	—	86	942	1,028
Derivative instruments	—	10	—	—	10
Total pension trust investments	124	2,035	99	1,460	3,718
Accrued liabilities, net					(9)
Pension trust net assets					3,709
Canadian nonregistered plan assets:					
Cash and short-term investments	5	—	—	—	5
Public equity investments	5	—	—	—	5
Total Canadian nonregistered plan assets	10	—	—	—	10
Total plan assets					\$ 3,719

DOLLAR AMOUNTS IN MILLIONS					
2018	LEVEL 1	LEVEL 2	LEVEL 3	NAV	TOTAL
Pension trust investments:					
Cash and short-term investments	\$ 275	\$ 12	\$ —	\$ —	\$ 287
Fixed income investments:					
Corporate	—	1,054	—	—	1,054
Government	—	426	—	—	426
Hedge fund and related investments	—	—	3	1,811	1,814
Private equity and related investments	—	—	65	1,014	1,079
Derivative instruments	—	15	262	—	277
Total pension trust investments	275	1,507	330	2,825	4,937
Accrued liabilities, net					(17)
Pension trust net assets					4,920
Canadian nonregistered plan assets:					
Cash and short-term investments	5	—	—	—	5
Public equity investments	5	—	—	—	5
Total Canadian nonregistered plan assets	10	—	—	—	10
Total plan assets					\$ 4,930

Assets that do not have readily available quoted prices in an active market require more judgment to value and have increased valuation risk. As of December 31, 2019, \$99 million, or 2.7 percent, of our pension plan assets were classified as Level 3 assets.

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A reconciliation of the beginning and ending balances of the pension plan assets measured at fair value using significant unobservable inputs (Level 3) is presented below:

DOLLAR AMOUNTS IN MILLIONS					
	INVESTMENTS				Total
	Hedge funds and related investments	Private equity and related investments	Derivative instruments, net		
Balance as of December 31, 2017	\$ 10	\$ 102	\$ 445	\$	557
Net realized gains (losses)	—	—	238		238
Net change in unrealized gains (losses)	1	(5)	(184)		(188)
Purchases	—	5	—		5
Sales	—	(2)	—		(2)
Settlements	—	—	(237)		(237)
Transfers into Level 3	—	18	—		18
Transfers out of Level 3	(8)	(53)	—		(61)
Balance as of December 31, 2018	3	65	262		330
Net realized gains (losses)	1	(1)	237		237
Net change in unrealized gains (losses)	(1)	—	(262)		(263)
Purchases	—	—	—		—
Sales	(3)	(3)	—		(6)
Settlements	—	—	(237)		(237)
Transfers into Level 3	13	28	—		41
Transfers out of Level 3	—	(3)	—		(3)
Balance as of December 31, 2019	\$ 13	\$ 86	\$ —	\$	99

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period. We evaluate the significance of transfers between levels based upon the nature of the financial instrument and size of the transfer relative to total net assets available for benefits.

The table below shows the fair value and aggregate notional amount of the derivative instruments held by our pension trusts at the end of the last two years.

	DOLLAR AMOUNTS IN MILLIONS			
	FAIR VALUE		NOTIONAL	
	DECEMBER 31, 2019	DECEMBER 31, 2018	DECEMBER 31, 2019	DECEMBER 31, 2018
Foreign currency derivatives, net	\$ —	\$ —	\$ —	\$ 13
Futures contracts, net	10	15	813	1,073
Total return swaps, net	—	262	—	558
Total	\$ 10	\$ 277	\$ 813	\$ 1,644

ACTUARIAL ASSUMPTIONS

We use actuarial assumptions to estimate our benefit obligations and our net periodic benefit costs. The following tables show the rates used to estimate our benefit obligations and periodic net benefit costs.

Rates We Use in Estimating Our Benefit Obligations

	PENSION	
	DECEMBER 31, 2019	DECEMBER 31, 2018
Discount rates:		
United States	3.40%	4.40%
Canada	3.10%	3.70%
Lump sum distributions ⁽¹⁾⁽²⁾	PPA Table	PPA Table
Rate of compensation increase:		
Salaried:		
United States	13.00% to 2.00% decreasing with participant age	13.00% to 2.00% decreasing with participant age
Canada	3.25%	3.25%
Hourly:		
United States	13.00% to 2.30% decreasing with participant age	13.00% to 2.30% decreasing with participant age
Canada	3.00%	3.00%
Lump sum or installment distributions election ⁽²⁾	60.00%	60.00%

(1) PPA Phased Table: Interest and mortality assumptions as mandated by Pension Protection Act of 2006.

(2) U.S. qualified salaried and nonqualified plans only.

The discount rates used for our U.S. other postretirement benefit plans were 3.00 percent and 4.20 percent for the years ended December 31, 2019, and December 31, 2018, respectively. Additionally, the discount rates used for our Canadian other postretirement benefit plans were 3.00 percent and 3.70 percent for the years ended December 31, 2019, and December 31, 2018, respectively.

Estimating Our Net Periodic Benefit Costs

PENSION			
	2019	2018	2017
Discount rates:			
United States ⁽¹⁾	4.30%	3.70%	4.30%
Canada	3.70%	3.50%	3.70%
Lump sum distributions ⁽²⁾⁽³⁾	PPA Table	PPA Table	PPA Table
Expected return on plan assets:			
Qualified/registered plans	7.00%	8.00%	8.00%
Rate of compensation increase:			
Salaried:			
United States	13.00% to 2.00% decreasing with participant age	13.00% to 2.00% decreasing with participant age	13.00% to 2.00% decreasing with participant age
Canada	3.25%	3.25%	3.50%
Hourly:			
United States	13.00% to 2.30% decreasing with participant age	13.00% to 2.30% decreasing with participant age	13.00% to 2.30% decreasing with participant age
Canada	3.00%	3.00%	3.25%
Lump sum distributions election ⁽³⁾	60.00%	60.00%	60.00%

(1) In January 2019, we transferred approximately \$1.5 billion of U.S. qualified pension plan assets and liabilities to an insurance company through the purchase of a group annuity contract. The settlement of this liability triggered a plan remeasurement, which caused a change in our 2019 pension plan discount rate. The initial discount rate used to estimate our net periodic benefit costs from January 1, 2019 through January 31, 2019 was 4.40 percent. As a result of the remeasurement, the discount rate was updated to 4.30 percent for the remainder of 2019. Refer to the "Actions to Reduce Pension Plan Obligations" section above for more details of this transaction.

(2) PPA Phased Table: Interest and mortality assumptions as mandated by Pension Protection Act of 2006.

(3) U.S. qualified salaried and nonqualified plans only.

The discount rates used for our U.S. other postretirement benefit plans were 4.20 percent, 3.50 percent and 3.70 percent for the years ended December 31, 2019, December 31, 2018, and December 31, 2017, respectively. Additionally, the discount rates used for our Canadian other postretirement benefit plans were 3.70 percent, 3.40 percent and 3.60 percent for the years ended December 31, 2019, December 31, 2018, and December 31, 2017, respectively.

Expected Return on Plan Assets

Determining our expected return requires a high degree of judgment. We consider actual pension fund asset performance over multiple years, and current and expected valuation levels in the global equity and credit markets. Historical fund returns are used as a base and we place added weight on more recent pension plan asset performance.

Qualified and Registered Pension Plans

As discussed in the "Our Investment Policies and Strategies" section above, at the end of 2018, we began implementing a change in our asset strategy to an allocation that will more closely match the plan's liability profile moving forward, resulting in a larger allocation of our assets into fixed income securities. With this change, we determined that it was appropriate to reduce our assumption of long-term rate of return on plan assets to 7.0 percent for the year ended December 31, 2019. As this strategy has been in place throughout 2019 and a larger percentage of our portfolio has been allocated to fixed income securities, we have determined that an additional reduction in our assumption of long-term rate of return on plan assets to 6.5 percent is appropriate for the year ended December 31, 2020.

Health Care Costs

Rising costs of health care affect the costs of our other postretirement plans. We use assumptions about health care cost trend rates to estimate the cost of benefits we provide. Our trend rate assumptions are based on historical market experience, current environment and future expectations. During 2019, the assumed weighted health care cost trend rate used to calculate the net periodic benefit cost was:

- 7.8 percent for U.S. Pre-Medicare
- 4.5 percent for U.S. Health Reimbursement Account (HRA)
- 4.9 percent for Canada

This table shows the assumptions we use in estimating the annual cost increase for health care benefits we provide.

Assumptions We Use in Estimating Health Care Benefit Obligations

	2019		2018	
	U.S.	CANADA	U.S.	CANADA
Weighted health care cost trend rate assumed for next year	7.30% for Pre-Medicare and 4.50% for HRA	5.40%	7.80% for Pre-Medicare and 4.50% for HRA	4.90%
Rate that the cost trend rate gradually declines to	4.50%	4.00%	4.50%	4.00%
Year the cost trend rate is reached	2037	2039	2037	2039

ACTIVITY OF PLANS

Net Periodic Benefit Cost (Credit)

	DOLLAR AMOUNTS IN MILLIONS					
	PENSION			OTHER POSTRETIREMENT BENEFITS		
	2019	2018	2017	2019	2018	2017
Net periodic benefit cost (credit):						
Service cost	\$ 32	\$ 37	\$ 35	\$ —	\$ —	\$ —
Interest cost	160	236	264	6	7	8
Expected return on plan assets	(223)	(399)	(409)	—	—	—
Amortization of actuarial loss	112	225	195	7	8	8
Amortization of prior service cost (credit)	4	3	4	(5)	(8)	(8)
Settlement charges	455	200	—	—	—	—
Net periodic benefit cost (credit)	\$ 540	\$ 302	\$ 89	\$ 8	\$ 7	\$ 8

Expected Pension Plan and Benefit Funding

Established funding standards govern the funding requirements for our qualified and registered pension plans. We fund the benefit payments of our nonqualified and nonregistered plans as benefit payments come due. We voluntarily contributed \$300 million to our U.S. qualified pension plans during 2018, although there was no minimum required contribution for the year.

During 2019, we contributed \$10 million for our Canadian registered plans, we made contributions and benefit payments of \$2 million for our Canadian nonregistered pension plans and made contributions and benefit payments of \$18 million for our U.S. nonqualified pension plans.

During 2020, based on estimated year-end asset values and projections of plan liabilities, we expect to:

- be required to contribute approximately \$2 million for our Canadian registered plan,
- make contributions and benefit payments of approximately \$17 million for our U.S. nonqualified pension plans and
- make contributions and benefit payments of approximately \$3 million for the Canadian non-registered plans.

We do not anticipate contributions being required for our U.S. qualified pension plan for 2020.

Expected Postretirement Benefit Funding

During 2019, we contributed \$11 million and \$4 million to our U.S. and Canadian postretirement benefit plans, respectively. In 2020, we expect to make contributions of \$9 million for our U.S. and Canadian other postretirement benefit plans, including \$5 million expected to be required to cover benefit payments under collectively bargained contractual obligations.

Estimated Projected Benefit Payments for the Next 10 Years

	DOLLAR AMOUNTS IN MILLIONS	
	PENSION	OTHER POSTRETIREMENT BENEFITS
2020	\$ 237	\$ 14
2021	\$ 235	\$ 13
2022	\$ 236	\$ 13
2023	\$ 238	\$ 12
2024	\$ 237	\$ 11
2025-2029	\$ 1,176	\$ 47

UNION-ADMINISTERED MULTIPLE EMPLOYER BENEFIT PLANS

We contribute to multiemployer defined benefit plans under the terms of collective-bargaining agreements. These plans cover a small number of our employees and on an annual basis our contributions are immaterial.

These plans have different risks than single-employer plans. Our contributions may be used to fund benefits for employees of other participating employers. If we choose to stop participating, we may be required to pay a withdrawal liability based on the underfunded status of the plan. If another participating employer stops contributing to the plan, we may become responsible for remaining plan unfunded obligations.

DEFINED CONTRIBUTION PLANS

We sponsor various defined contribution plans for our U.S. and Canadian salaried and hourly employees. Our contributions to these plans were:

- \$25 million in 2019,
- \$22 million in 2018 and
- \$21 million in 2017.

NOTE 10: ACCRUED LIABILITIES

Accrued liabilities were comprised of the following:

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
Compensation and employee benefit costs	\$ 188	\$ 192
Current portion of lease liabilities (Note 17)	33	—
Customer rebates, volume discounts and deferred income	105	99
Interest	98	109
Taxes payable	24	30
Other	82	60
Total	\$ 530	\$ 490

NOTE 11: LINE OF CREDIT

OUR LINE OF CREDIT

In March 2017, we entered into a \$1.5 billion five-year senior unsecured revolving credit facility that expires in March 2022. Borrowings are at LIBOR plus a spread or at other interest rates mutually agreed upon between the borrower and the lending banks. As of December 31, 2019, we had \$230 million of outstanding borrowings on the revolving credit facility and had an additional \$1270 million available. As of December 31, 2018, we had \$425 million of outstanding borrowings on the revolving credit facility. We were in compliance with the revolving credit facility covenants as of December 31, 2019 and December 31, 2018.

In January 2020, we amended and restated our \$1.5 billion five-year senior unsecured revolving credit facility, which now expires in January 2025. Borrowings are at LIBOR plus a spread or at other interest rates mutually agreed upon between the borrower and the lending banks.

LETTERS OF CREDIT AND SURETY BONDS

The amounts of letters of credit and surety bonds we have entered into as of the end of the last two years are included in the following table:

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
Letters of credit	\$ 35	\$ 38
Surety bonds	\$ 127	\$ 123

Our compensating balance requirements for our letters of credit were \$3 million and \$6 million as of December 31, 2019 and December 31, 2018, respectively.

NOTE 12: LONG-TERM DEBT

This note provides details about:

- debt issued and extinguished and
- long-term debt and related maturities.

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Our long-term debt includes notes, debentures and other borrowings.

DEBT ISSUED AND EXTINGUISHED

In February 2019, we issued \$750 million of 4.00 percent notes due in November 2029. The net proceeds after deducting the discount, underwriting fees and issuance costs were \$739 million. In March 2019, a portion of the net proceeds was used to redeem our \$500 million 7.38 percent note due October 2019. A pretax charge of \$12 million was included in "Interest expense, net of capitalized interest" on our [Consolidated Statement of Operations](#) during first quarter 2019 for make-whole premiums, unamortized debt issuance costs and unamortized debt discounts in connection with the early extinguishment of the \$500 million note.

During February 2018, we paid our \$62 million 7.00 debenture at maturity.

LONG-TERM DEBT AND RELATED MATURITIES

The following table lists our long-term debt by types and interest rates at the end of our last two years and includes the current portion.

Long-Term Debt by Types and Interest Rates (Includes Current Portion)

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
7.375% notes due 2019	\$ —	\$ 500
9.00% debentures due 2021	150	150
4.70% debentures due 2021	569	569
7.125% debentures due 2023	191	191
5.207% debentures due 2023	860	860
4.625% notes due 2023	500	500
3.25% debentures due 2023	325	325
8.50% debentures due 2025	300	300
7.95% debentures due 2025	136	136
7.70% debentures due 2026	150	150
7.35% debentures due 2026	62	62
7.85% debentures due 2026	100	100
Variable-rate term loan credit facility matures 2026	225	225
6.95% debentures due 2027	300	300
4.00% notes due 2029	750	—
7.375% debentures due 2032	1,250	1,250
6.875% debentures due 2033	275	275
Other	1	1
Total principal long-term debt	6,144	5,894
Add: fair value adjustments (related to Plum Creek merger)	27	39
Less: unamortized discounts	(14)	(5)
Less: unamortized debt expense	(10)	(9)
Total	\$ 6,147	\$ 5,919
Portion due within one year	\$ —	\$ 500

Amounts of Long-Term Debt Due Annually for the Next Five Years and Thereafter

DOLLAR AMOUNTS IN MILLIONS ⁽¹⁾	
2020	\$ —
2021	\$ 719
2022	\$ —
2023	\$ 1,876
2024	\$ —
Thereafter	\$ 3,549

(1) Excludes \$3 million of unamortized discounts, capitalized debt expense and fair value adjustments (related to Plum Creek merger).

NOTE 13: FAIR VALUE OF FINANCIAL INSTRUMENTS

FAIR VALUE OF DEBT

The estimated fair values and carrying values of our long-term debt and line of credit consisted of the following:

DOLLAR AMOUNTS IN MILLIONS	DECEMBER 31, 2019		DECEMBER 31, 2018	
	CARRYING VALUE	FAIR VALUE (LEVEL 2)	CARRYING VALUE	FAIR VALUE (LEVEL 2)
Long-term debt (including current maturities) and line of credit:				
Fixed rate	\$ 5,922	\$ 6,986	\$ 5,694	\$ 6,345
Variable rate	455	455	650	650
Total Debt	\$ 6,377	\$ 7,441	\$ 6,344	\$ 6,995

To estimate the fair value of long-term debt we used the market approach, which is based on quoted market prices we received for the same types and issues of our debt.

We believe that our variable-rate long-term debt and line of credit instruments have net carrying values that approximate their fair values with only insignificant differences.

The inputs to these valuations are based on market data obtained from independent sources or information derived principally from observable market data. The difference between the fair value and the carrying value represents the theoretical net premium or discount we would pay or receive to retire all debt at the measurement date.

FAIR VALUE OF OTHER FINANCIAL INSTRUMENTS

We believe that our other financial instruments, including cash and cash equivalents, short-term investments, mutual fund investments held in grantor trusts, receivables and payables, have net carrying values that approximate their fair values with only insignificant differences. This is primarily due to the short-term nature of these instruments and the allowance for doubtful accounts.

NOTE 14: LEGAL PROCEEDINGS, COMMITMENTS AND CONTINGENCIES

This note provides details about our:

- legal proceedings,
- environmental matters and
- commitments and other contingencies.

LEGAL PROCEEDINGS

We are party to various legal proceedings arising in the ordinary course of business. We are not currently a party to any legal proceeding that management believes could have a material adverse effect on our [Consolidated Balance Sheet](#), [Consolidated Statement of Operations](#) or [Consolidated Statement of Cash Flows](#).

ENVIRONMENTAL MATTERS

Site Remediation

Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – commonly known as Superfund – and similar state laws, we are a party to various proceedings related to the cleanup of hazardous waste sites and have been notified that we may be a potentially responsible party related to the cleanup of other hazardous waste sites for which proceedings have not yet been initiated.

We have received notification from the Environmental Protection Agency (the EPA) and have acknowledged that we are a potentially responsible party in a portion of the Kalamazoo River Superfund site in southwest Michigan. Our involvement in the remediation site is based on our former

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ownership of the Plainwell, Michigan mill located within the remediation site. Several other companies also have been deemed potentially responsible parties as past or present owners or operators of facilities within the site, or as arrangers under CERCLA.

We cooperated with other parties to jointly implement an administrative order issued by the EPA on April 14, 2016, with respect to a portion of the site comprising a stretch of the river approximately 1.7 miles long referred to as the Otsego Township Dam Area. During third quarter 2018, implementation of this administrative order was completed.

In 2010, the company, along with others, was named as a defendant by Georgia-Pacific Consumer Products LP, Fort James Corporation and Georgia-Pacific LLC in an action seeking contribution under CERCLA for remediation costs relating to a certain area within the site. On March 29, 2018, the U.S. District Court issued an opinion and order assigning the company responsibility for 5 percent of approximately \$50 million in past costs incurred by the plaintiffs. The remaining 95 percent of this pool of past costs incurred was allocated to the plaintiffs and other defendants.

The opinion and order, which is currently on appeal before the U.S. Court of Appeals for the Sixth Circuit, does not establish allocation for future remediation costs, and accordingly, we may incur additional costs in connection with future remediation tasks for other areas of the site. In connection with the opinion and order, we updated our best estimate of the liability associated with the site and recorded a pretax charge of \$28 million in first quarter 2018 within "Other operating costs (income), net" on our [Consolidated Statement of Operations](#).

Our Established Reserves. We have established reserves for estimated remediation costs on the active Superfund sites and other sites for which we are a potentially responsible party. These reserves are recorded in "Accrued liabilities" and "Other liabilities" on our [Consolidated Balance Sheet](#).

Changes in the Reserve for Environmental Remediation

DOLLAR AMOUNTS IN MILLIONS	
Reserve balance as of December 31, 2018	\$ 62
Reserve charges and adjustments, net	4
Payments	(5)
Reserve balance as of December 31, 2019	\$ 61

We change our reserve to reflect:

- new information on any site concerning implementation of remediation alternatives,
- updates on prior cost estimates and new sites and
- costs incurred to remediate sites.

Estimates. We believe it is reasonably possible, based on currently available information and analysis, that remediation costs for all identified sites may exceed our existing reserves by up to \$124 million.

This estimate, in which those additional costs may be incurred over several years, is the upper end of the range of reasonably possible additional costs. The estimate:

- is much less certain than the estimates on which our accruals currently are based and
- uses assumptions that are less favorable to us among the range of reasonably possible outcomes.

In estimating our current accruals and the possible range of additional future costs, we:

- assumed we will not bear the entire cost of remediation of every site,
- took into account the ability of other potentially responsible parties to participate and
- considered each party's financial condition and probable contribution on a per-site basis.

We have not recorded any amounts for potential recoveries from insurance carriers.

Asset Retirement Obligations

We have obligations associated with the retirement of tangible long-lived assets consisting primarily of reforestation obligations related to forest management licenses in Canada and obligations to close and cap landfills. Some of our sites have asbestos containing materials. We have met our current legal obligation to identify and manage these materials. In situations where we cannot reasonably determine when asbestos containing materials might be removed from the sites, we have not recorded an accrual because the fair value of the obligation cannot be reasonably estimated. As of December 31, 2019, and December 31, 2018, we had an asset retirement obligation reserve of \$30 million and \$29 million, respectively. These obligations are recorded in "Accrued liabilities" and "Other liabilities" on our [Consolidated Balance Sheet](#).

COMMITMENTS AND OTHER CONTINGENCIES

Product Remediation Contingency

Refer to [Note 19: Charges \(Recoveries\) for Product Remediation, Net](#) for further information.

NOTE 15: SHAREHOLDERS' INTEREST

This note provides details about:

- preferred and preference shares,
- common shares,
- share repurchase programs and
- accumulated other comprehensive loss.

PREFERRED AND PREFERENCE SHARES

We had no preferred shares or preference shares outstanding as of December 31, 2019, or December 31, 2018. We have authorization to issue 7 million preferred shares with a par value of \$1.00 per share and 40 million preference shares with a par value of \$1.00 per share.

COMMON SHARES

The number of common shares we have outstanding changes when:

- new shares are issued,
- stock options are exercised,
- restricted stock units or performance share units vest,
- stock equivalent units are paid out,
- shares are tendered,
- shares are repurchased or
- shares are canceled.

Reconciliation of Our Common Share Activity

SHARES IN THOUSANDS			
	2019	2018	2017
Outstanding at beginning of year	746,391	755,223	748,528
Stock options exercised	660	2,026	5,970
Issued for vested restricted stock units	480	466	605
Issued for vested performance share units	118	86	120
Repurchased	(2,349)	(11,410)	—
Outstanding at end of year	745,300	746,391	755,223

SHARE REPURCHASE PROGRAMS

On February 7, 2019, our board of directors terminated the 2016 Repurchase Program and approved a new share repurchase program (the 2019 Repurchase Program) under which we are authorized to repurchase up to \$500 million of outstanding shares.

During 2019, we repurchased over 2.3 million shares of common stock for approximately \$60 million (including transaction fees) under the 2019 Repurchase Program. As of December 31, 2019, we have remaining authorization of \$440 million for future stock repurchases.

During 2018, we repurchased over 11.4 million shares of common stock for approximately \$366 million (including transaction fees) under the 2016 Repurchase Program. As of December 31, 2018, we had remaining authorization of \$135 million for future stock repurchases.

We did not repurchase any shares of common stock during 2017.

All common stock repurchases under the 2016 and 2019 Repurchase Programs were made in open-market transactions.

We record share repurchases upon trade date as opposed to the settlement date when cash is disbursed. We record a liability to account for repurchases that have not been cash settled. There were no unsettled repurchases as of December 31, 2019, or December 31, 2018.

ACCUMULATED OTHER COMPREHENSIVE LOSS

Changes in amounts included in our accumulated other comprehensive loss by component are:

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Pension⁽¹⁾			
Balance at beginning of period	\$ (1,343)	\$ (1,810)	\$ (1,660)
Other comprehensive income (loss) before reclassifications	(216)	388	(282)
Amounts reclassified from accumulated other comprehensive income (loss) to earnings ⁽²⁾⁽³⁾	431	325	132
Total other comprehensive income (loss)	215	713	(150)
Reclassification of certain effects due to tax law changes ⁽⁴⁾	—	(246)	—
Balance at end of period	(1,128)	(1,343)	(1,810)
Other Postretirement Benefits⁽¹⁾			
Balance at beginning of period	(19)	(25)	(38)
Other comprehensive income (loss) before reclassifications	6	13	14
Amounts reclassified from accumulated other comprehensive income (loss) to earnings ⁽²⁾	1	—	(1)
Total other comprehensive income (loss)	7	13	13
Reclassification of certain tax effects due to tax law changes ⁽⁴⁾	—	(7)	—
Balance at end of period	(12)	(19)	(25)
Translation Adjustments and Other			
Balance at beginning of period	210	273	239
Translation adjustments	26	(54)	34
Total other comprehensive income (loss)	26	(54)	34
Reclassification of accumulated unrealized gains on available-for-sale securities ⁽⁵⁾	—	(9)	—
Balance at end of period	236	210	273
Accumulated other comprehensive loss, end of period	\$ (904)	\$ (1,152)	\$ (1,562)

(1) Amounts are presented net of tax.

(2) Amounts of actuarial loss and prior service (cost) credit are components of net periodic benefit cost (credit). See [Note 9: Pension and Other Postretirement Benefit Plans](#).

(3) Amounts include settlement charges totaling \$455 million and \$200 million related to our pension plans for the years ended December 31, 2019 and December 31, 2018, respectively. See [Note 9: Pension and Other Postretirement Benefit Plans](#) for further detail.

(4) During 2018, we reclassified certain tax effects from tax law changes of \$253 million from "Accumulated other comprehensive loss" to "Retained earnings" on our [Consolidated Balance Sheet](#) in accordance with ASU 2018-02.

(5) During 2018, we reclassified accumulated unrealized gains on available-for-sale securities of \$9 million from "Accumulated other comprehensive loss" to "Retained earnings" on our [Consolidated Balance Sheet](#) in accordance with ASU 2016-01.

NOTE 16: SHARE-BASED COMPENSATION

This note provides details about:

- our Long-Term Incentive Compensation Plan (2013 Plan),
- how we account for share-based awards,
- tax benefits of share-based awards,
- types of share-based compensation,
- unrecognized share-based compensation and
- deferred compensation stock equivalent units.

Share-based compensation expense was:

- \$30 million in 2019,
- \$42 million in 2018 and
- \$40 million in 2017.

OUR LONG-TERM INCENTIVE COMPENSATION PLAN

Our long-term incentive plan provides for share-based awards that include:

- restricted stock,
- restricted stock units (RSUs),
- performance shares,
- performance share units (PSUs),
- stock options and
- stock appreciation rights (SARs).

We may issue future grants of up to 20 million shares under the 2013 Plan. We also have the right to reissue forfeited and expired grants.

For restricted stock, RSUs, performance shares, PSUs or other equity grants:

- An individual participant may receive a grant of up to 1 million shares annually.
- No participant may be granted awards that exceed \$10 million earned in a 12-month period.

For stock options and SARs:

- An individual participant may receive a grant of up to 2 million shares in any one calendar year.
- The exercise price is required to be the market price on the date of the grant.

We have not granted any stock options or SARs since 2016 and the remaining liability related to SARs is immaterial at December 31, 2019.

The Compensation Committee of our board of directors annually establishes an overall pool of stock awards available for grants based on performance.

For stock-settled awards we:

- issue new stock into the marketplace and
- generally do not repurchase shares in connection with issuing new awards.

Our common shares would increase by approximately 28 million shares if all share-based awards were exercised or vested. These include:

- all options, RSUs and PSUs outstanding at December 31, 2019, and
- all remaining options, RSUs and PSUs that could be granted under the 2013 Plan.

HOW WE ACCOUNT FOR SHARE-BASED AWARDS

When accounting for share-based awards we:

- use a fair-value-based measurement and
- recognize the cost of share-based awards on our consolidated financial statements.

We recognize the cost of share-based awards on our [Consolidated Statement of Operations](#) over the required service period — generally the period from the date of the grant to the date when it is fully vested. Special situations include:

- Awards that vest upon retirement — the required service period ends on the date an employee is eligible for retirement, including early retirement.
- Awards that continue to vest following job elimination or the sale of a business — the required service period ends on the date the employment from the company is terminated.

In these special situations, compensation expense from share-based awards is recognized over a period that is shorter than the stated vesting period.

TAX BENEFITS OF SHARE-BASED AWARDS

Our total income tax benefit from share-based awards recognized on our [Consolidated Statement of Operations](#) for the last three years was:

- \$4 million in 2019,
- \$5 million in 2018 and
- \$6 million in 2017.

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Tax benefits from share-based awards are accrued as stock compensation expense and realized when:

- restricted shares and RSUs vest,
- performance shares and PSUs vest,
- stock options are exercised and
- SARs are exercised.

TYPES OF SHARE-BASED COMPENSATION

Our share-based compensation is in the form of:

- RSUs,
- PSUs,
- stock options and
- SARs.

RESTRICTED STOCK UNITS

Through the 2013 Plan, we award RSUs — grants that entitle the holder to shares of our stock as the award vests.

The Details

Our RSUs granted in 2019, 2018 and 2017 generally:

- vest ratably over four years;
- immediately vest in the event of death while employed or disability;
- continue to vest upon retirement at an age of at least 62, but a portion of the grant is forfeited if retirement occurs before the one-year anniversary of the grant;
- continue vesting for one year in the event of involuntary termination when retirement has not been met and
- will be forfeited upon termination of employment in all other situations including early retirement prior to age 62.

Our Accounting

The fair value of our RSUs is the market price of our stock on the grant date of the awards.

We generally record share-based compensation expense for RSUs over the four-year vesting period. Generally, for RSUs that continue to vest following the termination of employment, we record the share-based compensation expense over a required service period that is less than the stated vesting period.

Activity

The following table shows our RSU activity for 2019:

	RESTRICTED STOCK UNITS (IN THOUSANDS)	WEIGHTED AVERAGE GRANT-DATE FAIR VALUE
Nonvested at December 31, 2018	1,593	\$ 31.41
Granted	865	\$ 25.83
Vested	(582)	\$ 30.34
Forfeited	(87)	\$ 29.40
Nonvested at December 31, 2019⁽¹⁾	1,789	\$ 29.15

⁽¹⁾ As of December 31, 2019, there were approximately 526 thousand RSUs that had met the requisite service period and will be released as identified in the grant terms.

The weighted average grant-date fair value for RSUs was:

- \$25.83 in 2019,
- \$34.19 in 2018 and
- \$32.83 in 2017.

The total grant-date fair value of RSUs vested was:

- \$18 million in 2019,
- \$16 million in 2018 and
- \$18 million in 2017.

Nonvested RSUs accrue dividends that are paid out when RSUs vest. Any RSUs forfeited will not receive dividends.

As RSUs vest, a portion of the shares awarded is withheld to cover employee taxes. As a result, the number of stock units vested and the number of common shares issued will differ.

PERFORMANCE SHARE UNITS

Through the 2013 Plan, we award PSUs — grants that entitle the holder to shares of our stock as the award vests.

The Details

The final number of shares awarded will range from 0 percent to 150 percent of each grant's target, depending upon actual company performance.

For PSUs granted in 2019, 2018 and 2017, the ultimate number of shares earned is based on two measures:

- our relative total shareholder return (TSR) ranking measured against the S&P 500 over a three-year period and
- our relative TSR ranking measured against an industry peer group of companies over a three-year period.

The vesting provisions for PSUs granted in 2019, 2018 and 2017 were as follows:

- vest 100 percent on the third anniversary of the grant date as long as the individual remains employed by the company;
- fully vest in the event the participant dies or becomes disabled while employed;
- continue to vest upon retirement at an age of at least 62, but a portion of the grant is forfeited if retirement occurs before the one-year anniversary of the grant;
- continue vesting for one year in the event of involuntary termination when the retirement criteria has not been met and the employee has met the second anniversary of the grant date and
- will be forfeited upon termination of employment in all other situations including early retirement prior to age 62.

Our Accounting

Since the awards contain a market condition, the effect of the market condition is reflected in the grant-date fair value which is estimated using a Monte Carlo simulation model. This model estimates the TSR ranking of the company over the performance period. Compensation expense is based on the estimated probable number of earned awards and recognized over the vesting period on an accelerated basis. Generally, compensation expense would be reversed if the performance condition is not met unless the requisite service period has been achieved.

Weighted Average Assumptions Used in Estimating the Value of PSUs

	2019 GRANTS	2018 GRANTS	2017 GRANTS
Performance period	1/1/2019-12/31/2021	1/1/2018-12/31/2020	1/1/2017-12/31/2019
Expected dividends	5.25%	3.81%	3.74%
Risk-free rate	2.43% - 2.55%	1.75% - 2.34%	0.68% - 1.55%
Volatility	22.50% - 27.40%	17.30% - 21.52%	22.71% - 24.07%
Weighted average grant-date fair value	\$ 29.66	\$ 35.49	\$ 37.93

Activity

The following table shows our PSU activity for 2019:

	GRANTS (IN THOUSANDS)	WEIGHTED AVERAGE GRANT-DATE FAIR VALUE
Nonvested at December 31, 2018	1,042	\$ 31.52
Granted at target	419	29.66
Vested	(153)	22.80
Forfeited	(26)	34.05
Performance adjustment	(233)	22.80
Nonvested at December 31, 2019⁽¹⁾	1,049	\$ 33.93

(1) As of December 31, 2019, there were approximately 519 thousand PSUs that had met the requisite service period and will be released as identified in the grant terms.

The total grant-date fair value of PSUs vested was:

- \$3 million in 2019,
- \$4 million in 2018 and
- \$4 million in 2017.

As PSUs vest, a portion of the shares awarded is withheld to cover participant taxes. As a result, the number of stock units vested and the number of common shares issued will differ.

STOCK OPTIONS

Stock options entitle award recipients to purchase shares of our common stock at a fixed exercise price. We have not granted stock option awards since 2016. When granted in prior years, stock options had an exercise price equal to the market price of our stock on the date of the grant.

The Details

Our stock options generally:

- vest over four years of continuous service,
- must be exercised within 10 years of the grant date and
- use a Black-Scholes option valuation model to estimate the fair value of every stock option award on its grant date.

Activity

The following table shows our stock option activity for 2019:

	OPTIONS (IN THOUSANDS)	WEIGHTED AVERAGE EXERCISE PRICE	WEIGHTED AVERAGE REMAINING CONTRACTUAL TERM (IN YEARS)	AGGREGATE INTRINSIC VALUE (IN MILLIONS)
Outstanding at December 31, 2018	6,366	\$ 26.75		
Exercised	(661)	\$ 19.16		
Forfeited or expired	(430)	\$ 31.63		
Outstanding at December 31, 2019 ⁽¹⁾	5,275	\$ 27.30	4.61	\$ 21
Exercisable at December 31, 2019	4,678	\$ 27.84	4.42	\$ 17

(1) As of December 31, 2019, there were approximately 324 thousand stock options that had met the requisite service period and will be released as identified in the grant terms.

The total intrinsic value of stock options exercised was:

- \$5 million in 2019,
- \$22 million in 2018 and
- \$68 million in 2017.

UNRECOGNIZED SHARE-BASED COMPENSATION

As of December 31, 2019, our unrecognized share-based compensation cost for all types of share-based awards included \$36 million related to non-vested equity-classified share-based compensation arrangements. These are expected to be recognized over a weighted average period of approximately 1.2 years.

DEFERRED COMPENSATION STOCK EQUIVALENT UNITS

Certain employees and our board of directors may defer compensation into stock equivalent units.

The Details

Eligible employees:

- may choose to defer all or part of their bonus into stock equivalent units;
- may choose to defer part of their salary, except for executive officers and
- receive a 15 percent premium if the deferral is for at least five years.

Our directors:

- receive a portion of their annual retainer fee in the form of RSUs, which vest over one year and may be deferred into stock equivalent units;
- may choose to defer some or all of the remainder of their annual retainer fee into stock equivalent units and
- do not receive a premium for their deferrals.

Employees and directors also choose when the deferrals will be paid out, although no deferrals may be paid until after the separation from service of the employee or director.

Our Accounting

We settle all deferred compensation accounts in cash for our employees. Our directors receive shares of common stock as payment for stock equivalent units. In addition, we credit all stock equivalent accounts with dividend equivalents. The number of common shares to be issued in the future to directors is 674 thousand.

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Stock equivalent units are:

- liability-classified awards and
- remeasured to fair value at every reporting date.

The fair value of a stock equivalent unit is equal to the market price of our stock.

Activity

The number of stock equivalent units outstanding in our deferred compensation accounts was:

- 788 thousand as of December 31, 2019,
- 788 thousand as of December 31, 2018 and
- 804 thousand as of December 31, 2017.

NOTE 17: LEASES

We account for leases in accordance with ASC Topic 842, *Leases*, which we adopted on January 1, 2019 using the modified retrospective transition approach at the beginning of the adoption period through a cumulative-effect adjustment to retained earnings. This adoption resulted in the recognition of right-of-use assets ("ROU assets") of \$165 million and lease liabilities of \$172 million, with the difference of \$7 million recorded to "Retained earnings", on our [Consolidated Balance Sheet](#) on January 1, 2019.

The majority of our operating leases are related to our office and warehouse space, and the majority of our financing leases are related to vehicles and forklifts. Our leases have remaining lease terms of approximately 1 year to 25 years. Options to renew, extend or terminate a lease are reflected in our lease terms when we believe it is reasonably certain we will exercise that option. When our leases do not provide an implicit or an explicit interest rate, we use our incremental borrowing rate in determining the present value of lease payments.

Lease Expense

DOLLAR AMOUNTS IN MILLIONS	
	2019
Operating lease costs	\$ 20
Financing lease costs	15
Total lease costs	\$ 35

Supplemental Cash Flow Information

DOLLAR AMOUNTS IN MILLIONS	
	2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows for operating leases	\$ 20
Financing cash flows for financing leases ⁽¹⁾	\$ 16
ROU assets obtained in exchange for new (modified) lease liabilities:	
Operating leases	\$ 6
Financing leases	\$ 5

⁽¹⁾ Interest expense related to financing leases was immaterial during 2019.

Supplemental Balance Sheet Information Related to Leases

DOLLAR AMOUNTS IN MILLIONS		
		DECEMBER 31, 2019
LEASES	BALANCE SHEET CLASSIFICATION	
Assets		
Operating lease ROU assets	Other assets	\$ 120
Financing lease ROU assets	Property and equipment, net	28
Total leased assets		\$ 148
Liabilities		
Current:		
Operating lease liabilities	Accrued liabilities	\$ 20
Financing lease liabilities	Accrued liabilities	13
Noncurrent:		
Operating lease liabilities	Other liabilities	103
Financing lease liabilities	Other liabilities	20
Total lease liabilities		\$ 156

Weighted Average Remaining Lease Term

		DECEMBER 31, 2019
Operating leases		11 years
Financing leases		3 years

Weighted Average Discount Rate

		DECEMBER 31, 2019
Operating leases		4.2%
Financing leases		3.1%

Maturities of Lease Liabilities as of December 31, 2019

DOLLAR AMOUNTS IN MILLIONS			
		OPERATING LEASES	FINANCING LEASES
2020	\$	20	\$ 14
2021		18	10
2022		17	7
2023		16	4
2024		12	—
Thereafter		70	—
Total lease payments		153	35
Less: interest		(30)	(2)
Total present value of lease liabilities	\$	123	\$ 33

Operating Lease Commitments as of December 31, 2018

DOLLAR AMOUNTS IN MILLIONS	
2019	\$ 35
2020	\$ 29
2021	\$ 26
2022	\$ 24
2023	\$ 18
Thereafter	\$ 78

NOTE 18: CHARGES FOR INTEGRATION AND RESTRUCTURING, CLOSURES AND ASSET IMPAIRMENTS**INTEGRATION, RESTRUCTURING AND CLOSURES**

During 2017, we incurred and accrued a total of \$34 million for termination benefits (primarily severance), non-recurring professional services and other costs directly attributable to our merger with Plum Creek.

Other restructuring and closure costs totaled \$6 million in 2017, which included lease termination charges, dismantling and demolition of plant and equipment, gain or loss on disposition of assets, environmental cleanup costs and incremental costs to wind down operating facilities.

ASSET IMPAIRMENTS

The "Impairment of Long-Lived Assets" section of [Note 1: Summary of Significant Accounting Policies](#) provides details about how we account for impairments. Additional information can also be found in our [Critical Accounting Policies](#).

In 2019, we recognized an impairment charge of \$80 million related to our Montana timberlands assets. On December 17, 2019, we announced an agreement to sell 630,000 acres of Montana timberlands, and the related assets met the relevant criteria to be classified as held for sale as of December 31, 2019. This designation required us to record the related assets at fair value, less an amount of estimated selling costs, and thus recognize an \$80 million noncash pretax impairment charge in the Timberlands segment. The fair value of the related assets was primarily based on the agreed upon cash purchase price of \$145 million.

In 2017, we recognized an impairment charge of \$147 million related to the timberlands and manufacturing assets of our Uruguay operations.

Refer to [Note 4: Divestitures and Assets Held for Sale](#) for further details on the assets held for sale and the sale of our Uruguay operations.

Additionally, in 2017, we recognized a small impairment charge related to a nonstrategic asset in our Wood Products segment. The fair value of the asset was determined using the value indicated in a purchase and sale agreement.

NOTE 19: CHARGES (RECOVERIES) FOR PRODUCT REMEDIATION, NET

In July 2017, we announced we were implementing a solution to address concerns regarding our TJI® Joists coated with our former Flak Jacket® Protection product. This issue was isolated to Flak Jacket product manufactured after December 1, 2016 and did not affect any of our other products.

During the year ended December 31, 2019, we received and recorded an insurance recovery of \$68 million related to our remediation efforts. In addition, we recorded insurance recoveries of \$25 million and product remediation charges of \$25 million during the year ended December 31, 2018. During the year ended December 31, 2017, we recorded \$290 million for expected costs associated with the remediation. The charges and recoveries recorded are attributable to our Wood Products segment and were recorded in "Charges (recoveries) for product remediation, net" on the [Consolidated Statement of Operations](#).

NOTE 20: OTHER OPERATING COSTS (INCOME), NET

Other operating costs (income), net:

- includes both recurring and non-recurring income and expense items and
- can fluctuate from year to year.

Income and Expense Items Included in Other Operating Costs (Income), Net

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Environmental remediation insurance recoveries	\$ —	\$ (5)	\$ (42)
Foreign exchange losses (gains), net ⁽¹⁾	2	(3)	(1)
Gain on disposition of nonstrategic assets	(4)	(5)	(16)
Gain on sale of timberlands ⁽²⁾	(48)	—	(99)
Litigation expense, net	63	35	20
Research and development expenses	6	8	14
Other, net ⁽³⁾	28	52	10
Total other operating costs (income), net	\$ 47	\$ 82	\$ (114)

- (1) Foreign exchange gains and losses result from changes in exchange rates primarily related to our U.S. dollar denominated cash and debt balances that are held by our Canadian subsidiary.
- (2) The 2019 gain on sale of timberlands relates to the sale of our Michigan timberlands during fourth quarter 2019. The 2017 amount relates to 100,000 acres sold to Twin Creeks during fourth quarter 2017. Refer to [Note 4: Divestitures and Assets Held for Sale](#) and [Note 8: Related Parties](#), respectively, for further information.
- (3) "Other, net" includes environmental remediation charges. See [Note 14: Legal Proceedings, Commitments and Contingencies](#) for more information.

NOTE 21: INCOME TAXES

This note provides details about income taxes applicable to our operations, including the following:

- earnings before income taxes,
- provision for income taxes,
- effective income tax rate,
- deferred tax assets and liabilities,
- unrecognized tax benefits and
- resolution of IRS tax matter.

The Income Taxes section of [Note 1: Summary of Significant Accounting Policies](#) provides details about how we account for our income taxes.

EARNINGS (LOSS) BEFORE INCOME TAXES

Domestic and Foreign Earnings (Loss) Before Income Taxes

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Domestic earnings (loss)	\$ (268)	\$ 556	\$ 643
Foreign earnings	55	251	73
Total earnings (loss) before income taxes	\$ (213)	\$ 807	\$ 716

PROVISION (BENEFIT) FOR INCOME TAXES

Provision (Benefit) for Income Taxes

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Current:			
Federal	\$ 21	\$ (69)	\$ 10
State	1	(5)	—
Foreign	10	61	82
Total current	32	(13)	92
Deferred:			
Federal	(137)	45	61
State	(31)	12	(18)
Foreign	(1)	15	(1)
Total deferred	(169)	72	42
Total income tax provision (benefit)	\$ (137)	\$ 59	\$ 134

EFFECTIVE INCOME TAX RATE

Effective Income Tax Rate

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
U.S. federal statutory income tax	\$ (45)	\$ 170	\$ 250
State income taxes, net of federal tax benefit	(31)	8	(2)
REIT income not subject to federal income tax	(68)	(116)	(198)
SDT settlement ⁽¹⁾	—	21	—
Tax effect of U.S. corporate rate change ⁽²⁾	—	—	74
Voluntary pension contribution ⁽³⁾	—	(41)	—
Return to provision adjustment	4	(1)	2
Foreign taxes	(2)	15	54
Repatriation of Canadian earnings	—	—	(22)
Other, net	5	3	(24)
Total income tax provision (benefit)	\$ (137)	\$ 59	\$ 134
Effective income tax rate	64.1%	7.3%	18.8%

- (1) In fourth quarter 2018, we recorded tax expense of \$21 million related to the settlement of a dispute with the IRS. Refer to "Resolution of IRS Matter" below for further information.
- (2) In December 2017, H.R. 1 (the Tax Act) was enacted. The Tax Act contained significant changes to corporate taxation, including a reduction in the corporate tax rate from 35 percent to 21 percent. As a result of this change, we revalued our deferred tax assets and liabilities and recorded tax expense of \$74 million during 2017, which reduced our net deferred tax asset.
- (3) At the end of 2017, we revalued our deferred tax assets and liabilities to the 21 percent federal tax rate prescribed by the Tax Act. During 2018, we made a voluntary contribution of \$300 million to our U.S. qualified pension plan. We deducted this contribution on our 2017 U.S. federal tax return at the 2017 federal tax rate of 35 percent. This resulted in an incremental \$41 million tax benefit for the portion attributable to our TRSs. Refer to [Note 9: Pension and Other Postretirement Benefit Plans](#) for further information on the voluntary contribution.

DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities reflect the future tax effect created by differences between the timing of when income or deductions are recognized for pretax financial book reporting purposes versus income tax purposes. Deferred tax assets represent a future tax benefit (or reduction to income taxes in a future period), while deferred tax liabilities represent a future tax obligation (or increase to income taxes in a future period).

Balance Sheet Classification of Deferred Income Tax Assets (Liabilities)

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
Net noncurrent deferred tax asset	\$ 72	\$ 15
Net noncurrent deferred tax liability	(6)	(43)
Net deferred tax asset (liability)	\$ 66	\$ (28)

Items Included in Our Deferred Income Tax Assets (Liabilities)

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
Deferred tax assets:		
Pension and postretirement benefits	\$ 159	\$ 112
State tax credits	53	51
Depletion	34	41
Excess interest	55	30
Incentive compensation	17	20
Workers compensation	18	18
Net operating loss carryforwards	28	19
Other	101	96
Gross deferred tax assets	465	387
Valuation allowance	(64)	(61)
Net deferred tax assets	401	326
Deferred tax liabilities:		
Property, plant and equipment	(224)	(197)
Timber installment notes	(74)	(116)
Other	(37)	(41)
Net deferred tax liabilities	(335)	(354)
Net deferred tax asset (liability)	\$ 66	\$ (28)

Net Operating Loss and Credit Carryforwards

Our gross federal, state and foreign net operating loss carryforwards as of December 31, 2019 totaled \$850 million as follows:

- Federal - U.S. RET - \$302 million, which expire from 2034 through 2036;
- State - \$548 million, which will begin to expire in 2022; and
- Foreign - none currently recorded.

Our gross state credit carryforwards as of December 31, 2019 totaled \$67 million, which includes \$16 million that expire from 2020 through 2033 and \$51 million that do not expire. Our U.S. TRSs have \$7 million in foreign tax credit carryforwards that expire from 2027 through 2028.

Valuation Allowances

With the exception of the valuation allowance discussed below, we believe it is more likely than not that we will have sufficient future taxable income to realize our deferred tax assets.

Our valuation allowance on our deferred tax assets was \$64 million as of December 31, 2019, which related to state credits, state net operating losses and passive foreign tax credits.

Reinvestment of Undistributed Earnings

Starting in 2018, we revised our indefinite reinvestment assertion regarding the earnings of our Canadian subsidiary to permanently reinvest approximately 10 percent of its earnings. Our change in assertion was based on the company's review of global cash management and planned capital deployment, taking into consideration the effects of the Tax Act. We have no other foreign subsidiaries with undistributed earnings. Accordingly, deferred taxes have been provided primarily related to Canadian withholding taxes associated with Canadian earnings no longer considered permanently reinvested.

UNRECOGNIZED TAX BENEFITS

Unrecognized tax benefits represent potential future obligations to taxing authorities if uncertain tax positions we have taken on previously filed tax returns are not sustained. In accordance with our accounting policy, we accrue interest and penalties related to unrecognized tax benefits as a component of income tax expense (see [Note 1: Summary of Significant Accounting Policies](#)). The total gross amount of unrecognized tax benefits as of December 31, 2019 and 2018, as well as the activity during those years, were immaterial.

As of December 31, 2019, our 2016 and 2017 U.S. federal income tax returns are under examination. No foreign jurisdiction income tax returns are under examination. Our U.S. federal income tax returns are open to examination for years 2016 forward and foreign jurisdiction income tax returns are open to examination for years 2012 forward. We are undergoing examinations in state jurisdictions for tax years 2009 through 2017, with tax years 2009 forward open to examination. We do not expect that the outcome of any examination will have a material effect on our consolidated financial statements; however, audit outcomes and the timing of audit settlements are subject to significant uncertainty.

RESOLUTION OF IRS MATTER

In connection with the merger with Plum Creek, we acquired equity interests in Southern Diversified Timber, LLC (SDT), a timberland joint venture (Timberland Venture) with an affiliate of Campbell Global LLC (TCG Member). On August 31, 2016, the Timberland Venture redeemed TCG Member's interest and became a fully consolidated, wholly-owned subsidiary of Weyerhaeuser.

We received a Notice of Final Partnership Administrative Adjustment (FPAA) dated July 20, 2016, from the Internal Revenue Service (IRS) in regard to Plum Creek's 2008 U.S. federal income tax treatment of the transaction forming the Timberland Venture. The IRS asserted that the transfer of the timberlands to the Timberland Venture was a taxable transaction to Plum Creek at the time of the transfer rather than a nontaxable capital contribution. We subsequently filed a petition in the U.S. Tax Court to contest this adjustment.

On February 8, 2019, we entered into a closing agreement with the IRS to settle this dispute. Under the terms of the agreement, the company paid approximately \$21 million of corporate tax. This amount was recorded as tax expense in fourth quarter 2018. No interest or penalties were assessed. The parties filed a stipulated decision with the U.S. Tax Court, pursuant to which the Court officially closed the matter.

NOTE 22: GEOGRAPHIC AREAS

This note provides selected key financial data according to the geographical locations of our customers.

SALES

Our sales to unaffiliated customers outside the U.S. are primarily to customers in Canada, Japan and China. Our export sales are comprised primarily of logs, lumber and wood chips to Japan and China.

Sales by Geographic Area

DOLLAR AMOUNTS IN MILLIONS			
	2019	2018	2017
Sales to unaffiliated customers:			
U.S.	\$ 5,674	\$ 6,365	\$ 6,168
Canada	440	519	472
Japan	305	410	352
China	90	120	107
Other foreign countries	45	62	97
Total	\$ 6,554	\$ 7,476	\$ 7,196
Export sales from the U.S.:			
Japan	\$ 265	\$ 338	\$ 295
China	85	113	102
Other foreign countries	129	153	148
Total	\$ 479	\$ 604	\$ 545

LONG-LIVED ASSETS

Our long-lived assets used in the generation of revenues in different geographical areas are nearly all in the U.S. and Canada. Our long-lived assets primarily include:

- property and equipment, including construction in progress,
- timber and timberlands and
- minerals and mineral rights.

Long-Lived Assets by Geographic Area

DOLLAR AMOUNTS IN MILLIONS		
	DECEMBER 31, 2019	DECEMBER 31, 2018
U.S.	\$ 14,074	\$ 14,778
Canada	275	220
Total	\$ 14,349	\$ 14,998

NOTE 23: SELECTED QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Quarterly financial data provides a review of our results and performance throughout the year. Our earnings (loss) per share for the full year does not always equal the sum of the four quarterly earnings (loss) per share amounts because of common share activity during the year. As the company's common shares are traded on the New York Stock Exchange (NYSE), market price information, such as the high and low trading prices for our common shares can be found under the symbol WY.

Key Quarterly Financial Data

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES					
	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	FULL YEAR
2019:					
Net sales	\$ 1,643	\$ 1,692	\$ 1,671	\$ 1,548	\$ 6,554
Operating income	\$ 174	\$ 186	\$ 202	\$ 89	\$ 651
Earnings (loss) before income taxes	\$ (393)	\$ 91	\$ 102	\$ (13)	\$ (213)
Net earnings (loss)	\$ (289)	\$ 128	\$ 99	\$ (14)	\$ (76)
Basic and diluted net earnings (loss) per share	\$ (0.39)	\$ 0.17	\$ 0.13	\$ (0.02)	\$ (0.10)
Dividends paid per share	\$ 0.34	\$ 0.34	\$ 0.34	\$ 0.34	\$ 1.36
2018:					
Net sales	\$ 1,865	\$ 2,065	\$ 1,910	\$ 1,636	\$ 7,476
Operating income	\$ 404	\$ 476	\$ 337	\$ 177	\$ 1,394
Earnings (loss) before income taxes	\$ 299	\$ 382	\$ 240	\$ (114)	\$ 807
Net earnings (loss)	\$ 269	\$ 317	\$ 255	\$ (93)	\$ 748
Basic and diluted net earnings (loss) per share	\$ 0.35	\$ 0.42	\$ 0.34	\$ (0.12)	\$ 0.99
Dividends paid per share	\$ 0.32	\$ 0.32	\$ 0.34	\$ 0.34	\$ 1.32

CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

The company's principal executive officer and principal financial officer have evaluated the effectiveness of the company's disclosure controls and procedures as of the end of the period covered by this annual report on Form 10-K. Disclosure controls are controls and other procedures that are designed to ensure that information required to be disclosed in the reports filed or submitted under the Securities Exchange Act of 1934, as amended (Act), is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's (SEC) rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, to allow timely decisions regarding required disclosure.

Based on their evaluation, the company's principal executive officer and principal financial officer have concluded that the company's disclosure controls and procedures are effective to ensure that information required to be disclosed complies with the SEC's rules and forms.

CHANGES IN INTERNAL CONTROL

No changes occurred in the company's internal control over financial reporting during the period that have materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting as is defined in the Securities Exchange Act of 1934 rules. Management, under our supervision, conducted an evaluation of the effectiveness of the company's internal control over financial reporting based on the framework in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under the framework in Internal Control — Integrated Framework (2013), management concluded that the company's internal control over financial reporting was effective as of December 31, 2019. The effectiveness of the company's internal control over financial reporting as of December 31, 2019, has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors

Weyerhaeuser Company:

Opinion on Internal Control Over Financial Reporting

We have audited Weyerhaeuser Company and subsidiaries' (the Company) 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. 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 Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), and our report dated February 14, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ KPMG LLP

Seattle, Washington
February 14, 2020

OTHER INFORMATION

The following disclosures are provided in compliance with Item 5.02(e) of Form 8-K.

Annual Incentive Plan

On February 14, 2020, the company's board of directors approved certain amendments to the Weyerhaeuser Company Amended and Restated Annual Incentive Plan for Salaried Employees. The plan, which sets forth the general terms and conditions for the annual cash incentive bonus for employees, including the company's executive officers, was amended primarily to reduce the maximum bonus payable to an executive officer from 3 times to 2 times such executive officer's target bonus.

In accordance with Item 9.01(d) of Form 8-K, a copy of the Weyerhaeuser Company Amended and Restated Annual Incentive Plan for Salaried Employees Plan, as amended, is filed as [Exhibit 10\(u\)](#) to this annual report on Form 10-K.

Executive Severance and Change of Control Agreements

On February 14, 2020, each of the company's executive officers, including each of its named executive officers, entered into a new executive severance agreement and a new change in control agreement with the company. The new agreements replace existing severance and change in control agreements between each of the executive officers and the company. Except as noted below, the terms and conditions of the new agreements are substantially the same as the agreements they replace. Following is a brief summary of the material terms of each agreement.

Executive Severance Agreement

Term	Three years, expiring on December 31, 2022. Following the initial term, the agreements continue for successive one-year terms unless canceled by either the company or the executive officer within 30 days of December 31 st . The prior severance agreements also renewed automatically for one-year terms and were cancellable by either party.
Benefits:	<p>The severance benefit for executives other than the CEO is an amount equal to: (a) 1.5 times the executive's base salary; (b) 1.5 times the executive's target annual bonus; (c) a pro rata portion of the executive's actual bonus for the plan year in which the termination of employment occurs; and (d) \$10,000 for replacement of health and welfare benefits. The severance benefit provided under the CEO's executive severance agreement is defined as set forth above, except that he is eligible to receive 2 times his base salary and target bonus.</p> <p>The severance benefit amount under the new executive severance agreement is unchanged from the benefit provided for under the previous executive severance agreement. Benefit payments are subject to the company's clawback and similar forfeiture policies and are not payable in the event that benefits are payable under the executive's change in control agreement.</p>
Triggering	
Event:	The severance benefit is triggered upon the executive's involuntary termination of employment other than for cause, mandatory retirement or the executive's death or disability.

Change in Control Agreement

Term	Three years, expiring on December 31, 2022. Following the initial term, the agreements continue for successive one-year terms unless canceled by either the company or the executive officer within 30 days of December 31 st . The prior change in control agreements also renewed automatically for one-year terms and were cancellable by either party.
Benefits:	<p>The severance benefit for executives other than the CEO is an amount equal to: (a) 2 times the executive's base salary; (b) 2 times the executive's target annual bonus; (c) a pro rata portion of the executive's actual bonus for the plan year in which the termination of employment occurs; (d) \$75,000 for replacement of health and welfare benefits; (e) vesting of benefits under supplemental retirement plans and 2 years of additional credited age and service under such plans; and (f) vesting of outstanding equity awards, including vesting of performance-based awards at target performance. The severance benefit provided under the CEO's change in control agreement is defined as set forth above, except that he is eligible to receive 3 times his base salary and target bonus and 3 years of additional credited age and service under supplemental retirement plans.</p> <p>The severance benefit for executives other than the CEO is reduced under the new agreement from 3 times to 2 times the executive's base salary and target bonus and 3 years to 2 years of additional credited age and service under supplemental retirement plans. Benefit payments are subject to the company's clawback and similar forfeiture policies.</p>
Triggering	
Event:	The severance benefit is triggered upon the executive's involuntary termination of employment or voluntary termination of employment for "good reason" (as defined in the agreement) within 24 months following a change in control of the company. The benefit is not payable in the event of the executive's termination for cause, mandatory retirement or the executive's death or disability.

In accordance with Item 9.01(d) of Form 8-K, a copy of the form of Executive Change in Control Agreement, CEO Change in Control Agreement, form of Executive Severance Agreement and CEO Severance Agreement are filed as [Exhibits 10\(a\), 10\(b\), 10\(c\)](#) and [10\(d\)](#), respectively, to this annual report on Form 10-K.

The foregoing description of the Weyerhaeuser Company Amended and Restated Annual Incentive Plan for Salaried Employees, as amended, form of Executive Severance Agreement, CEO Severance Agreement, form of Executive Change in Control Agreement and CEO Change in Control Agreement is a general description only, does not purport to be complete and is qualified in its entirety by reference to such documents, which are filed as exhibits to this annual report on Form 10-K and are incorporated herein by reference.

DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

A list of our executive officers and their biographical information can be found in Part I of this report in the [Our Business — Information About Our Executive Officers](#) section. Information with respect to directors of the company and certain other corporate governance matters, as required by this item to Form 10-K, is set forth in the *Notice of the 2020 Annual Meeting and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020 under the following headings: "Item 1. Election of Directors," "Corporate Governance at Weyerhaeuser," and "Stock Information," and in each case such required information is incorporated herein by reference.

The Weyerhaeuser Code of Ethics applies to our chief executive officer, our chief financial officer and our chief accounting officer, as well as other officers, directors and employees of the company. The Weyerhaeuser Code of Ethics is posted on our website at www.weyerhaeuser.com, and currently is located under the tabs "Sustainability", then "Governance", then "Operating Ethically" and finally "Code of Ethics".

EXECUTIVE AND DIRECTOR COMPENSATION

Information with respect to executive and director compensation, as required by this item to Form 10-K, is set forth in the *Notice of the 2020 Annual Meeting and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020 under the headings "Item 1. Election of Directors" and "Executive Compensation," and in each case, such required information is incorporated herein by reference.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information with respect to security ownership of certain beneficial owners and management and with respect to securities authorized for issuance under our equity compensation plans, as required by this item to Form 10-K, is set forth in the *Notice of the 2020 Annual Meeting and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020 under the heading "Stock Information," and such required information is incorporated herein by reference.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information about certain relationships and related transactions and director independence, as required by this item to Form 10-K, is set forth in the *Notice of the 2020 Annual Meeting and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020 under the heading "Corporate Governance at Weyerhaeuser," and such required information is incorporated herein by reference.

PRINCIPAL ACCOUNTING FEES AND SERVICES

Information with respect to principal accounting fees and services, as required by this item to Form 10-K, is set forth in the *Notice of the 2020 Annual Meeting and Proxy Statement* for the company's Annual Meeting of Shareholders to be held May 15, 2020 under the heading "Item 3. Ratify Selection of Independent Registered Public Accounting Firm" and such required information is incorporated herein by reference.

EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

All financial statement schedules have been omitted because they are not applicable or the required information is included in the consolidated financial statements, or the notes thereto, in [Financial Statements and Supplementary Data](#) above.

The agreements included as exhibits to this annual report are included to provide information about their terms and not to provide any other factual or disclosure information about the company or the other parties to the agreements. The agreements may contain representations and warranties by each party to the applicable agreement that were made solely for the benefit of the other party to the agreement and should not be treated as categorical statements of fact, but rather as a way of allocating the risk among the parties if those statements prove to be inaccurate. These representations and warranties may have been qualified by disclosures that were made to the other party in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement, may apply standards of materiality in a way that is different from what may be viewed as material to investors, were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement, and are subject to more recent developments. Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time.

EXHIBITS

2	—	Plan of Acquisition, Reorganization, Arrangement, Liquidation or Succession
	(a)	Agreement and Plan of Merger, dated as of November 6, 2015, between Weyerhaeuser Company and Flum Creek Timber Company, Inc. (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed on November 9, 2015 - Commission File Number 1-4825)
3	—	Articles of Incorporation
	(a)	Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed on May 6, 2011 - Commission File Number 1-4825, and to Exhibit 3.1 to the Current Report on Form 8-K filed on June 20, 2013 - Commission File Number 1-4825)
	(b)	Bylaws (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed on October 26, 2018 - Commission File Number 1-4825)
4	—	Instruments Defining the Rights of Security Holders, Including Indentures
	(a)	Indenture dated as of April 1, 1986 between Weyerhaeuser Company and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank and Chemical Bank), a national banking association, as Trustee (incorporated by reference from the Registration Statement on Form S-3, Registration No. 333-36753)
	(b)	First Supplemental Indenture dated as of February 15, 1991 between Weyerhaeuser Company and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank and Chemical Bank), a national banking association, as Trustee (incorporated by reference from the Registration Statement on Form S-3, Registration No. 333-52982)**
	(c)	Second Supplemental Indenture dated as of February 1, 1993 between Weyerhaeuser Company and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank and Chemical Bank), a national banking association, as Trustee (incorporated by reference from the Registration Statement on Form S-3, Registration No. 333-59974)**
	(d)	Third Supplemental Indenture dated as of October 22, 2001 between Weyerhaeuser Company and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank and Chemical Bank), a national banking association, as Trustee (incorporated by reference to Exhibit 4(d) to the Registration Statement on Form S-3, Registration No. 333-72356)
	(e)	Fourth Supplemental Indenture dated as of March 12, 2002 between Weyerhaeuser Company and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank and Chemical Bank), a national banking association, as Trustee (incorporated by reference to Exhibit 4.8 from the Registration Statement on Form S-4/A, Registration No. 333-82376)
	(f)	Indenture dated as of March 15, 1983 between Weyerhaeuser Company (as successor to Willamette Industries, Inc.) and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank), as Trustee (incorporated by reference to Exhibit 4(f) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)
	(g)	Indenture dated as of January 30, 1993 between Weyerhaeuser Company (as successor to Willamette Industries, Inc.) and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank), as Trustee (incorporated by reference to Exhibit 4(g) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)
	(h)	First Supplemental Trust Indenture dated as of March 12, 2002 between Weyerhaeuser Company (as successor to Willamette Industries, Inc.) and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank), as Trustee (incorporated by reference to Exhibit 4(h) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)
	(i)	Indenture dated as of January 15, 1996 between Weyerhaeuser Company Limited (as successor to MacMillan Bloedel Limited) and The Bank of New York Mellon Trust Company, N.A. (as successor to Harris Trust Company of New York, formerly known as Bank of Montreal Trust Company), as Trustee (incorporated by reference to Exhibit 4(i) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)
	(j)	First Supplemental Indenture dated as of November 1, 1999 between Weyerhaeuser Company Limited and The Bank of New York Mellon Trust Company, N.A. (as successor to Harris Trust Company of New York, formerly Bank of Montreal Trust Company), as Trustee (incorporated by reference to Exhibit 4(j) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)
	(k)	Note Indenture dated November 14, 2005 by and among Flum Creek Timberlands, L.P., as Issuer, Weyerhaeuser Company, as successor to Flum Creek Timber Company, Inc., as Guarantor, and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed on February 19, 2016 - Commission File Number 1-4825)
	(l)	Supplemental Indenture No. 1 dated as of February 19, 2016 by and among Flum Creek Timberlands, L.P., as Issuer, Weyerhaeuser Company, as Guarantor, and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on February 19, 2016 - Commission File Number 1-4825)
	(m)	Supplemental Indenture No. 2 dated September 28, 2016 by and between Weyerhaeuser Company, as successor Issuer, and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on September 30, 2016 - Commission File Number 1-4825)

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	<ul style="list-style-type: none"> (n) Officer's Certificate dated November 15, 2010 executed by Plum Creek Timberlands, L.P., as Issuer (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed on February 19, 2016 - Commission File Number 1-4825) (o) Officer's Certificate dated November 26, 2012 executed by Plum Creek Timberlands, L.P., as Issuer (incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K filed on February 19, 2016 - Commission File Number 1-4825) (p) Assumption and Amendment Agreement and Installment Note dated as of April 28, 2016 by and among Plum Creek Timberlands, L.P., Weyerhaeuser Company and MeadWestvaco Timber Note Holding Company II, L.L.C. (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on May 4, 2016 - Commission File Number 1-4825) (q) Officer's Certificate dated February 25, 2019 executed by Weyerhaeuser Company, as Issuer (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed on February 25, 2019 - Commission File Number 1-4825) (r) Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
10	— Material Contracts
	<ul style="list-style-type: none"> (a) Form of Weyerhaeuser Executive Change in Control Agreement, as in effect as of February 14, 2020* (b) Weyerhaeuser CEO Change in Control Agreement, as in effect as of February 14, 2020* (c) Form of Weyerhaeuser Executive Severance Agreement, as in effect as of February 14, 2020* (d) Weyerhaeuser CEO Severance Agreement, as in effect as of February 14, 2020* (e) Retention Agreement with Russell S. Hagen dated August 24, 2018 (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed on October 26, 2018 - Commission File Number 1-4825)* (f) Restricted Stock Unit Agreement with Adrian M. Blocker dated August 24, 2018 (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q filed on October 26, 2018 - Commission File Number 1-4825)* (g) Weyerhaeuser Company 2013 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on February 19, 2013 - Commission File Number 1-4825)* (h) Form of Weyerhaeuser Company 2013 Long-Term Incentive Plan Stock Option Award Terms and Conditions (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on April 16, 2013 - Commission File Number 1-4825)* (i) Form of Weyerhaeuser Company 2013 Long-Term Incentive Plan Performance Share Unit Award Terms and Conditions for Plan Years 2017, 2018 and 2019 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on January 26, 2017 - Commission File Number 1-4825)* (j) Form of Weyerhaeuser Company 2013 Long-Term Incentive Plan Performance Share Unit Award Terms and Conditions for Plan Year 2020 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on January 24, 2020 - Commission File Number 1-4825)* (k) Form of Weyerhaeuser Company 2013 Long-Term Incentive Plan Restricted Stock Unit Award Terms and Conditions for Plan Years 2016, 2017, 2018, 2019 and 2020 (incorporated by reference to Exhibit 10(i) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 - Commission File Number 1-4825)* (l) Form of Weyerhaeuser Company 2004 Long-Term Incentive Plan Stock Option Award Terms and Conditions (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on February 11, 2013 - Commission File Number 1-4825)* (m) Weyerhaeuser Company 2004 Long-Term Incentive Compensation Plan, as Amended and Restated (incorporated by reference to Exhibit 10.5 to the Current Report on Form 8-K filed on December 29, 2010 - Commission File Number 1-4825)* (n) Form of Plum Creek Executive Stock Option, Restricted Stock Unit and Value Management Award Agreement For Plan Year 2010 (incorporated by reference to Exhibit 10(v) to the Annual Report on Form 10-K for the annual period ended December 31, 2016 - Commission File Number 1-4825)* (o) Form of Plum Creek Executive Stock Option, Restricted Stock Unit and Value Management Award Agreement For Plan Year 2011 (incorporated by reference to Exhibit 10(w) to the Annual Report on Form 10-K for the annual period ended December 31, 2016 - Commission File Number 1-4825)* (p) 2012 Plum Creek Timber Company, Inc. Stock Incentive Plan (incorporated by reference to Exhibit 99.1 from the Registration Statement on Form S-8, Registration No. 333-209617)* (q) Amended and Restated Plum Creek Timber Company, Inc. Stock Incentive Plan (incorporated by reference to Exhibit 99.2 from the Registration Statement on Form S-8, Registration No. 333-209617)* (r) Plum Creek Supplemental Pension Plan (incorporated by reference to Exhibit 10(dd) to the Annual Report on Form 10-K for the annual period ended December 31, 2016 - Commission File Number 1-4825)* (s) Plum Creek Pension Plan (incorporated by reference to Exhibit 10(ee) to the Annual Report on Form 10-K for the period ended December 31, 2016 - Commission File Number 1-4825)* (t) Plum Creek Supplemental Benefits Plan (incorporated by reference to Exhibit 10(ff) to the Annual Report on Form 10-K for the annual period ended December 31, 2016 - Commission File Number 1-4825)* (u) Weyerhaeuser Company Amended and Restated Annual Incentive Plan for Salaried Employees (as amended effective February 14, 2020)* (v) Weyerhaeuser Company 2015 Deferred Compensation Plan (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on December 22, 2014 - Commission File Number 1-4825)* (w) Weyerhaeuser Company Salaried Employees Supplemental Retirement Plan (incorporated by reference to Exhibit 10(p) to the Annual Report on Form 10-K for the annual period ended December 31, 2004 - Commission File Number 1-4825)*

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	(x)	2011 Fee Deferral Plan for Directors of Weyerhaeuser Company (Amended and Restated Effective January 1, 2016) (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on May 6, 2016 - Commission File Number 1-4825)*
	(y)	Form of Weyerhaeuser Company 2013 Long-Term Incentive Plan Director Restricted Stock Unit Award Terms and Conditions (incorporated by reference to Exhibit 10(z) to the Annual Report on Form 10-K for the annual period ended December 31, 2017 – Commission File Number 1-4825)*
	(z)	Revolving Credit Facility Agreement dated as of January 29, 2020, among Weyerhaeuser Company, as Borrower, the lenders party thereto, and Wells Fargo Bank, National Association, as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on January 29, 2020 - Commission File Number 1-4825)
	(aa)	Term Loan Agreement dated July 24, 2017, by and among Weyerhaeuser Company, Northwest Farm Credit Services, FCA, as administrative agent, and the lender party thereto (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q filed on July 28, 2017- Commission File Number 1-4825)
	(bb)	Redemption Agreement dated as of August 30, 2016 by and among Southern Diversified Timber, LLC, Weyerhaeuser NR Company, TCG Member, LLC, Plum Creek Timber Operations I, L.L.C., TCG/Southern Diversified Manager, LLC, Southern Diversified, LLC, Campbell Opportunity Fund VI, L.P., and Campbell Opportunity Fund VI-A, L.P. (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on October 28, 2016 - Commission File Number 1-4825)
	(cc)	Commitment Agreement dated as of January 23, 2019, by and among Weyerhaeuser Company, Athene Annuity and Life Company and State Street Global Advisors Trust Company. Confidential treatment has been requested for portions of this exhibit pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended. These portions have been omitted and filed separately with the Securities and Exchange Commission (incorporated by reference to Exhibit 10(hh) to the Annual Report on Form 10-K for the annual period ended December 31, 2018 - Commission File Number 1-4825)
14	—	Code of Business Conduct and Ethics (incorporated by reference to Exhibit 14.1 to the Current Report on Form 8-K filed on August 22, 2016 - Commission File Number 1-4825)
21	—	Subsidiaries of the Registrant
23	—	Consent of Independent Registered Public Accounting Firm
31(a)	—	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended
31(b)	—	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended
32	—	Certification pursuant to Rule 13a-14(b) under the Securities Exchange Act of 1934, as amended, and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. 1350)
101.INS	—	Inline XBRL Instance Document
101.SCH	—	Inline XBRL Taxonomy Extension Schema Document
101.CAL	—	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	—	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	—	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	—	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	—	The cover page from Weyerhaeuser Company's Annual Report on Form 10-K for the year ended December 31, 2019 has been formatted in Inline XBRL.

* Denotes a management contract or compensatory plan or arrangement.

** Filed in paper - hyperlink not required pursuant to Rule 105 of Regulation S-T

FORM 10-K SUMMARY

None.

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 February 14, 2020.

WEYERHAEUSER COMPANY

/s/ DEVIN W. STOCKFISH

Devin W. Stockfish

President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities indicated February 14, 2020.

/s/ DEVIN W. STOCKFISH

Devin W. Stockfish

Principal Executive Officer and Director

/s/ RUSSELL S. HAGEN

Russell S. Hagen

Principal Financial Officer

/s/ DAVID M. WOLD

David M. Wold

Principal Accounting Officer

/s/ RICK R. HOLLEY

Rick R. Holley

Chairman of the Board and Director

/s/ MARK A. EMMERT

Mark A. Emmert

Director

/s/ SARA GROOTWASSINK LEWIS

Sara Grootwassink Lewis

Director

/s/ MARC F. RACICOT

Marc F. Racicot

Director

/s/ NICOLE W. PIASECKI

Nicole W. Piasecki

Director

/s/ D. MICHAEL STEUERT

D. Michael Steuert

Director

/s/ LAWRENCE A. SELZER

Lawrence A. Selzer

Director

/s/ CHARLES R. WILLIAMSON

Charles R. Williamson

Director

/s/ KIM WILLIAMS

Kim Williams

Director