

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

12/31/2019

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File No. 1-3157

INTERNATIONAL PAPER COMPANY

(Exact name of registrant as specified in its charter)

New York

(State or other jurisdiction of incorporation or organization)

13-0872805

(I.R.S. Employer Identification No.)

6400 Poplar Avenue

Memphis, Tennessee

(Address of principal executive offices)

38197

(Zip Code)

Registrant's telephone number, including area code: 901 419-9000

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	IP	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 (section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See 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 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 Company's outstanding common stock held by non-affiliates of the registrant, computed by reference to the closing price as reported on the New York Stock Exchange, as of the last business day of the registrant's most recently completed second fiscal quarter (June 30, 2019) was approximately \$17,018,195,033.

The number of shares outstanding of the Company's common stock as of February 14, 2020 was 392,124,684.

Documents incorporated by reference:

Portions of the registrant's proxy statement filed within 120 days of the close of the registrant's fiscal year in connection with registrant's 2020 annual meeting of shareholders are incorporated by reference into Part III of this Form 10-K.

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PART I.

ITEM 1. BUSINESS

GENERAL

International Paper Company (the Company or International Paper, which may also be referred to as we or us) is a global producer of renewable fiber-based packaging, pulp and paper products with manufacturing operations in North America, Latin America, Europe, North Africa and Russia. We are a New York corporation, incorporated in 1941 as the successor to the New York corporation of the same name organized in 1898. You can learn more about us by visiting our website at www.internationalpaper.com.

In the United States, at December 31, 2019, the Company operated 27 pulp, paper and packaging mills, 163 converting and packaging plants, 16 recycling plants and three bag facilities. Production facilities at December 31, 2019 in Canada, Europe, North Africa and Latin America included 14 pulp, paper and packaging mills, 44 converting and packaging plants, and two recycling plants. We operate a printing and packaging products distribution business principally through six branches in Asia. At December 31, 2019, we owned or managed approximately 329,000 acres of forestland in Brazil and had, through licenses and forest management agreements, harvesting rights on government-owned forestlands in Russia. Substantially all of our businesses have experienced, and are likely to continue to experience, cycles relating to industry capacity and general economic conditions.

For management and financial reporting purposes, our businesses are separated into three segments: Industrial Packaging; Global Cellulose Fibers; and Printing Papers.

A description of these business segments can be found on pages 25 and 26 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#). The Company's equity interests in Ilim S.A. (Ilim) and Graphic Packaging International Partners, LLC (GPIP) are also separate reportable industry segments.

From 2015 through 2019, International Paper's capital spending approximated \$7.1 billion, excluding mergers and acquisitions. These expenditures reflect our continuing efforts to use our capital strategically to improve product quality and environmental performance, as well as lower costs and maintain reliability of operations. Capital spending in 2019 was approximately \$1.3 billion and is expected to be approximately \$1.0 billion in 2020. You can find more information about capital spending on page 30 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#).

Discussions of acquisitions can be found on page 30 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#).

You can find discussions of restructuring charges and other special items on pages 24 and 25 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#).

Throughout this Annual Report on Form 10-K, we "incorporate by reference" certain information in parts of other documents filed with the Securities and Exchange Commission (SEC). The SEC permits us to disclose important information by referring to it in that manner. Please refer to such information. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, along with all other reports and any amendments thereto filed with or furnished to the SEC, are publicly available free of charge on the Investor Relations section of our website at www.internationalpaper.com as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information contained on or connected to our website is not incorporated by reference into this Form 10-K and should not be considered part of this or any other report that we filed with or furnished to the SEC.

COMPETITION AND COSTS

The pulp, paper and packaging sectors are large and fragmented, and the areas into which the Company sells its principal products are very competitive. Our products compete with similar products produced by other forest products companies. We also compete, in some instances, with companies in other industries and against substitutes for wood-fiber products.

Many factors influence the Company's competitive position, including price, cost, product quality and services. You can find more information about the impact of these factors on operating profits on pages 19 through 29 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#). You can find information about the Company's manufacturing capacities on page A-4 of [Appendix II](#).

MARKETING AND DISTRIBUTION

The Company sells products directly to end users and converters, as well as through agents, resellers and paper distributors.

DESCRIPTION OF PRINCIPAL PRODUCTS

The Company's principal products are described on pages 25 and 26 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#).

SALES VOLUMES BY PRODUCT

Sales volumes of major products for 2019, 2018 and 2017 were as follows:

SALES VOLUMES BY PRODUCT (a)

<i>In thousands of short tons (except as noted)</i>	2019	2018	2017
Industrial Packaging			
Corrugated Packaging (b)	10,454	10,624	10,413
Containerboard	2,909	3,229	3,294
Recycling	2,388	2,282	2,257
Saturated Kraft	174	196	181
Gypsum/Release Kraft	199	227	229
Bleached Kraft	22	31	27
EMEA Packaging (b) (c)	1,538	1,476	1,518
Brazilian Packaging (b)	366	351	357
European Coated Paperboard	417	390	398
Industrial Packaging	18,467	18,806	18,674
Global Cellulose Fibers (in thousands of metric tons) (d)	3,501	3,573	3,708
Printing Papers			
U.S. Uncoated Papers	1,799	1,886	1,915
European and Russian Uncoated Papers	1,456	1,440	1,483
Brazilian Uncoated Papers	1,172	1,125	1,167
Indian Uncoated Papers	206	263	253
Printing Papers	4,633	4,714	4,818

(a) Includes third-party and inter-segment sales and excludes sales of equity investees.

(b) Volumes for corrugated box sales reflect consumed tons sold. Board sales by these businesses reflect invoiced tons.

(c) Excludes newsprint sales volumes at the Madrid, Spain mill through Q3 2017.

(d) Includes North American, European and Brazilian volumes and internal sales to mills.

RESEARCH AND DEVELOPMENT

The Company operates its primary research and development center in Loveland, Ohio, as well as several other product development facilities, including a technology center in Federal Way, Washington.

We direct research and development activities to short-term, long-term and technical assistance needs of customers and operating divisions, and to process, equipment and product innovations. Activities include product development within the operating divisions; studies on innovation and improvement of pulping, bleaching, chemical recovery, paper making, converting and coating processes; packaging design and materials development; mechanical packaging systems, environmentally sensitive printing inks and reduction of environmental discharges; re-use of raw materials in manufacturing processes; recycling of consumer and packaging paper products; energy conservation; applications of computer controls to manufacturing operations; innovations and improvement of products; and development of various new products. Our development efforts specifically

address product safety, as well as the minimization of solid waste. The cost to the Company of its research and development operations was \$29 million in 2019, \$30 million in 2018 and \$28 million in 2017.

We own numerous patents, copyrights, trademarks, trade secrets and other intellectual property rights relating to our products and to the processes for their production. We also license intellectual property rights to and from others where advantageous or necessary. Many of the manufacturing processes are among our trade secrets. Some of our products are covered by U.S. and non-U.S. patents and are sold under well known trademarks. We derive a competitive advantage by protecting our trade secrets, patents, trademarks and other intellectual property rights, and by using them as required to support our businesses.

ENVIRONMENTAL PROTECTION

International Paper is subject to extensive federal and state environmental regulation, as well as similar regulations internationally. In addition, new environmental laws or regulations impacting our facilities around the world are routinely passed or proposed. Our continuing objectives include:

(1) controlling emissions and discharges from our facilities to avoid adverse impacts on the environment, and (2) maintaining compliance with applicable laws and regulations. The Company spent \$70 million in 2019 for capital projects to control environmental releases into the air and water, and to assure environmentally sound management and disposal of waste. We expect to spend \$80 million in 2020 for environmental capital projects. Capital expenditures for 2021 environmental projects are anticipated to be approximately \$85 million. Capital expenditures for 2022 environmental projects are estimated to be \$65 million.

The Company has completed capital projects to meet the U.S. Environmental Protection Agency's (EPA) Boiler MACT (maximum achievable control technology) regulations that require owners of specified boilers to meet revised air emissions standards for certain substances. Although certain aspects of litigation challenging all or portions of the Boiler MACT regulations remain open, we have not identified any additional Boiler MACT capital project expenditures that might result from resolution of the open issues.

The Company has been named as a potentially responsible party (PRP) in environmental remediation actions under various federal and state laws, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Many of these proceedings involve the cleanup of hazardous substances at large commercial landfills that received waste from many different sources. While joint and several liability is authorized under CERCLA and equivalent state laws, as a practical matter, liability for CERCLA cleanups is typically allocated among the many PRPs. There are other remediation costs typically associated with the cleanup of hazardous substances at the Company's current, closed or formerly-owned facilities, and recorded as liabilities on the balance sheet. For additional information regarding certain remediation actions, see [Note 14 Commitments and Contingent Liabilities](#) of [Item 8. Financial Statements and Supplementary Data](#) on pages 65 through 68.

CLIMATE CHANGE

International Paper plays a significant role in responding to the climate change challenge. Our entire business depends upon the sustainability of forests. We transform renewable resources into recyclable products that people depend on every day. This cycle begins with sourcing renewable fiber from responsibly managed forests, and at the end of use our products are recycled into new products at a higher rate than any other base material. We endeavor to continue to lead the international business community in responsible forest stewardship to ensure healthy and productive forest ecosystems for generations to come. Our efforts to advance sustainable forest management and restore

forest landscapes are an important lever for mitigating climate change through carbon storage in forests. Furthermore, we use biomass and manufacturing residuals (rather than fossil fuels) to generate a substantial majority of the manufacturing energy at our mills.

In an effort to mitigate the impact of climate change various international, national and sub-national (regional, state and local) governmental actions have been or may be undertaken. Presently, these efforts have not materially impacted International Paper, but such efforts may have a material impact on the Company in the future.

INTERNATIONAL EFFORTS

The Paris Agreement, went into effect in November 2016 and continued international efforts and voluntary commitments toward reducing the emissions of greenhouse gases (GHGs). Consistent with this objective, participating countries aim to balance GHG emissions generation and sequestration in the second half of this century or, in effect, achieve net-zero global GHG emissions.

As part of the Paris Agreement, many countries established non-binding emissions reduction targets. For instance, the U.S. made a non-binding commitment to hold GHG emissions 7% below 2005 GHG emissions levels by 2020 and 26% to 28% below by 2025. Other countries in which we operate made similar non-binding commitments. On August 4, 2017, the U.S. filed official notice to withdraw from the Paris Agreement. Notwithstanding the notice of withdrawal by the U.S., the Company's voluntary GHG reductions, which are set out in our annual Global Citizenship report, remain roughly in line with the percentages of the U.S. prior target reductions. It is not clear at this time what, if any, further reductions by the Company might be required by the countries in which we operate. Due to this uncertainty, it is not possible at this time to estimate the potential impacts of these agreements on the Company.

To assist member countries in meeting GHG reduction obligations, the EU operates an Emissions Trading System (EU ETS). Currently, we have two sites directly subject to regulation under Phase III of the EU ETS, one in Poland and one in France. Other sites that we operate in the EU experience indirect impacts of the EU ETS through purchased power pricing. Neither the direct nor indirect impacts of the EU ETS have been material to the Company, but they could be material to the Company in the future depending on how the Paris Agreement's non-binding commitments or allocation of and market prices for GHG credits under existing rules evolve over the coming years.

U.S. EFFORTS, INCLUDING STATE, REGIONAL AND LOCAL MEASURES

The U.S. Congress has not passed GHG legislation. The EPA manages regulations to: (i) control GHGs from mobile sources by adopting transportation fuel efficiency standards; (ii) control GHG emissions from new Electric Generating Units (EGUs); (iii) control emissions from new oil and gas processing operations and (iv) require reporting of GHGs from sources of GHGs greater than 25,000 tons per year.

Several U.S. states, including states in which we operate facilities, have enacted or are considering legal measures to require the reduction of emissions of GHGs by companies and public utilities. California, New York and Virginia have already enacted such programs, although these regulations have not, and are not expected to have a material impact on the Company. We are monitoring proposed programs in other states, however it is unclear what impacts, if any, state-level GHG rules will have on the Company's operations.

SUMMARY

Regulation of GHGs continues to evolve in various countries in which we do business. While it is likely that there will be increased governmental action regarding GHGs and climate change in the future, it is unclear when such actions will occur and at this time it is not reasonably possible to estimate Company costs of compliance with rules that have not yet been adopted or implemented and may not be adopted or implemented in the future. In addition to possible direct impacts, future legislation and regulation could have indirect impacts on International Paper, such as higher prices for transportation, energy and other inputs, as well as more protracted air permitting processes, causing delays and higher costs to implement capital projects. International Paper has controls and procedures in place to stay informed about developments concerning possible climate change legislation and regulation in the U.S. and in other countries where we operate. We regularly assess whether such legislation or regulation may have a material effect on the Company, its operations or financial condition, and whether we have any related disclosure obligations.

Additional information regarding climate change and International Paper is available in our 2018 Global Citizenship report found on our website at www.internationalpaper.com, though this information is not incorporated by reference into this Form 10-K and should not be considered part of this or any other report that we file with or furnish to the SEC.

EMPLOYEES

As of December 31, 2019, we have approximately 51,000 employees, nearly 33,000 of whom are located in the United States. Of our U.S. employees,

approximately 23,000 are hourly, with unions representing approximately 14,000 employees. Approximately 11,000 of this number are represented by the United Steelworkers union (USW).

International Paper, the USW, and several other unions have entered into two master agreements covering various mills and converting facilities. These master agreements cover several specific items, including wages, select benefit programs, successorship, employment security, and health and safety. Individual facilities continue to have local agreements for other subjects not covered by the master agreements. If local facility agreements are not successfully negotiated at the time of expiration, under the terms of the master agreements the local contracts will automatically renew with the same terms in effect. The master agreements cover the majority of our union represented mills and converting facilities. In addition, International Paper is party to a master agreement with District Council 2, International Brotherhood of Teamsters, covering additional converting facilities.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Mark S. Sutton, 58, chairman (since January 1, 2015) & chief executive officer (since November 1, 2014). Mr. Sutton previously served as president & chief operating officer from June 1, 2014 to October 31, 2014, senior vice president - industrial packaging from November 2011 to May 31, 2014, senior vice president - printing and communications papers of the Americas from 2010 until 2011, senior vice president - supply chain from 2008 to 2009, vice president - supply chain from 2007 until 2008, and vice president - strategic planning from 2005 until 2007. Mr. Sutton joined International Paper in 1984. Mr. Sutton serves on the board of directors of The Kroger Company. He is a member of The Business Council, serves on the American Forest & Paper Association board of directors, The Business Roundtable board of directors, and the international advisory board of the Moscow School of Management - Skolkovo. He was appointed chairman of the U.S. Russian Business Council. He also serves on the board of directors for Memphis Tomorrow and board of governors for New Memphis Institute. Mr. Sutton has been a director since June 1, 2014.

W. Michael Amick, Jr., 56, senior vice president - paper the Americas since January 1, 2017. Mr. Amick previously served as senior vice president - North American papers & consumer packaging from July 2016 until December 2016, senior vice president - North American papers, pulp & consumer packaging from November 2014 until June 2016, vice president - president, IP India, from August 2012 to October

2014, and vice president and general manager for the coated paperboard business from 2010 to 2012. Mr. Amick joined International Paper in 1990.

Clay R. Ellis, 49, senior vice president - enterprise operational excellence since December 2019. Mr. Ellis previously served as vice president - manufacturing, global cellulose fibers from 2016 to December 2019, vice president of pulp from 2014 to 2016, and vice president manufacturing, North American papers from 2012 to 2014. Mr. Ellis joined International Paper in 1992.

W. Thomas Hamic, 54, senior vice president - containerboard and enterprise commercial excellence since December 2019. Mr. Hamic previously served as vice president and general manager - containerboard & recycling, North American container from June 2015 until December 2019. Mr. Hamic became vice president and general manager of the south area in container of the Americas in 2009, and he was appointed to the role of vice president, industrial packaging group's finance & strategy in 2010. Mr. Hamic joined International Paper in 1991.

Tommy S. Joseph, 60, senior vice president until his retirement effective February 29, 2020. Mr. Joseph previously served as senior vice president - manufacturing, technology, EH&S and global sourcing from January 2010 until October 2019. Mr. Joseph has also previously served as senior vice president - manufacturing, technology, EH&S from February 2009 until December 2009, and vice president - technology from 2005 until February 2009. Mr. Joseph is a director of Ilim in which International Paper holds a 50% interest, and of its subsidiary, Ilim Group. Mr. Joseph joined International Paper in 1982.

Timothy S. Nicholls, 58, senior vice president & chief financial officer since June 2018. Mr. Nicholls previously served as senior vice president - industrial packaging the Americas from January 2017 through June 2018, senior vice president - industrial packaging from November 2014 through December 2016, senior vice president - printing and communications papers of the Americas from November 2011 through October 2014, senior vice president and chief financial officer from 2007 until 2011, vice president and executive project leader of IP Europe during 2007, and vice president and chief financial officer - IP Europe from 2005 until 2007. Mr. Nicholls joined International Paper in 1999.

Thomas J. Plath, 56, senior vice president - human resources and global citizenship since March 1, 2017. Mr. Plath previously served as vice president - human resources, global businesses from November 2014 through February 2017, and vice president - HR manufacturing, technology, EH&S and global supply

chain from April 2013 to November 2014. Mr. Plath joined International Paper in 1991.

Jean-Michel Ribieras, 57, senior vice president - industrial packaging the Americas since June 2018. Mr. Ribieras previously served as senior vice president - global cellulose fibers from July 2016 through June 2018, senior vice president - president, IP Europe, Middle East, Africa & Russia from 2013 until June 2016, and president - IP Latin America from 2009 until 2013. Mr. Ribieras joined International Paper in 1993.

James P. Royalty, Jr., 50, senior vice president and president, Europe, the Middle East, Africa and Russia since December 2019. Most recently, Mr. Royalty served as vice president, corporate development and disruptive technologies from September 2018 until December 2019, vice president, strategic projects from 2017 until 2018, vice president, investor relations from 2013 until 2017, vice president and general manager, container the Americas in 2008 to 2013. Mr. Royalty joined International Paper in 1991.

Sharon R. Ryan, 60, senior vice president, general counsel & corporate secretary since November 2011. Ms. Ryan previously served as vice president, acting general counsel & corporate secretary from May 2011 until November 2011, vice president from March 2011 until May 2011, associate general counsel, chief ethics and compliance officer from 2009 until 2011, and associate general counsel from 2006 until 2009. Ms. Ryan joined International Paper in 1988.

John V. Sims, 57, senior vice president - corporate development since December 2019. Mr. Sims previously served as senior vice president - president, IP Europe, Middle East, Africa & Russia from July 2016 until December 2019. Mr. Sims also previously served as vice president and general manager, European papers from January 2016 until June 2016, vice president & general manager, North American papers from 2014 until December 2015, and vice president, finance and strategy, industrial packaging, from 2009 until 2013. Mr. Sims is a director of Ilim in which International Paper holds a 50% interest, and of its subsidiary, Ilim Group. Mr. Sims joined International Paper in 1994.

Catherine I. Slater, 56, senior vice president - global cellulose fibers & IP Asia since June 2018. Ms. Slater previously served as senior vice president - consumer packaging from December 2016 through December 2017. Ms. Slater joined International Paper from Weyerhaeuser Company in December 2016, effective with the completion of the acquisition of Weyerhaeuser's cellulose fibers business, which she previously led. Ms. Slater's 24-year career with Weyerhaeuser included leadership roles in manufacturing, printing papers,

consumer products, wood products and the cellulose fibers business.

Gregory T. Wanta, 54, senior vice president - North American container since December 2016. Mr. Wanta has served in a variety of roles of increasing responsibility in manufacturing and commercial leadership roles in specialty papers, coated paperboard, printing papers, foodservice and industrial packaging, including vice president, central region, Container the Americas, from January 2012 through October 2016. Mr. Wanta joined International Paper in 1991.

RAW MATERIALS

Raw materials essential to our businesses include wood fiber, purchased in the form of pulpwood, wood chips and old corrugated containers (OCC), and certain chemicals, including caustic soda and starch. For further information concerning fiber supply purchase agreements, see page 31.

FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K (including the exhibits hereto) that are not historical in nature may be considered “forward-looking” statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are often identified by the words, “will,” “may,” “should,” “continue,” “anticipate,” “believe,” “expect,” “plan,” “appear,” “project,” “estimate,” “intend,” and words of a similar nature. These statements are not guarantees of future performance and reflect management’s current views with respect to future events, which are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in these statements. Factors which could cause actual results to differ include but are not limited to: (i) the level of our indebtedness and changes in interest rates; (ii) industry conditions, including but not limited to changes in the cost or availability of raw materials, energy and transportation costs, competition we face, cyclicalities and changes in consumer preferences, demand and pricing for our products; (iii) domestic and global economic conditions and political changes, including but not limited to changes in currency exchange rates, trade protectionist policies, downgrades in our credit ratings and/or the credit ratings of banks issuing certain letters of credit, issued by recognized credit rating organizations, (iv) the amount of our future pension funding obligations, and pension and health care costs; (v) unanticipated expenditures or other adverse developments related to the cost of compliance with existing and new environmental, tax, labor and employment, privacy, and other U.S. and non-U.S. governmental laws and regulations; (vi) whether we experience a material disruption at one of our

manufacturing facilities; (vii) risks inherent in conducting business through joint ventures; (viii) our ability to achieve the benefits we expect from, and other risks associated with, acquisitions, joint ventures, divestitures and other corporate transactions, (ix) information technology risks, and (x) loss contingencies and pending, threatened or future litigation, including with respect to environmental matters. These and other factors that could cause or contribute to actual results differing materially from such forward-looking statements are discussed in greater detail below in “Item 1A. Risk Factors.” In addition, other risks and uncertainties not presently known to us or that we currently believe to be immaterial could affect the accuracy of any forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

ITEM 1A. RISK FACTORS

The Company faces risks in the normal course of business and through global, regional, and local events that could have an adverse impact on its reputation, operations, and financial performance. The Board of Directors exercises oversight of the Company’s enterprise risk management program, which includes strategic, operational and financial matters, as well as compliance and legal risks. The Audit and Finance Committee coordinates the risk oversight role exercised by the Board’s standing committees and management, and it receives updates on the risk management processes twice per year.

In addition to the risks and uncertainties discussed elsewhere in this Annual Report on Form 10-K (particularly in [Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations](#)), or in the Company’s other filings with the Securities and Exchange Commission, the following are some important factors that could cause the Company’s actual results to differ materially from those projected in any forward-looking statement. If any of the events or circumstances described in any of the following risk factors occurs, our business, results of operations and/or financial condition could be materially and adversely affected, and our actual results may differ materially from those contemplated in any forward-looking statements we make in any public disclosures.

RISKS RELATING TO INDUSTRY CONDITIONS

CHANGES IN THE COST OR AVAILABILITY OF RAW MATERIALS, ENERGY AND TRANSPORTATION COULD AFFECT OUR PROFITABILITY. We rely heavily on the use of certain raw materials (principally virgin wood fiber, recycled fiber, caustic soda and starch), energy sources (principally biomass, natural gas, electricity and fuel oil) and third-party companies that transport our goods. The market price of virgin wood

fiber varies based upon availability and source. The global supply and demand for recycled fiber may be affected by trade policies between countries, individual governments' legislation and regulations, as well as changes in the global economy. In addition, the increase in demand of products manufactured, in whole or in part, from recycled fiber, on a global basis, may cause significant fluctuations in recycled fiber prices. Energy prices, in particular prices for oil and natural gas, have fluctuated dramatically in the past and may continue to fluctuate in the future. The availability of labor and the market price for fuel may affect our costs for third-party transportation. Our profitability has been, and will continue to be, affected by changes in the costs and availability of such raw materials, energy sources and transportation sources.

THE INDUSTRIES IN WHICH WE OPERATE EXPERIENCE BOTH ECONOMIC CYCLICALITY AND CHANGES IN CONSUMER PREFERENCES. FLUCTUATIONS IN THE PRICES OF, AND THE DEMAND FOR, OUR PRODUCTS COULD MATERIALLY AFFECT OUR FINANCIAL CONDITION, RESULTS OF OPERATIONS AND CASH FLOWS. Substantially all of our businesses have experienced, and are likely to continue to experience, cycles relating to industry capacity and general economic conditions. The length and magnitude of these cycles have varied over time and by product. In addition, changes in consumer preferences may increase or decrease the demand for our fiber-based products and non-fiber substitutes. Moreover, consumer preferences are constantly changing based on, among other factors, cost, convenience and health, environmental and social concerns and perceptions. These consumer preferences affect the prices of our products. Consequently, our financial results are sensitive to changes in the pricing and demand for our products.

COMPETITION IN THE UNITED STATES AND INTERNATIONALLY COULD NEGATIVELY IMPACT OUR FINANCIAL RESULTS. We operate in a competitive environment, both in the United States and internationally, in all of our operating segments. Product innovations, manufacturing and operating efficiencies, and marketing, distribution and pricing strategies pursued or achieved by competitors could negatively impact our financial results.

RISKS RELATING TO MARKET AND ECONOMIC FACTORS

ADVERSE DEVELOPMENTS IN GENERAL BUSINESS AND ECONOMIC CONDITIONS COULD HAVE AN ADVERSE EFFECT ON THE DEMAND FOR OUR PRODUCTS AND OUR FINANCIAL CONDITION AND RESULTS OF OPERATIONS. General economic conditions may adversely affect industrial non-durable goods production, consumer spending, commercial printing and advertising activity, white-collar

employment levels and consumer confidence, all of which impact demand for our products. In addition, volatility in the capital and credit markets, which impacts interest rates, currency exchange rates and the availability of credit, could have a material adverse effect on our business, financial condition and our results of operations.

CHANGES IN INTERNATIONAL CONDITIONS COULD ADVERSELY AFFECT OUR BUSINESS AND RESULTS OF OPERATIONS. Our operating results and business prospects could be substantially affected by risks related to the countries outside the United States in which we have manufacturing facilities or sell our products. Specifically, Russia, Brazil, Poland, and Turkey, where we have substantial manufacturing facilities, are countries that are exposed to economic and political instability in their respective regions of the world. Fluctuations in the value of local currency versus the U.S. dollar, downturns in economic activity, adverse tax consequences or rulings, nationalization or any change in social, political or labor conditions in any of these countries or regions impacting matters such as sustainability, environmental regulations and trade policies and agreements, could negatively affect our financial results. In addition, outbreak of a widespread health epidemic, such as a coronavirus, influenza and other highly communicable diseases or viruses, could also adversely impact our operating results and business prospects, including if operations of our customers are adversely impacted. In this regard, while we do not currently expect that our financial results will be significantly and adversely affected by the COVID-19 virus that was first detected in Wuhan, China in December 2019, there continue to be significant uncertainties associated with the COVID-19 virus, including with respect to the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and actions that may be taken by Chinese or other governmental authorities to contain the COVID-19 virus or to treat its impact, and the extent to which the COVID-19 outbreak may impact our financial results, including as the result of its possible impact on the Chinese or global economy, is not certain.

Trade protection measures in favor of local producers of competing products, including governmental subsidies, tax benefits and other measures giving local producers a competitive advantage over International Paper, may also adversely impact our operating results and business prospects in these countries. Likewise, disruption in existing trade agreements or increased trade friction between countries (e.g., the U.S. and China), which can result in tariffs, could have a negative effect on our business and results of operations by restricting the free flow of goods and services across borders. In addition, our international operations are subject to regulation under U.S. law and other laws related to operations in foreign jurisdictions. For

example, the Foreign Corrupt Practices Act prohibits U.S. companies and their representatives from offering, promising, authorizing or making payments to foreign officials for the purpose of obtaining or retaining business abroad, and the U.S. Department of Treasury's Office of Foreign Asset Control and other non-U.S. government entities maintain economic sanctions targeting various countries, persons and entities. Failure to comply with domestic or foreign laws could result in various adverse consequences, including the imposition of civil or criminal sanctions and the prosecution of executives overseeing our international operations.

THE LEVEL OF OUR INDEBTEDNESS COULD ADVERSELY AFFECT OUR FINANCIAL CONDITION AND IMPAIR OUR ABILITY TO OPERATE OUR BUSINESS. As of December 31, 2019, International Paper had approximately \$9.8 billion of outstanding indebtedness. The level of our indebtedness could have important consequences to our financial condition, operating results and business, including the following:

- it may limit our ability to obtain additional debt or equity financing for working capital, capital expenditures, product development, dividends, share repurchases, debt service requirements, acquisitions and general corporate or other purposes;
- a portion of our cash flows from operations will be dedicated to payments on indebtedness and will not be available for other purposes, including operations, capital expenditures and future business opportunities;
- the debt service requirements of our indebtedness could make it more difficult for us to satisfy other obligations;
- it may limit our ability to adjust to changing market conditions and place us at a competitive disadvantage compared to our competitors that have less debt; and
- it may increase our vulnerability to a downturn in general economic conditions or in our business, and may make us unable to carry out capital spending that is important to our growth.

In addition, we are subject to agreements governing our indebtedness that require us to meet and maintain certain financial ratios and covenants. A significant or prolonged downturn in general business and economic conditions, or other significant adverse developments with respect to our results of operations or financial condition, may affect our ability to comply with these covenants or meet those financial ratios and tests and could require us to take action to reduce our debt or to act in a manner contrary to our current business objectives. Moreover, the restrictions associated with

these financial ratios and covenants may prevent us from taking actions that we believe would be in the best interest of our business and may make it difficult for us to execute our business strategy successfully or effectively compete with companies that are not similarly restricted. Additionally, despite these restrictions, we may be able to incur substantial additional indebtedness in the future, which might subject us to additional restrictive covenants that could affect our financial and operational flexibility and otherwise increase the risks associated with our indebtedness as noted above.

Moreover, certain of our variable rate debt uses the London Interbank Offering Rate ("LIBOR") as a benchmark for establishing the interest rate. The U.K. Financial Conduct Authority announced in 2017 that it intends to phase out LIBOR by the end of 2021. In addition, other regulators have suggested reforming or replacing other benchmark rates. The discontinuation, reform or replacement of LIBOR or any other benchmark rates may have an unpredictable impact on contractual mechanics in the credit markets or cause disruption to the broader financial markets. Additionally, uncertainty as to the nature of such potential discontinuation, reform or replacement may negatively impact the cost of our variable rate debt.

CHANGES IN CREDIT RATINGS ISSUED BY NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATIONS COULD ADVERSELY AFFECT OUR COST OF FINANCING AND HAVE AN ADVERSE EFFECT ON THE MARKET PRICE OF OUR SECURITIES.

Maintaining an investment-grade credit rating is an important element of our financial strategy, and a downgrade of the Company's ratings below investment grade will likely eliminate our ability to access the commercial paper market, may limit our access to the capital markets, have an adverse effect on the market price of our securities, increase our cost of borrowing and require us to post collateral for derivatives in a net liability position. The Company's desire to maintain its investment grade rating may cause the Company to take certain actions designed to improve its cash flow, including sale of assets, suspension or reduction of our dividend and reductions in capital expenditures and working capital.

Under the terms of the agreements governing approximately \$1.4 billion of our debt as of December 31, 2019, the applicable interest rate on such debt may increase upon each downgrade in our credit rating below investment grade. As a result, a downgrade in our credit rating below investment grade may lead to an increase in our interest expense. There can be no assurance that such credit ratings will remain in effect for any given period of time or that such ratings will not be lowered, suspended or withdrawn entirely by the rating agencies, if, in each rating agency's judgment, circumstances so warrant. Any such downgrade,

suspension or withdrawal of our credit ratings could adversely affect our cost of borrowing, limit our access to the capital markets or result in more restrictive covenants in agreements governing the terms of any future indebtedness that we may incur.

DOWNGRADES IN THE CREDIT RATINGS OF BANKS ISSUING CERTAIN LETTERS OF CREDIT WILL INCREASE OUR COST OF MAINTAINING CERTAIN INDEBTEDNESS AND MAY RESULT IN THE ACCELERATION OF DEFERRED TAXES.

We are subject to the risk that a bank with currently issued irrevocable letters of credit supporting installment notes, including those delivered to Temple-Inland in connection with Temple-Inland's 2007 sales of forestlands, may be downgraded below a required rating. Since 2007, certain banks have fallen below the required ratings threshold and were successfully replaced, or waivers were obtained regarding their replacement. As a result of continuing uncertainty in the banking environment, a number of the letter-of-credit banks currently in place remain subject to risk of downgrade and the number of qualified replacement banks remains limited. The downgrade of one or more of these banks may subject the Company to additional costs of securing a replacement letter-of-credit bank or could result in an acceleration of payments of up to \$485 million in deferred income taxes if replacement banks cannot be obtained. The deferred taxes are currently recorded in the Company's consolidated financial statements. See [Note 15. Variable Interest Entities](#), on pages 68 through 70, and [Note 13. Income Taxes](#), on pages 62 through 65, in [Item 8. Financial Statements and Supplementary Data](#) for further information.

OUR PENSION AND HEALTH CARE COSTS ARE SUBJECT TO NUMEROUS FACTORS WHICH COULD CAUSE THESE COSTS TO CHANGE.

We have defined benefit pension plans covering substantially all U.S. salaried employees hired prior to July 1, 2004 (or later for certain acquired populations, as described in [Note 19. Retirement Plans](#), on pages 75 through 81, in [Item 8. Financial Statements and Supplementary Data](#)) and substantially all hourly union and non-union employees regardless of hire date. The Company has frozen participation under these plans for U.S. salaried employees, including credited services and compensation on or after January 1, 2019; however, the pension freeze does not affect benefits accrued through December 31, 2018. We provide retiree health care benefits to certain former U.S. employees, as well as financial assistance towards the cost of individual retiree medical coverage for certain former U.S. salaried employees. Our pension costs are dependent upon numerous factors resulting from actual plan experience and assumptions of future experience. Pension plan assets are primarily made up of equity and fixed income investments. Fluctuations in actual equity market returns, changes in general interest rates and changes

in the number of retirees may impact pension costs in future periods. Likewise, changes in assumptions regarding current discount rates and expected rates of return on plan assets could increase pension costs. Drivers for fluctuating health costs include unit cost changes, health care utilization by participants, and potential legislative impacts and government oversight.

OUR PENSION PLANS ARE CURRENTLY UNDERFUNDED ON A PROJECTED BENEFIT OBLIGATION BASIS, AND OVER TIME WE MAY BE REQUIRED TO MAKE CASH PAYMENTS TO THE PLANS, REDUCING THE CASH AVAILABLE FOR OUR BUSINESS.

We record a liability associated with our pension plans equal to the excess of the benefit obligation over the fair value of plan assets. The benefit liability recorded under the provisions of Accounting Standards Codification (ASC) 715, "Compensation – Retirement Benefits," at December 31, 2019 was \$1.6 billion. The amount and timing of future contributions, which could be material, will depend upon a number of factors, including the actual earnings and changes in values of plan assets and changes in interest rates.

RISKS RELATING TO OUR OPERATIONS

MATERIAL DISRUPTIONS AT ONE OF OUR MANUFACTURING FACILITIES COULD NEGATIVELY IMPACT OUR FINANCIAL RESULTS.

We operate our facilities in compliance with applicable rules and regulations and take measures to minimize the risks of disruption at our facilities. A material disruption at our corporate headquarters or one of our manufacturing facilities could prevent us from meeting customer demand, reduce our sales and/or negatively impact our 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:

- fires, floods, earthquakes, hurricanes or other catastrophes;
- the effect of a drought or reduced rainfall on its water supply;
- the effect of other severe weather conditions on equipment and facilities;
- disruption in the supply of raw materials or other manufacturing inputs;
- terrorism or threats of terrorism;
- information system disruptions or failures due to any number of causes, including cyber-attacks;
- domestic and international laws and regulations applicable to our Company and our business partners, including joint venture partners, around the world;

- unscheduled maintenance outages;
- prolonged power failures;
- an equipment failure;
- a chemical spill or release;
- explosion of a boiler or other equipment;
- damage or disruptions caused by third parties operating on or adjacent to one of our manufacturing facilities;
- disruptions in the transportation infrastructure, including roads, bridges, railroad tracks and tunnels;
- a widespread outbreak of an illness or any other communicable disease, such as the recent outbreak of the COVID-19 virus in China, or any other public health crisis;
- failure of our third party service providers and business partners to satisfactorily fulfill their commitments and responsibilities in a timely manner and in accordance with agreed upon terms;
- labor difficulties; and
- other operational problems.

Any such downtime or facility damage could prevent us from meeting customer demand for our products and/or require us to make unplanned expenditures. If one of these machines or facilities were to incur significant downtime, our ability to meet our production targets and satisfy customer requirements could be impaired, resulting in lower sales and having a negative effect on our business and financial results.

CERTAIN OPERATIONS ARE CONDUCTED BY JOINT VENTURES THAT WE CANNOT OPERATE SOLELY FOR OUR BENEFIT. Certain operations in Russia are carried on by a joint venture, Ilim. In joint ventures, we share ownership and management of a company with one or more parties who may or may not have the same goals, strategies, priorities or resources as we do. In general, joint ventures are intended to be operated for the benefit of all co-owners, rather than for our exclusive benefit. Operating a business as a joint venture often requires additional organizational formalities as well as time-consuming procedures for sharing information and making decisions. In joint ventures, we are required to pay more attention to our relationship with our co-owners as well as with the joint venture, and if a co-owner changes, our relationship may be adversely affected. In addition, the benefits from a successful joint venture are shared among the co-owners, so we receive only our portion of those benefits.

WE MAY NOT ACHIEVE THE EXPECTED BENEFITS FROM STRATEGIC ACQUISITIONS, JOINT VENTURES, DIVESTITURES, CAPITAL INVESTMENTS AND OTHER CORPORATE TRANSACTIONS THAT WE HAVE PURSUED OR MAY PURSUE. Our strategy for long-term growth, productivity and profitability depends, in part, on our ability to accomplish prudent acquisitions, joint ventures, divestitures, capital investments and other corporate transactions that we may pursue and to realize the benefits we expect from such transactions, and we are subject to the risk that we may not achieve the expected benefits. This failure could require us to record an impairment charge for goodwill or other intangible assets, which could lead to decreased assets and reduced net earnings. Among the benefits we expect from potential as well as completed acquisitions and joint ventures are synergies, cost savings, growth opportunities or access to new markets (or a combination thereof), and in the case of divestitures, the realization of proceeds from the sale of businesses and assets to purchasers who place higher strategic value on such businesses and assets than does International Paper.

Corporate transactions of this nature which we may pursue involve a number of special risks, including with respect to our inability to realize our business goals with respect to such transactions as noted above, the focus of our management's attention on these transactions and the assimilation of acquired businesses into our operations, the demands on our financial, operational and information technology systems resulting from acquired businesses, and the possibility that we may become responsible for substantial contingent or unanticipated legal liabilities as the result of acquisitions or other corporate transactions.

WE ARE SUBJECT TO INFORMATION TECHNOLOGY RISKS RELATED TO BREACHES OF SECURITY PERTAINING TO SENSITIVE COMPANY, CUSTOMER, EMPLOYEE AND VENDOR INFORMATION AS WELL AS BREACHES IN THE TECHNOLOGY USED TO MANAGE OPERATIONS AND OTHER BUSINESS PROCESSES. Our business operations rely upon secure information technology systems for data capture, processing, storage and reporting. Despite careful security and controls design, implementation, updating and independent third party verification, our information technology systems, and those of our third party providers or joint venture partners, could become subject to employee error or malfeasance, cyber attacks by common hackers, criminal groups or nation-state organizations or social activist (hacktivist) organizations, geopolitical events, natural disasters, failures or impairments of telecommunications networks or other catastrophic events. Network, system, application and data breaches

could result in operational disruptions or information misappropriation including, but not limited to, interruption to systems availability, denial of access to and misuse of applications required by our customers to conduct business with International Paper. Access to applications required to plan our operations, source materials, manufacture and ship finished goods and account for orders could be denied or misused. Theft of intellectual property or trade secrets, and inappropriate disclosure of confidential company, employee, customer or vendor information, could stem from such incidents. Any of these operational disruptions and/or misappropriation of information could result in lost sales, business delays, negative publicity and could have a material effect on our business.

RISKS RELATING TO LEGAL PROCEEDINGS AND COMPLIANCE COSTS

WE ARE SUBJECT TO A WIDE VARIETY OF LAWS, REGULATIONS AND OTHER GOVERNMENT REQUIREMENTS THAT MAY CHANGE IN SIGNIFICANT WAYS, AND THE COST OF COMPLIANCE WITH SUCH REQUIREMENTS COULD IMPACT OUR BUSINESS AND RESULTS OF OPERATIONS. Our operations are subject to regulation under a wide variety of U.S. federal and state and non-U.S. laws, regulations and other government requirements -- including, among others, those relating to the environment, health and safety, labor and employment, data privacy, tax, trade and health care. There can be no assurance that laws, regulations and government requirements will not be changed, applied or interpreted in ways that will require us to modify our operations and objectives or affect our returns on investments by restricting existing activities and products, subjecting them to escalating costs.

For example, we have incurred, and expect that we will continue to incur, significant capital, operating and other expenditures complying with applicable environmental laws and regulations. Our environmental expenditures include, among other areas, those related to air and water quality, waste disposal and the cleanup of contaminated soil and groundwater, including situations where we have been identified as a potentially responsible party. Moreover, we may be directly impacted by, and are working to manage, the risks and costs to us, our customers and our vendors of the effects of climate change, greenhouse gases, and the availability of energy and water resources. These risks include the potentially adverse impact on forestlands, which are a key resource in the production of our products, increased product costs and a change in the types of products that customers purchase. We also face risks arising from the increased public focus, including by governmental and nongovernmental organizations, on these and other environmental sustainability matters, such as packaging and waste, deforestation, and land

use. These risks also include the increased pressure to make commitments, set targets, or establish additional goals and take actions to meet them. These risks could expose us to market, operational, and execution costs or risks. There can be no assurance that future remediation requirements and compliance with existing and new laws and requirements will not require significant expenditures, or that existing reserves for specific matters will be adequate to cover future costs. We could also incur substantial fines or sanctions, enforcement actions (including orders limiting our operations or requiring corrective measures), natural resource damages claims, 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, regulations, codes and common law. The amount and timing of environmental expenditures is difficult to predict, and, in some cases, liability may be imposed without regard to contribution or to whether we knew of, or caused, the release of hazardous substances.

Additionally, we are subject to complex and evolving U.S. and international privacy laws and regulations, including those pertaining to the handling of personal data, such as the General Data Protection Regulation ("GDPR") and the California Consumer Privacy Act of 2018 ("CCPA"). The GDPR, which became effective on May 25, 2018, with respect to all member states of the European Union, includes operational requirements for companies receiving or processing personal data of EU residents that are partially different from those that had previously been in place and includes significant penalties for noncompliance. The CCPA, which went into effect on January 1, 2020, affords California residents and households expanded privacy protections. Moreover, governmental authorities around the world are considering, or are in the process of implementing, new data protection regulations.

Many of these laws and regulations are subject to uncertain application, interpretation or enforcement standards that could result in claims, changes to our business practices, data processing and security systems, penalties, increased operating costs or other impacts on our businesses. The recently enacted laws often provide for civil penalties for violations, as well as private rights of action for data breaches that may increase data breach litigation. IP proactively uses internal and external resources to monitor compliance with relevant legislation and continually evaluates and, where necessary, modifies its data processing practices and policies in order to comply with evolving privacy laws. Nevertheless, relevant regulatory authorities could determine that our data handling practices fail to address all the requirements of certain new laws, which could subject us to penalties and/or litigation. In addition, there is no assurance that our security controls over personal data, the training of employees and vendors

on data privacy and data security, and the policies, procedures and practices we implemented or may implement in the future will prevent the improper disclosure of personal data. Improper disclosure of personal data in violation of the GDPR, the CCPA and/or of other personal data protection laws could harm our reputation, cause loss of consumer confidence, subject us to government enforcement actions (including fines), or result in private litigation against us, which could result in loss of revenue, increased costs, liability for monetary damages, fines and/or criminal prosecution, all of which could negatively affect our business and operating results.

As a final example, the application of tax law is subject to interpretation and is subject to audit by taxing authorities. Additionally, administrative guidance can be incomplete or vary from legislative intent, and therefore the application of the tax law is uncertain. While we believe the positions reported by the Company comply with relevant tax laws and regulations, taxing authorities could interpret our application of certain laws and regulations differently. We are currently subject to tax audits in the U.S., Brazil, Poland, Russia and other taxing jurisdictions around the world. In some cases, we have appealed and may continue to appeal, assessments by taxing authorities in the court system. As such, tax controversy matters may result in previously unrecorded tax expenses, higher future tax expenses or the assessment of interest and penalties.

RESULTS OF LEGAL PROCEEDINGS COULD HAVE A MATERIAL EFFECT ON OUR CONSOLIDATED FINANCIAL RESULTS. We are a party to various legal, regulatory and governmental proceedings and other related matters, including with respect to environmental matters. In addition, we are and may become subject to other loss contingencies, both known and unknown, which may relate to past, present and future facts, events, circumstances and occurrences. Should an unfavorable outcome occur in connection with our legal, regulatory or governmental proceedings or other loss contingencies, or if we become subject to any such loss contingencies in the future, there could be a material adverse impact on our financial results.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

FORESTLANDS

As of December 31, 2019, the Company owned or managed approximately 329,000 acres of forestlands in Brazil, and had, through licenses and forest management agreements, harvesting rights on government-owned forestlands in Russia. All owned

lands in Brazil are independently third-party certified for sustainable forestry under the Brazilian National Forest Certification Program (CERFLOR) and the Forest Stewardship Council (FSC).

MILLS AND PLANTS

A listing of our production facilities by segment, the vast majority of which we own, can be found in [Appendix I](#) hereto, which is incorporated herein by reference.

The Company's facilities are in good operating condition and are suited for the purposes for which they are presently being used. We continue to study the economics of modernization or adopting other alternatives for higher cost facilities.

CAPITAL INVESTMENTS AND DISPOSITIONS

Given the size, scope and complexity of our business interests, we continually examine and evaluate a wide variety of business opportunities and planning alternatives, including possible acquisitions and sales or other dispositions of properties. You can find a discussion about the level of planned capital investments for 2020 on page 30, and dispositions and restructuring activities as of December 31, 2019, on pages 23 through 25 of [Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#), and on page 56 of [Item 8. Financial Statements and Supplementary Data](#).

ITEM 3. LEGAL PROCEEDINGS

Information concerning certain legal proceedings of the Company is set forth in [Note 14 Commitments and Contingent Liabilities](#) on pages 65 through 68 of [Item 8. Financial Statements and Supplementary Data](#) which is incorporated herein by reference.

Additionally, the Florida Department of Environmental Protection and the Company are currently in negotiations to enter into a settlement of violations by the Company's Pensacola mill of its wastewater effluent discharge permit chronic toxicity limit. The settlement would include penalties totaling \$1.1 million and require the mill to engage in certain corrective actions.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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

As of the filing of this Annual Report on Form 10-K, the Company's common shares are traded on the New York Stock Exchange (NYSE: IP). As of February 14, 2020, there were approximately 9,663 record holders of common stock of the Company.

We pay regular quarterly cash dividends and expect to continue to pay regular quarterly cash dividends in the foreseeable future, though each quarterly dividend payment is subject to review and approval by our Board of Directors. Our ability to pay dividends is, and in the future may continue to be, limited by the terms of our debt documents.

The table below presents information regarding the Company's purchases of its equity securities for the time periods presented.

PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS.

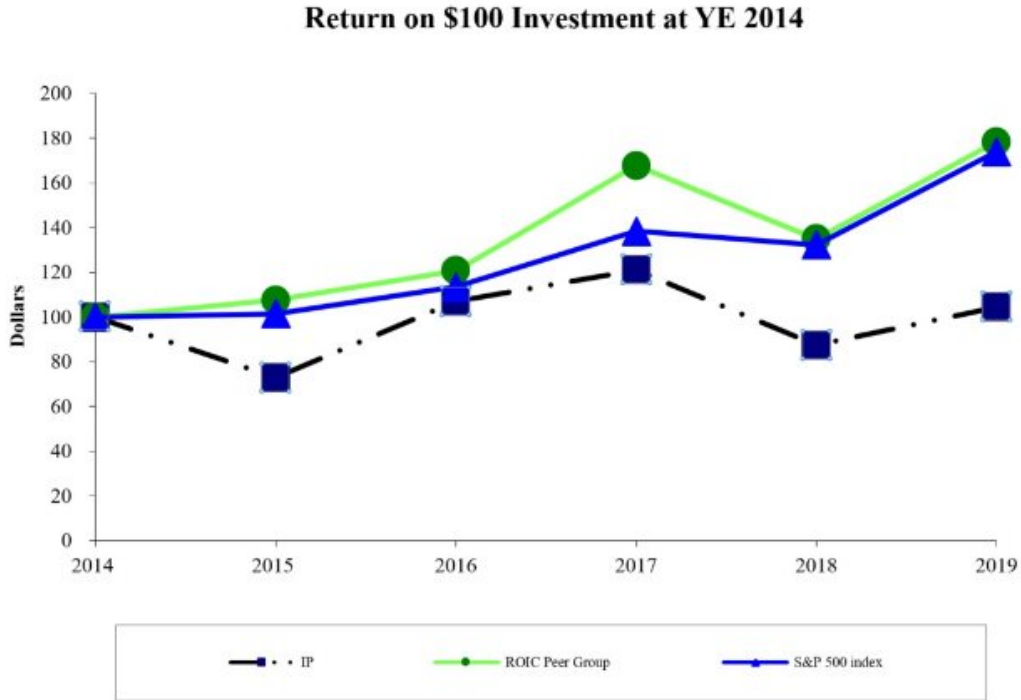
Period	Total Number of Shares Purchased (a)	Average Price Paid per Share	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (in billions)
October 1, 2019 - October 31, 2019	—	\$ —	—	\$ 1.75
November 1, 2019 - November 30, 2019	205	43.68	—	1.75
December 1, 2019 - December 31, 2019	5,357	46.34	—	1.75
Total	5,562			

(a) 5,562 shares were acquired from employees from share withholdings to pay income taxes under the Company's restricted stock programs. During 2019, 10,828,416 shares were purchased under our share repurchase program, which was approved by our Board of Directors and announced on July 8, 2014 and October 9, 2018. Through this program, which does not have an expiration date, we were authorized to purchase, in open market transactions (including block trades), privately negotiated transactions or otherwise, up to \$3.5 billion aggregate amount of shares of our common stock. As of February 14, 2020, approximately \$1.75 billion aggregate amount of shares of our common stock remained authorized for purchase under this program.

PERFORMANCE GRAPH

The performance graph shall not be deemed "soliciting material" or to be "filed" with the Commission or subject to Regulation 14A or 14C under, or to the liabilities of Section 18 of, the Exchange Act of 1934, as amended.

The following graph compares a \$100 investment in Company stock on December 31, 2014 with a \$100 investment in our Return on Invested Capital (ROIC) Peer Group and the S&P 500 also made at market close on December 31, 2014. The graph portrays total return, 2014–2019, assuming reinvestment of dividends.



Note 1. The companies included in the ROIC Peer Group are Domtar Inc., Fibria Celulose S.A., Graphic Packaging Holding Company, Klabin S.A., Metsa Board Corporation, Mondi Group, Packaging Corporation of America, Smurfit Kappa Group, Stora Enso Group, and UPM-Kymmene Corp. WestRock was added to the Peer group beginning in 2016 after the merger of MeadWestvaco and Rock-Tenn. Fibria Celulose S.A. was excluded at the end of 2018 due to being acquired by Suzano.

Note 2. Returns are calculated in \$USD.

ITEM 6. SELECTED FINANCIAL DATA
FIVE-YEAR FINANCIAL SUMMARY (a)

<i>Dollar amounts in millions, except per share amounts and stock prices</i>	2019	2018	2017	2016	2015
RESULTS OF OPERATIONS					
Net sales	\$ 22,376	\$ 23,306	\$ 21,743	\$ 19,495	\$ 20,675
Costs and expenses, excluding interest	20,281	20,989	20,323	18,180	18,988
Earnings (loss) from continuing operations before income taxes and equity earnings	1,604 ^(b)	1,781 ^(e)	848 ^(h)	795 ^(k)	1,132 ⁽ⁿ⁾
Equity earnings (loss), net of taxes	250	336	177	198	117
Discontinued operations, net of taxes	—	345 ^(f)	34 ⁽ⁱ⁾	102 ^(l)	85 ^(o)
Net earnings (loss)	1,220 ^(b-c)	2,017 ^(e-g)	2,144 ^(h-j)	902 ^(k-m)	917 ^(n-p)
Noncontrolling interests, net of taxes	(5) ^(d)	5	—	(2)	(21)
Net earnings (loss) attributable to International Paper Company	1,225 ^(b-d)	2,012 ^(e-g)	2,144 ^(h-j)	904 ^(k-m)	938 ^(n-p)
FINANCIAL POSITION					
Current assets less current liabilities	\$ (2,007)	\$ 2,302	\$ 3,175	\$ 2,601	\$ 2,244
Plants, properties and equipment, net	13,004	13,067	13,265	13,003	11,000
Forestlands	391	402	448	456	366
Financial assets of variable interest entities	7,088	7,070	7,051	7,033	7,014
Total assets	33,471	33,576	33,903	33,093	30,271
Notes payable and current maturities of long-term debt	168	639	311	239	426
Current nonrecourse financial liabilities of variable interest entities	4,220	—	—	—	—
Long-term debt	9,597	10,015	10,846	11,075	8,844
Long-term nonrecourse financial liabilities of variable interest entities	2,085	6,298	6,291	6,284	6,277
Total shareholders' equity	7,713	7,362	6,522	4,341	3,884
BASIC EARNINGS PER SHARE ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY COMMON SHAREHOLDERS					
Earnings (loss) from continuing operations	\$ 3.10	\$ 4.07	\$ 5.11	\$ 1.95	\$ 2.05
Discontinued operations	—	0.84	0.08	0.25	0.20
Net earnings (loss)	3.10	4.91	5.19	2.20	2.25
DILUTED EARNINGS PER SHARE ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY COMMON SHAREHOLDERS					
Earnings (loss) from continuing operations	\$ 3.07	\$ 4.02	\$ 5.05	\$ 1.93	\$ 2.03
Discontinued operations	—	0.83	0.08	0.25	0.20
Net earnings (loss)	3.07	4.85	5.13	2.18	2.23
Cash dividends	2.013	1.925	1.863	1.783	1.640
COMMON STOCK PRICES					
High	\$ 48.24	\$ 66.94	\$ 58.96	\$ 54.68	\$ 57.90
Low	36.45	37.55	49.60	32.50	36.76
Year-end	46.05	40.36	57.94	53.06	37.70
FINANCIAL RATIOS					
Current ratio	0.8	1.5	1.6	1.6	1.6
Total debt to capital ratio	0.56	0.59	0.63	0.72	0.70
Return on shareholders' equity	16.2%	28.4%	43.9%	22.1%	20.0%
CAPITAL EXPENDITURES	\$ 1,276	\$ 1,572	\$ 1,391	\$ 1,348	\$ 1,487
NUMBER OF EMPLOYEES	51,000	53,000	56,000	55,000	56,000

FINANCIAL GLOSSARY

Current ratio—
current assets divided by current liabilities.

Total debt to capital ratio—
long-term debt plus notes payable and current maturities of long-term debt divided by long-term debt, notes payable and current maturities of long-term debt and total shareholders' equity.

Return on shareholders' equity—
net earnings attributable to International Paper Company divided by average shareholders' equity (computed monthly).

FOOTNOTES TO FIVE-YEAR FINANCIAL SUMMARY

(a) All prior periods presented have been restated to reflect the North American Consumer Packaging business and the xpedx business as discontinued operations (excluding cash flow related items) and prior period amounts have been adjusted to conform with current year presentation, if applicable.

2019:

(b) Includes the following charges (gains):

In millions	2019	
	Before Tax	After Tax
India impairment	\$ 159	\$ 157
India divestiture transaction costs	3	2
Global Cellulose Fibers goodwill impairment	52	42
Litigation reserves	41	31
Italian antitrust fine	32	32
Environmental remediation reserve adjustment	25	19
(Gain) loss on sale of EMEA Packaging box plant	(6)	(5)
EMEA Packaging business optimization	17	14
Multi-employer pension plan exit liability	9	6
Abandoned property removal	50	38
Riverdale mill conversion costs	5	4
Foreign VAT refund accrual including interest	(6)	(4)
Debt extinguishment costs	21	16
Gain on sale of previously closed Oregon mill site	(9)	(7)
Overhead cost reduction initiative	21	16
Other items	4	4
Total special items	\$ 418	\$ 365
Non-operating pension expense	36	28
Total	\$ 454	\$ 393

(c) Includes the following tax expenses (benefits):

In millions	2019
Luxembourg statutory tax rate change	\$ 9
State income tax legislative changes	(3)
Foreign tax audits	3
Internal investment restructuring	(53)
Foreign deferred tax valuation allowance	203
Total	\$ 159

(d) Includes the following allocation of loss:

In millions	2019	
	Before Tax	After Tax
India Impairment	\$ 9	\$ 9
Total	\$ 9	\$ 9

2018:

(e) Includes the following charges (gains):

In millions	2018	
	Before Tax	After Tax
Smurfit-Kappa acquisition proposal costs	\$ 12	\$ 9
Legal settlement	9	7
Litigation settlement recovery	(5)	(4)
Environmental remediation reserve adjustment	9	7
EMEA Packaging business optimization	47	34
Abandoned property removal	32	24
Riverdale mill conversion costs	9	7
Brazil Packaging impairment	122	81
Debt extinguishment costs	10	7
Gain on sale of investment in Liaison Technologies	(31)	(23)
Total special items	\$ 214	\$ 149
Non-operating pension expense	494	371
Total	\$ 708	\$ 520

(f) Includes the following charges (gains):

In millions	2018	
	Before Tax	After Tax
North American Consumer Packaging transaction costs	\$ 25	\$ 19
North American Consumer Packaging gain on transfer	(488)	(364)
Total	\$ (463)	\$ (345)

(g) Includes the following tax expenses (benefits):

In millions	2018
State income tax legislative changes	\$ 9
Tax benefit of Tax Cuts and Jobs Act	(36)
Internal investment restructuring	19
Foreign tax audits	25
Total	\$ 17

2017:

(h) Includes the following charges (gains):

In millions	2017	
	Before Tax	After Tax
Gain on sale of investment in ArborGen	\$ (14)	\$ (9)
Costs associated with the pulp business acquired in 2016	33	20
Amortization of Weyerhaeuser inventory fair value step-up	14	8
Holmen bargain purchase gain	(6)	(6)
Abandoned property removal	20	13
Kleen Products settlement	354	219
Asia Foodservice sale	9	4
Brazil Packaging wood supply accelerated amortization	10	7
Debt extinguishment costs	83	51
Interest income on income tax refund claims	(5)	(3)
Other items	(2)	(2)
Total special items	\$ 496	\$ 302
Non-operating pension expense	484	298
Total	\$ 980	\$ 600

(i) Includes the operating earnings of the North American Consumer Packaging business for the full year. Also includes the following charges (gains):

In millions	2017	
	Before Tax	After Tax
North American Consumer Packaging transaction costs	\$ 17	\$ 10
Non-operating pension expense	45	28
Total	\$ 62	\$ 38

(j) Includes the following tax expenses (benefits):

In millions	2017	
	Before Tax	After Tax
International legal entity restructuring	\$ 34	
Income tax refund claims		(113)
Cash pension contribution		38
International tax law change		9
Tax benefit of Tax Cuts and Jobs Act		(1,222)
Total	\$	(1,254)

2016:

(k) Includes the following charges (gains):

In millions	2016	
	Before Tax	After Tax
Riegelwood mill conversion costs	\$ 9	\$ 6
India Packaging evaluation write-off	17	11
Write-off of certain regulatory pre-engineering costs	8	5
Early debt extinguishment costs	29	18
Costs associated with the newly acquired pulp business	31	21
Asia Box impairment / restructuring	70	58
Gain on sale of investment in Arizona Chemical	(8)	(5)
Turkey mill closure	7	6
Amortization of Weyerhaeuser inventory fair value step-up	19	11
Total special items	\$ 182	\$ 131
Non-operating pension expense	610	375
Total	\$ 792	\$ 506

(l) Includes the operating earnings of the North American Consumer Packaging business for the full year. Also includes the following charges (gains):

In millions	2016	
	Before Tax	After Tax
xpedx legal settlement	\$ 8	\$ 5
Total	\$ 8	\$ 5

(m) Includes the following tax expenses (benefits):

In millions	2016	
	Before Tax	After Tax
Cash pension contribution	\$ 23	
U.S. Federal audit		(14)
Brazil goodwill		(57)
International legal entity restructuring		(6)
Luxembourg tax rate change		31
Total	\$	(23)

2015:

(n) Includes the following charges (gains):

<i>In millions</i>	2015	
	Before Tax	After Tax
Riegelwood mill conversion costs, net of proceeds from sale of the Carolina Coated Bristols brand	\$ 8	\$ 4
Timber monetization restructuring	16	10
Early debt extinguishment costs	207	133
IP-Sun JV impairment	174	180
Legal reserve adjustment	15	9
Refund and state tax credits	(4)	(2)
Impairment of Orsa goodwill and trade name intangible	137	137
Other items	6	5
Total special items	\$ 559	\$ 476
Non-operating pension expense	258	157
Total	\$ 817	\$ 633

(o) Includes the operating earnings of the North American Consumer Packaging business for the full year.

(p) Includes the following tax expenses (benefits):

<i>In millions</i>	2015
IP-Sun JV impairment	\$ (67)
Cash pension contribution	23
Other items	7
Total	\$ (37)

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included in "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. In addition to historical consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs that involve significant risks and uncertainties. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to those differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in "Risk Factors" and "Forward-Looking Statements."

The following generally discusses 2019 and 2018 items and year-to-year comparisons between 2019 and 2018. Discussion of historical items in 2017, and year-to-year comparisons between 2018 and 2017, can be found in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on February 20, 2019, under Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

EXECUTIVE SUMMARY

Full-year 2019 net earnings were \$1.2 billion (\$3.07 per diluted share) compared with net earnings of \$2.0 billion (\$4.85 per diluted share) for full-year 2018.

International Paper delivered solid earnings and outstanding cash generation in 2019. Our performance demonstrates our ability to generate strong cash flow and the flexibility of the company to navigate well through a challenging global environment. While the U.S. economy remains healthy, during 2019 we managed through significant inventory headwinds and broader trade tensions that impacted our exports. Against this backdrop, we focused on optimizing our full value chain by strengthening commercial offerings in faster growing packaging segments, running our manufacturing system well and leveraging the flexibility of our mill and converting system. We continued to grow value for our shareholders with returns above our cost of capital for a tenth consecutive year. Our capital allocation choices were consistent with our framework. In 2019, we returned \$1.3 billion to shareholders through dividends of about \$800 million and share repurchases of about \$500 million. The Company also increased its dividend for the tenth consecutive year, reinforcing our policy of a strong and sustainable dividend. We also repaid approximately \$1 billion of debt during 2019 as part of our commitment to a strong balance sheet and to maintain an investment

grade rating. We continued to invest strategically to strengthen our Industrial Packaging business. In our North American corrugated packaging business, we made targeted investments to enhance our capabilities and reinforce our strong position in the fastest growing segments. In our EMEA Packaging business, we completed selective acquisitions to expand our converting network around the Madrid, Spain mill. Lastly, in January 2020, we monetized approximately 19% of our investment in Graphic Packaging in exchange for \$250 million.

Compared to 2018, the Company's 2019 results reflect the impact of a challenging global environment, which resulted in price and mix being a headwind, mostly due to significant price pressure in export pulp and containerboard markets, as well as the price impact of index movements in our North American Industrial Packaging business. Volume negatively impacted 2019 results due to challenging export markets. In particular, export containerboard volume was impacted by unusually high customer inventories at the start of 2019 which took most of the year to normalize. Operations and costs were impacted by significant economic downtime, particularly in the first half of 2019, due to lower export shipments and our ability to reduce inventories across our North American Industrial Packaging system due to improved supply chain operations. Input costs were favorable for the full year, primarily from lower recovered fiber and energy costs. Even though wood costs moderated in the second half of 2019, they had a negative impact on earnings in 2019. Equity earnings decreased in 2019 due to lower Ilim earnings, driven by the challenging global pulp market dynamics.

Looking ahead to the first quarter 2020, as compared to the fourth quarter of 2019, in our Industrial Packaging business, we expect lower price and mix on the flow-through of prior price index movements. Volume is expected to be seasonally lower in North America. Operations and costs are expected to be negatively impacted by the non-repeat of a favorable inventory valuation adjustment recognized in the fourth quarter, as well as higher unabsorbed fixed costs associated with the Riverdale mill conversion. Maintenance outage expense is expected to be higher, and input costs are expected to be higher seasonally. In our Global Cellulose Fibers business, we expect lower price and mix on the impact of prior price index movements. Volume is expected to improve driven by higher fluff pulp shipments. Operations and costs are expected to negatively impact earnings due to the non-repeat of favorable items recognized in the fourth quarter. Maintenance outage expenses are expected to increase while input costs are expected to remain stable. In our Printing Papers business, flow-through of prior negative price movement is expected to be offset by improved geographic mix. Volume is expected to be down mostly due to seasonally lower volumes in Brazil. Operations and costs are

expected to have a favorable impact on earnings mostly due to the non-repeat of an unfavorable inventory valuation adjustment recognized in the fourth quarter, as well as improved fixed cost absorption in North America. Maintenance outage expenses are expected to increase while input costs should remain stable. Lastly, we expect lower equity earnings from our Ilim joint venture on the non-repeat of the fourth quarter foreign exchange gain.

Looking ahead to the full-year 2020, we expect to generate solid cash flows despite earnings headwinds, by continuing to leverage the flexibility of the company to manage costs, capital spending and working capital. Earnings are expected to be negatively impacted by price carryover from 2019, as well as the impact of the January 2020 containerboard index movement. Earnings are also expected to be negatively impacted by higher planned maintenance outage expense and costs related to the Riverdale conversion, including unabsorbed fixed costs during the conversion process. We plan to offset anticipated inflation through deliberate improvement initiatives. The fundamentals of our packaging and fluff pulp businesses are solid - we believe we are well positioned to capture growth while continuing to optimize the Company's value chain to position us with positive momentum as we navigate through 2020. Lastly, we intend to continue to make choices for the use of the Company's strong cash generation that are consistent with our capital allocation framework in order to drive long-term value creation.

Adjusted Operating Earnings and Adjusted Operating Earnings Per Share are non-GAAP measures and are defined as net earnings from continuing operations (a GAAP measure) excluding special items and non-operating pension expense. Net earnings (loss) and Diluted earnings (loss) per share attributable to common shareholders are the most directly comparable GAAP measures. The Company calculates Adjusted Operating Earnings by excluding the after-tax effect of non-operating pension expense, items considered by management to be unusual (special items) and discontinued operations from the earnings reported under GAAP. Adjusted Operating Earnings Per Share is calculated by dividing Adjusted Operating Earnings by diluted average shares of common stock outstanding. Management uses this measure to focus on on-going operations, and believes that it is useful to investors because it enables them to perform meaningful comparisons of past and present consolidated operating results. The Company believes that using this information, along with the most direct comparable GAAP measure, provides for a more complete analysis of the results of operations.

The following are reconciliations of Earnings (loss) attributable to common shareholders to Adjusted operating earnings (loss) attributable to common shareholders. Additional detail is provided later in this Form 10-K regarding the special items referenced in the charts below.

	2019	2018
Earnings (Loss) Attributable to Shareholders	\$ 1,225	\$ 2,012
Less - Discontinued operations (gain) loss	—	(345)
Earnings (Loss) from Continuing Operations	1,225	1,667
Add back - Non-operating pension expense (income)	36	494
Add back - Net special items expense (income)	409	214
Income tax effect - Non-operating pension and special items expense	98	(171)
Adjusted Operating Earnings (Loss) Attributable to Shareholders	\$ 1,768	\$ 2,204

	2019	2018
Diluted Earnings (Loss) Per Share Attributable to Shareholders	\$ 3.07	\$ 4.85
Less - Discontinued operations (gain) loss per share	—	(0.83)
Diluted Earnings (Loss) Per Share from Continuing Operations	3.07	4.02
Add back - Non-operating pension expense (income) per share	0.09	1.19
Add back - Net special items expense (income) per share	1.02	0.52
Income tax effect per share - Non-operating pension and special items expense	0.25	(0.41)
Adjusted Operating Earnings (Loss) Per Share Attributable to Shareholders	\$ 4.43	\$ 5.32

	Three Months Ended December 31, 2019	Three Months Ended September 30, 2019	Three Months Ended December 31, 2018
Earnings (Loss) Attributable to Shareholders	\$ 165	\$ 344	\$ 316
Less - Discontinued operations (gain) loss	—	—	—
Earnings (Loss) from Continuing Operations	165	344	316
Add back - Non-operating pension expense (income)	9	9	429
Add back - Net special items expense (income)	136	94	(15)
Income tax effect - Non-operating pension and special items expense	120	(16)	(60)
Adjusted Operating Earnings (Loss) Attributable to Shareholders	\$ 430	\$ 431	\$ 670

	Three Months Ended December 31, 2019	Three Months Ended September 30, 2019	Three Months Ended December 31, 2018
Diluted Earnings (Loss) Per Share Attributable to Shareholders	\$ 0.42	\$ 0.87	\$ 0.78
Less - Discontinued operations (gain) loss per share	—	—	—
Diluted Earnings (Loss) Per Share from Continuing Operations	0.42	0.87	0.78
Add back - Non-operating pension expense (income) per share	0.02	0.02	1.05
Add back - Net special items expense (income) per share	0.34	0.24	(0.04)
Income tax effect per share - Non-operating pension and special items expense	0.31	(0.04)	(0.14)
Adjusted Operating Earnings (Loss) Per Share Attributable to Shareholders	\$ 1.09	\$ 1.09	\$ 1.65

Cash provided by operations totaled \$3.6 billion and \$3.2 billion for 2019 and 2018, respectively. The Company generated Free Cash Flow of approximately \$2.3 billion and \$1.7 billion in 2019 and 2018, respectively. Free Cash Flow is a non-GAAP measure and the most directly comparable GAAP measure is cash provided by operations. Management believes that free cash flow is useful to investors as a liquidity measure because it measures the amount of cash generated that is available, after reinvesting in the business, to maintain a strong balance sheet, pay dividends, repurchase stock, service debt and make investments for future growth. It should not be inferred that the entire free cash flow amount is available for discretionary expenditures. By adjusting for certain items that are not indicative of the Company's ongoing underlying operational performance, we believe that free cash flow also enables investors to perform meaningful comparisons between past and present periods.

The following are reconciliations of free cash flow to cash provided by operations:

<i>In millions</i>	2019	2018
Cash provided by operations	\$ 3,610	\$ 3,226
Adjustments:		
Cash invested in capital projects	(1,276)	(1,572)
Free Cash Flow	\$ 2,334	\$ 1,654

<i>In millions</i>	Three Months Ended December 31, 2019	Three Months Ended September 30, 2019	Three Months Ended December 31, 2018
Cash provided by operations	\$ 928	\$ 882	\$ 821
Adjustments:			
Cash invested in capital projects	(363)	(285)	(286)
Free Cash Flow	\$ 565	\$ 597	\$ 535

The non-GAAP financial measures presented in this Form 10-K as referenced above have limitations as analytical tools and should not be considered in isolation or as a substitute for an analysis of our results calculated in accordance with GAAP. In addition, because not all companies utilize identical calculations, the Company's presentation of non-GAAP measures in this Form 10-K may not be comparable to similarly titled measures disclosed by other companies, including companies in the same industry as the Company.

RESULTS OF OPERATIONS

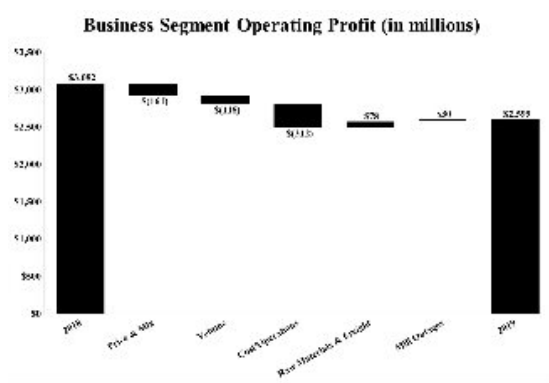
Business Segment Operating Profits are used by International Paper's management to measure the earnings performance of its businesses. Management uses this measure to focus on on-going operations and believes that it is useful to investors because it enables them to perform meaningful comparisons of past and present operating results. International Paper believes that using this information, along with net earnings, provides a more complete analysis of the results of operations by year. Business Segment Operating Profits are defined as earnings (loss) from continuing operations before income taxes and equity earnings, but including the impact of equity earnings and noncontrolling interests, excluding interest expense, net, corporate items, net, special items, net, and non-operating pension expense. Business Segment Operating Profits is a measure reported to our management for purposes of making decisions about allocating resources to our business segments and assessing the performance of our business segments and is presented in our financial statement footnotes in accordance with ASC 280.

International Paper operates in three segments: Industrial Packaging, Global Cellulose Fibers and Printing Papers.

The following table presents a comparison of net earnings (loss) from continuing operations attributable to International Paper Company to its total Business Segment Operating Profit:

<i>In millions</i>	2019	2018
Net Earnings (Loss) From Continuing Operations Attributable to International Paper Company	\$ 1,225	\$ 1,667
Add back (deduct)		
Income tax provision (benefit)	634	445
Equity (earnings) loss, net of taxes	(250)	(336)
Noncontrolling interests, net of taxes	(5)	5
Earnings (Loss) From Continuing Operations Before Income Taxes and Equity Earnings	1,604	1,781
Interest expense, net	491	536
Noncontrolling interests/equity earnings included in operations	3	(10)
Corporate items, net	54	67
Corporate special items, net (income) expense	104	9
Business special items, net (income) expense	307	205
Non-operating pension expense	36	494
	\$ 2,599	\$ 3,082
Business Segment Operating Profit		
Industrial Packaging	\$ 2,076	\$ 2,277
Global Cellulose Fibers	(6)	262
Printing Papers	529	543
Business Segment Operating Profit	\$ 2,599	\$ 3,082

Business Segment Operating Profit in 2019 was \$483 million lower than in 2018 as the benefits from lower input costs (\$78 million) and lower maintenance outage costs (\$30 million) were more than offset by lower average sales price realizations and mix (\$161 million), lower sales volumes (\$118 million) and higher operating costs (\$312 million).



The principal changes in operating profit by business segment were as follows:

- Industrial Packaging's operating profit of \$2.1 billion was \$201 million lower than in 2018 as the benefits of lower input costs and lower maintenance outage costs were more than offset by lower average sales price, unfavorable mix, lower sales volumes and higher operating costs.
- Global Cellulose Fibers' operating loss of \$(6) million was \$268 million lower than in 2018 as the benefits of higher sales volumes, lower maintenance outage costs and lower input costs were more than offset by lower average sales price, an unfavorable mix and higher operating costs.
- Printing Papers' operating profit of \$529 million represented a \$14 million decrease in operating profit from 2018. The benefits from higher average sales price, net of mix, were offset by lower sales volumes, higher input costs, higher maintenance outage costs and higher operating costs.

LIQUIDITY AND CAPITAL RESOURCES

For the year ended December 31, 2019, International Paper generated \$3.6 billion of cash flow from operations compared with \$3.2 billion in 2018. Capital spending for 2019 totaled \$1.3 billion, or 98% of depreciation and amortization expense. Our liquidity position remains strong, supported by approximately \$2.1 billion of credit facilities.

We expect another year of solid cash generation in 2020. Furthermore, we intend to continue to make choices for the use cash that are consistent with our capital allocation framework to drive long-term value creation. These include maintaining a strong balance sheet and investment grade credit rating, returning meaningful cash to shareholders through dividends and share repurchases and making organic investments to maintain our world-class system and strengthen our packaging business. Capital spending for 2020 is planned at approximately \$1.0 billion, or about 74% of depreciation and amortization, including approximately \$250 million of strategic investments.

Under our share repurchase program most recently approved by our Board of Directors on October 9, 2018, which does not have an expiration date, approximately \$1.75 billion aggregate amount of shares of common stock remains authorized for purchase under this program. We may continue to repurchase shares under such authorization in open market transactions (including block trades), privately negotiated transactions or otherwise, subject to prevailing market conditions, our liquidity requirements, restrictions in our debt documents, applicable securities laws requirements and other factors. In addition, we pay regular quarterly cash

dividends and expect to continue to pay regular quarterly cash dividends in the foreseeable future. Each quarterly dividend is subject to review and approval by our Board of Directors, and is subject to restrictions in our debt documents.

RESULTS OF OPERATIONS

While the operating results for International Paper's various business segments are driven by a number of business-specific factors, changes in International Paper's operating results are closely tied to changes in general economic conditions in North America, Europe, Russia, Latin America, North Africa and the Middle East. (and were closely tied to general economic conditions in India prior to the sale of our controlling interest in International Paper APPM Limited, an India-based printing paper business, effective October 30, 2019).

Factors that impact the demand for our products include industrial non-durable goods production, consumer preferences, consumer spending, commercial printing and advertising activity, white-collar employment levels, and movements in currency exchange rates.

Product prices are affected by general economic trends, inventory levels, currency exchange rate movements and worldwide capacity utilization. In addition to these revenue-related factors, net earnings are impacted by various cost drivers, the more significant of which include changes in raw material costs, principally wood, recycled fiber and chemical costs; energy costs; freight costs; mill outage costs; salary and benefits costs, including pensions; and manufacturing conversion costs.

The following is a discussion of International Paper's consolidated results of operations for the year ended December 31, 2019, and the major factors affecting these results compared to 2018.

For the year ended December 31, 2019, International Paper reported net sales of \$22.4 billion, compared with \$23.3 billion in 2018. International net sales (based on the location of the seller and including U.S. exports) totaled \$8.1 billion or 36% of total sales in 2019. This compares with international net sales of \$8.8 billion in 2018.

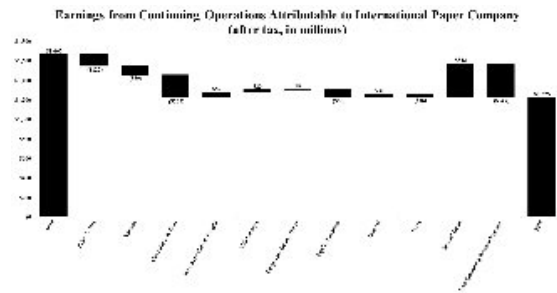
Full year 2019 net earnings attributable to International Paper Company totaled \$1.2 billion (\$3.07 per diluted share), compared with net earnings of \$2.0 billion (\$4.85 per diluted share) in 2018. Amounts in 2018 include the results of discontinued operations.

Earnings from continuing operations attributable to International Paper Company after taxes in 2019 and 2018 were as follows:

In millions	2019	2018
Earnings from continuing operations attributable to International Paper Company	\$ 1,225 (a)	\$ 1,667 (b)

- (a) Includes \$515 million of net special items charges which included tax expense of \$203 million related to a foreign deferred tax valuation allowance and \$28 million of non-operating pension expense.
- (b) Includes \$166 million of net special items charges and \$371 million of non-operating pension expense which included a pre-tax charge of \$424 million (\$318 million after taxes) for a settlement accounting charge associated with an annuity purchase and transfer of pension obligations for approximately 23,000 retirees.

Compared with 2018, the benefits from lower input costs (\$59 million), lower maintenance outage costs (\$23 million), lower corporate and other costs (\$8 million) and lower net interest expense (\$32 million) were more than offset by lower average sales price and an unfavorable mix (\$122 million), lower sales volumes (\$89 million), higher operating costs (\$235 million) and higher tax expense (\$26 million). In addition, 2019 results included lower equity earnings, net of taxes, relating to the Company's investments in Ilim and GPIIP.



See [Business Segment Results](#) on pages 26 through 29 for a discussion of the impact of these factors by segment.

DISCONTINUED OPERATIONS

2018: In 2018, discontinued operations included an after-tax gain of \$364 million on the transfer of the North American Consumer Packaging business and after-tax charges of \$19 million for costs associated with the transfer. See [Note 8 Divestitures and Impairments](#) on pages 56 through 58 of [Item 8. Financial Statements and Supplementary Data](#) for further discussion.

INCOME TAXES

A net income tax provision of \$634 million was recorded for 2019, including tax expense of \$203 million related to a foreign deferred tax valuation allowance, a tax benefit of \$53 million related to internal investment restructuring, tax expense of \$9 million related to a non U.S. tax rate change, tax expense of \$3 million related to foreign tax audits and a tax benefit of \$3 million related to state income tax legislative changes. Excluding these items, a \$53 million net tax benefit for other special items and a \$8 million tax benefit related to non-operating pension expense, the operational tax provision was \$536 million, or 26% of pre-tax earnings before equity earnings.

A net income tax provision of \$445 million was recorded for 2018, including a tax benefit of \$36 million to revise our 2017 estimated tax related to the enactment of the Tax Cuts and Jobs Act, tax expense of \$25 million related to foreign tax audits, tax expense of \$19 million related to an international investment restructuring and tax expense of \$9 million related to state income tax legislative changes. Excluding these items, a \$65 million net tax benefit for other special items and a \$123 million tax benefit related to non-operating pension expense, the operational tax provision was \$616 million, or 25% of pre-tax earnings before equity earnings.

EQUITY EARNINGS, NET OF TAXES

Equity earnings, net of taxes, consisted principally of the Company's share of earnings from its 50% investment in Ilim of \$207 million and \$290 million in 2019 and 2018, respectively, and from its then 21.6% ownership interest in GPIP of \$46 million in 2019, and from its then 20.5% ownership interest of \$46 million in 2018 (see page 29).

INTEREST EXPENSE AND NONCONTROLLING INTEREST

Net corporate interest expense totaled \$491 million in 2019 and \$536 million in 2018. Net interest expense in 2019 includes \$3 million of interest income associated with a foreign value-added tax refund accrual and \$1 million of interest expense related to foreign tax audits. The decrease in 2019 compared with 2018 was due to lower average outstanding debt.

Net earnings attributable to noncontrolling interests were a loss of \$5 million in 2019, compared with earnings of \$5 million in 2018. The decrease in 2019 was primarily due to the allocation of loss of \$9 million associated with the impairment of the net assets of our India Papers business.

SPECIAL ITEMS

Restructuring and Other Charges, Net

International Paper continually evaluates its operations for improvement opportunities targeted to (a) focus our portfolio on our core businesses, (b) realign capacity to operate fewer facilities with the same revenue capability, (c) close high cost facilities, and (d) reduce costs.

During 2019 and 2018, pre-tax restructuring and other charges, net, totaling \$57 million and \$29 million were recorded. Details of these charges were as follows:

Restructuring and Other, Net			
<i>In millions</i>		2019	2018
Business Segments			
EMEA Packaging optimization	\$	15 (a)	\$ 47 (a)
Overhead reduction initiative		10 (b)	—
Riverdale mill paper machine conversion severance reserve		—	3 (c)
		25	50
Corporate			
Early debt extinguishment costs (see Note 15)	\$	21	\$ 10
Overhead reduction initiative		11	—
Gain on sale of investment in Liaison Technologies		—	(31)
		32	(21)
Total	\$	57	\$ 29

(a) Recorded in the Industrial Packaging business segment.

(b) Includes \$6 million recorded in the Printing Papers business segment and \$4 million recorded in the Global Cellulose Fibers business segment.

(c) Recorded in the Printing Papers business segment.

Other Special Items

In addition, other pre-tax special items totaling \$158 million and \$63 million were recorded in 2019 and 2018, respectively. Details of these charges were as follows:

Other Special Items		
<i>In millions</i>	2019	2018
Business Segments		
Antitrust fines	\$ 32 (a)	\$ —
Abandoned property removal	50 (b)	32 (b)
Multi-employer pension plan exit liability	9 (a)	—
Riverdale mill conversion accelerated depreciation	5 (c)	6 (c)
Gain on sale of previously closed Albany, Oregon mill site	(9) (a)	—
Litigation settlement recovery	—	(5) (a)
Other	(1) (d)	—
	86	33
Corporate		
Litigation reserves	\$ 41	\$ —
Environmental remediation reserve adjustments	25	9
Fair value adjustment on remaining investment in India	3	—
India transaction costs	3	—
Smurfit-Kappa acquisition proposal costs	—	12
Legal settlement	—	9
	72	30
Total	\$ 158	\$ 63

(a) Recorded in the Industrial Packaging business segment.

(b) Includes \$35 million and \$20 million recorded in the Industrial Packaging business segment for 2019 and 2018, respectively; \$12 million and \$11 million recorded in the Global Cellulose Fibers business segment for 2019 and 2018, respectively; \$3 million and \$1 million recorded in the Printing Papers business segment for 2019 and 2018, respectively.

(c) Recorded in the Printing Papers business segment.

(d) Includes expense of \$2 million recorded in the Industrial Packaging business segment and income of \$3 million recorded in the Printing Papers business segment.

Net Losses on Sales and Impairments of Businesses

Net losses on sales and impairments of businesses included in special items totaled a pre-tax loss of \$205 million and \$122 million in 2019 and 2018, respectively. Details of these losses were as follows:

Net Loss on Sales and Impairments of Businesses		
<i>In millions</i>	2019	2018
India Papers impairment	\$ 159	\$ —
Global Cellulose Fibers goodwill impairment	52	—
Gain on sale of EMEA Packaging box plant	(6)	—
Brazil Packaging impairment of fixed assets and an intangible asset	—	122
Total	\$ 205	\$ 122

See [Note 8 Divestitures and Impairments](#) on pages 56 through 58 of [Item 8. Financial Statements and Supplementary Data](#) for further discussion.

DESCRIPTION OF BUSINESS SEGMENTS

International Paper's business segments discussed below are consistent with the internal structure used to manage these businesses. All segments are differentiated on a common product, common customer basis consistent with the business segmentation generally used in the forest products industry.

INDUSTRIAL PACKAGING

International Paper is the largest manufacturer of containerboard in the United States. Our U.S. production capacity is over 13 million tons annually. Our products include linerboard, medium, whitetop, recycled linerboard, recycled medium and saturating kraft. About 80% of our production is converted into corrugated boxes and other packaging by our 175 North American container plants. Additionally, we recycle approximately one million tons of OCC and mixed and white paper through our 18 recycling plants. Our container plants are supported by regional design centers, which offer total packaging solutions and supply chain initiatives. In EMEA, our operations include one recycled fiber containerboard mill in Morocco, a recycled containerboard mill in Spain and 28 container plants in France, Italy, Spain, Morocco, Turkey and Portugal. In Brazil, our operations include three containerboard mills and four box plants.

International Paper also produces high quality coated paperboard for a variety of packaging end uses with 443,000 tons of annual capacity at our mills in Poland and Russia.

GLOBAL CELLULOSE FIBERS

Our cellulose fibers product portfolio includes fluff, market and specialty pulps. International Paper is the largest producer of fluff pulp which is used to make absorbent hygiene products like baby diapers, feminine care, adult incontinence and other non-woven products. Our market pulp is used for tissue and paper products. We continue to invest in exploring new innovative uses for our products, such as our specialty pulps, which are used for non-absorbent end uses including textiles, filtration, construction material, paints and coatings, reinforced plastics and more. Our products are made in the United States, Canada, France, Poland, and Russia and are sold around the world. International Paper facilities have annual dried pulp capacity of about 4 million metric tons.

PRINTING PAPERS

International Paper is one of the world's largest producers of printing and writing papers. The primary product in this segment is uncoated papers. This business produces papers for use in copiers, desktop and laser printers and digital imaging. End-use applications include advertising and promotional materials such as brochures, pamphlets, greeting cards, books, annual reports and direct mail. Uncoated papers also produces a variety of grades that are converted by our customers into envelopes, tablets, business forms and file folders. Uncoated papers are sold under private label and International Paper brand names that include *Hammermill*, *Springhill*, *Williamsburg*, *Postmark*, *Accent*, *Great White*, *Chamex*, *Ballet*, *Rey*, *Pol*, and *Svetocopy*. The mills producing uncoated papers are located in the United States, France, Poland, Russia and Brazil. The mills have uncoated paper production capacity of over 4 million tons annually. Brazilian operations function through International Paper do Brasil, Ltda, which owns or manages approximately 329,000 acres of forestlands in Brazil.

ILIM

In October 2007, International Paper and Ilim completed a 50:50 joint venture to operate a pulp and paper business located in Russia. Ilim's facilities include three paper mills located in Bratsk, Ust-Ilimsk, and Koryazhma, Russia, with combined total pulp and paper capacity of over 3.5 million metric tons. Ilim has exclusive harvesting rights on timberland and forest areas exceeding 19.5 million acres (7.88 million hectares).

GPIP

On January 1, 2018, the Company completed the transfer of its North American Consumer Packaging business, which includes its North American Coated Paperboard and Foodservice businesses, to Graphic Packaging International Partners, LLC (GPIP), a subsidiary of Graphic Packaging Holding Company, in exchange for a 20.5% ownership interest in GPIP. GPIP subsequently transferred the North American Consumer Packaging business to Graphic Packaging International, LLC (GPI), a wholly-owned subsidiary of GPIP that holds the assets of the combined business.

On January 29, 2020, the Company exchanged approximately 19.0% of the aggregate units owned by the Company for an aggregated price of \$250 million. After this transaction, the Company's ownership percentage in GPIP is approximately 18.3%. The Company expects to record a gain on the exchange in the first quarter of 2020.

Products and brand designations appearing in italics are trademarks of International Paper or a related company.

BUSINESS SEGMENT RESULTS

The following tables present net sales and operating profit (loss) which is the Company's measure of segment profitability.

INDUSTRIAL PACKAGING

Demand for Industrial Packaging products is closely correlated with non-durable industrial goods production, as well as with demand for processed foods, poultry, meat and agricultural products. In addition to prices and volumes, major factors affecting the profitability of Industrial Packaging are raw material and energy costs, freight costs, mill outage costs, manufacturing efficiency and product mix.

Industrial Packaging		
<i>In millions</i>	2019	2018
Net Sales	\$ 15,326	\$ 15,900
Operating Profit (Loss)	\$ 2,076	\$ 2,277

Industrial Packaging net sales for 2019 decreased 4% to \$15.3 billion compared with \$15.9 billion in 2018. Operating profits in 2019 were 9% lower than in 2018. Comparing 2019 with 2018, benefits from lower input costs (\$124 million) and lower maintenance outage costs (\$22 million) were more than offset by lower average sales price and an unfavorable mix (\$61 million), lower sales volumes (\$107 million) and higher operating costs (\$179 million).

North American Industrial Packaging		
<i>In millions</i>	2019	2018
Net Sales (a)	\$ 13,509	\$ 14,187
Operating Profit (Loss)	\$ 2,043	\$ 2,307

(a) Includes intra-segment sales of \$118 million for 2019 and \$233 million for 2018.

North American Industrial Packaging's sales volumes decreased in 2019 compared with 2018 for export containerboard, primarily due to customer destocking as customers exited 2018 with high inventory levels which persisted through the first half of 2019. Box shipments were also lower, reflecting weaker demand and the impact of customer gains and losses. In 2019, the business took about 1.4 million tons of total maintenance and economic downtime compared with 0.5 million tons of total downtime in 2018. Average sales prices were significantly lower primarily due to lower export containerboard prices, which were partially offset by higher sales prices for boxes. Input costs were substantially lower, primarily for recycled fiber. Planned maintenance downtime costs were \$23 million lower in 2019 than in 2018. Operating costs increased due to inflation, but were mostly offset by strong mill manufacturing operations. Earnings benefited from a favorable inventory valuation adjustment in 2019, compared with an unfavorable inventory valuation adjustment in 2018.

Looking ahead to the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes for boxes are expected to be seasonally lower. Shipments of containerboard to export markets are also expected to be lower. Average sales margins for boxes are expected to be lower, reflecting the recent price index movements. Input costs, primarily for wood and energy, are expected to be relatively flat. Planned maintenance downtime costs are expected to be about \$90 million higher as we move into a high maintenance outage quarter. Operating costs are anticipated to be higher, reflecting the impact of unabsorbed fixed costs related to the Riverdale conversion.

EMEA Industrial Packaging

<i>In millions</i>	2019	2018
Net Sales	\$ 1,335	\$ 1,355
Operating Profit (Loss)	\$ (17)	\$ (73)

EMEA Industrial Packaging's sales volumes in 2019 were lower than in 2018, reflecting weaker economic conditions in Turkey and a slower fruit and vegetable season in Morocco. Average sales margins improved significantly in all regions driven by lower containerboard costs and stable sales prices for boxes. Other input costs were flat. Planned maintenance downtime costs were also flat. Operating costs were lower due to the ramp-up of the Madrid, Spain mill and the benefits of our optimization initiatives, partially offset by inflation in Turkey. Earnings also benefited from the box plant acquisitions completed in the first half of 2019. Earnings were negatively affected by unfavorable foreign currency impacts, primarily in Turkey.

Entering the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes are expected to be seasonally higher. Average sales margins are expected to be slightly higher reflecting lower containerboard costs. Planned maintenance downtime costs are expected to be about \$3 million higher. Input costs should be stable. Operating costs are expected to be higher, driven by inflation.

Brazilian Industrial Packaging

<i>In millions</i>	2019	2018
Net Sales	\$ 235	\$ 232
Operating Profit (Loss)	\$ (14)	\$ (29)

Brazilian Industrial Packaging's sales volumes increased in 2019 compared with 2018 for boxes and containerboard. Average sales margins improved reflecting higher average sales prices and a favorable mix. Input costs increased, primarily for utilities, recycled fiber, wood and chemicals. Operating costs were lower. Planned maintenance downtime costs were \$1 million higher in 2019, compared with 2018.

Looking ahead to the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes are expected to be lower for both boxes and containerboard. Average sales margins are expected to be stable. Input costs are expected to be flat. Operating costs are expected to be stable.

European Coated Paperboard

<i>In millions</i>	2019	2018
Net Sales	\$ 365	\$ 359
Operating Profit (Loss)	\$ 64	\$ 72

European Coated Paperboard's sales volumes in 2019 compared with 2018 increased in both Europe and Russia. Average sales margins were higher reflecting higher average sales prices net of an unfavorable mix in Europe and higher average sales prices and a favorable mix in Russia. Input costs were stable as lower purchased pulp and energy costs in Europe were offset by higher energy costs in Russia and higher wood and chemicals costs in Europe. Planned maintenance downtime costs were flat. Operating costs were higher. Earnings were negatively affected by unfavorable foreign currency impacts in both Europe and Russia.

Looking forward to the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes are expected to be stable as higher volumes in Europe are offset by lower volumes in Russia. Average sales margins are expected to be higher in both regions. Input costs are expected to be flat in Europe and higher in Russia, primarily for wood and chemicals. Maintenance outage costs are expected to be flat due to no outages in the fourth quarter and no planned outages in the first quarter. Operating costs are expected to be lower.

GLOBAL CELLULOSE FIBERS

Demand for Cellulose Fibers products is closely correlated with changes in demand for absorbent hygiene products, primarily driven by the demographics and income growth in various geographic regions. It is further affected by changes in currency rates that can benefit or hurt producers in different geographic regions. Principal cost drivers include manufacturing efficiency, raw material and energy costs, mill outage costs, and freight costs.

Global Cellulose Fibers

<i>In millions</i>	2019	2018
Net Sales	\$ 2,551	\$ 2,819
Operating Profit (Loss)	\$ (6)	\$ 262

Global Cellulose Fibers net sales for 2019 decreased 10% to \$2.6 billion, compared with \$2.8 billion in 2018. Operating profits in 2019 were significantly lower than in 2018. Comparing 2019 with 2018, benefits from higher sales volumes (\$3 million), lower input costs (\$8 million) and lower maintenance outage costs (\$16 million) were

more than offset by lower average sales price and mix (\$216 million) and higher operating costs (\$79 million).

Sales volumes in 2019 compared with 2018 were lower as higher market pulp volumes were more than offset by lower fluff pulp volumes. In 2019, the business took about 300,000 tons of total maintenance and economic downtime compared with about 180,000 tons of total downtime in 2018. Average sales margins were significantly lower, reflecting lower average pulp prices driven by very challenging supply and demand conditions outside the U.S. Average sales margins were also negatively affected by an unfavorable product mix reflecting a decrease in sales of fluff pulp. Input costs were flat. Planned maintenance downtime costs were \$16 million lower in 2019. Operating costs increased primarily due to inflation and an unfavorable mill manufacturing mix. In Europe and Russia, sales volumes increased. Average sales prices decreased significantly in both regions. Input costs were higher for wood, chemicals and purchased pulp in Europe and chemicals and energy in Russia. Planned maintenance downtime costs were flat.

Entering the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes are expected to be slightly higher, primarily for fluff pulp. Average sales margins are expected to be lower, reflecting the impact of prior price index movement. Input costs are expected to be stable. Planned maintenance downtime costs are expected to be \$27 million higher than in the fourth quarter of 2019. Operating costs are expected to increase due to seasonality and higher distribution costs. In Europe, sales volumes are expected to be slightly higher and stable in Russia. Average sales margins are expected to be higher in both regions. Planned maintenance downtime costs are expected to be about \$7 million lower in the first quarter of 2020 in Europe and Russia.

PRINTING PAPERS

Demand for Printing Papers products is closely correlated with changes in commercial printing and advertising activity, direct mail volumes and, for uncoated cut-size products, with changes in white-collar employment levels that affect the usage of copy and laser printer paper. Principal cost drivers include manufacturing efficiency, raw material and energy costs, mill outage costs and freight costs.

Printing Papers

<i>In millions</i>	2019	2018
Net Sales	\$ 4,291	\$ 4,375
Operating Profit (Loss)	\$ 529	\$ 543

Printing Papers net sales for 2019 of \$4.3 billion decreased 2%, compared with \$4.4 billion in 2018. Operating profits in 2019 were 3% lower than in 2018. Comparing 2019 with 2018, benefits from higher average

sales price realizations, net of mix (\$116 million), were more than offset by lower sales volumes (\$14 million), higher operating costs (\$54 million), higher input costs (\$54 million) and higher planned maintenance downtime costs (\$8 million).

North American Printing Papers

<i>In millions</i>	2019	2018
Net Sales	\$ 1,956	\$ 1,956
Operating Profit (Loss)	\$ 211	\$ 170

North American Printing Papers' sales volumes for 2019 were lower than in 2018, primarily for commercial printing paper. In 2019, the business took about 125,000 tons of total maintenance and economic downtime compared with about 48,000 tons of total downtime in 2018. Average sales margins improved due to the realization of sales price increases for both cutsize paper and rolls, net of an unfavorable geographic mix. Input costs were higher, primarily for wood. Planned maintenance downtime costs were \$4 million higher in 2019. Operating costs were higher primarily due to inflation and an unfavorable manufacturing mix, mostly offset by lower distribution costs and favorable mill operations. Earnings were negatively impacted by an unfavorable inventory valuation adjustment in 2019.

Entering the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes are expected to be lower, primarily for export markets. Average sales margins are expected to be stable. Input costs are expected to be stable. Operating costs are expected to be higher due to seasonality and inflation. Earnings are expected to benefit from the non-repeat of an unfavorable inventory valuation adjustment in the fourth quarter of 2019. Planned maintenance downtime costs are expected to increase by about \$29 million in the first quarter of 2020.

Brazilian Papers

<i>In millions</i>	2019	2018
Net Sales (a)	\$ 967	\$ 978
Operating Profit (Loss)	\$ 155	\$ 227

(a) Includes intra-segment sales of \$42 million for 2019 and \$13 million for 2018.

Brazilian Papers' sales volumes for uncoated freesheet paper in 2019, were higher compared with 2018 for export markets but lower for domestic markets. Average sales margins were lower as higher average domestic sales prices were more than offset by lower average export sales prices and an unfavorable geographic mix. Input costs increased, primarily for virgin fiber, chemicals and energy. Manufacturing costs were lower, but were offset by higher other operating costs. Planned maintenance downtime costs were \$1 million lower in 2019.

Looking ahead to the first quarter of 2020, compared with the fourth quarter of 2019, sales volumes for uncoated

freesheet paper are expected to be seasonally lower. Average sales margins are expected to decrease, primarily due to an unfavorable geographic mix. Input costs are expected to be stable. Planned maintenance outage costs are expected to be about \$3 million lower in the first quarter of 2020. Operating costs are expected to be lower.

European Papers

<i>In millions</i>	2019	2018
Net Sales	\$ 1,250	\$ 1,252
Operating Profit (Loss)	\$ 144	\$ 129

European Papers' sales volumes for uncoated freesheet paper in 2019 were higher in Europe and Russia compared with 2018. Average sales margins increased for uncoated freesheet paper in both regions, reflecting the realization of price increases implemented throughout 2018 and 2019. Input costs were higher for wood and chemicals in Europe and chemicals and energy in Russia. Planned maintenance downtime costs were \$3 million higher in 2019 than in 2018. Operating costs were higher. Earnings were negatively affected by unfavorable foreign currency impacts in both regions.

Entering 2020, sales volumes for uncoated freesheet paper in the first quarter are expected to increase in Europe, but expected to decrease in Russia, compared to the fourth quarter of 2019. Average sales margins are expected to be lower in Europe and stable in Russia. Input costs should be higher in both regions, mainly for chemicals in Europe and wood and chemicals in Russia. Maintenance outage costs should be about \$9 million lower due to no planned outages in the first quarter. Operating costs are expected to be lower.

Indian Papers

<i>In millions</i>	2019	2018
Net Sales	\$ 160	\$ 202
Operating Profit (Loss)	\$ 19	\$ 17

On May 29, 2019, International Paper announced it had entered into an agreement to sell its controlling interest in its Indian Papers business. The transaction closed on October 30, 2019. See [Note 8 Divestitures and Impairments](#) on pages 56 through 58 of [Item 8. Financial Statements and Supplementary Data](#) for further discussion.

EQUITY EARNINGS, NET OF TAXES - ILIM

International Paper accounts for its investment in Ilim, a separate reportable industry segment, using the equity method of accounting.

The Company recorded equity earnings, net of taxes, related to Ilim of \$207 million in 2019, compared with earnings of \$290 million in 2018. Operating results recorded in 2019 included an after-tax non-cash foreign exchange gain of \$32 million, compared with an after-tax

foreign exchange loss of \$82 million in 2018, primarily on the remeasurement of Ilim's U.S. dollar denominated net debt.

Coming off of a strong market in 2018, sales volumes for the joint venture decreased by 3% in 2019, primarily for containerboard shipments to China, Russia and other export markets. Shipments of softwood pulp and hardwood pulp to China were slightly higher, but fell below prior year levels in Russia and other export markets. Average sales price realizations were significantly lower for sales of softwood pulp, hardwood pulp and containerboard in all markets. Input costs were higher, primarily for wood, chemicals and fuel. Distribution costs were negatively impacted by transportation tariffs and inflation. Ilim completed two major capital projects in 2019: the rebuild of the kraft linerboard line at its Bratsk mill and the modernization of a pulp line at the Ust Ilmsk mill. The Company received cash dividends from the joint venture of \$246 million in 2019 and \$128 million in 2018.

Entering the first quarter of 2020, sales volumes are expected to be lower than in the fourth quarter of 2019, due to the seasonal slowdown in China. Based on pricing to date in the current quarter, average sales prices are expected to decrease for softwood pulp, hardwood pulp and containerboard. Input costs and distribution costs are projected to be relatively flat.

EQUITY EARNINGS - GPIIP

International Paper recorded equity earnings of \$46 million in 2019 and \$46 million in 2018 on its ownership position in GPIIP. The Company received cash dividends from the investment of \$27 million in 2019 and \$25 million in 2018.

LIQUIDITY AND CAPITAL RESOURCES

OVERVIEW

A major factor in International Paper's liquidity and capital resource planning is its generation of operating cash flow, which is highly sensitive to changes in the pricing and demand for our major products. While changes in key operating cash costs, such as raw material, energy, mill outage and distribution, do have an effect on operating cash generation, we believe that our focus on commercial and operational excellence, as well as our ability to tightly manage costs and working capital has improved our cash flow generation over an operating cycle.

Use of cash during 2019 was primarily focused on capital spending, debt reduction and returning cash to shareholders through dividends and share repurchases under the Company's share repurchase program.

CASH PROVIDED BY OPERATING ACTIVITIES

Cash provided by operations, including discontinued operations, totaled \$3.6 billion in 2019, compared with \$3.2 billion for 2018. Cash provided by working capital components (accounts receivable, contract assets and inventory less accounts payable and accrued liabilities, interest payable and other) totaled \$342 million in 2019, compared with cash used by working capital components of \$439 million in 2018. Cash dividends received from equity investments were \$273 million in 2019, compared with \$153 million in 2018.

INVESTMENT ACTIVITIES

Including discontinued operations, the cash outflow from investment activities in 2019 decreased from 2018, as 2018 included higher capital spending. The Company maintains an average capital spending target around depreciation and amortization levels, or modestly above, due to strategic plans over the course of an economic cycle. Capital spending was \$1.3 billion in 2019, or 98% of depreciation and amortization, compared with \$1.6 billion in 2018, or 118% of depreciation and amortization. Across our segments, capital spending as a percentage of depreciation and amortization ranged from 61.6% to 116.1% in 2019.

The following table shows capital spending by business segment for the years ended December 31, 2019 and 2018.

<i>In millions</i>	2019	2018
Industrial Packaging	\$ 922	\$ 1,061
Global Cellulose Fibers	162	183
Printing Papers	172	303
Subtotal	1,256	1,547
Corporate and other	20	25
Capital Spending	\$ 1,276	\$ 1,572

Capital spending in 2020 is expected to be approximately \$1.0 billion, or 74% of depreciation and amortization, including approximately \$250 million of strategic investments. The expected reduction in capital spending in 2020 is primarily due to the completion of large strategic investments in our containerboard mill system, including the Madrid, Spain mill and the Riverdale mill conversions, which is expected to be completed in the first half of 2020.

Acquisitions

See [Note 7 Acquisitions](#) on page 56 of [Item 8. Financial Statements and Supplementary Data](#) for a discussion of the Company's acquisitions.

FINANCING ACTIVITIES

Amounts related to early debt extinguishment during the years ended December 31, 2019 and 2018 were as follows:

<i>In millions</i>	2019	2018
Early debt reductions (a)	\$ 614	\$ 780
Pre-tax early debt extinguishment costs (b)	21	10

(a) Reductions related to notes with interest rates ranging from 3.00% to 9.50% with original maturities from 2021 to 2048 for the years ended December 31, 2019 and 2018.

(b) Amounts are included in Restructuring and other charges in the accompanying consolidated statements of operations.

2019: Financing activities during 2019 included debt issuances of \$534 million and reductions of \$1.5 billion for a net decrease of \$973 million.

In June 2019, International Paper issued \$200 million of 3.55% senior unsecured notes with a maturity date in 2029. The proceeds from this offering, together with a combination of available cash and other borrowings, were used for general corporate purposes, including repayment of outstanding commercial paper borrowings and other existing indebtedness.

In October 2019, International Paper issued \$127 million of environmental development bonds with interest rates ranging from 1.90% to 2.10% and maturity dates in 2024. The proceeds from this offering were used to repay other existing environmental development bonds.

In June 2018, the borrowing capacity of the commercial paper program was increased from \$750 million to \$1.0 billion. Under the terms of the program, individual maturities on borrowings may vary, but may not exceed one year from the date of issuance. Interest bearing notes may be issued either as fixed notes or floating rate notes. As of December 31, 2019 and 2018, the Company had \$30 million and \$465 million, respectively, outstanding under this program.

Other financing activities during 2019 included the net repurchase of approximately 8.5 million shares of treasury stock, including restricted stock tax withholding. Repurchases of common stock and payments of restricted stock withholding taxes totaled \$535 million, including \$485 million related to shares repurchased under the Company's share repurchase program. On October 9, 2018, the Company announced an authorization to repurchase \$2 billion of the Company's common stock to supplement remaining amounts under prior share repurchase authorizations, bringing total share repurchase authorizations since 2013 to \$5.0 billion. The Company will continue to repurchase such shares in open market repurchase transactions. Under the \$5.0 billion share repurchase program, the Company has repurchased 68.9 million shares at an average price

of \$47.23, for a total of approximately \$3.3 billion, as of December 31, 2019.

In October 2019, International Paper announced that the quarterly dividend would be increased from \$0.50 per share to \$0.5125 per share, effective for the 2019 fourth quarter.

2018: Financing activities during 2018 included debt issuances of \$490 million and retirements of \$1.0 billion for a net decrease of \$518 million.

Other financing activities during 2018 included the net repurchase of approximately 12.3 million shares of treasury stock, including restricted stock tax withholding. Repurchases of common stock and payments of restricted stock withholding taxes totaled \$732 million, including \$700 million related to shares repurchased under the Company's share repurchase program.

In October 2018, International Paper announced that the quarterly dividend would be increased from \$0.4750 per share to \$0.50 per share, effective for the 2018 fourth quarter.

Interest Rate Swaps

International Paper utilizes interest rate swaps to change the mix of fixed and variable rate debt and manage interest expense. At December 31, 2019 and 2018, International Paper had interest rate swaps with a notional amount of \$700 million and maturities ranging from 2024 to 2026 (see [Note 17 Derivatives and Hedging Activities](#) on pages 71 through 75 of [Item 8. Financial Statements and Supplementary Data](#)). During 2019 and 2018, the inclusion of the offsetting interest income from short-term investments reduced the effective interest rate from 4.8% to 4.4% and from 4.8% to 4.6%, respectively.

Variable Interest Entities

Information concerning variable interest entities is set forth in [Note 15 Variable Interest Entities](#) on pages 68 through 70 of [Item 8. Financial Statements and Supplementary Data](#). In connection with the 2006 International Paper installment sale of forestlands, we received \$4.8 billion of installment notes. These installment notes were used by variable interest entities as collateral for borrowings from third-party lenders. These variable interest entities were restructured in 2015 when the installment notes and third-party loans were extended. The restructured variable interest entities hold installment notes of \$4.8 billion that mature in August 2021 (unless extended) and third-party loans of \$4.2 billion that mature in the fourth quarter of 2020 (unless extended). These third-party loans are shown in Current nonrecourse financial liabilities of variable interest entities on the accompanying consolidated balance sheet. We are evaluating alternatives for extending the installment notes and refinancing the third-party loans.

Failure to extend, renew or refinance these third-party loans prior to their stated maturity, which we believe is unlikely, could necessitate a disposition of the installment notes to facilitate the \$4.2 billion debt payment, which we are confident could be achieved.

LIQUIDITY AND CAPITAL RESOURCES OUTLOOK FOR 2020

Capital Expenditures and Long-Term Debt

International Paper expects to be able to meet projected capital expenditures, service existing debt and meet working capital and dividend requirements during 2020 with current cash balances and cash from operations. Additionally, the Company has existing credit facilities totaling \$2.1 billion at December 31, 2019.

The Company will continue to rely upon debt and capital markets for the majority of any necessary long-term funding not provided by operating cash flows. Funding decisions will be guided by our capital structure planning objectives. The primary goals of the Company's capital structure planning are to maximize financial flexibility and preserve liquidity while reducing interest expense. The majority of International Paper's debt is accessed through global public capital markets where we have a wide base of investors. The Company was in compliance with all its debt covenants at December 31, 2019, and was well below the thresholds stipulated under the covenants as defined in our credit agreements.

Maintaining an investment grade credit rating is an important element of International Paper's financing strategy. At December 31, 2019, the Company held long-term credit ratings of BBB (stable outlook) and Baa2 (stable outlook) by S&P and Moody's, respectively.

Contractual obligations for future payments under existing debt and lease commitments and purchase obligations at December 31, 2019, were as follows:

<i>In millions</i>	2020	2021	2022	2023	2024	Thereafter
Debt maturities	\$ 168	\$ 431	\$ 136	\$ 355	\$ 803	\$ 7,872
Lease obligations	163	125	89	55	34	169
Purchase obligations (a)	3,155	707	502	417	322	1,644
Total (b)	\$ 3,486	\$ 1,263	\$ 727	\$ 827	\$ 1,159	\$ 9,685

- (a) Includes \$1.3 billion relating to fiber supply agreements entered into at the time of the 2006 Transformation Plan forestland sales and in conjunction with the 2008 acquisition of Weyerhaeuser Company's Containerboard, Packaging and Recycling business. Also includes \$1.1 billion relating to fiber supply agreements assumed in conjunction with the 2016 acquisition of Weyerhaeuser's pulp business.
- (b) Not included in the above table due to the uncertainty of the amount and timing of the payment are unrecognized tax benefits of approximately \$153 million. Also not included in the above table is \$128 million of Deemed Repatriation Transition Tax associated with the 2017 Tax Cuts and Jobs Act which will be settled from 2020 - 2026.

We consider the undistributed earnings of our foreign subsidiaries as of December 31, 2019, to be permanently reinvested and, accordingly, no U.S. income taxes have

been provided thereon (see [Note 13 Income Taxes](#) on pages 62 through 65 of [Item 8. Financial Statements and Supplementary Data](#)). We do not anticipate the need to repatriate funds to the United States to satisfy domestic liquidity needs arising in the ordinary course of business, including liquidity needs associated with our domestic debt service requirements.

Pension Obligations and Funding

At December 31, 2019, the projected benefit obligation for the Company's U.S. defined benefit plans determined under U.S. GAAP was approximately \$1.5 billion higher than the fair value of plan assets, excluding non-U.S. plans. Approximately \$1.2 billion of this amount relates to plans that are subject to minimum funding requirements. Under current IRS funding rules, the calculation of minimum funding requirements differs from the calculation of the present value of plan benefits (the projected benefit obligation) for accounting purposes. In December 2008, the Worker, Retiree and Employer Recovery Act of 2008 (WERA) was passed by the U.S. Congress which provided for pension funding relief and technical corrections. Funding contributions depend on the funding method selected by the Company, and the timing of its implementation, as well as on actual demographic data and the targeted funding level. The Company continually reassesses the amount and timing of any discretionary contributions elected not to make any voluntary contributions in 2018 or 2019. At this time, we do not expect to have any required contributions to our plans in 2020, although the Company may elect to make future voluntary contributions. The timing and amount of future contributions, which could be material, will depend on a number of factors, including the actual earnings and changes in values of plan assets and changes in interest rates.

During the fourth quarter of 2018, the Company entered into an agreement with The Prudential Insurance Company of America to purchase a group annuity contract and transfer approximately \$1.6 billion of International Paper's U.S. qualified pension plan projected benefit obligations, subject to customary closing conditions. The transaction closed on October 2, 2018 and was funded with pension plan assets. Under the transaction, at the end of 2018, Prudential assumed responsibility for pension benefits and annuity administration for approximately 23,000 retirees or their beneficiaries receiving less than \$1,000 in monthly benefit payments from the plan. Settlement accounting rules required a remeasurement of the qualified plan as of October 2, 2018 and the Company recognized a non-cash pension settlement charge of \$424 million before tax in the fourth quarter of 2018.

ILIM SHAREHOLDER'S AGREEMENT

In October 2007, in connection with the formation of the Ilim joint venture, International Paper entered into a shareholder's agreement that includes provisions relating to the reconciliation of disputes among the partners. This agreement provides that at any time, either the Company or its partners may commence procedures specified under the deadlock agreement. If these or any other deadlock procedures under the shareholder's agreement are commenced, although it is not obligated to do so, the Company may in certain situations choose to purchase its partners' 50% interest in Ilim. Any such transaction would be subject to review and approval by Russian and other relevant anti-trust authorities. Based on the provisions of the agreement, the Company estimates that the current purchase price for its partners' 50% interests would be approximately \$1.6 billion, which could be satisfied by payment of cash or International Paper common stock, or some combination of the two, at the Company's option. The purchase by the Company of its partners' 50% interest in Ilim would result in the consolidation of Ilim's financial position and results of operations in all subsequent periods. The parties have informed each other that they have no current intention to commence procedures specified under the deadlock provisions of the shareholder's agreement.

CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires International Paper to establish accounting policies and to make estimates that affect both the amounts and timing of the recording of assets, liabilities, revenues and expenses. Some of these estimates require subjective 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 of International Paper, and that can require judgments by management that affect their application, include the accounting for contingencies, impairment or disposal of long-lived assets and goodwill, pensions and income taxes. The Company has discussed the selection of critical accounting policies and the effect of significant estimates with the Audit and Finance Committee of the Company's Board of Directors and with its independent registered public accounting firm.

CONTINGENT LIABILITIES

Accruals for contingent liabilities, including personal injury, product liability, environmental and other legal matters, are recorded when it is probable that a liability has been incurred or an asset impaired and the amount

of the loss can be reasonably estimated. Liabilities accrued for legal matters require judgments regarding projected outcomes and range of loss based on historical litigation and settlement experience and recommendations of legal counsel and, if applicable, other experts. Liabilities for environmental matters require evaluations of relevant environmental regulations and estimates of future remediation alternatives and costs. The Company utilizes its in-house legal and environmental experts to develop estimates of its legal and environmental obligations, supplemented as needed by third-party specialists to analyze its most complex contingent liabilities.

We calculate our workers' compensation reserves based on estimated actuarially calculated development factors. The workers' compensation reserves are reviewed at least quarterly to determine the adequacy of the accruals and related financial statement disclosure. While we believe that our assumptions are appropriate, the ultimate settlement of workers' compensation reserves may differ significantly from amounts we have accrued in our consolidated financial statements.

IMPAIRMENT OF LONG-LIVED ASSETS AND GOODWILL

An impairment of a long-lived asset exists when the asset's carrying amount exceeds its fair value, and is recorded when the carrying amount is not recoverable through undiscounted cash flows from future operations or disposals. A goodwill impairment exists when the carrying amount of goodwill exceeds its fair value. Assessments of possible impairments of long-lived assets and goodwill are made when events or changes in circumstances indicate that the carrying value of the asset may not be recoverable through future operations. Additionally, evaluation for possible impairment of goodwill is required annually. The amount and timing of any impairment charges based on these assessments may require the estimation of future cash flows or the fair market value of the related assets based on management's best estimates of certain key factors, including future selling prices and volumes, operating, raw material, energy and freight costs, various other projected operating economic factors and other intended uses of the assets. As these key factors change in future periods, the Company will update its impairment analysis to reflect its latest estimates and projections.

ASU 2011-08, "Intangibles - Goodwill and Other," allows entities testing goodwill for impairment the option of performing a qualitative assessment before performing the quantitative goodwill impairment test. If a qualitative assessment is performed, an entity is not required to perform the quantitative goodwill impairment test unless the entity determines that, based on that qualitative assessment, it is more likely than not that its fair value is less than its carrying value.

The Company performed its annual testing of its reporting units for possible goodwill impairments by applying the qualitative assessment to its North America Industrial Packaging, European Papers, Russian Papers, and Brazilian Papers reporting units and the quantitative goodwill impairment test to its Global Cellulose Fibers and EMEA Industrial Packaging reporting units as of October 1, 2019. For this evaluation, the Company assessed various assumptions, events and circumstances that would have affected the estimated fair value of the reporting units under the qualitative assessment for the reporting units listed above and the result of the qualitative assessment indicated that it is not more likely than not that the fair values of its North America Industrial Packaging, European Papers, Russian Papers, and Brazilian Papers reporting units were less than their carrying values.

The Company also performed the quantitative goodwill impairment test which included comparing the carrying amount of the Global Cellulose Fibers and EMEA Industrial Packaging reporting units to their estimated fair value. The Company performed the quantitative goodwill impairment test for Global Cellulose Fibers due to the reporting unit's outlook and for EMEA Industrial Packaging due to the changes in the reporting unit's asset base as a result of strategic capital projects and acquisitions since the previous quantitative goodwill impairment test. The Company calculated the estimated

fair value of its Global Cellulose Fibers and EMEA Industrial Packaging reporting units using a probability-weighted approach based on discounted future cash flows, market multiples and transaction multiples. The carrying amount did not exceed the estimated fair value of the EMEA Industrial Packaging reporting unit. The carrying amount did exceed the estimated fair value of the Global Cellulose Fibers reporting unit, and it was determined that all of the goodwill in the reporting unit, totaling \$52 million, was impaired. This impairment charge was recognized during the fourth quarter of 2019. The decline in the fair value of Global Cellulose Fibers and resulting impairment charge was due to a change in the outlook of the Global Cellulose Fibers reporting unit's operations.

In addition, the Company considered whether there were any events or circumstances outside of the annual evaluation that would reduce the fair value of its reporting units below their carrying amounts and necessitate a goodwill impairment evaluation. In consideration of all relevant factors, there were no indicators that would require goodwill impairment subsequent to October 1, 2019.

No goodwill impairment charges were recorded in 2018.

During 2018, a determination was made that the current carrying value of the long-lived assets of the Brazil Packaging business exceeded their estimated fair value

due to a change in the outlook for the business. Management engaged a third party to assist with determining the fair value of the business and the fixed assets. The fair value of the business was calculated using a probability-weighted approach based on discounted future cash flows, market multiples, and transaction multiples and the fair value of the fixed assets was determined using a market approach. As a result, a pre-tax charge of \$122 million (\$81 million, net of tax) was recorded related to the impairment of an intangible asset and fixed assets.

PENSION BENEFIT OBLIGATIONS

The charges recorded for pension benefit obligations are determined annually in conjunction with International Paper's consulting actuary, and are dependent upon various assumptions including the expected long-term rate of return on plan assets, discount rates, projected future compensation increases and mortality rates.

The calculations of pension obligations and expenses require decisions about a number of key assumptions that can significantly affect liability and expense amounts, including the expected long-term rate of return on plan assets and the discount rate used to calculate plan liabilities.

Benefit obligations and fair values of plan assets as of December 31, 2019, for International Paper's pension plan were as follows:

<i>In millions</i>	Benefit Obligation	Fair Value of Plan Assets
U.S. qualified pension	\$ 11,318	\$ 10,165
U.S. nonqualified pension	381	—
Non-U.S. pension	253	183

The table below shows assumptions used by International Paper to calculate U.S. pension obligations for the years shown:

	2019	2018	2017
Discount rate	3.40%	4.30%	3.60%
Rate of compensation increase	2.25%	2.25%	3.75%

International Paper determines these actuarial assumptions, after consultation with our actuaries, on December 31 of each year or more frequently if required, to calculate liability information as of that date and pension expense for the following year. The expected long-term rate of return on plan assets is based on projected rates of return for current asset classes in the plan's investment portfolio. The discount rate assumption was determined based on a hypothetical settlement portfolio selected from a universe of high quality corporate bonds.

The expected long-term rate of return on U.S. pension plan assets used to determine net periodic cost for the year ended December 31, 2019 was 7.25%.

Increasing (decreasing) the expected long-term rate of return on U.S. plan assets by an additional 0.25% would decrease (increase) 2020 pension expense by approximately \$24 million, while a (decrease) increase of 0.25% in the discount rate would (increase) decrease pension expense by approximately \$31 million.

Actual rates of return earned on U.S. pension plan assets for each of the last 10 years were:

Year	Return	Year	Return
2019	23.9 %	2014	6.4%
2018	(3.0)%	2013	14.1%
2017	19.3 %	2012	14.1%
2016	7.1 %	2011	2.5%
2015	1.3 %	2010	15.1%

The 2012, 2013 and 2014 returns above represent weighted averages of International Paper and Temple-Inland asset returns. International Paper and Temple-Inland assets were combined in October 2014. The annualized time-weighted rate of return earned on U.S. pension plan assets was 9.2% and 9.8% for the past five and ten years, respectively.

ASC 715, "Compensation – Retirement Benefits," provides for delayed recognition of actuarial gains and losses, including amounts arising from changes in the estimated projected plan benefit obligation due to changes in the assumed discount rate, differences between the actual and expected return on plan assets, and other assumption changes. These net gains and losses are recognized in pension expense prospectively over a period that approximates the average remaining service period of active employees expected to receive benefits under the plans to the extent that they are not offset by gains and losses in subsequent years.

Net periodic pension plan expenses, calculated for all of International Paper's plans, were as follows:

<i>In millions</i>	2019	2018	2017	2016	2015
Pension expense					
U.S. plans	\$ 93	\$ 632	\$ 717	\$ 809	\$ 461
Non-U.S. plans	6	4	5	4	6
Net expense	\$ 99	\$ 636	\$ 722	\$ 813	\$ 467

The decrease in 2019 pension expense primarily reflects lower service cost due to the salaried pension freeze, lower amortization and the absence of a settlement loss in the current year slightly offset by lower asset returns.

Assuming that discount rates, expected long-term returns on plan assets and rates of future compensation increases remain the same as of December 31, 2019, projected future net periodic pension plan expenses would be as follows:

<i>In millions</i>	2021	2020
Pension expense		
U.S. plans	\$ (11)	\$ 46
Non-U.S. plans	4	5
Net (income) expense	\$ (7)	\$ 51

The Company estimates that it will record net pension expense of approximately \$46 million for its U.S. defined benefit plans in 2020, compared to expense of \$93 million in 2019. The estimated decrease in net pension expense in 2020 is primarily due to higher return on assets and lower interest cost partially offset by higher amortization of actuarial losses and higher service cost.

The market value of plan assets for International Paper's U.S. qualified pension plan at December 31, 2019 totaled approximately \$10.2 billion, consisting of approximately 37% equity securities, 50% debt securities, 8% real estate funds and 5% other assets.

The Company's funding policy for its qualified pension plans is to contribute amounts sufficient to meet legal funding requirements, plus any additional amounts that the Company may determine to be appropriate considering the funded status of the plan, tax deductibility, the cash flows generated by the Company, and other factors. The Company continually reassesses the amount and timing of any discretionary contributions and could elect to make voluntary contributions in the future. There were no required contributions to the U.S. qualified plan in 2019. The nonqualified defined benefit plans are funded to the extent of benefit payments, which totaled \$26 million for the year ended December 31, 2019.

INCOME TAXES

International Paper records its global tax provision based on the respective tax rules and regulations for the jurisdictions in which it operates. Where the Company believes that a tax position is supportable for income tax purposes, the item is included in its income tax returns. Where treatment of a position is uncertain, liabilities are recorded based upon the Company's evaluation of the "more likely than not" outcome considering technical merits of the position based on specific tax regulations and facts of each matter. Changes to recorded liabilities are only made when an identifiable event occurs that changes the likely outcome, such as settlement with the relevant tax authority, the expiration of statutes of limitation for the subject tax year, change in tax laws, or recent court cases that are relevant to the matter.

Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit

will not be realized. Significant judgment is required in evaluating the need for and magnitude of appropriate valuation allowances against deferred tax assets. The realization of these assets is dependent on generating future taxable income, as well as successful implementation of various tax planning strategies.

While International Paper believes that these judgments and estimates are appropriate and reasonable under the circumstances, actual resolution of these matters may differ from recorded estimated amounts.

RECENT ACCOUNTING DEVELOPMENTS

See [Note 2 Recent Accounting Developments](#) on pages 50 through 52 of [Item 8. Financial Statements and Supplementary Data](#) for a discussion of new accounting pronouncements.

LEGAL PROCEEDINGS

Information concerning the Company's environmental and legal proceedings is set forth in [Note 14 Commitments and Contingent Liabilities](#) on pages 65 through 68 of [Item 8. Financial Statements and Supplementary Data](#).

EFFECT OF INFLATION

While inflationary increases in certain input costs, such as energy, wood fiber and chemical costs, have an impact on the Company's operating results, changes in general inflation have had minimal impact on our operating results in each of the last three years. Sales prices and volumes are more strongly influenced by economic supply and demand factors in specific markets and by exchange rate fluctuations than by inflationary factors.

FOREIGN CURRENCY EFFECTS

International Paper has operations in a number of countries. Its operations in those countries also export to, and compete with, imports from other regions. As such, currency movements can have a number of direct and indirect impacts on the Company's financial statements. Direct impacts include the translation of international operations' local currency financial statements into U.S. dollars and the remeasurement impact associated with non-functional currency financial assets and liabilities. Indirect impacts include the change in competitiveness of imports into, and exports out of, the United States (and the impact on local currency pricing of products that are traded internationally). In general, a weaker U.S. dollar and stronger local currency is beneficial to International Paper. The currencies that have the most impact are the Euro, the Brazilian real, the Polish zloty and the Russian ruble.

MARKET RISK

We use financial instruments, including fixed and variable rate debt, to finance operations, for capital spending programs and for general corporate purposes. Additionally, financial instruments, including various derivative contracts, are used to hedge exposures to interest rate, commodity and foreign currency risks. We do not use financial instruments for trading purposes. Information related to International Paper's debt obligations is included in [Note 16 Debt and Lines of Credit](#) on pages 70 and 71 of [Item 8. Financial Statements and Supplementary Data](#). A discussion of derivatives and hedging activities is included in [Note 17 Derivatives and Hedging Activities](#) on pages 71 through 75 of [Item 8. Financial Statements and Supplementary Data](#).

The fair value of our debt and financial instruments varies due to changes in market interest and foreign currency rates and commodity prices since the inception of the related instruments. We assess this market risk utilizing a sensitivity analysis. The sensitivity analysis measures the potential loss in earnings, fair values and cash flows based on a hypothetical 10% change (increase and decrease) in interest and currency rates and commodity prices.

INTEREST RATE RISK

Our exposure to market risk for changes in interest rates relates primarily to short- and long-term debt obligations and investments in marketable securities. We invest in investment-grade securities of financial institutions and money market mutual funds with a minimum rating of AAA and limit exposure to any one issuer or fund. Our investments in marketable securities at December 31, 2019 and 2018 are stated at cost, which approximates market due to their short-term nature. Our interest rate risk exposure related to these investments was not material.

We issue fixed and floating rate debt in a proportion that management deems appropriate based on current and projected market conditions. Derivative instruments, such as, interest rate swaps, may be used to execute this strategy. At December 31, 2019 and 2018, the fair value of the net liability of financial instruments with exposure to interest rate risk was approximately \$9.8 billion and \$9.2 billion, respectively. The potential increase in fair value resulting from a 10% adverse shift in quoted interest rates would have been approximately \$511 million and \$538 million at December 31, 2019 and 2018, respectively.

COMMODITY PRICE RISK

The objective of our commodity exposure management is to minimize volatility in earnings due to large fluctuations in the price of commodities. Commodity swap or forward purchase contracts may be used to manage risks associated with market fluctuations in energy prices.

FOREIGN CURRENCY RISK

International Paper transacts business in many currencies and is also subject to currency exchange rate risk through investments and businesses owned and operated in foreign countries. Our objective in managing the associated foreign currency risks is to minimize the effect of adverse exchange rate fluctuations on our after-tax cash flows. We address these risks on a limited basis by entering into cross-currency interest rate swaps, or foreign exchange contracts. At December 31, 2019 and 2018, the net fair value of financial instruments with exposure to foreign currency risk was approximately a \$16 million asset and an \$8 million liability, respectively. The potential loss in fair value for such financial instruments from a 10% adverse change in quoted foreign currency exchange rates would have been approximately \$87 million and \$29 million at December 31, 2019 and 2018, respectively.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See the preceding discussion and [Note 17 Derivatives and Hedging Activities](#) on pages 71 through 75 of [Item 8. Financial Statements and Supplementary Data](#).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF MANAGEMENT ON:

Financial Statements

The management of International Paper Company is responsible for the preparation of the consolidated financial statements in this annual report. The consolidated financial statements have been prepared using accounting principles generally accepted in the United States of America considered appropriate in the circumstances to present fairly the Company's consolidated financial position, results of operations and cash flows on a consistent basis. Management has also prepared the other information in this annual report and is responsible for its accuracy and consistency with the consolidated financial statements.

As can be expected in a complex and dynamic business environment, some financial statement amounts are based on estimates and judgments. Even though estimates and judgments are used, measures have been taken to provide reasonable assurance of the integrity and reliability of the financial information contained in this annual report. We have formed a Disclosure Committee to oversee this process.

The accompanying consolidated financial statements have been audited by the independent registered public accounting firm Deloitte & Touche LLP. During its audits, Deloitte & Touche LLP was given unrestricted access to all financial records and related data, including minutes of all meetings of stockholders and the board of directors and all committees of the board. Management believes that all representations made to the independent auditors during their audits were valid and appropriate.

Internal Control Over Financial Reporting

The management of International Paper Company is also responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules (13a-15(e) and 15d-15(e) under the Exchange Act). Internal control over financial reporting is the process designed by, or under the supervision of, our principal executive officer and principal financial officer, and effected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes. All internal control systems have inherent limitations, including the possibility of circumvention and overriding of controls, and therefore can provide only reasonable assurance of achieving the designed control objectives. The Company's internal control system is supported by written policies and procedures, contains self-

monitoring mechanisms, and is audited by the internal audit function. Appropriate actions are taken by management to correct deficiencies as they are identified. Our procedures for financial reporting include the active involvement of senior management, our Audit and Finance Committee and our staff of highly qualified financial and legal professionals.

The Company has assessed the effectiveness of its internal control over financial reporting as of December 31, 2019. In making this assessment, it used the criteria described in "Internal Control – Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management believes that, as of December 31, 2019, the Company's internal control over financial reporting was effective.

The Company completed the acquisitions of four packaging businesses located in Portugal (Ovar), France (Torigni and Cabourg), and Spain (Tavernes de la Valdigna and Montblanc) over the course of 2019. Due to the timing of these acquisitions, we have excluded these businesses from our evaluation of the effectiveness of internal control over financial reporting. For the period ended December 31, 2019, sales and assets for these businesses represented approximately 0.4% of net sales and 0.6% of total assets.

The Company's independent registered public accounting firm, Deloitte & Touche LLP, has issued its report on the effectiveness of the Company's internal control over financial reporting. The report appears on pages 41 and 42.

Internal Control Environment And Board Of Directors Oversight

Our internal control environment includes an enterprise-wide attitude of integrity and control consciousness that establishes a positive "tone at the top." This is exemplified by our ethics program that includes long-standing principles and policies on ethical business conduct that require employees to maintain the highest ethical and legal standards in the conduct of International Paper business, which have been distributed to all employees; a toll-free telephone helpline whereby any employee may anonymously report suspected violations of law or International Paper's policy; and an office of ethics and business practice. The internal control system further includes careful selection and training of supervisory and management personnel, appropriate delegation of authority and division of responsibility, dissemination of accounting and business policies throughout International Paper, and an extensive program of internal audits with management follow-up.

The Board of Directors, assisted by the Audit and Finance Committee (Committee), monitors the integrity of the Company's financial statements and financial reporting procedures, the performance of the Company's internal audit function and independent auditors, and other matters set forth in its charter. The Committee, which consists of independent directors, meets regularly with representatives of management, and with the independent auditors and the Internal Auditor, with and without management representatives in attendance, to review their activities. The Committee's Charter takes into account the New York Stock Exchange rules relating to Audit Committees and the SEC rules and regulations promulgated as a result of the Sarbanes-Oxley Act of 2002. The Committee has reviewed and discussed the consolidated financial statements for the year ended December 31, 2019, including critical accounting policies and significant management judgments, with management and the independent auditors. The Committee's report recommending the inclusion of such financial statements in this Annual Report on Form 10-K will be set forth in our Proxy Statement.



MARK S. SUTTON
CHAIRMAN AND CHIEF EXECUTIVE OFFICER



TIMOTHY S. NICHOLLS
SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of International Paper Company:

Opinion on the Financial Statements

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

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 19, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

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

Income Taxes - Valuation Allowances - Refer to Notes 1 and 13 to the financial statements

Critical Audit Matter Description

The Company recognizes deferred income tax assets for deductible temporary differences and carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized based on estimates of future taxable income.

During the year ended December 31, 2019, the Company recorded a valuation allowance of \$203 million related to indefinite-lived non-US net operating loss carryforwards. Management's determination that a valuation allowance was necessary in the current year was influenced by current year changes in global tax laws, which have adversely impacted the time period over which the Company could reasonably realize the deferred tax asset based on its current global structure and ability to execute prudent and feasible tax planning actions.

We identified the valuation allowance as a critical audit matter because it is dependent upon an analysis of complex tax laws and subjective projections of future taxable income. As a result, performing audit procedures to evaluate the reasonableness of management's projections and the timing for recognition of the valuation allowance, required a high degree of auditor judgment and an increased extent of effort, including the need to involve our income tax specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimated future taxable income and the determination of whether it is more likely than not that the deferred tax asset will be realized included the following, among others:

- We tested the effectiveness of controls over the valuation allowance assessment for income taxes, including management's controls over the identification and evaluation of changes in global tax laws, estimates of future taxable income, and the determination of whether it is more likely than not that the deferred tax asset will be realized.
- With the assistance of our income tax specialists:
 - We identified and evaluated changes in global tax laws and the potential impact on the Company's ability to utilize the deferred tax asset.
 - We considered management's intent and ability to execute prudent and feasible tax planning actions based upon their underlying economic substance and local tax laws.
- We evaluated management's ability to accurately estimate future taxable income by comparing actual results to management's historical estimates.
- We considered whether management's determination that a valuation allowance was required in the current year was indicative of management bias by evaluating the Company's historical conclusions reached with respect to the realizability of its deferred tax assets in other jurisdictions with unlimited carryforward periods.

Other Accrued Liabilities - Commitments and Contingent Liabilities - Harris County San Jacinto Environmental Proceeding - Refer to Note 14 to the financial statements

Critical Audit Matter Description

The Company has obligations related to certain environmental matters. Such obligations are recorded when it is probable that a liability has been incurred and the loss can be reasonably estimated.

The Company has been named a potentially responsible party ("PRP") at the Harris County San Jacinto Waste Pits Superfund Site ("San Jacinto"). The Company has been participating in the remediation activities at the site with other PRPs.

During 2017, the Environmental Protection Agency ("EPA") issued a Record of Decision ("ROD") which included a waste removal and relocation remedy for the site, including an estimate of costs to remediate. Due to uncertainty about the technological feasibility of executing the remedy prescribed within the ROD, the Company believes additional losses for this site are not estimable.

We identified the San Jacinto environmental proceeding as a critical audit matter because of the uncertainty associated with executing the remedy prescribed in the ROD. As a result, auditing management's determination that additional losses for the site are not reasonably estimable required a high degree of auditor judgment and an increased extent of effort, including the need to involve our environmental specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's determination and the Company's disclosure that additional losses are not estimable related to San Jacinto included the following, among others:

- We tested the effectiveness of controls related to San Jacinto, including management's controls over evaluating whether the liability was reflective of current circumstances, included necessary costs (i.e. probable and estimable), and the related disclosure in the financial statements was accurate and complete.
- With assistance from our environmental specialists:
 - We inquired of the Company's environmental specialists, including inquiries of both internal and external legal counsel, to understand the status of progress under the 2018 Administrative Order on Consent ("AOC") as well as the status of ongoing discussions with the EPA and the other regulatory agencies involved.
 - We inspected correspondence between the PRPs and the EPA to gain an understanding of progress and developments related to the site based on the timeline and requirements outlined in the AOC, including consideration of contradictory evidence or indications of Management bias.
 - We assessed management's assertion regarding the technical feasibility of compliance with the ROD in evaluating the recorded liability.

- We evaluated the sufficiency of the Company's disclosures related to additional losses not being reasonably estimable.

/s/ Deloitte & Touche LLP

Memphis, Tennessee
February 19, 2020

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM, ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Shareholders and Board of Directors of International Paper Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of International Paper Company and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company, and our report dated February 19, 2020 expressed an unqualified opinion on those financial statements.

As described in the Report of Management on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting the acquisitions of packaging businesses located in Portugal (Ovar), France (Torigni and Cabourg), and Spain (Tavernes de la Vallidigna and Montblanc) completed during 2019. The acquired businesses constitute 0.4% of net sales and 0.6% of total assets of the consolidated financial statement amounts as of and for the year ended December 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at these acquired businesses.

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 Report of Management on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Deloitte & Touche LLP

Memphis, Tennessee
February 19, 2020

CONSOLIDATED STATEMENT OF OPERATIONS

<i>In millions, except per share amounts, for the years ended December 31</i>	2019	2018	2017
NET SALES	\$ 22,376	\$ 23,306	\$ 21,743
COSTS AND EXPENSES			
Cost of products sold	15,268	15,555	14,802
Selling and administrative expenses	1,647	1,723	1,621
Depreciation, amortization and cost of timber harvested	1,306	1,328	1,343
Distribution expenses	1,560	1,567	1,434
Taxes other than payroll and income taxes	170	171	169
Restructuring and other charges, net	57	29	67
Net (gains) losses on sales and impairments of businesses	205	122	9
Antitrust fines and settlements	32	—	354
Net bargain purchase gain on acquisition of business	—	—	(6)
Interest expense, net	491	536	572
Non-operating pension expense	36	494	530
EARNINGS (LOSS) FROM CONTINUING OPERATIONS BEFORE INCOME TAXES AND EQUITY EARNINGS (LOSSES)	1,604	1,781	848
Income tax provision (benefit)	634	445	(1,085)
Equity earnings (loss), net of taxes	250	336	177
EARNINGS (LOSS) FROM CONTINUING OPERATIONS	1,220	1,672	2,110
Discontinued operations, net of taxes	—	345	34
NET EARNINGS (LOSS)	1,220	2,017	2,144
Less: Net earnings (loss) attributable to noncontrolling interests	(5)	5	—
NET EARNINGS (LOSS) ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY	\$ 1,225	\$ 2,012	\$ 2,144
BASIC EARNINGS (LOSS) PER SHARE ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY COMMON SHAREHOLDERS			
Earnings (loss) from continuing operations	\$ 3.10	\$ 4.07	\$ 5.11
Discontinued operations, net of taxes	—	0.84	0.08
Net earnings (loss)	\$ 3.10	\$ 4.91	\$ 5.19
DILUTED EARNINGS (LOSS) PER SHARE ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY COMMON SHAREHOLDERS			
Earnings (loss) from continuing operations	\$ 3.07	\$ 4.02	\$ 5.05
Discontinued operations, net of taxes	—	0.83	0.08
Net earnings (loss)	\$ 3.07	\$ 4.85	\$ 5.13

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

<i>In millions for the years ended December 31</i>	2019	2018	2017
NET EARNINGS (LOSS)	\$ 1,220	\$ 2,017	\$ 2,144
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX			
Amortization of pension and postretirement prior service costs and net loss:			
U.S. plans (less tax of \$54, \$196 and \$280)	163	588	486
Non-U.S. plans (less tax of \$0, \$0 and \$0)	1	1	—
Pension and postretirement liability adjustments:			
U.S. plans (less tax of \$7, \$6 and \$69)	22	18	56
Non-U.S. plans (less tax of \$3, \$1 and \$1)	(20)	4	3
Change in cumulative foreign currency translation adjustment (less tax of \$1, \$1 and \$0)	116	(473)	177
Net gains/losses on cash flow hedging derivatives:			
Net gains (losses) arising during the period (less tax of \$2, \$5 and \$4)	4	(10)	15
Reclassification adjustment for (gains) losses included in net earnings (less tax of \$2, \$1 and \$2)	4	2	(7)
TOTAL OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX	290	130	730
Comprehensive Income (Loss)	1,510	2,147	2,874
Net (Earnings) Loss Attributable to Noncontrolling Interests	5	(5)	—
Other Comprehensive (Income) Loss Attributable to Noncontrolling Interests	—	3	(1)
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY	\$ 1,515	\$ 2,145	\$ 2,873

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

CONSOLIDATED BALANCE SHEET

<i>In millions, except per share amounts, at December 31</i>	2019	2018
ASSETS		
Current Assets		
Cash and temporary investments	\$ 511	\$ 589
Accounts and notes receivable (less allowances of \$73 in 2019 and \$81 in 2018)	3,280	3,521
Contract assets	393	395
Inventories	2,208	2,241
Other current assets	247	250
Total Current Assets	6,639	6,996
Plants, Properties and Equipment, net	13,004	13,067
Forestlands	391	402
Investments	1,721	1,648
Financial Assets of Variable Interest Entities (Note 15)	7,088	7,070
Goodwill	3,347	3,374
Right of Use Assets	434	—
Deferred Charges and Other Assets	847	1,019
TOTAL ASSETS	\$ 33,471	\$ 33,576
LIABILITIES AND EQUITY		
Current Liabilities		
Notes payable and current maturities of long-term debt	\$ 168	\$ 639
Current nonrecourse financial liabilities of variable interest entities (Note 15)	4,220	—
Accounts payable	2,423	2,413
Accrued payroll and benefits	466	535
Other current liabilities	1,369	1,107
Total Current Liabilities	8,646	4,694
Long-Term Debt	9,597	10,015
Long-Term Nonrecourse Financial Liabilities of Variable Interest Entities (Note 15)	2,085	6,298
Deferred Income Taxes	2,633	2,600
Pension Benefit Obligation	1,578	1,762
Postretirement and Postemployment Benefit Obligation	270	264
Long-Term Lease Obligations	304	—
Other Liabilities	640	560
Commitments and Contingent Liabilities (Note 14)		
Equity		
Common stock \$1 par value, 2019 - 448.9 shares and 2018 - 448.9 shares	449	449
Paid-in capital	6,297	6,280
Retained earnings	8,408	7,465
Accumulated other comprehensive loss	(4,739)	(4,500)
	10,415	9,694
Less: Common stock held in treasury, at cost, 2019 – 56.800 shares and 2018 – 48.310 shares	2,702	2,332
Total International Paper Shareholders' Equity	7,713	7,362
Noncontrolling interests	5	21
Total Equity	7,718	7,383
TOTAL LIABILITIES AND EQUITY	\$ 33,471	\$ 33,576

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

CONSOLIDATED STATEMENT OF CASH FLOWS

<i>In millions for the years ended December 31</i>	2019	2018	2017
OPERATING ACTIVITIES			
Net earnings (loss)	\$ 1,220	\$ 2,017	\$ 2,144
Depreciation, amortization, and cost of timber harvested	1,306	1,328	1,423
Deferred income tax provision (benefit), net	212	133	(1,113)
Restructuring and other charges, net	57	29	67
Pension plan contributions	—	—	(1,250)
Periodic pension expense, net	93	632	717
Net gain on transfer of North American Consumer Packaging business	—	(488)	—
Net bargain purchase gain on acquisition of business	—	—	(6)
Net (gains) losses on sales and impairments of businesses	205	122	9
Antitrust fines	32	—	—
Equity method dividends received	273	153	133
Equity (earnings) losses, net	(250)	(336)	(177)
Other, net	120	75	212
Changes in current assets and liabilities			
Accounts and notes receivable	246	(342)	(370)
Contract assets	2	(32)	—
Inventories	(1)	(236)	(87)
Accounts payable and accrued liabilities	139	151	114
Interest payable	(19)	(8)	1
Other	(25)	28	(60)
CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	3,610	3,226	1,757
INVESTMENT ACTIVITIES			
Invested in capital projects	(1,276)	(1,572)	(1,391)
Acquisitions, net of cash acquired	(103)	(8)	(45)
Net settlement on transfer of North American Consumer Packaging business	—	(40)	—
Proceeds from divestitures, net of cash divested	81	—	4
Proceeds from sale of fixed assets	18	23	26
Other	(20)	28	15
CASH PROVIDED BY (USED FOR) INVESTMENT ACTIVITIES	(1,300)	(1,569)	(1,391)
FINANCING ACTIVITIES			
Repurchases of common stock and payments of restricted stock tax withholding	(535)	(732)	(47)
Issuance of debt	534	490	1,907
Reduction of debt	(1,507)	(1,008)	(1,424)
Change in book overdrafts	(66)	(1)	26
Dividends paid	(796)	(789)	(769)
Net debt tender premiums paid	(18)	(6)	(84)
Other	(1)	—	(8)
CASH PROVIDED BY (USED FOR) FINANCING ACTIVITIES	(2,389)	(2,046)	(399)
Effect of Exchange Rate Changes on Cash	1	(40)	18
Change in Cash and Temporary Investments	(78)	(429)	(15)
Cash and Temporary Investments			
Beginning of the period	589	1,018	1,033
End of the period	\$ 511	\$ 589	\$ 1,018

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

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

<i>In millions</i>	Common Stock Issued	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Common Stock Held In Treasury, At Cost	Total International Paper Shareholders' Equity	Noncontrolling Interests	Total Equity
BALANCE, JANUARY 1, 2017	\$ 449	\$ 6,189	\$ 4,818	\$ (5,362)	\$ 1,753	\$ 4,341	\$ 18	\$ 4,359
Issuance of stock for various plans, net	—	42	—	—	(120)	162	—	162
Repurchase of stock	—	—	—	—	47	(47)	—	(47)
Dividends (\$1.863 per share)	—	—	(782)	—	—	(782)	—	(782)
Transactions of equity method investees	—	(25)	—	—	—	(25)	—	(25)
Comprehensive income (loss)	—	—	2,144	729	—	2,873	1	2,874
BALANCE, DECEMBER 31, 2017	449	6,206	6,180	(4,633)	1,680	6,522	19	6,541
Adoption of ASC 606 revenue from contracts with customers	—	—	73	—	—	73	—	73
Issuance of stock for various plans, net	—	62	—	—	(80)	142	—	142
Repurchase of stock	—	—	—	—	732	(732)	—	(732)
Dividends (\$1.925 per share)	—	—	(800)	—	—	(800)	—	(800)
Transactions of equity method investees	—	12	—	—	—	12	—	12
Comprehensive income (loss)	—	—	2,012	133	—	2,145	2	2,147
BALANCE, DECEMBER 31, 2018	449	6,280	7,465	(4,500)	2,332	7,362	21	7,383
Adoption of ASU 2018-02 reclassification of stranded tax effects resulting from Tax Reform	—	—	529	(529)	—	—	—	—
Issuance of stock for various plans, net	—	(18)	—	—	(165)	147	—	147
Repurchase of stock	—	—	—	—	535	(535)	—	(535)
Dividends (\$2.013 per share)	—	—	(811)	—	—	(811)	—	(811)
Transactions of equity method investees	—	35	—	—	—	35	—	35
Divestiture of noncontrolling interests	—	—	—	—	—	—	(11)	(11)
Comprehensive income (loss)	—	—	1,225	290	—	1,515	(5)	1,510
BALANCE, DECEMBER 31, 2019	\$ 449	\$ 6,297	\$ 8,408	\$ (4,739)	\$ 2,702	\$ 7,713	\$ 5	\$ 7,718

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

[NOTES TO CONSOLIDATED FINANCIAL STATEMENTS](#)

[NOTE 1 SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES](#)

NATURE OF BUSINESS

International Paper (the Company) is a global paper and packaging company with primary markets and manufacturing operations in North America, Europe, Latin America, North Africa and Russia. Substantially all of our businesses have experienced, and are likely to continue to experience, cycles relating to available industry capacity and general economic conditions.

FINANCIAL STATEMENTS

These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States that require the use of management's estimates. Actual results could differ from management's estimates.

On January 1, 2018, the Company completed the previously announced transfer of its North American Consumer Packaging business and received a 20.5% ownership interest in a subsidiary of Graphic Packaging Holding Company that holds the assets of the combined business. See [Note 8](#) for further details.

CONSOLIDATION

The consolidated financial statements include the accounts of International Paper and subsidiaries for which we have a controlling financial interest, including variable interest entities for which we are the primary beneficiary. All significant intercompany balances and transactions are eliminated.

EQUITY METHOD INVESTMENTS

The equity method of accounting is applied for investments when the Company has significant influence over the investee's operations, or when the investee is structured with separate capital accounts and our investment is considered more than minor. Our material equity method investments are described in [Note 11](#).

BUSINESS COMBINATIONS

The Company allocates the total consideration of the assets acquired and liabilities assumed based on their estimated fair value as of the business combination date. In developing estimates of fair values for long-lived assets, including identifiable intangible assets, the Company utilizes a variety of inputs including forecasted cash flows, anticipated growth rates, discount rates, estimated replacement costs and depreciation and obsolescence factors. Determining the fair value for

specifically identified intangible assets such as customer lists and developed technology involves judgment. We may refine our estimates and make adjustments to the assets acquired and liabilities assumed over a measurement period, not to exceed one year. Upon the conclusion of the measurement period or the final determination of the values of asset acquired and liabilities assumed, whichever comes first, any subsequent adjustments are charged to the consolidated statement of earnings. Subsequent actual results of the underlying business activity supporting the specifically identified intangible assets could change, requiring us to record impairment charges or adjust their economic lives in future periods. See [Note 7](#) for further details.

DISCONTINUED OPERATIONS

A discontinued operation may include a component or a group of components of the Company's operations. A disposal of a component or a group of components is reported in discontinued operations if the disposal represents a strategic shift that has or will have a major effect on the Company's operations and financial results when the following occurs: (1) a component (or group of components) meets the criteria to be classified as held for sale; (2) the component or group of components is disposed of by sale; or (3) the component or group of components is disposed of other than by sale (for example, by abandonment or in a distribution to owners in a spinoff). For any component classified as held for sale or disposed of by sale or other than by sale, qualifying for presentation as a discontinued operation, the Company reports the results of operations of the discontinued operations (including any gain or loss recognized on the disposal or loss recognized on classification as held for sale of a discontinued operation), less applicable income taxes (benefit), as a separate component in the consolidated statement of operations for current and all prior periods presented. See [Note 8](#) for further details.

RESTRUCTURING LIABILITIES AND COSTS

For operations to be closed or restructured, a liability and related expense is recorded in the period when operations cease. For termination costs associated with employees covered by a written or substantive plan, a liability is recorded when it is probable that employees will be entitled to benefits and the amount can be reasonably estimated. For termination costs associated with employees not covered by a written and broadly communicated policy covering involuntary termination benefits (severance plan), a liability is recorded for costs to terminate employees (one-time termination benefits) when the termination plan has been approved and committed to by management, the employees to be terminated have been identified, the termination plan benefit terms are communicated, the employees identified in the plan have been notified and actions required to complete the plan indicate that it is unlikely

that significant changes to the plan will be made or that the plan will be withdrawn. The timing and amount of an accrual is dependent upon the type of benefits granted, the timing of communication and other provisions that may be provided in the benefit plan. The accounting for each termination is evaluated individually. See [Note 6](#) for further details.

REVENUE RECOGNITION

Generally, the Company recognizes revenue on a point-in-time basis when the customer takes title to the goods and assumes the risks and rewards for the goods. For customized goods where the Company has a legally enforceable right to payment for the goods, the Company recognizes revenue over time, which generally is, as the goods are produced.

The Company's revenue is primarily derived from fixed consideration; however, we do have contract terms that give rise to variable consideration, primarily cash discounts and volume rebates. International Paper offers early payment discounts to customers across the Company's businesses. The Company estimates the expected cash discounts and other customer refunds based on the historical experience across the Company's portfolio of customers to record reductions in revenue which is consistent with the most likely amount method outlined in ASC 606. Management has concluded that this method is the best estimate of the consideration the Company will be entitled to from its customers.

The Company has elected to present all sales taxes on a net basis, account for shipping and handling activities as fulfillment activities, recognize the incremental costs of obtaining a contract as expense when incurred if the amortization period of the asset the Company would recognize is one year or less, and not record interest income or interest expense when the difference in timing of control or transfer and customer payment is one year or less. See [Note 3](#) for further details.

TEMPORARY INVESTMENTS

Temporary investments with an original maturity of three months or less and money market funds with greater than three month maturities but with the right to redeem without notice are treated as cash equivalents and are stated at cost, which approximates market value. See [Note 9](#) for further details.

INVENTORIES

Inventories are valued at the lower of cost or market value and include all costs directly associated with manufacturing products: materials, labor and manufacturing overhead. In the United States, costs of raw materials and finished pulp and paper products, are generally determined using the last-in, first-out method.

Other inventories are valued using the first-in, first-out or average cost methods. See [Note 9](#) for further details.

LEASED ASSETS

Operating lease ROU assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. The Company's leases may include options to extend or terminate the lease. These options to extend are included in the lease term when it is reasonably certain that we will exercise that option. Some leases have variable payments, however, because they are not based on an index or rate, they are not included in the ROU assets and liabilities. Variable payments for real estate leases primarily related to common area maintenance, insurance, taxes and utilities. Variable payments for equipment, vehicles, and leases within supply agreements primarily related to usage, repairs and maintenance. As the implicit rate is not readily determinable for most of the Company's leases, the Company applies a portfolio approach using an estimated incremental borrowing rate to determine the initial present value of lease payments over the lease terms on a collateralized basis over a similar term, which is based on market and company specific information. We use the unsecured borrowing rate and risk-adjust that rate to approximate a collateralized rate, and apply the rate based on the currency of the lease, which is updated on a quarterly basis for measurement of new lease liabilities. Leases having a lease term of twelve months or less are not recorded on the balance sheet and the related lease expense is recognized on a straight-line basis over the term of the lease. In addition, the Company has applied the practical expedient to account for the lease and non-lease components as a single lease component for all of the Company's leases. See [Note 10](#) for further details.

PLANTS, PROPERTIES AND EQUIPMENT

Plants, properties and equipment are stated at cost, less accumulated depreciation. Expenditures for betterments are capitalized, whereas normal repairs and maintenance are expensed as incurred. The units-of-production method of depreciation is used for pulp and paper mills, and the straight-line method is used for other plants and equipment. See [Note 9](#) for further details.

GOODWILL

Annual evaluation for possible goodwill impairment is performed as of the beginning of the fourth quarter of each year, with additional interim evaluation performed when management believes that it is more likely than not, that events or circumstances have occurred that would result in the impairment of a reporting unit's goodwill.

The Company has the option to evaluate goodwill for impairment by first performing a qualitative assessment of events and circumstances to determine whether it is

more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, the Company determines that it is not more likely than not that the fair value of a reporting unit is less than its carrying amounts, then the quantitative goodwill impairment test is not required to be performed. If the Company determines that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, or if the Company does not elect the option to perform an initial qualitative assessment, the Company is required to perform the quantitative goodwill impairment test. In performing this evaluation, the Company estimates the fair value of its reporting unit using a probability-weighted approach based on discounted future cash flows, market multiples and transaction multiples. Key assumptions in the quantitative goodwill impairment test considered by management include the discount rate, long-term growth rate, tax rate, inflation rate, and business forecast. For reporting units whose carrying amount is in excess of their estimated fair value, the reporting unit will record an impairment charge by the amount that the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. See [Note 12](#) for further discussion.

IMPAIRMENT OF LONG-LIVED ASSETS

Long-lived assets are reviewed for impairment upon the occurrence of events or changes in circumstances that indicate that the carrying value of the assets may not be recoverable. A recoverability test is performed based on undiscounted cash flows, requiring judgments as to whether assets are held and used or held for sale, the weighting of operational alternatives being considered by management and estimates of the amount and timing of expected future cash flows from the use of the long-lived assets generated by their use. Impaired assets are recorded at their estimated fair value. See [Note 8](#) for further discussion.

INCOME TAXES

International Paper uses the asset and liability method of accounting for income taxes whereby deferred income taxes are recorded for the future tax consequences attributable to differences between the financial statement and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax assets and liabilities are remeasured to reflect new tax rates in the periods rate changes are enacted.

International Paper records its worldwide tax provision based on the respective tax rules and regulations for the jurisdictions in which it operates. Where the Company believes that a tax position is supportable for income tax purposes, the item is included in its income tax returns.

Where treatment of a position is uncertain, liabilities are recorded based upon the Company's evaluation of the "more likely than not" outcome considering the technical merits of the position based on specific tax regulations and the facts of each matter. Changes to recorded liabilities are made only when an identifiable event occurs that changes the likely outcome, such as settlement with the relevant tax authority, the expiration of statutes of limitation for the subject tax year, a change in tax laws, or a recent court case that addresses the matter.

While the judgments and estimates made by the Company are based on management's evaluation of the technical merits of a matter, assisted as necessary by consultation with outside consultants, historical experience and other assumptions that management believes are appropriate and reasonable under current circumstances, actual resolution of these matters may differ from recorded estimated amounts, resulting in adjustments that could materially affect future financial statements. See [Note 13](#) for further details.

International Paper uses the flow-through method to account for investment tax credits earned on eligible open-loop biomass facilities and combined heat and power system expenditures. Under this method, the investment tax credits are recognized as a reduction to income tax expense in the year they are earned rather than a reduction in the asset basis.

ENVIRONMENTAL REMEDIATION COSTS

Costs associated with environmental remediation obligations are accrued when such costs are probable and reasonably estimable. Such accruals are adjusted as further information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are discounted to their present value when the amount and timing of expected cash payments are reliably determinable. See [Note 14](#) for further details.

TRANSLATION OF FINANCIAL STATEMENTS

Balance sheets of international operations are translated into U.S. dollars at year-end exchange rates, while statements of operations are translated at average rates. Adjustments resulting from financial statement translations are included as cumulative translation adjustments in Accumulated other comprehensive loss.

[NOTE 2 RECENT ACCOUNTING DEVELOPMENTS](#)

Other than as described below, no new accounting pronouncement issued or effective during the fiscal year has had or is expected to have a material impact on the consolidated financial statements.

RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

Intangibles

In January 2017, the FASB issued ASU 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." This guidance eliminates the requirement to calculate the implied fair value of goodwill under Step 2 of the previous goodwill impairment test approach to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. This guidance should be applied prospectively. The Company early adopted the provision of this guidance in the fourth quarter of 2019 in conjunction with our annual evaluation for possible goodwill impairment which resulted in the recognition of a goodwill impairment charge of \$52 million for the Global Cellulose Fibers reporting unit. See [Note 12](#).

Pension Plan Disclosures

In July 2018, the FASB issued ASU 2018-09, "Codification Improvements," which included amendments to Subtopic 962-325. This disclosure guidance pertains to the presentation of certain types of investments. The Company adopted the provisions of this guidance in the fourth quarter of 2019 in conjunction with the preparation of our 2019 annual Form 10-K disclosures and presentation related to pension plan assets.

Leases

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842): Leases." The Company adopted the provisions of this guidance effective January 1, 2019, using the modified retrospective optional transition method. Therefore, the standard was applied beginning January 1, 2019, and prior periods were not restated. The adoption of the standard did not result in a cumulative effect adjustment to the opening balance of Retained earnings. The Company elected the package of practical expedients and implemented internal controls and system functionality to enable the preparation of financial information upon adoption.

The adoption of the new standard resulted in the recognition of a right of use asset and short-term and long-term liabilities recorded on the Company's consolidated balance sheet related to operating leases. Accounting for finance leases remained substantially unchanged. In addition, the adoption of the standard did not have a material impact on the Company's results of operations or cash flows. See [Note 10](#).

Comprehensive Income

In February 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from

Accumulated Other Comprehensive Income." This guidance provided entities the option to reclassify stranded tax effects caused by the newly-enacted U.S. Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. As a result, the Company adopted this guidance effective January 1, 2019, and recorded a net increase to opening Retained earnings and a decrease to opening Accumulated other comprehensive income of \$529 million, due to the cumulative impact of adopting the new guidance.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED

Income Taxes

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." This guidance removes certain exceptions from recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. It also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. This guidance is effective for annual reporting periods beginning after December 15, 2020, and interim periods within those years. Early adoption of the amendments is permitted, including adoption in any interim period for public business entities for periods for which financial statements have not yet been issued. The Company is currently evaluating the provisions of this guidance.

Financial Instruments - Credit Losses

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This guidance replaces the current incurred loss impairment method with a method that reflects expected credit losses. This guidance is effective for annual reporting periods beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted. The Company has substantially completed its evaluation of the provisions of this guidance and determined it will not have a material impact on the consolidated statement of position, results of operations or cash flows. The Company will adopt this guidance using the modified retrospective approach on its

effective date of January 1, 2020. As a result of using this approach, the Company will recognize the

cumulative effect adjustment to the opening balance of retained earnings for initial application of the guidance.

NOTE 3 - REVENUE RECOGNITION

DISAGGREGATED REVENUE

A geographic disaggregation of revenues across our company segmentation in the following tables provides information to assist in evaluating the nature, timing and uncertainty of revenue and cash flows and how they may be impacted by economic factors.

Reportable Segments	2019					Total
	Industrial Packaging	Global Cellulose Fibers	Printing Papers	Corporate & Intersegment		
Primary Geographical Markets (a)						
United States	\$ 12,668	\$ 2,148	\$ 1,912	\$ 220	\$ 16,948	
EMEA	1,692	254	1,323	(11)	3,258	
Pacific Rim and Asia	65	149	189	12	415	
Americas, other than U.S.	901	—	867	(13)	1,755	
Total	\$ 15,326	\$ 2,551	\$ 4,291	\$ 208	\$ 22,376	
Operating Segments						
North American Industrial Packaging	\$ 13,509	\$ —	\$ —	\$ —	\$ 13,509	
EMEA Industrial Packaging	1,335	—	—	—	1,335	
Brazilian Industrial Packaging	235	—	—	—	235	
European Coated Paperboard	365	—	—	—	365	
Global Cellulose Fibers	—	2,551	—	—	2,551	
North American Printing Papers	—	—	1,956	—	1,956	
Brazilian Papers	—	—	967	—	967	
European Papers	—	—	1,250	—	1,250	
Indian Papers	—	—	160	—	160	
Intra-segment Eliminations	(118)	—	(42)	—	(160)	
Corporate & Inter-segment Sales	—	—	—	208	208	
Total	\$ 15,326	\$ 2,551	\$ 4,291	\$ 208	\$ 22,376	

(a) Net sales are attributed to countries based on the location of the reportable segment making the sale.

Reportable Segments	2018					Total
	Industrial Packaging	Global Cellulose Fibers	Printing Papers	Corporate & Intersegment		
Primary Geographical Markets (a)						
United States	\$ 13,167	\$ 2,336	\$ 1,903	\$ 203	\$	17,609
EMEA	1,704	304	1,330	(17)		3,321
Pacific Rim and Asia	142	179	245	39		605
Americas, other than U.S.	887	—	897	(13)		1,771
Total	\$ 15,900	\$ 2,819	\$ 4,375	\$ 212	\$	23,306
Operating Segments						
North American Industrial Packaging	\$ 14,187	\$ —	\$ —	\$ —	\$	14,187
EMEA Industrial Packaging	1,355	—	—	—		1,355
Brazilian Industrial Packaging	232	—	—	—		232
European Coated Paperboard	359	—	—	—		359
Global Cellulose Fibers	—	2,819	—	—		2,819
North American Printing Papers	—	—	1,956	—		1,956
Brazilian Papers	—	—	978	—		978
European Papers	—	—	1,252	—		1,252
Indian Papers	—	—	202	—		202
Intra-segment Eliminations	(233)	—	(13)	—		(246)
Corporate & Inter-segment Sales	—	—	—	212		212
Total	\$ 15,900	\$ 2,819	\$ 4,375	\$ 212	\$	23,306

(a) Net sales are attributed to countries based on the location of the reportable segment making the sale.

REVENUE CONTRACT BALANCES

The opening and closing balances of the Company's contract assets and current contract liabilities are as follows:

In millions	Contract Assets (Short-Term)	Contract Liabilities (Short-Term)
Beginning Balance - January 1, 2019	\$ 395	\$ 56
Ending Balance - December 31, 2019	393	56
Increase / (Decrease)	\$ (2)	\$ —

A contract asset is created when the Company recognizes revenue on its customized products prior to having an unconditional right to payment from the customer, which generally does not occur until title and risk of loss passes to the customer.

A contract liability is created when customers prepay for goods prior to the Company transferring those goods to the customer. The contract liability is reduced once control of the goods is transferred to the customer. The

majority of our customer prepayments are received during the fourth quarter each year for goods that will be transferred to customers over the following twelve months.

The difference between the opening and closing balances of the Company's contract assets and contract liabilities primarily results from the difference between

the price and quantity at comparable points in time for goods which we have an unconditional right to payment or receive pre-payment from the customer, respectively.

PERFORMANCE OBLIGATIONS AND SIGNIFICANT JUDGEMENTS

International Paper's principal business is to manufacture and sell fiber-based packaging, pulp and paper goods. As a general rule, none of our businesses provide equipment installation or other ancillary services outside of producing and shipping packaging, pulp and paper goods to customers.

The nature of the Company's contracts can vary based on the business, customer type and region; however, in all instances it is International Paper's customary business practice to receive a valid order from the

customer, in which each parties' rights and related payment terms are clearly identifiable.

Contracts or purchase orders with customers could include a single type of product or it could include multiple types/grades of products. Regardless, the contracted price with the customer is agreed to at the individual product level outlined in the customer contracts or purchase orders. The Company does not

bundle prices; however, we do negotiate with customers on pricing and rebates for the same products based on a variety of factors (e.g. level of contractual volume, geographical location, etc.). Management has concluded that the prices negotiated with each individual customer are representative of the stand-alone selling price of the product.

NOTE 4 EARNINGS PER SHARE ATTRIBUTABLE TO INTERNATIONAL PAPER COMPANY COMMON SHAREHOLDERS

Basic earnings per share is computed by dividing earnings by the weighted average number of common shares outstanding. Diluted earnings per share is computed assuming that all potentially dilutive securities were converted into common shares.

NOTE 5 OTHER COMPREHENSIVE INCOME

The following table presents changes in AOCI, net of tax, reported in the consolidated financial statements for the years ended December 31:

<i>In millions</i>	2019	2018	2017
Defined Benefit Pension and Postretirement Adjustments			
Balance at beginning of period	\$ (1,916)	\$ (2,527)	\$ (3,072)
Other comprehensive income (loss) before reclassifications	2	22	59
Reclassification of stranded tax effects	(527)	—	—
Amounts reclassified from accumulated other comprehensive income	164	589	486
Balance at end of period	(2,277)	(1,916)	(2,527)
Change in Cumulative Foreign Currency Translation Adjustments			
Balance at beginning of period	(2,581)	(2,111)	(2,287)
Other comprehensive income (loss) before reclassifications	14	(475)	178
Amounts reclassified from accumulated other comprehensive income	102	2	(1)
Other Comprehensive Income (Loss) Attributable to Noncontrolling Interest	—	3	(1)
Balance at end of period	(2,465)	(2,581)	(2,111)
Net Gains and Losses on Cash Flow Hedging Derivatives			
Balance at beginning of period	(3)	5	(3)
Other comprehensive income (loss) before reclassifications	4	(10)	15
Reclassification of stranded tax effects	(2)	—	—
Amounts reclassified from accumulated other comprehensive income	4	2	(7)
Balance at end of period	3	(3)	5
Total Accumulated Other Comprehensive Income (Loss) at End of Period	\$ (4,739)	\$ (4,500)	\$ (4,633)

There are no adjustments required to be made to net income for purposes of computing basic and diluted EPS.

A reconciliation of the amounts included in the computation of basic earnings (loss) per share from continuing operations, and diluted earnings (loss) per share from continuing operations is as follows:

<i>In millions, except per share amounts</i>	2019	2018	2017
Earnings (loss) from continuing operations attributable to International Paper common shareholders	\$ 1,225	\$ 1,667	\$ 2,110
Weighted average common shares outstanding	395.3	409.1	412.7
Effect of dilutive securities:			
Restricted performance share plan	3.5	5.1	5.0
Weighted average common shares outstanding – assuming dilution	398.8	414.2	417.7
Basic earnings (loss) per share from continuing operations	\$ 3.10	\$ 4.07	\$ 5.11
Diluted earnings (loss) per share from continuing operations	\$ 3.07	\$ 4.02	\$ 5.05

Reclassifications out of AOCI for the three years ended December 31 were as follows:

	Amount Reclassified from Accumulated Other Comprehensive Income			Location of Amount Reclassified from AOCI
	2019	2018	2017	
<i>In millions</i>				
Defined benefit pension and postretirement items:				
Prior-service costs	\$ (10)	\$ (11)	\$ (33)	(a) Non-operating pension expense
Actuarial gains/(losses)	(208)	(774)	(733)	(a) Non-operating pension expense
Total pre-tax amount	(218)	(785)	(766)	
Tax (expense)/benefit	54	196	280	
Net of tax	(164)	(589)	(486)	
Reclassification of stranded tax effects	527	—	—	Retained Earnings
Total, net of tax	363	(589)	(486)	
Change in cumulative foreign currency translation adjustments:				
Business acquisitions/divestiture	(102)	(2)	1	(b) Net (gains) losses on sales and impairment of businesses and Cost of products sold
Tax (expense)/benefit	—	—	—	
Net of tax	(102)	(2)	1	
Net gains and losses on cash flow hedging derivatives:				
Foreign exchange contracts	(6)	(3)	9	(c) Cost of products sold
Total pre-tax amount	(6)	(3)	9	
Tax (expense)/benefit	2	1	(2)	
Net of tax	(4)	(2)	7	
Reclassification of stranded tax effects	2	—	—	Retained Earnings
Total, net of tax	(2)	(2)	7	
Total reclassifications for the period, net of tax	\$ 259	\$ (593)	\$ (478)	

(a) These accumulated other comprehensive income components are included in the computation of net periodic pension cost (see [Note 19](#) for additional details).

(b) Amounts for 2018 were reclassified to Discontinued operations, net of taxes.

(c) This accumulated other comprehensive income component is included in our derivatives and hedging activities (see [Note 17](#) for additional details).

NOTE 6 RESTRUCTURING CHARGES AND OTHER ITEMS

2019: During 2019, restructuring and other charges, net, totaling \$57 million before taxes were recorded. These charges included:

<i>In millions</i>	2019
Overhead cost reduction initiative (a)	\$ 21
EMEA packaging restructuring (b)	15
Early debt extinguishment costs (see Note 16)	21
Total	\$ 57

(a) Includes pre-tax charges of \$11 million, \$6 million and \$4 million in Corporate, the Printing Papers segment and the Global Cellulose Fibers segment, respectively, for severance related to an overhead cost reduction initiative. The majority of the severance charges will be paid in 2020.

(b) Includes \$14 million of severance and \$1 million in other charges in conjunction with the restructuring of our EMEA Packaging business. The majority of the severance charges will be paid in 2020.

2018: During 2018, restructuring and other charges, net, totaling \$29 million before taxes were recorded. These charges included:

<i>In millions</i>	2018
EMEA packaging restructuring (a)	\$ 47
Gain on sale of investment in Liaison Technologies Inc.	(31)
Early debt extinguishment costs (see Note 16)	10
Riverdale mill conversion severance	3
Total	\$ 29

(a) Includes \$33 million of severance, \$6 million in accelerated depreciation, \$2 million in accelerated amortization and \$6 million in other charges in conjunction with the optimization of our EMEA Packaging business. The majority of the severance charges recorded were paid throughout the year.

2017: During 2017, restructuring and other charges, net, totaling \$67 million before taxes were recorded. These charges included:

<i>In millions</i>	2017
Early debt extinguishment costs (see Note 16)	\$ 83
Gain on sale of investment in ArborGen	(14)
Other	(2)
Total	\$ 67

NOTE 7 ACQUISITIONS

EMEA PACKAGING BUSINESSES

2019: On June 28, 2019, the Company completed the acquisition of two packaging businesses located in Portugal (Ovar) and France (Torigni and Cabourg) from DS Smith Packaging. The total purchase consideration, inclusive of working capital adjustments, was approximately €71 million (approximately \$81 million at current exchange rates).

The following table summarizes the consideration paid and the amounts of the assets and liabilities assumed as of June 28, 2019:

<i>In millions</i>	June 28, 2019
Cash and temporary investments	\$ 2
Accounts and notes receivable	22
Inventory	8
Plants, properties and equipment	40
Goodwill	23
Intangible assets	16
Right of use assets	3
Deferred charges and other assets	1
Total assets acquired	115
Short-term debt	2
Accounts payable and accrued liabilities	21
Other current liabilities	4
Deferred income taxes	3
Long-term lease obligations	3
Other Liabilities	1
Total liabilities assumed	34
Net assets acquired	\$ 81

Since the date of acquisition, Net sales of \$50 million and Earnings (loss) from continuing operations before income taxes and equity earnings of \$4 million from the acquired businesses have been included in the Company's consolidated statement of operations for the year ended December 31, 2019.

The allocation of the consideration paid is preliminary and could be revised as a result of additional information obtained regarding assets acquired and liabilities assumed, and revisions to provisional estimates of fair

values, including, but not limited to, the completion of independent appraisals and valuations related to property, plant and equipment and acquired intangible assets. Adjustments to provisional amounts will be finalized as new information becomes available, but within the adjustment period of up to one year from the acquisition date.

Pro forma information has not been included as it is impracticable to obtain the information due to the lack of availability of historical U.S. GAAP financial data. The results of the operations of these businesses do not have a material effect on the Company's consolidated results of operations.

TANGIER, MOROCCO FACILITY

2017: On June 30, 2017, the Company completed the acquisition of Europac's Tangier, Morocco facility, a corrugated packaging facility, for €40 million (approximately \$46 million using the June 30, 2017 exchange rate). After working capital and other post-close adjustments, final consideration exchanged was €33 million (approximately \$38 million using the June 30, 2017 exchange rate).

The following table summarizes the final fair value assigned to assets and liabilities acquired as of June 30, 2017:

<i>In millions</i>	June 30, 2017
Cash and temporary investments	\$ 1
Accounts and notes receivable	7
Inventory	3
Plants, properties and equipment	31
Goodwill	4
Other intangible assets	5
Deferred charges and other assets	4
Total assets acquired	55
Accounts payable and accrued liabilities	4
Long-term debt	11
Other long-term liabilities	2
Total liabilities assumed	17
Net assets acquired	\$ 38

NOTE 8 DIVESTITURES AND IMPAIRMENTS OF BUSINESSES

2019: On October 30, 2019, the Company closed the previously announced sale of its controlling interest in International Paper APPM Limited (APPM) to West Coast Paper Mills Limited (WCPM). The net proceeds received for the sale totaled \$82 million. International Paper remains a passive investor retaining a 20% interest in APPM until such time that IP sells its remaining shares. The Company will account for its retained investment at fair value.

As a result of the transaction, a net pre-tax impairment charge of \$159 million (\$157 million after taxes) was recorded during 2019. This charge included \$97 million related to a loss for the write-off of the cumulative foreign currency translation of APPM and a \$62 million loss related to the write-off of the long-lived assets of APPM. This charge is included in the Net (gains) losses on sales and impairments of businesses in the accompanying consolidated statement of operations and is included in the results for the Printing Papers segment. A loss of \$9 million (before and after taxes) has been allocated to the noncontrolling interest related to the impairment of the long-lived assets of APPM. The fair value of the Company's retained investment in APPM was \$32 million at December 31, 2019.

2018: During 2018, a determination was made that the current carrying value of the long-lived assets of the Brazil Packaging business exceeded their estimated fair value due to a change in the outlook for the business. Management engaged a third party to assist with determining the fair value of the business and the fixed assets. The fair value of the business was calculated using a probability-weighted approach based on discounted future cash flows, market multiples, and transaction multiples and the fair value of the fixed assets was determined using a market approach. As a result, a pre-tax charge of \$122 million (\$81 million, net of tax) was recorded related to the impairment of an intangible asset and fixed assets. This charge is included in Net (gains) losses on sales and impairments of businesses in the accompanying consolidated statement of operations and is included in the results for the Industrial Packaging segment. In the fourth quarter of 2018, the Company announced that it was exploring strategic options for its Brazil Packaging business.

2017: On September 7, 2017, the Company completed the sale of its foodservice business in China to Huhtamaki Hong Kong Limited. Proceeds received totaled approximately RMB 129 million (\$18 million using the September 30, 2017 exchange rate). Under the terms of the transaction, and after post-closing adjustments, International Paper received approximately RMB 49 million in exchange for its ownership interest in two China foodservice entities and RMB 80 million for the sale of notes receivable from the acquired entities.

Subsequent to the announced agreement in June 2017, a determination was made that the current book value of the asset group exceeded its estimated fair value of \$7 million, which was the agreed upon selling price. As a result, a pre-tax charge of \$9 million was recorded during the second quarter of 2017, to write down the long-lived assets of this business to their estimated fair value. Amounts related to this business included in the Company's statement of operations were immaterial for all periods presented.

DISCONTINUED OPERATIONS

2017: On January 1, 2018, the Company completed the transfer of its North American Consumer Packaging business, which included its North American Coated Paperboard and Foodservice businesses, to Graphic Packaging International Partners, LLC (GPIP), a subsidiary of Graphic Packaging Holding Company, in exchange for a 20.5% ownership interest in GPIP. GPIP subsequently transferred the North American Consumer Packaging business to Graphic Packaging International, LLC (GPI), a wholly-owned subsidiary of GPIP. International Paper is accounting for its ownership interest in the combined business under the equity method. The Company determined the fair value of its investment in the combined business to be \$1.1 billion and recorded a pre-tax gain of \$488 million (\$364 million, net of tax) in 2018. The fair value was calculated using a market approach using inputs classified as Level 2 and Level 3 within the fair value hierarchy, which is further defined in [Note 17](#).

All current and historical operating results for North American Consumer Packaging are included in Discontinued operations, net of tax, in the accompanying consolidated statement of operations. The following summarizes the major classes of line items comprising Earnings (Loss) Before Income Taxes and Equity Earnings reconciled to Discontinued Operations, net of tax, related to the transfer of the North American Consumer Packaging business for all prior periods presented in the consolidated statement of operations:

<i>In millions</i>	2018	2017
Net Sales	\$ —	\$ 1,559
Costs and Expenses		
Cost of products sold	—	1,179
Selling and administrative expenses	25	110
Depreciation, amortization and cost of timber harvested	—	80
Distribution expenses	—	126
Taxes other than payroll and income taxes	—	11
(Gain) loss on transfer of business	(488)	—
Interest expense, net	—	1
Earnings (Loss) Before Income Taxes and Equity Earnings	463	52
Income tax provision (benefit)	118	18
Discontinued Operations, Net of Taxes	\$ 345	\$ 34

Total cash provided by (used for) operations related to the North American Consumer Packaging business of \$(25) million and \$207 million for 2018 and 2017 is included in Cash Provided By (Used For) Operations in the consolidated statement of cash flows. Total cash used for investing activities related to the North American Consumer Packaging business of \$40 million and \$111 million for 2018 and 2017 is included in Cash

Provided By (Used For) Investing Activities in the consolidated statement of cash flows.

NOTE 9 SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION

TEMPORARY INVESTMENTS

Temporary investments with an original maturity of three months or less are treated as cash equivalents and are stated at cost. Temporary investments totaled \$335 million and \$402 million at December 31, 2019 and 2018, respectively.

ACCOUNTS AND NOTES RECEIVABLE

Accounts and notes receivable, net, by classification were:

<i>In millions at December 31</i>	2019	2018
Accounts and notes receivable:		
Trade	\$ 3,020	\$ 3,249
Other	260	272
Total	\$ 3,280	\$ 3,521

INVENTORIES

<i>In millions at December 31</i>	2019	2018
Raw materials	\$ 298	\$ 260
Finished pulp, paper and packaging products	1,192	1,241
Operating supplies	659	641
Other	59	99
Inventories	\$ 2,208	\$ 2,241

The last-in, first-out inventory method is used to value most of International Paper's U.S. inventories. Approximately 71% of total raw materials and finished products inventories were valued using this method. The last-in, first-out inventory reserve was \$295 million and \$329 million at December 31, 2019 and 2018, respectively.

PLANTS, PROPERTIES AND EQUIPMENT

<i>In millions at December 31</i>	2019	2018
Pulp, paper and packaging facilities	\$ 32,292	\$ 32,329
Other properties and equipment	1,224	1,232
Gross cost	33,516	33,561
Less: Accumulated depreciation	20,512	20,494
Plants, properties and equipment, net	\$ 13,004	\$ 13,067

Non-cash additions to plants, property and equipment included within accounts payable were \$164 million, \$135 million and \$275 million at December 31, 2019, 2018 and 2017, respectively.

Annual straight-line depreciable lives generally are, for buildings - 20 to 40 years, and for machinery and equipment - 3 to 20 years. Depreciation expense was \$1.2 billion for the each of the years ended December 31, 2019, 2018 and 2017, respectively. Cost of products sold excludes depreciation and amortization expense.

INTEREST

Interest payments of \$754 million, \$772 million and \$782 million were made during the years ended December 31, 2019, 2018 and 2017, respectively.

Amounts related to interest were as follows:

<i>In millions</i>	2019	2018	2017
Interest expense	\$ 706	\$ 734	\$ 758
Interest income	215	198	186
Capitalized interest costs	29	30	25

ASSET RETIREMENT OBLIGATIONS

At December 31, 2019 and 2018, we had recorded liabilities of \$96 million and \$86 million, respectively, related to asset retirement obligations.

NOTE 10 LEASES

International Paper leases various real estate, including certain operating facilities, warehouses, office space and land. The Company also leases material handling equipment, vehicles, and certain other equipment. The Company's leases have remaining lease terms of one year to 97 years.

COMPONENTS OF LEASE EXPENSE

<i>In millions</i>	December 31, 2019
Operating lease costs, net	\$ 132
Variable lease costs	70
Short-term lease costs, net	59
Finance lease cost	
Amortization of lease assets	12
Interest on lease liabilities	5
Total lease cost, net	\$ 278

SUPPLEMENTAL BALANCE SHEET INFORMATION RELATED TO LEASES

<i>In millions</i>	Classification	December 31, 2019	
Assets			
Operating lease assets	Right of use assets	\$	434
Finance lease assets	Plants, properties and equipment, net (a)		103
Total leased assets		\$	537
Liabilities			
Current			
Operating	Other current liabilities	\$	134
Finance	Notes payable and current maturities of long-term debt		12
Noncurrent			
Operating	Long-term lease obligations		304
Finance	Long-term debt		88
Total lease liabilities		\$	538

(a) Finance leases are recorded net of accumulated amortization of \$40 million.

LEASE TERM AND DISCOUNT RATE

<i>In millions</i>	December 31, 2019
Weighted average remaining lease term (years)	
Operating leases	9.8 years
Finance leases	10.9 years
Weighted average discount rate	
Operating leases	3.06%
Finance leases	4.69%

SUPPLEMENTAL CASH FLOW INFORMATION RELATED TO LEASES

<i>In millions</i>	December 31, 2019	
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows related to operating leases	\$	147
Operating cash flows related to financing leases		5
Financing cash flows related to finance leases		9
Right of use assets obtained in exchange for lease liabilities		
Operating leases		162
Finance leases		11

MATURITY OF LEASE LIABILITIES

<i>In millions</i>	Operating Leases	Financing Leases	Total
2020	\$ 147	\$ 16	\$ 163
2021	110	15	125
2022	75	14	89
2023	42	13	55
2024	24	10	34
Thereafter	103	66	169
Total lease payments	501	134	635
Less imputed interest	63	34	97
Present value of lease liabilities	\$ 438	\$ 100	\$ 538

At December 31, 2018, total future minimum commitments under existing non-cancelable operating leases were as follows:

<i>In millions</i>	2019	2020	2021	2022	2023	Thereafter
Lease obligations	160	125	77	49	28	118

NOTE 11 EQUITY METHOD INVESTMENTS

The Company accounts for the following investments under the equity method of accounting.

GRAPHIC PACKAGING INTERNATIONAL PARTNERS, LLC

On January 1, 2018, the Company completed the transfer of its North American Consumer Packaging business, which includes its North American Coated Paperboard and Foodservice businesses, to Graphic Packaging International Partners, LLC (GPIP), a subsidiary of Graphic Packaging Holding Company, in exchange for a 20.5% ownership interest in GPIP. GPIP subsequently transferred the North American Consumer Packaging business to Graphic Packaging International, LLC (GPI), a wholly-owned subsidiary of GPIP that holds the assets of the combined business. As of December 31, 2019, the Company's ownership percentage in GPIP was 21.6%. The Company recorded equity earnings, net of taxes, of \$46 million for each of the years ended December 31, 2019 and 2018. The Company received cash dividends from GPIP of \$27 million and \$25 million in 2019 and 2018, respectively. At both December 31, 2019 and 2018, the Company's investment in GPIP was \$1.1 billion, which was \$529 million and \$562 million more than the Company's proportionate share of the entity's underlying net assets at December 31, 2019 and 2018, respectively. The difference primarily relates to the basis difference between the fair value of our investment and the underlying net assets and is generally amortized in equity earnings over a period consistent with the underlying long-lived assets.

Management engaged a third party to assist with determining the fair value of the intangible assets and the fixed assets. The fair value of the intangible assets were calculated using income and market approaches and the fair value of the fixed assets was calculated using a cost approach. The fair values were determined using inputs classified as Level 2 and Level 3 within the fair value hierarchy, which is further defined in [Note 17](#). The Company is party to various agreements with GPI under which it sells fiber and other products to GPI. Sales under these agreements were \$274 million and \$240 million for the years ended December 31, 2019 and 2018, respectively.

On January 29, 2020, the Company exchanged approximately 19.0% of the aggregate units owned by the Company for an aggregated price of \$250 million. After this transaction, the Company's ownership percentage in GPIIP is approximately 18.3%. The Company expects to record a gain on the exchange in the first quarter of 2020.

Summarized financial information for GPIIP is presented in the following tables:

Balance Sheet

<i>In millions</i>	2019	2018
Current assets	\$ 1,796	\$ 1,757
Noncurrent assets	5,482	5,292
Current liabilities	1,178	1,148
Noncurrent liabilities	3,244	3,156

Income Statement

<i>In millions</i>	2019	2018
Net sales	\$ 6,160	\$ 6,023
Gross profit	1,093	946
Income from continuing operations	333	336
Net income	334	337

ILIM S.A. (Ilim)

The Company also holds a 50% equity interest in Ilim, which has subsidiaries whose primary operations are in Russia. The Company recorded equity earnings, net of taxes, of \$207 million, \$290 million, and \$183 million

in 2019, 2018, and 2017, respectively, for Ilim. Equity earnings (losses) includes an after-tax foreign exchange (loss) gain of \$32 million, \$(82) million, and \$15 million in 2019, 2018 and 2017, respectively, primarily on the remeasurement of U.S. dollar-denominated net debt. The Company received cash dividends from the joint venture of \$246 million and \$128 million in 2019 and 2018, respectively. At December 31, 2019 and 2018, the Company's investment in Ilim, which is recorded in Investments in the consolidated balance sheet, was \$508 million and \$478 million, respectively, which was \$136 million and \$145 million, respectively, more than the Company's proportionate share of the joint venture's underlying net assets. The differences primarily relate to currency translation adjustments and the basis difference between the fair value of our investment at acquisition and the underlying net assets. The Company is party to a joint marketing agreement with JSC Ilim Group, a subsidiary of Ilim, under which the Company purchases, markets and sells paper produced by JSC Ilim Group. Purchases under this agreement were \$215 million, \$214 million and \$205 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Summarized financial information for Ilim is presented in the following tables:

Balance Sheet

<i>In millions</i>	2019	2018
Current assets	\$ 804	\$ 981
Noncurrent assets	2,813	1,710
Current liabilities	1,015	545
Noncurrent liabilities	1,844	1,470
Noncontrolling interests	16	11

Income Statement

<i>In millions</i>	2019	2018	2017
Net sales	\$ 2,189	\$ 2,713	\$ 2,150
Gross profit	1,025	1,549	1,047
Income from continuing operations	438	592	379
Net income	424	571	362

The audited U.S. GAAP financial statements for Ilim are included in Exhibit 99.1 to this Form 10-K.

NOTE 12 GOODWILL AND OTHER INTANGIBLES
GOODWILL

The following table presents changes in the goodwill balances as allocated to each business segment for the years ended December 31, 2019 and 2018:

<i>In millions</i>	Industrial Packaging	Global Cellulose Fibers	Printing Papers	Total
Balance as of December 31, 2017				
Goodwill	\$ 3,382	\$ 52	\$ 2,150	\$ 5,584
Accumulated impairment losses	(296)	—	(1,877)	(2,173)
	3,086	52	273	3,411
Currency translation and other (a)	(1)	—	(34)	(35)
Goodwill additions/reductions	(2) (b)	—	—	(2)
Balance as of December 31, 2018				
Goodwill	3,379	52	2,116	5,547
Accumulated impairment losses	(296)	—	(1,877)	(2,173)
	3,083	52	239	3,374
Currency translation and other (a)	—	—	(6)	(6)
Goodwill additions/reductions	31 (b)(c)	—	(112) (d)	(81)
Accumulated impairment loss additions/reductions	—	(52) (e)	112 (d)	60
Balance as of December 31, 2019				
Goodwill	3,410	52	1,998	5,460
Accumulated impairment losses	(296)	(52)	(1,765)	(2,113)
Total	\$ 3,114	\$ —	\$ 233	\$ 3,347

(a) Represents the effects of foreign currency translations and reclassifications.

(b) Reflects a reduction from tax benefits generated by the deduction of goodwill amortization for tax purposes in the U.S.

(c) Reflects the goodwill for the acquisitions of Industrial Packaging box plants in EMEA of which \$28 million is considered provisional.

(d) Reflects the reclassification of India goodwill and related impairment losses to held for sale prior to the sale of the business.

(e) Reflects the impairment of the Global Cellulose Fibers reporting unit.

The Company performed its annual testing of its reporting units for possible goodwill impairments by applying the qualitative assessment to its North America Industrial Packaging, European Papers, Russian Papers, and Brazilian Papers reporting units and the quantitative goodwill impairment test to its Global Cellulose Fibers and EMEA Industrial Packaging reporting units as of October 1, 2019. For the current year evaluation, the Company assessed various assumptions, events and circumstances that would have affected the estimated fair value of the reporting units under the qualitative assessment for the reporting units listed above and the results of the qualitative assessments indicated that it is not more likely than not that the fair values of its North America Industrial Packaging, European Papers, Russian Papers, and Brazilian Papers reporting units were less than their carrying values.

The company also performed the quantitative goodwill impairment test which included comparing the carrying amount of the Global Cellulose Fibers and EMEA Industrial Packaging reporting units to their estimated fair value. The Company performed the quantitative goodwill impairment test for Global Cellulose Fibers due to the reporting unit's outlook and for EMEA Industrial Packaging due to the changes in the reporting unit's asset

base as a result of strategic capital projects and acquisitions since the previous quantitative goodwill impairment test. The Company calculated the estimated fair value of its Global Cellulose Fibers and EMEA Industrial Packaging reporting units using a probability-weighted approach based on discounted future cash flows, market multiples and transaction multiples. The carrying amount did not exceed the estimated fair value of the EMEA Industrial Packaging reporting unit. The carrying amount did exceed the estimated fair value of the Global Cellulose Fibers reporting unit, and it was determined that all of the goodwill in the reporting unit, totaling \$52 million, was impaired. This charge is included in Net (gains) losses on sales and impairments of businesses in the accompanying consolidated statement of operations. The decline in the fair value of Global Cellulose Fibers and resulting impairment charge was due to a change in the outlook of the Global Cellulose Fibers reporting unit's operations.

In addition, the Company considered whether there were any events or circumstances outside of the annual evaluation that would reduce the fair value of its reporting units below their carrying amounts and necessitate a goodwill impairment evaluation. In consideration of all relevant factors, there were no indicators that would

require goodwill impairment subsequent to October 1, 2019.

OTHER INTANGIBLES

Identifiable intangible assets comprised the following:

<i>In millions at December 31</i>	2019			2018		
	Gross Carrying Amount	Accumulated Amortization	Net Intangible Assets	Gross Carrying Amount	Accumulated Amortization	Net Intangible Assets
Customer relationships and lists	\$ 560	\$ 275	\$ 285	\$ 542	\$ 247	\$ 295
Non-compete agreements	—	—	—	67	67	—
Tradenames, patents and trademarks, and developed technology	170	102	68	174	90	84
Land and water rights	8	2	6	8	2	6
Software	26	25	1	26	25	1
Other	18	10	8	30	23	7
Total	\$ 782	\$ 414	\$ 368	\$ 847	\$ 454	\$ 393

The Company recognized the following amounts as amortization expense related to intangible assets:

<i>In millions</i>	2019	2018	2017
Amortization expense related to intangible assets	\$ 58	\$ 59	\$ 77

Based on current intangibles subject to amortization, estimated amortization expense for each of the succeeding years is as follows: 2020 – \$50 million, 2021 – \$48 million, 2022 – \$46 million, 2023 – \$41 million, 2024 – \$41 million, and cumulatively thereafter – \$136 million.

NOTE 13 INCOME TAXES

The components of International Paper's earnings from continuing operations before income taxes and equity earnings by taxing jurisdiction were as follows:

<i>In millions</i>	2019	2018	2017
Earnings (loss)			
U.S.	\$ 1,342	\$ 1,450	\$ 297
Non-U.S.	262	331	551
Earnings (loss) from continuing operations before income taxes and equity earnings	\$ 1,604	\$ 1,781	\$ 848

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the Tax Act). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35% to 21%; (2) requiring companies to pay a one-time deemed repatriation

transition tax (the Transition Tax) on certain earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (AMT) and changing how AMT credits can be realized; (6) capital expensing; (7) eliminating the deduction on U.S. manufacturing activities; and (8) creating new limitations on deductible interest expense and executive compensation.

In connection with our initial analysis of the impact of the Tax Act, we recorded a provisional net tax benefit of \$1.22 billion in the period ending December 31, 2017. The net tax benefit primarily consisted of a net tax benefit for the re-measurement of U.S. deferred taxes of \$1.454 billion and an expense for the Transition Tax of \$231 million. During the period ended December 31, 2018, we recorded an additional net tax benefit of \$36 million associated with the one-time effects of the Tax Act.

The provision (benefit) for income taxes from continuing operations (excluding noncontrolling interests) by taxing jurisdiction was as follows:

<i>In millions</i>	2019	2018	2017
Current tax provision (benefit)			
U.S. federal	\$ 271	\$ 227	\$ (73)
U.S. state and local	29	37	(23)
Non-U.S.	122	165	112
	\$ 422	\$ 429	\$ 16
Deferred tax provision (benefit)			
U.S. federal	\$ 44	\$ 12	\$ (1,150)
U.S. state and local	(23)	50	9
Non-U.S.	191	(46)	40
	\$ 212	\$ 16	\$ (1,101)
Income tax provision (benefit)	\$ 634	\$ 445	\$ (1,085)

The Company's deferred income tax provision (benefit) includes a \$44 million benefit, a \$13 million benefit and a \$1.459 billion benefit for 2019, 2018 and 2017, respectively, for the effect of various changes in non-U.S. and U.S. federal and state tax rates.

International Paper made income tax payments, net of refunds, of \$349 million, \$388 million and \$7 million in 2019, 2018 and 2017, respectively.

A reconciliation of income tax expense using the statutory U.S. income tax rate compared with the actual income tax provision follows:

<i>In millions</i>	2019	2018	2017
Earnings (loss) from continuing operations before income taxes and equity earnings	\$ 1,604	\$ 1,781	\$ 848
Statutory U.S. income tax rate	21%	21%	35%
Tax expense (benefit) using statutory U.S. income tax rate	337	374	297
State and local income taxes	6	72	(7)
Impact of rate differential on non-U.S. permanent differences and earnings	31	35	(36)
Foreign valuation allowance	203	—	—
Tax expense (benefit) on manufacturing activities	—	(1)	23
Non-deductible business expenses	20	27	7
Non-deductible impairments	31	—	—
Tax audits	—	28	—
Deemed repatriation, net of foreign tax credits	1	(25)	231
U.S. federal tax rate change	—	(13)	(1,451)
Foreign derived intangible income deduction	2	(25)	—
US tax on non-U.S. earnings (GILTI and Subpart F)	36	19	44
Foreign tax credits	(2)	(15)	(96)
General business and other tax credits	(33)	(26)	(86)
Other, net	2	(5)	(11)
Income tax provision (benefit)	\$ 634	\$ 445	\$ (1,085)
Effective income tax rate	40%	25%	(128)%

The tax effects of significant temporary differences, representing deferred income tax assets and liabilities at December 31, 2019 and 2018, were as follows:

<i>In millions</i>	2019	2018
Deferred income tax assets:		
Postretirement benefit accruals	\$ 90	\$ 89
Pension obligations	421	465
Tax credits	290	291
Net operating and capital loss carryforwards	621	594
Compensation reserves	181	191
Lease obligations	106	—
Environmental reserves	93	78
Other	126	86
Gross deferred income tax assets	\$ 1,928	\$ 1,794
Less: valuation allowance (a)	(691)	(441)
Net deferred income tax asset	\$ 1,237	\$ 1,353
Deferred income tax liabilities:		
Intangibles	\$ (152)	\$ (152)
Investments	(265)	(255)
Right of use assets	(106)	—
Plants, properties and equipment	(1,866)	(1,826)
Forestlands, related installment sales, and investment in subsidiary	(1,407)	(1,453)
Gross deferred income tax liabilities	\$ (3,796)	\$ (3,686)
Net deferred income tax liability	\$ (2,559)	\$ (2,333)

(a) The net change in the total valuation allowance for the years ended December 31, 2019 and 2018 was an increase of \$250 million and an increase of \$12 million, respectively. The net change in the current year is primarily due to tax law changes in foreign jurisdictions impacting future utilization of deferred tax assets of \$203 million.

Deferred income tax assets and liabilities are recorded in the accompanying consolidated balance sheet under the captions Deferred charges and other assets and Deferred income taxes. Of the \$1.4 billion of deferred tax liabilities for forestlands, related installment sales, and investment in subsidiary, \$884 million is attributable to an investment in subsidiary and relates to a 2006 International Paper installment sale of forestlands and \$485 million is attributable to a 2007 Temple-Inland installment sale of forestlands (see [Note 15](#)).

A reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2019, 2018 and 2017 is as follows:

<i>In millions</i>	2019	2018	2017
Balance at January 1	\$ (220)	\$ (188)	\$ (98)
(Additions) reductions for tax positions related to current year	(5)	(7)	(54)
(Additions) for tax positions related to prior years	(6)	(37)	(40)
Reductions for tax positions related to prior years	5	5	4
Settlements	31	2	6
Expiration of statutes of limitations	3	2	1
Currency translation adjustment	3	3	(7)
Balance at December 31	\$ (189)	\$ (220)	\$ (188)

If the Company were to prevail on the unrecognized tax benefits recorded, substantially all of the balances at December 31, 2019, 2018 and 2017 would benefit the effective tax rate.

The Company accrues interest on unrecognized tax benefits as a component of interest expense. Penalties, if incurred, are recognized as a component of income tax expense. The Company had approximately \$21 million accrued for the payment of estimated interest and penalties associated with unrecognized tax benefits at both December 31, 2019 and 2018, respectively.

The major jurisdictions where the Company files income tax returns are the United States, Brazil, France, Poland and Russia. Generally, tax years 2006 through 2018 remain open and subject to examination by the relevant tax authorities. The Company frequently faces challenges regarding the amount of taxes due. These challenges include positions taken by the Company related to the timing, nature, and amount of deductions and the allocation of income among various tax jurisdictions. Pending audit settlements and the expiration of statute of limitations could reduce the uncertain tax positions by \$53 million during the next twelve months.

The Brazilian Federal Revenue Service has challenged the deductibility of goodwill amortization generated in a 2007 acquisition by International Paper do Brasil Ltda., a wholly-owned subsidiary of the Company. The Company received assessments for the tax years 2007-2015 totaling approximately \$146 million in tax, and \$387 million in interest and penalties as of December 31, 2019 (adjusted for variation in currency exchange rates). After a previous favorable ruling challenging the basis for these assessments, we received unfavorable decisions in October 2018 and November 2019 from the Brazilian Administrative Council of Tax Appeals. The Company has appealed and intends to further appeal these and any future unfavorable administrative judgments to the Brazilian federal courts; however, this tax litigation matter may take many years to resolve. The Company believes that it has appropriately evaluated the transaction underlying these assessments, and has concluded based on Brazilian tax law, that its tax position would be sustained. The Company intends to vigorously defend its position against the current assessments and any similar assessments that may be issued for tax years subsequent to 2015.

The Company provides for foreign withholding taxes and any applicable U.S. state income taxes on earnings intended to be repatriated from non-U.S. subsidiaries, which we believe will be limited in the future to each year's current earnings. No provision for these taxes on approximately \$2.2 billion of undistributed earnings of non-U.S. subsidiaries as of December 31, 2019 has been made, as these earnings are considered indefinitely invested. Determination of the amount of taxes that might be paid on these undistributed earnings if eventually remitted in a taxable manner is not practicable.

If management decided to monetize the Company's foreign investments, we would recognize the tax cost related to the excess of the book value over the tax basis of those investments. This would include foreign withholding taxes and any applicable U.S. Federal and state income taxes. Determination of the tax cost that that would be incurred upon monetization of the Company's foreign investments is not practicable; however, we do not believe it would be material.

The following details the scheduled expiration dates of the Company's net operating loss and income tax credit carryforwards:

<i>In millions</i>	2020 Through 2029	2030 Through 2039	Indefinite	Total
U.S. federal and non-U.S. NOLs	\$ 55	\$ 48	\$ 424	\$ 527
State taxing jurisdiction NOLs (a)	76	18	—	94
U.S. federal, non-U.S. and state tax credit carryforwards (a)	160	12	118	290
U.S. federal and state capital loss carryforwards (a)	—	—	—	—
Total	\$ 291	\$ 78	\$ 542	\$ 911
Less: valuation allowance (a)	(198)	(44)	(393)	(635)
Total, net	\$ 93	\$ 34	\$ 149	\$ 276

(a) State amounts are presented net of federal benefit.

NOTE 14 COMMITMENTS AND CONTINGENT LIABILITIES

GUARANTEES

In connection with sales of businesses, property, equipment, forestlands and other assets, International Paper commonly makes representations and warranties relating to such businesses or assets, and may agree to indemnify buyers with respect to tax and environmental liabilities, breaches of representations and warranties, and other matters. Where liabilities for such matters are determined to be probable and reasonably estimable, accrued liabilities are recorded at the time of sale as a cost of the transaction.

ENVIRONMENTAL AND LEGAL PROCEEDINGS

Environmental

International Paper has been named as a potentially responsible party (PRP) in environmental remediation actions under various federal and state laws, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Many of these proceedings involve the cleanup of hazardous substances at large commercial landfills that received

waste from many different sources. While joint and several liability is authorized under CERCLA and equivalent state laws, as a practical matter, liability for CERCLA cleanups is typically allocated among the many PRPs. There are other remediation costs typically associated with the cleanup of hazardous substances at the Company's current, closed or formerly-owned facilities, and recorded as liabilities in the balance sheet.

Remediation costs are recorded in the consolidated financial statements when they become probable and reasonably estimable. International Paper has estimated the probable liability associated with these environmental remediation matters, including those described herein, to be approximately \$157 million (\$166 million undiscounted) in the aggregate as of December 31, 2019. Other than as described below, completion of required environmental remedial actions is not expected to have a material effect on our consolidated financial statements.

Cass Lake: One of the matters included above arises out of a closed wood-treating facility located in Cass Lake, Minnesota. In June 2011, the United States Environmental Protection Agency (EPA) selected and published a proposed soil remedy at the site, the estimated cost of which is reflected in the overall remediation reserve for the site of \$46 million as of December 31, 2019. In October 2011, the EPA released a public statement indicating that the final soil remedy decision would be delayed. In June 2019, the EPA issued a revised proposed plan concerning clean-up standards at a portion of the site, the estimated cost of which is included within the reserve referenced above. In October 2012, the Natural Resource Trustees for this site provided notice to International Paper and other PRPs of their intent to perform a Natural Resource Damage Assessment. It is premature to predict the outcome of the assessment or to estimate a loss or range of loss, if any, in excess of the liability noted above which may be incurred.

Kalamazoo River: The Company is a PRP with respect to the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Michigan. The EPA asserts that the site is contaminated by polychlorinated biphenyls (PCBs) primarily as a result of discharges from various paper mills located along the Kalamazoo River, including a paper mill (the Allied Paper Mill) formerly owned by St. Regis Paper Company (St. Regis). The Company is a successor in interest to St. Regis.

- Operable Unit 5, Area 1: In March 2016, the Company and other PRPs received a special notice letter from the EPA (i) inviting participation in implementing a remedy for a portion of the site known as Operable Unit 5, Area 1, and (ii) demanding reimbursement of EPA past costs totaling \$37 million, including \$19 million in past costs previously demanded by the

EPA. In December 2016, the EPA issued a unilateral administrative order to the Company and other PRPs to perform the remedy. The Company responded to the unilateral administrative order, agreeing to comply with the order subject to its sufficient cause defenses.

- Operable Unit 5, Area 2: In September 2017, the EPA issued a Record of Decision selecting the final remedy for a portion of the site known as Operable Unit 5, Area 2, but has not yet issued a special notice letter for implementing the remedy.
- Operable Unit 1: In October 2016, the Company and another PRP received a special notice letter from the EPA inviting participation in the remedial design component of the landfill remedy for the Allied Paper Mill, which is also known as Operable Unit 1. The Record of Decision establishing the final landfill remedy for the Allied Paper Mill was issued by the EPA in September 2016. In February 2017, the EPA informed the Company that it would make other arrangements for the performance of the remedial design.

As noted below, the Company is involved in allocation/apportionment litigation with regard to the site. In addition, in December 2019, the United States published notice in the Federal Register of a proposed consent decree with NCR Corporation (one of the parties to the allocation/apportionment litigation described below), the State of Michigan and natural resource trustees under which NCR would make payments of more than \$100 million and perform work at the Site at an estimated cost of \$135.7 million. The public comment period with respect to the proposed consent decree closes in February 2020.

The Company's CERCLA liability has not been finally determined with respect to any portions of the site, and except as noted above, the Company has declined to perform any work or reimburse the EPA at this time. Accordingly, it is premature to predict the outcome or estimate our maximum reasonably possible loss or range of loss with respect to this site. We have a recorded liability for future remediation costs at the site that are probable and reasonably estimable, and it remains reasonably possible that additional losses in excess of this recorded liability could be material.

The Company was named as a defendant by Georgia-Pacific Consumer Products LP, Fort James Corporation and Georgia Pacific LLC in a contribution and cost recovery action for alleged pollution at the site. NCR Corporation and Weyerhaeuser Company are also named as defendants in the suit. The suit seeks contribution under CERCLA for costs purportedly expended by plaintiffs (\$79 million as of the filing of the complaint) and for future remediation costs. In June

2018, the Court issued its Final Judgment and Order, which fixed the past cost amount at approximately \$50 million (plus interest to be determined) and allocated to the Company a 15% share of responsibility for those past costs. The Court did not address responsibility for future costs in its decision. In July 2018, the Company and each of the other parties filed notices appealing the Final Judgment and prior orders incorporated into that Judgment. The proposed consent decree with NCR described above, if entered, would result in the termination of NCR's involvement in the appeal.

Harris County: International Paper and McGinnis Industrial Maintenance Corporation (MIMC), a subsidiary of Waste Management, Inc. (WMI), are PRPs at the San Jacinto River Waste Pits Superfund Site in Harris County, Texas. The PRPs have been actively participating in the activities at the site and share the costs of these activities. In September 2016, the EPA issued a proposed remedial action plan (PRAP) for the site, which identified the preferred remedy as the removal of the contaminated material currently protected by an armored cap. In addition, the EPA selected a preferred remedy for the separate southern impoundment that requires offsite disposal. In January 2017, the PRPs submitted comments on the PRAP.

On October 11, 2017, the EPA issued a Record of Decision (ROD) selecting the final remedy for the site: removal and relocation of the waste material from both the northern and southern impoundments. The EPA did not specify the methods or practices needed to perform this work. While the EPA's selected remedy was accompanied by a cost estimate of approximately \$115 million (\$105 million for the northern impoundment, and \$10 million for the southern impoundment), we do not believe that estimate provides a reasonable basis for accrual under GAAP because the estimate was based on a technological method for performing the work that we believe is not feasible with respect to the northern impoundment. Subsequent to the issuance of the ROD, there have been numerous meetings between the EPA and the PRPs, and the Company continues to work with the EPA and MIMC/WMI to develop the remedial design.

To this end, in April 2018, the PRPs entered into an Administrative Order on Consent (AOC) with the EPA, agreeing to work together to develop the remedial design over the subsequent 29 months. The AOC does not include any agreement to perform waste removal or other construction activity at the site. Rather, it involves adaptive management techniques and a pre-design investigation, the objectives of which include filling data gaps (including but not limited to post-Hurricane Harvey technical data generated prior to the ROD and not incorporated into the selected remedy), refining areas and volumes of materials to be addressed, determining

if an excavation remedy is able to be implemented in a manner protective of human health and the environment, and investigating potential impacts of remediation activities to infrastructure in the vicinity. In October 2019, the PRPs received a special notice letter from the EPA (i) inviting participation in implementing the remedy described in the ROD, and (ii) demanding reimbursement of EPA's past costs, for which we have accrued our portion as of December 31, 2019. In December 2019, the PRPs each responded to the special notice letter. In its response, the Company took the position that the special notice letter was premature and should be withdrawn, given concerns and uncertainties regarding the implementability and constructability of the remedy described in the ROD.

The Company's response to the special notice letter was consistent with concerns and uncertainties it has raised since the ROD was issued regarding the remedy described in the ROD and regarding the EPA's estimates for the costs and time required to implement the selected remedy for the northern impoundment. The Company has determined, however, that even if the ROD cannot be implemented, a sheet pile "engineered barrier" can be constructed, which would enhance the existing remedy for the northern impoundment and could also be used should the ROD be determined to be feasible and implementable. In the third quarter of 2018, we increased our recorded liability accordingly to reflect the estimated cost of constructing this barrier. In December 2019, certain pre-design investigation results indicated that dry excavation of the southern impoundment as required by the ROD is feasible, and we increased our recorded liability accordingly to reflect the estimated cost of implementing this remedy for the southern impoundment. Because of ongoing questions regarding cost effectiveness, technical feasibility, timing and other technical data, however, it continues to be uncertain how the ROD will be implemented for the northern impoundment. Consequently, while additional losses in excess of our recorded liability are probable as a result of the selected remedy, we are currently unable to reasonably estimate any further adjustment to our recorded liability or any loss or range of loss in excess of such liability. It remains reasonably possible that additional losses could be material as the remedial design process with the EPA continues over the coming quarters.

International Paper and MIMC/WMI are also defending a lawsuit related to the site brought by approximately 600 individuals who allege property damage and personal injury. In the first quarter of 2020, the Company resolved a significant number of these plaintiffs' claims, and we do not believe a material loss is reasonably possible with respect to the remaining plaintiffs' claims, whether they are settled or litigated to verdict.

Antitrust

Containerboard: In January 2011, International Paper was named as a defendant in a lawsuit filed in state court in Cocke County, Tennessee alleging that International Paper violated Tennessee law by conspiring to limit the supply and fix the prices of containerboard from mid-2005 to the present. This lawsuit has been dismissed for failure to prosecute and is no longer pending.

Italy: In March 2017, the Italian Competition Authority (ICA) commenced an investigation into the Italian packaging industry to determine whether producers of corrugated sheets and boxes violated the applicable European competition law. In April 2019, the ICA concluded its investigation and issued initial findings alleging that over 30 producers, including our Italian packaging subsidiary (IP Italy), improperly coordinated the production and sale of corrugated sheets and boxes. On August 6, 2019, the ICA issued its decision and assessed IP Italy a fine of €29 million (approximately \$32 million at current exchange rates) which was recorded in the third quarter of 2019. This charge is included in the Antitrust fines and settlements line item in the accompanying consolidated statement of operations. However, we are vigorously appealing this decision of the ICA to the Italian courts and have numerous and strong bases for our appeal.

Contract

Signature: In August 2014, a lawsuit captioned *Signature Industrial Services LLC et al. v. International Paper Company* was filed in state court in Texas. The *Signature* lawsuit arises out of approximately \$1 million in disputed invoices related to the installation of new equipment at the Company's Orange, Texas mill. In addition to the invoices in dispute, *Signature* and its president allege consequential damages arising from the Company's nonpayment of those invoices. The lawsuit was tried before a jury in Beaumont, Texas, in May 2017. On June 1, 2017, the jury returned a verdict awarding approximately \$125 million in damages to the plaintiffs. The Court issued a judgment on December 14, 2017, awarding the plaintiffs a total of approximately \$137 million in actual and consequential damages, fees, costs and pre-judgment interest, and awarding post-judgment interest. The Company has appealed this judgment. The Company has presented in its briefing numerous and strong bases for appeal, and we believe we will prevail on appeal. Because the appellate proceedings are ongoing, we are unable to estimate a range of reasonably possible loss, but we expect the amount of any loss to be immaterial.

Taxes Other Than Payroll and Income Taxes

In 2017, the Brazilian Federal Supreme Court decided that the state value-added tax (VAT) should not be

included in the basis of federal VAT calculations. In 2018 and 2019, the Brazilian tax authorities published both an internal consultation and a normative ruling with a narrow interpretation of the effects of the case. We have determined that any related federal VAT refunds should be recognized when they are both probable and reasonably estimable. Based upon the best information available to us, we have determined that the amount of refund that is probable of being realized is limited to that determined by the tax authorities' narrow interpretation, for which we have recognized a receivable of \$6 million as of December 31, 2019. Upcoming court decisions and guidance from the tax authorities could expand the scope of the federal VAT refunds.

General

The Company is involved in various other inquiries, administrative proceedings and litigation relating to environmental and safety matters, personal injury, product liability, labor and employment, contracts, sales of property, intellectual property, tax and other matters, some of which allege substantial monetary damages. See [Note 13](#) for details regarding a tax matter. Assessments of lawsuits and claims can involve a series of complex judgments about future events, can rely heavily on estimates and assumptions, and are otherwise subject to significant uncertainties. As a result, there can be no certainty that the Company will not ultimately incur charges in excess of presently recorded liabilities. The Company believes that loss contingencies arising from pending matters, including the matters described herein, will not have a material effect on the consolidated financial position or liquidity of the Company. However, in light of the inherent uncertainties involved in pending or threatened legal matters, some of which are beyond the Company's control, and the large or indeterminate damages sought in some of these matters, a future adverse ruling, settlement, unfavorable development, or increase in accruals with respect to these matters could result in future charges that could be material to the Company's results of operations or cash flows in any particular reporting period.

NOTE 15 VARIABLE INTEREST ENTITIES

In connection with the 2006 sale of approximately 5.6 million acres of forestlands, International Paper received installment notes (the Timber Notes) totaling approximately \$4.8 billion.

The Timber Notes were used as collateral for borrowings from third party lenders, which effectively monetized the Timber Notes through the creation of newly formed special purposes entities (the Entities). The monetization structure preserved the tax deferral that resulted from the 2006 forestlands sales. As of

December 31, 2019, this deferred tax liability was \$884 million.

During 2015, International Paper initiated a series of actions in order to extend the 2006 monetization structure and maintain the long-term nature of the deferred tax liability. The Entities, with assets and liabilities primarily consisting of the Timber Notes and third-party bank loans (the Extension Loans), were restructured which resulted in the formation of wholly-owned, bankruptcy-remote special purpose entities (the 2015 Financing Entities).

The Timber Notes are shown in Financial assets of variable interest entities on the accompanying consolidated balance sheet and mature in August 2021 unless extended for an additional five years. These notes, which do not require principal payments prior to their maturity, are supported by approximately \$4.8 billion of irrevocable letters of credit.

The Extension Loans are shown in Current nonrecourse financial liabilities of variable interest entities on the accompanying consolidated balance sheet and mature in the fourth quarter of 2020. These bank loans, totaling approximately \$4.2 billion, are nonrecourse to the Company, and are secured by approximately \$4.8 billion of Timber Notes, the irrevocable letters of credit supporting the Timber Notes and approximately \$150 million of International Paper debt obligations. The \$150 million of International Paper debt obligations are eliminated in the consolidation of the 2015 Financing Entities and are not reflected in the Company's consolidated balance sheet. Provisions of loan agreements related to approximately \$1.1 billion of the Extension Loans require the bank issuing letters of credit supporting the Timber Notes pledged as collateral to maintain a credit rating at or above a specified threshold. In the event the credit rating of the letter of credit bank is downgraded below the specified threshold, the letters of credit must be replaced within 60 days with letters of credit from a qualifying financial institution.

As of December 31, 2019 and 2018, the fair value of the Timber Notes was \$4.9 billion and \$4.7 billion, respectively, and the fair value of the Extension Loans was \$4.3 billion and \$4.2 billion for the years ended 2019 and 2018. The Timber Notes and Extension Loans are classified as Level 2 within the fair value hierarchy, which is further defined in [Note 17](#).

Activity between the Company and the 2015 Financing Entities was as follows:

<i>In millions</i>	2019	2018	2017
Revenue (a)	\$ 95	\$ 95	\$ 95
Expense (a)	128	128	128
Cash receipts (b)	95	95	95
Cash payments (c)	128	128	128

- (a) *The revenue and expense are included in Interest expense, net in the accompanying consolidated statement of operations.*
- (b) *The cash receipts are interest received on the Financial assets of variable interest entities.*
- (c) *The cash payments represent interest paid on Current nonrecourse financial liabilities of variable interest entities.*

In connection with the acquisition of Temple-Inland in February 2012, two special purpose entities became wholly-owned subsidiaries of International Paper. The use of the two wholly-owned special purpose entities discussed below preserved the tax deferral that resulted from the 2007 Temple-Inland timberlands sales. As of December 31, 2019, this deferred tax liability was \$485 million, which will be settled with the maturity of the notes in 2027.

In October 2007, Temple-Inland sold 1.55 million acres of timberland for \$2.4 billion. The total consideration consisted almost entirely of notes due in 2027 issued by the buyer of the timberland, which Temple-Inland contributed to two wholly-owned, bankruptcy-remote special purpose entities. The notes are shown in Financial assets of variable interest entities in the accompanying consolidated balance sheet and are supported by \$2.4 billion of irrevocable letters of credit issued by three banks, which are required to maintain minimum credit ratings on their long-term debt. As of December 31, 2019 and 2018, the fair value of the notes was \$2.3 billion and \$2.2 billion, respectively. These notes are classified as Level 2 within the fair value hierarchy, which is further defined in [Note 17](#).

In December 2007, Temple-Inland's two wholly-owned special purpose entities borrowed \$2.1 billion which is shown in Long-term nonrecourse financial liabilities of variable interest entities. The loans are repayable in 2027 and are secured by the \$2.4 billion of notes and the irrevocable letters of credit securing the notes, and are nonrecourse to us. The loan agreements provide

that if a credit rating of any of the banks issuing the letters of credit is downgraded below the specified threshold, the letters of credit issued by that bank must be replaced within 30 days with letters of credit from another qualifying financial institution. As of December 31, 2019 and 2018, the fair value of this debt was \$2.1 billion and \$2.0 billion, respectively. This debt is classified as Level 2 within the fair value hierarchy, which is further defined in [Note 17](#).

Activity between the Company and the 2007 financing entities was as follows:

<i>In millions</i>	2019	2018	2017
Revenue (a)	\$ 79	\$ 72	\$ 49
Expense (b)	76	67	48
Cash receipts (c)	62	48	28
Cash payments (d)	69	57	39

- (a) The revenue is included in Interest expense, net, in the accompanying consolidated statement of operations and includes approximately \$19 million for the years ended December 31, 2019, 2018 and 2017, respectively, of accretion income for the amortization of the purchase accounting adjustment on the Financial assets of variable interest entities.
- (b) The expense is included in Interest expense, net, in the accompanying consolidated statement of operations and includes approximately \$7 million for the years ended December 31, 2019, 2018 and 2017, respectively, of accretion expense for the amortization of the purchase accounting adjustment on the Long-term nonrecourse financial liabilities of variable interest entities.
- (c) The cash receipts are interest received on the Financial assets of special purpose entities.
- (d) The cash payments are interest paid on Nonrecourse financial liabilities of special purpose entities.

NOTE 16 DEBT AND LINES OF CREDIT

Amounts related to early debt extinguishment during the years ended December 31, 2019, 2018 and 2017 were as follows:

In millions	2019	2018	2017
Early debt reductions (a)	\$ 614	\$ 780	\$ 993
Pre-tax early debt extinguishment costs (b)	21	10	83

- (a) Reductions related to notes with interest rates ranging from 1.57% to 9.50% with original maturities from 2018 to 2048 for the years ended December 31, 2019, 2018 and 2017.
- (b) Amounts are included in Restructuring and other charges in the accompanying consolidated statements of operations.

In June 2018, the borrowing capacity of the commercial paper program was increased from \$750 million to \$1.0 billion. Under the terms of the program, individual maturities on borrowings may vary, but not exceed one year from the date of issue. Interest bearing notes may be issued either as fixed notes or floating rate notes. As of December 31, 2019 and 2018, the Company had \$30 million and \$465 million, respectively, outstanding under this program.

A summary of long-term debt follows:

In millions at December 31	2019	2018
7.500% notes – due 2021	\$ 406	\$ 406
4.750% notes – due 2022	—	355
6.875% notes – due 2023	94	94
3.650% notes – due 2024	658	676
7.350% notes – due 2025	44	44
7.750% notes – due 2025	31	31
3.800% notes – due 2026	645	669
7.200% notes – due 2026	58	58
6.400% notes – due 2026	5	5
3.000% notes – due 2027	803	939
7.150% notes – due 2027	7	7
3.550% notes – due 2029	200	—
6.875% notes – due 2029	37	37
5.000% notes – due 2035	600	600
6.650% notes – due 2037	4	4
8.700% notes – due 2038	265	265
7.300% notes – due 2039	722	722
6.000% notes – due 2041	585	585
4.800% notes – due 2044	800	800
5.150% notes – due 2046	700	700
4.400% notes – due 2047	1,158	1,200
4.350% notes – due 2048	986	1,000
Floating rate notes – due 2019 – 2024 (a)	339	908
Environmental and industrial development bonds – due 2019 – 2035 (b)	552	556
Total principal	9,699	10,661
Capitalized leases	100	63
Premiums, discounts, and debt issuance costs	(88)	(98)
Interest rate swaps	46	16
Other (c)	8	12
Total (d)	9,765	10,654
Less: current maturities	168	639
Long-term debt	\$ 9,597	\$ 10,015

- (a) The weighted average interest rate on these notes was 3.1% in 2019 and 3.5% in 2018.
- (b) The weighted average interest rate on these bonds was 4.4% in 2019 and 5.5% in 2018.
- (c) Includes \$7 million and \$10 million of fair market value adjustments as of December 31, 2019 and 2018, respectively.
- (d) The fair market value was approximately \$10.9 billion at December 31, 2019 and \$10.6 billion at December 31, 2018.

Total maturities of long-term debt over the next five years are 2020 – \$168 million; 2021 – \$431 million; 2022 – \$136 million; 2023 – \$355 million; and 2024 – \$803 million.

At December 31, 2019, International Paper's credit facilities (the Agreements) totaled \$2.1 billion. The Agreements generally provide for interest rates at a floating rate index plus a pre-determined margin dependent upon International Paper's credit rating. The Agreements include a \$1.5 billion contractually committed bank facility that expires in December 2021, and has a facility fee of 0.15% payable annually. The liquidity facilities also include up to \$600 million of uncommitted financings based on eligible receivables balances under a receivables securitization program that expires in December 2020. At December 31, 2019, there were no borrowings under either the bank facility or receivables securitization program.

The Company's financial covenants require the maintenance of a minimum net worth, as defined in our debt agreements, of \$9 billion and a total debt-to-capital ratio of less than 60%. Net worth is defined as the sum of common stock, paid-in capital and retained earnings, less treasury stock plus any cumulative goodwill impairment charges. The calculation also excludes accumulated other comprehensive income/loss and both the current and long-term Nonrecourse Financial Liabilities of Variable Interest Entities. The total debt-to-capital ratio is defined as total debt divided by the sum of total debt plus net worth. As of December 31, 2019, we were in compliance with our debt covenants.

NOTE 17 DERIVATIVES AND HEDGING ACTIVITIES

International Paper periodically uses derivatives and other financial instruments to hedge exposures to interest rate, commodity and currency risks. International Paper does not hold or issue financial instruments for trading purposes. For hedges that meet the hedge accounting criteria, International Paper, at inception, formally designates and documents the instrument as a fair value hedge, a cash flow hedge or a net investment hedge of a specific underlying exposure.

INTEREST RATE RISK MANAGEMENT

Our policy is to manage interest cost using a mixture of fixed-rate and variable-rate debt. To manage this risk in a cost-efficient manner, we enter into interest rate swaps whereby we agree to exchange with the counterparty, at specified intervals, the difference between fixed and variable interest amounts calculated by reference to a notional amount.

Interest rate swaps that meet specific accounting criteria are accounted for as fair value or cash flow hedges. For fair value hedges, the changes in the fair value of both the hedging instruments and the underlying debt obligations are immediately recognized in interest expense. For cash flow hedges, the effective portion of the changes in the fair value of the hedging instrument is reported in Accumulated other comprehensive income (AOCI) and reclassified into interest expense over the life of the underlying debt. The ineffective portion for both cash flow and fair value hedges, which is not material for any year presented, is immediately recognized in earnings.

FOREIGN CURRENCY RISK MANAGEMENT

We manufacture and sell our products and finance operations in a number of countries throughout the world and, as a result, are exposed to movements in foreign currency exchange rates. The purpose of our foreign currency hedging program is to manage the volatility associated with the changes in exchange rates.

To manage this exchange rate risk, we have historically utilized a combination of forward contracts, options and currency swaps. Contracts that qualify are designated as cash flow hedges of certain forecasted transactions denominated in foreign currencies or net investment hedges of foreign denominated subsidiaries. For cash flow hedges, the effective portion of the changes in fair value of these instruments is reported in AOCI and reclassified into earnings in the same financial statement line item and in the same period or periods during which the related hedged transactions affect earnings. The ineffective portion, which is not material for any year presented, is immediately recognized in earnings. For net investment hedges, all changes in the fair value of these instruments are recorded in AOCI, offsetting the currency translation adjustment of the related investment that is also recorded in AOCI.

The change in value of certain non-qualifying instruments used to manage foreign exchange exposure of intercompany financing transactions and certain balance sheet items subject to revaluation is immediately recognized in earnings, substantially offsetting the foreign currency mark-to-market impact of the related exposure.

COMMODITY RISK MANAGEMENT

Certain raw materials used in our production processes are subject to price volatility caused by weather, supply conditions, political and economic variables and other unpredictable factors. To manage the volatility in earnings due to price fluctuations, we may utilize swap contracts or forward purchase contracts.

Derivative instruments are reported in the consolidated balance sheets at their fair values, unless the derivative instruments qualify for the normal purchase normal sale (NPNS) exception under GAAP and such exception has been elected. If the NPNS exception is elected, the fair values of such contracts are not recognized on the balance sheet.

Contracts that qualify are designated as cash flow hedges of forecasted commodity purchases. The effective portion of the changes in fair value for these instruments is reported in AOCI and reclassified into earnings in the same financial statement line item and in the same period or periods during which the hedged transactions affect earnings. The ineffective and non-qualifying portions, which are not material for any year presented, are immediately recognized in earnings. The change in the fair value of certain non-qualifying instruments used to reduce commodity price volatility is immediately recognized in earnings.

The notional amounts of qualifying and non-qualifying instruments used in hedging transactions were as follows:

<i>In millions</i>	December 31, 2019	December 31, 2018
Derivatives in Cash Flow Hedging Relationships:		
Foreign exchange contracts (a)	407	407
Derivatives in Fair Value Hedging Relationships:		
Interest rate contracts	700	700
Derivatives in Net Investment Hedging Relationships:		
Interest rate contracts	475	—
Derivatives Not Designated as Hedging Instruments:		
Electricity contract	16	8
Foreign exchange contracts	7	19

(a) These contracts had maturities of two years or less as of December 31, 2019.

The following table shows gains or losses recognized in AOCI, net of tax, related to derivative instruments:

<i>In millions</i>	Gain (Loss) Recognized in AOCI on Derivatives (Effective Portion)		
	2019	2018	2017
Derivatives in Cash Flow Hedging Relationships:			
Foreign exchange contracts	\$ 4	\$ (10)	\$ 15
Derivatives in Net Investment Hedging Relationships:			
Interest rate contracts	\$ 7	\$ —	\$ —

During the next 12 months, the amount of the December 31, 2019 AOCI balance, after tax, that is expected to be reclassified to earnings is a gain of \$3 million.

The amounts of gains and losses recognized in the consolidated statement of operations on qualifying and non-qualifying financial instruments used in hedging transactions were as follows:

In millions	Gain (Loss) Reclassified from AOCI into Income (Effective Portion)			Location of Gain (Loss) Reclassified from AOCI into Income (Effective Portion)
	2019	2018	2017	
Derivatives in Cash Flow Hedging Relationships:				
Foreign exchange contracts	\$ (3)	\$ (1)	\$ 8	Cost of products sold
Interest rate contracts	(1)	(1)	(1)	Interest expense, net
Total	\$ (4)	\$ (2)	\$ 7	

In millions	Gain (Loss) Recognized in Income			Location of Gain (Loss) in Consolidated Statement of Operations
	2019	2018	2017	
Derivatives in Fair Value Hedging Relationships:				
Interest rate contracts	\$ 30	\$ 16	\$ —	Interest expense, net
Debt	(30)	(16)	—	Interest expense, net
Total	\$ —	\$ —	\$ —	
Derivatives Not Designated as Hedging Instruments:				
Electricity Contracts	\$ 3	\$ 2	\$ (10)	Cost of products sold
Foreign exchange contracts	(2)	1	—	Cost of products sold
Interest rate contracts	—	—	1 (a)	Interest expense, net
Total	\$ 1	\$ 3	\$ (9)	

(a) Excluding gain of \$1 million related to debt reduction recorded to Restructuring and other charges.

Fair Value Measurements

International Paper's financial assets and liabilities that are recorded at fair value consist of derivative contracts, including interest rate swaps, foreign currency forward contracts, options and other financial instruments that are used to hedge exposures to interest rate, commodity and currency risks. For these financial instruments, fair value is determined at each balance sheet date using an income approach.

The guidance for fair value measurements and disclosures sets out a fair value hierarchy that groups fair value measurement inputs into the following three classifications:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Unobservable inputs for the asset or liability reflecting the reporting entity's own assumptions or external inputs from inactive markets.

Transfers between levels are recognized at the end of the reporting period. All of International Paper's derivative fair value measurements use Level 2 inputs.

Below is a description of the valuation calculation and the inputs used for each class of contract:

Interest Rate Contracts

Interest rate contracts are valued using swap curves obtained from an independent market data provider. The market value of each contract is the sum of the fair value of all future interest payments between the contract counterparties, discounted to present value. The fair value of the future interest payments is determined by comparing the contract rate to the derived forward interest rate and present valued using the appropriate derived interest rate curve.

Foreign Exchange Contracts

Foreign currency forward and option contracts are valued using standard valuation models. Significant inputs used in these standard valuation models are foreign currency forward and interest rate curves and a volatility measurement. The fair value of each contract

is present valued using the applicable interest rate. All significant inputs are readily available in public markets, or can be derived from observable market transactions.

Electricity Contract

The Company is party to an electricity contract used to manage market fluctuations in energy pricing. The Company's electricity contract is valued using the Mid-C index forward curve obtained from the Intercontinental Exchange. The market value of the contract is the sum

of the fair value of all future purchase payments between the contract counterparties, discounted to present value. The fair value of the future purchase payments is determined by comparing the contract price to the forward price and present valued using International Paper's cost of capital.

Since the volume and level of activity of the markets that each of the above contracts are traded in has been normal, the fair value calculations have not been adjusted for inactive markets or disorderly transactions.

The following table provides a summary of the impact of our derivative instruments in the consolidated balance sheet:

**Fair Value Measurements
Level 2 – Significant Other Observable Inputs**

<i>In millions</i>	Assets		Liabilities	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Derivatives designated as hedging instruments				
Foreign exchange contracts – cash flow	\$ 10	\$ 3	\$ 4	\$ 10
Interest rate contracts - net investment	11	—	—	—
Interest rate contracts – fair value	47	16	—	—
Total derivatives designated as hedging instruments	68	19	4	10
Derivatives not designated as hedging instruments				
Electricity contract	—	—	2	4
Foreign exchange contracts	—	—	1	1
Total derivatives not designated as hedging instruments	—	—	3	5
Total derivatives	\$ 68 (a)	\$ 19 (b)	\$ 7 (c)	\$ 15 (d)

- (a) Includes \$14 million recorded in Other current assets and \$54 million recorded in Deferred charges and other assets in the accompanying consolidated balance sheet.
- (b) Included \$2 million recorded in Other current assets and \$17 million Deferred charges recorded in the accompanying consolidated balance sheet.
- (c) Included \$6 million recorded in Other accrued liabilities and \$1 million recorded in Other liabilities the accompanying consolidated balance sheet.
- (d) Included in Other accrued liabilities in the accompanying consolidated balance sheet.

The above contracts are subject to enforceable master netting arrangements that provide rights of offset with each counterparty when amounts are payable on the same date in the same currency or in the case of certain specified defaults. Management has made an accounting policy election to not offset the fair value of recognized derivative assets and derivative liabilities in the consolidated balance sheet. The amounts owed to the counterparties and owed to the Company are considered immaterial with respect to each counterparty and in the aggregate with all counterparties.

Credit-Risk-Related Contingent Features

International Paper evaluates credit risk by monitoring its exposure with each counterparty to ensure that exposure stays within acceptable policy limits. Credit

risk is also mitigated by contractual provisions with the majority of our banks. Certain of the contracts include a credit support annex that requires the posting of collateral by the counterparty or International Paper based on each party's rating and level of exposure. Based on the Company's current credit rating, the collateral threshold is generally \$15 million.

If the lower of the Company's credit rating by Moody's or S&P were to drop below investment grade, the Company would be required to post collateral for all of its derivatives in a net liability position, although no derivatives would terminate. The fair value of derivative instruments containing credit-risk-related contingent features in a net liability position was \$1 million as of December 31, 2019. As of December 31, 2018, there were no derivative instruments containing credit-risk-

related contingent features in a net liability position. The Company was not required to post any collateral as of December 31, 2019 or 2018.

NOTE 18 CAPITAL STOCK

The authorized capital stock at both December 31, 2019 and 2018, consisted of 990,850,000 shares of common stock, \$1 par value; 400,000 shares of cumulative \$4 preferred stock, without par value (stated value \$100 per share); and 8,750,000 shares of serial preferred stock, \$1 par value. The serial preferred stock is issuable in one or more series by the Board of Directors without further shareholder action.

The following is a rollforward of shares of common stock for the three years ended December 31, 2019, 2018 and 2017:

<i>In thousands</i>	Common Stock	
	Issued	Treasury
Balance at January 1, 2017	448,916	37,671
Issuance of stock for various plans, net	—	(2,577)
Repurchase of stock	—	881
Balance at December 31, 2017	448,916	35,975
Issuance of stock for various plans, net	—	(1,721)
Repurchase of stock	—	14,056
Balance at December 31, 2018	448,916	48,310
Issuance of stock for various plans, net	—	(3,416)
Repurchase of stock	—	11,906
Balance at December 31, 2019	448,916	56,800

NOTE 19 RETIREMENT PLANS

International Paper sponsors and maintains the Retirement Plan of International Paper Company (the Pension Plan), a tax-qualified defined benefit pension plan that provides retirement benefits to substantially all U.S. salaried employees and hourly employees (receiving salaried benefits) hired prior to July 1, 2004, and substantially all other U.S. hourly union and non-union employees who work at a participating business unit regardless of hire date. These employees generally are eligible to participate in the Pension Plan upon attaining 21 years of age and completing one year of

eligibility service. U.S. salaried employees and hourly employees (receiving salaried benefits) hired after June 30, 2004 are not eligible to participate in the Pension Plan, but receive a company contribution to their individual savings plan accounts (see Other U.S. Plans); however, salaried employees hired by Temple Inland prior to March 1, 2007 or Weyerhaeuser Company's Cellulose Fibers division prior to December 1, 2011 also participate in the Pension Plan. The Pension Plan provides defined pension benefits based on years of credited service and either final average earnings (salaried employees and hourly employees receiving salaried benefits), hourly job rates or specified benefit rates (hourly and union employees).

The Company also has two unfunded nonqualified defined benefit pension plans: a Pension Restoration Plan available to employees hired prior to July 1, 2004 that provides retirement benefits based on eligible compensation in excess of limits set by the Internal Revenue Service, and a supplemental retirement plan for senior managers (SERP), which is an alternative retirement plan for salaried employees who are senior vice presidents and above or who are designated by the chief executive officer as participants. These nonqualified plans are only funded to the extent of benefits paid, which totaled \$26 million, \$29 million and \$40 million in 2019, 2018 and 2017, respectively, and which are expected to be \$28 million in 2020.

Effective January 1, 2019, the Company froze participation, including credited service and compensation, for salaried employees under the Pension Plan, the Pension Restoration Plan and the SERP plan. This change does not affect benefits accrued through December 31, 2018. For service after December 31, 2018, employees affected by the freeze receive a company contribution to their individual Retirement Savings Account as described later in this [Note 19](#).

Many non-U.S. employees are covered by various retirement benefit arrangements, some of which are considered to be defined benefit pension plans for accounting purposes.

OBLIGATIONS AND FUNDED STATUS

The following table shows the changes in the benefit obligation and plan assets for 2019 and 2018, and the plans' funded status.

<i>In millions</i>	2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Change in projected benefit obligation:				
Benefit obligation, January 1	\$ 10,467	\$ 215	\$ 13,264	\$ 247
Service cost	68	5	153	5
Interest cost	440	8	467	8
Curtailment	—	(1)	—	—
Settlements	—	(6)	(1,653)	(2)
Actuarial loss (gain)	1,230	33	(1,089)	(17)
Acquisitions	—	3	—	—
Divestitures	—	(1)	—	—
Plan amendments	40	—	2	—
Benefits paid	(546)	(8)	(677)	(9)
Effect of foreign currency exchange rate movements	—	5	—	(17)
Benefit obligation, December 31	\$ 11,699	\$ 253	\$ 10,467	\$ 215
Change in plan assets:				
Fair value of plan assets, January 1	\$ 8,735	\$ 161	\$ 11,368	\$ 176
Actual return on plan assets	1,950	23	(332)	(2)
Company contributions	26	10	29	10
Benefits paid	(546)	(8)	(677)	(9)
Settlements	—	(6)	(1,653)	(2)
Effect of foreign currency exchange rate movements	—	3	—	(12)
Fair value of plan assets, December 31	\$ 10,165	\$ 183	\$ 8,735	\$ 161
Funded status, December 31	\$ (1,534)	\$ (70)	\$ (1,732)	\$ (54)
Amounts recognized in the consolidated balance sheet:				
Non-current asset	\$ —	\$ 6	\$ —	\$ 5
Current liability	(28)	(3)	(27)	(2)
Non-current liability	(1,506)	(73)	(1,705)	(57)
	\$ (1,534)	\$ (70)	\$ (1,732)	\$ (54)
Amounts recognized in accumulated other comprehensive income under ASC 715 (pre-tax):				
Prior service cost (credit)	\$ 98	\$ (1)	\$ 74	\$ (1)
Net actuarial loss	2,851	75	3,140	57
	\$ 2,949	\$ 74	\$ 3,214	\$ 56

The largest contributor to the actuarial loss affecting the benefit obligation was the decrease in the discount rate from 4.30% at December 31, 2018 to 3.40% at December 31, 2019. However positive asset returns

offset the higher obligation for a slightly improved funded position.

The components of the \$(265) million and \$18 million related to U.S. plans and non-U.S. plans, respectively, in the amounts recognized in OCI during 2019 consisted of:

<i>In millions</i>	U.S. Plans	Non-U.S. Plans
Current year actuarial (gain) loss	\$ (89)	\$ 19
Amortization of actuarial loss	(200)	(2)
Current year prior service cost	40	—
Amortization of prior service cost	(16)	—
Settlements/curtailments	—	(1)
Effect of foreign currency exchange rate movements	—	2
	\$ (265)	\$ 18

The portion of the change in the funded status that was recognized in net periodic benefit cost and OCI for the U.S. plans was \$(172) million, \$(134) million and \$(184) million in 2019, 2018 and 2017, respectively. The portion of the change in funded status for the non-U.S. plans was \$24 million, \$(6) million, and \$10 million in 2019, 2018 and 2017, respectively.

The accumulated benefit obligation at December 31, 2019 and 2018 was \$11.7 billion and \$10.4 billion, respectively, for our U.S. defined benefit plans and \$236 million and \$200 million, respectively, at December 31, 2019 and 2018 for our non-U.S. defined benefit plans.

The following table summarizes information for pension plans with an accumulated benefit obligation in excess of plan assets at December 31, 2019 and 2018:

<i>In millions</i>	2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Projected benefit obligation	\$ 11,699	\$ 225	\$ 10,467	\$ 187
Accumulated benefit obligation	11,672	208	10,440	175
Fair value of plan assets	10,165	149	8,735	128

ASC 715, "Compensation – Retirement Benefits" provides for delayed recognition of actuarial gains and losses, including amounts arising from changes in the estimated projected plan benefit obligation due to changes in the assumed discount rate, differences between the actual and expected return on plan assets and other assumption changes. These net gains and losses are recognized prospectively over a period that approximates the average remaining service period of active employees expected to receive benefits under the plans to the extent that they are not offset by gains in subsequent years.

NET PERIODIC PENSION EXPENSE

Service cost is the actuarial present value of benefits attributed by the plans' benefit formula to services rendered by employees during the year. Interest cost represents the increase in the projected benefit obligation, which is a discounted amount, due to the passage of time. The expected return on plan assets reflects the computed amount of current-year earnings from the investment of plan assets using an estimated long-term rate of return.

Net periodic pension expense for qualified and nonqualified U.S. and non-U.S. defined benefit plans comprised the following:

In millions	2019		2018		2017	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	\$ 68	\$ 5	\$ 153	\$ 5	\$ 160	\$ 4
Interest cost	440	8	467	8	536	9
Expected return on plan assets	(631)	(10)	(765)	(11)	(774)	(11)
Actuarial loss (gain)	200	2	337	2	339	2
Amortization of prior service cost	16	—	16	—	28	—
Curtailment loss (gain) (a)	—	(1)	—	—	23	—
Settlement loss	—	2	424	—	383	1
Special termination benefits (a)	—	—	—	—	22	—
Net periodic pension expense	\$ 93	\$ 6	\$ 632	\$ 4	\$ 717	\$ 5

(a) 2017 amounts were recorded in Discontinued operations in the consolidated statement of operations.

The components of net periodic pension expense other than the Service cost component are included in Non-operating pension expense in the Consolidated Statement of Operations.

The decrease in 2019 pension expense primarily reflects lower service cost due to the salaried pension freeze, lower amortization and the current year absence of a settlement loss related to the October 2018 annuity purchase transaction slightly offset by lower asset returns due to the 2018 annuity purchase.

On September 25, 2018, the Company entered into an agreement with The Prudential Insurance Company of America to purchase a group annuity contract and transfer approximately \$1.6 billion of International Paper's U.S. qualified pension plan projected benefit obligations, subject to customary closing conditions. The transaction closed on October 2, 2018 and was funded with pension plan assets. Under the transaction, at the end of 2018, Prudential assumed responsibility for pension benefits and annuity administration for approximately 23,000 retirees or their beneficiaries receiving less than \$1,000 in monthly benefit payments from the plan. Settlement accounting rules required a remeasurement of the qualified plan as of October 2, 2018 and the Company recognized a non-cash pension settlement charge of \$424 million before tax in the fourth quarter of 2018.

On September 26, 2017, the Company entered into an agreement with The Prudential Insurance Company of America to purchase a group annuity contract and transfer approximately \$1.3 billion of International Paper's U.S. qualified pension plan projected benefit obligations, subject to customary closing conditions. The transaction closed on October 3, 2017 and was funded with pension plan assets. Under the transaction, at the end of 2017, Prudential assumed responsibility for pension benefits and annuity administration for approximately 45,000 retirees or their beneficiaries receiving less than \$450 in monthly benefit payments from the plan. Settlement accounting rules required a remeasurement of the qualified plan as of October 3, 2017 and the Company recognized a non-cash pension settlement charge of \$376 million before tax in the fourth quarter of 2017. In addition, large payments from the non-qualified pension plan also required a remeasurement as of October 2, 2017 and a non-cash settlement charge of \$7 million was also recognized in the fourth quarter of 2017.

ASSUMPTIONS

International Paper evaluates its actuarial assumptions annually as of December 31 (the measurement date) and considers changes in these long-term factors based upon market conditions and the requirements for employers' accounting for pensions. These assumptions are used to calculate benefit obligations as of December 31 of the current year and pension expense to be recorded in the following year (i.e., the discount rate used to determine the benefit obligation as of December 31, 2019 is also the discount rate used to determine net pension expense for the 2020 year).

Major actuarial assumptions used in determining the benefit obligations and net periodic pension cost for our defined benefit plans are presented in the following table:

	2019		2018		2017	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Actuarial assumptions used to determine benefit obligations as of December 31:						
Discount rate	3.40%	2.70%	4.30%	3.97%	3.60%	3.59%
Rate of compensation increase	2.25%	3.62%	2.25%	4.05%	3.75%	4.06%
Actuarial assumptions used to determine net periodic pension cost for years ended December 31:						
Discount rate (a)	4.30%	3.97%	3.80%	3.59%	4.03%	3.88%
Expected long-term rate of return on plan assets	7.25%	6.20%	7.50%	6.52%	7.50%	6.73%
Rate of compensation increase	2.25%	4.05%	3.38%	4.06%	3.75%	4.20%

(a) Represents the weighted average rate for the U.S. qualified plans in 2018 and 2017 due to the remeasurements.

The expected long-term rate of return on plan assets is based on projected rates of return for current asset classes in the plan's investment portfolio. Projected rates of return are developed through an asset/liability study in which projected returns for each of the plan's asset classes are determined after analyzing historical experience and future expectations of returns and volatility of the various asset classes.

Based on the target asset allocation for each asset class, the overall expected rate of return for the portfolio is developed considering the effects of active portfolio management and expenses paid from plan assets. The discount rate assumption was determined from a universe of high quality corporate bonds. A settlement portfolio is selected and matched to the present value of the plan's projected benefit payments. To calculate pension expense for 2020, the Company will use an expected long-term rate of return on plan assets of 7.00% for the Retirement Plan of International Paper, a discount rate of 3.40% and an assumed rate of compensation increase of 2.25%. The Company estimates that it will record net pension expense of approximately \$46 million for its U.S. defined benefit plans in 2020, compared to expense of \$93 million in 2019. The estimated decrease in net pension expense in 2020 is primarily due to higher return on assets and lower interest cost partially offset by higher amortization of actuarial losses and higher service cost.

For non-U.S. pension plans, assumptions reflect economic assumptions applicable to each country.

The following illustrates the effect on pension expense for 2020 of a 25 basis point decrease in the above assumptions:

In millions	2020
Expense (Income):	
Discount rate	\$ 31
Expected long-term rate of return on plan assets	24

PLAN ASSETS

International Paper's Board of Directors has appointed a Fiduciary Review Committee that is responsible for fiduciary oversight of the U.S. Pension Plan, approving investment policy and reviewing the management and control of plan assets. Pension Plan assets are invested to maximize returns within prudent levels of risk.

The Pension Plan maintains a strategic asset allocation policy that designates target allocations by asset class. Investments are diversified across classes and within each class to minimize the risk of large losses. Derivatives, including swaps, forward and futures contracts, may be used as asset class substitutes or for hedging or other risk management purposes. Periodic reviews are made of investment policy objectives and investment manager performance. For non-U.S. plans, assets consist principally of common stock and fixed income securities.

International Paper's U.S. pension allocations by type of fund at December 31, 2019 and 2018 and target allocations were as follows:

Asset Class	2019	2018	Target Allocations
Equity accounts	37%	32%	32% - 43%
Fixed income accounts	50%	51%	44% - 56%
Real estate accounts	8%	11%	5% - 11%
Other	5%	6%	3% - 8%
Total	100%	100%	

The fair values of International Paper's pension plan assets at December 31, 2019 and 2018 by asset class are shown below. Hedge funds disclosed in the following table are allocated to fixed income accounts for target allocation purposes. Following our adoption of ASU 2018-09 "Codification Improvements", we have evaluated certain investments and classified them as Level 2 (previously Level 0). Prior year leveling disclosures have been updated for comparability as a result of our retrospective adoption of this disclosure guidance.

Fair Value Measurement at December 31, 2019				
Asset Class	Total	Quoted Prices in Active Markets For Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>In millions</i>				
Equities – domestic	\$ 1,613	\$ 965	\$ 648	\$ —
Equities – international	2,181	1,599	582	—
Corporate bonds	1,845	—	1,845	—
Government securities	2,659	—	2,659	—
Mortgage backed securities	1	—	1	—
Other fixed income	(647)	—	(661)	14
Derivatives	(19)	—	—	(19)
Cash and cash equivalents	336	336	—	—
Other investments:				
Hedge funds	902			
Private equity	522			
Real estate funds	772			
Total Investments	\$ 10,165	\$ 2,900	\$ 5,074	\$ (5)

Fair Value Measurement at December 31, 2018				
Asset Class	Total	Quoted Prices in Active Markets For Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>In millions</i>				
Equities – domestic	\$ 1,200	\$ 685	\$ 515	\$ —
Equities – international	1,583	1,141	442	—
Corporate bonds	1,493	—	1,493	—
Government securities	2,262	—	2,262	—
Other fixed income	(543)	—	(556)	13
Derivatives	98	—	—	98
Cash and cash equivalents	294	294	—	—
Other investments:				
Hedge funds	886			
Private equity	518			
Real estate funds	944			
Total Investments	\$ 8,735	\$ 2,120	\$ 4,156	\$ 111

In accordance with accounting standards, certain investments that are measured at NAV and are not classified in the fair value hierarchy.

Other Investments at December 31, 2019				
Investment	Fair Value	Unfunded Commitments	Redemption Frequency	Remediation Notice Period
<i>In millions</i>				
Hedge funds	902	—	Daily to annually	1 - 100 days
Private equity	522	198	(a)	None
Real estate funds	772	147	Quarterly	45 - 60 days
Total	\$ 2,196	\$ 345		

(a) A private equity fund investment ("partnership interest") is contractually locked up for the life of the private equity fund by the partnership agreement. Limited partners do not have the option to redeem partnership interests.

Other Investments at December 31, 2018				
Investment	Fair Value	Unfunded Commitments	Redemption Frequency	Remediation Notice Period
<i>In millions</i>				
Hedge funds	886	—	Daily to annually	1 - 100 days
Private equity	518	310	(a)	None
Real estate funds	944	109	Quarterly	45 - 60 days
Total	\$ 2,348	\$ 419		

(a) A private equity fund investment ("partnership interest") is contractually locked up for the life of the private equity fund by the partnership agreement. Limited partners do not have the option to redeem partnership interests.

Equity securities consist primarily of publicly traded U.S. companies and international companies. Publicly traded equities are valued at the closing prices reported in the active market in which the individual securities are traded.

Fixed income consists of government securities, mortgage-backed securities, corporate bonds, common collective funds and other fixed income investments. Government securities are valued by third-party pricing sources. Mortgage-backed security holdings consist primarily of agency-rated holdings. The fair value estimates for mortgage securities are calculated by third-party pricing sources chosen by the custodian's price matrix. Corporate bonds are valued using either the yields currently available on comparable securities of issuers with similar credit ratings or using a discounted

cash flows approach that utilizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks. Common collective funds are valued at the net asset value per share multiplied by the number of shares held as of the measurement date. Other fixed income investments of \$(647) million and \$(543) million at December 31, 2019 and 2018, respectively, primarily include reverse repurchase agreement obligations in which we have sold a security and have an agreement to repurchase the same or substantially the same security at a later date for a price specified in the agreement.

Derivative investments such as futures, forward contracts, options and swaps are used to help manage risks. Derivatives are generally employed as asset class substitutes (such as when employed in a portable alpha strategy), for managing asset/liability mismatches, or

bona fide hedging or other appropriate risk management purposes. Derivative instruments are generally valued by the investment managers or in certain instances by third-party pricing sources.

Hedge funds are investment structures for managing private, loosely-regulated investment pools that can pursue a diverse array of investment strategies with a wide range of different securities and derivative instruments. These investments are made through funds-of-funds (commingled, multi-manager fund structures) and through direct investments in individual hedge funds. Hedge funds are primarily valued by each fund's third-party administrator based upon the valuation of the underlying securities and instruments and primarily by applying a market or income valuation methodology as appropriate depending on the specific type of security or instrument held. Funds-of-funds are valued based upon the net asset values of the underlying investments in hedge funds.

Private equity consists of interests in partnerships that invest in U.S. and non-U.S. debt and equity securities. Partnership interests are valued using the most recent general partner statement of fair value, updated for any subsequent partnership interest cash flows.

Real estate funds include commercial properties, land and timberland, and generally include, but are not limited to, retail, office, industrial, multifamily and hotel properties. Real estate fund values are primarily reported by the fund manager and are based on valuation of the underlying investments which include inputs such as cost, discounted cash flows, independent appraisals and market based comparable data.

The following is a reconciliation of the assets that are classified using significant unobservable inputs (Level 3) at December 31, 2019.

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

<i>In millions</i>	Mortgage backed securities	Other fixed income	Derivatives	Total
Beginning balance at December 31, 2017	\$ 1	\$ 12	\$ 16	\$ 29
Actual return on plan assets:				
Relating to assets still held at the reporting date	—	1	75	76
Relating to assets sold during the period	—	—	(19)	(19)
Purchases, sales and settlements	(1)	—	26	25
Transfers in and/or out of Level 3	—	—	—	—
Ending balance at December 31, 2018	\$ —	\$ 13	\$ 98	\$ 111
Actual return on plan assets:				
Relating to assets still held at the reporting date	—	1	(127)	(126)
Relating to assets sold during the period	—	—	314	314
Purchases, sales and settlements	—	—	(304)	(304)
Transfers in and/or out of Level 3	—	—	—	—
Ending balance at December 31, 2019	\$ —	\$ 14	\$ (19)	\$ (5)

FUNDING AND CASH FLOWS

The Company's funding policy for the Pension Plan is to contribute amounts sufficient to meet legal funding requirements, plus any additional amounts that the Company may determine to be appropriate considering the funded status of the plans, tax deductibility, cash flow generated by the Company, and other factors. The Company continually reassesses the amount and timing of any discretionary contributions. Contributions to the qualified plan totaling \$1.25 billion were made by the Company in 2017. No voluntary contributions were made in 2018 or 2019. Generally, International Paper's non-U.S. pension plans are funded using the projected benefit as a target, except in certain countries where funding of benefit plans is not required.

At December 31, 2019, projected future pension benefit payments, excluding any termination benefits, were as follows:

<i>In millions</i>	
2020	\$ 569
2021	579
2022	593
2023	607
2024	619
2025-2029	3,217

OTHER U.S. PLANS

International Paper sponsors the International Paper Company Salaried Savings Plan and the International Paper Company Hourly Savings Plan, both of which are tax-qualified defined contribution 401(k) savings plans. Substantially all U.S. salaried and certain hourly employees are eligible to participate and may make

elective deferrals to such plans to save for retirement. International Paper makes matching contributions to participant accounts on a specified percentage of employee deferrals as determined by the provisions of each plan. The Company makes Retirement Savings Account contributions equal to a percentage of an eligible employee's pay. Beginning in 2019, as a result of the freeze for salaried employees under the Pension Plan, all salaried employees are eligible for the contribution to the Retirement Savings Account.

The Company also sponsors the International Paper Company Deferred Compensation Savings Plan, which is an unfunded nonqualified defined contribution plan. This plan permits eligible employees to continue to make deferrals and receive company matching contributions (and Retirement Savings Account contributions) when their contributions to the International Paper Salaried Savings Plan are stopped due to limitations under U.S. tax law. Participant deferrals and company contributions are not invested in a separate trust, but are paid directly from International Paper's general assets at the time benefits become due and payable.

Company contributions to the plans totaled approximately \$172 million, \$125 million and \$117 million for the plan years ending in 2019, 2018 and 2017, respectively. The increase in 2019 reflects increased contributions in connection with the salaried pension plan freeze.

NOTE 20 POSTRETIREMENT BENEFITS

U.S. POSTRETIREMENT BENEFITS

International Paper provides certain retiree health care and life insurance benefits covering certain U.S.

salaried and hourly employees. These employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. International Paper does not fund these benefits prior to payment and has the right to modify or terminate certain of these plans in the future.

In addition to the U.S. plan, certain Brazilian and Moroccan employees are eligible for retiree health care and life insurance benefits.

The components of postretirement benefit expense in 2019, 2018 and 2017 were as follows:

<i>In millions</i>	2019		2018		2017	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	\$ —	\$ 1	\$ 1	\$ —	\$ 1	\$ —
Interest cost	8	1	8	2	11	2
Actuarial loss	4	2	9	2	8	3
Amortization of prior service credits	(2)	(3)	(2)	(3)	(3)	(4)
Net postretirement expense	\$ 10	\$ 1	\$ 16	\$ 1	\$ 17	\$ 1

International Paper evaluates its actuarial assumptions annually as of December 31 (the measurement date) and considers changes in these long-term factors based upon market conditions and the requirements of employers' accounting for postretirement benefits other than pensions. The discount rate assumption was determined based on a hypothetical settlement portfolio selected from a universe of high quality corporate bonds.

The discount rates used to determine net U.S. and non-U.S. postretirement benefit cost for the years ended December 31, 2019, 2018 and 2017 were as follows:

	2019		2018		2017	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Discount rate	4.20%	9.10%	3.50%	9.38%	4.00%	10.53%

The weighted average assumptions used to determine the benefit obligation at December 31, 2019 and 2018 were as follows:

	2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Discount rate	3.30%	7.15%	4.20%	9.10%
Health care cost trend rate assumed for next year	6.75%	9.57%	7.00%	10.04%
Rate that the cost trend rate gradually declines to	5.00%	4.78%	5.00%	4.93%
Year that the rate reaches the rate it is assumed to remain	2026	2030	2026	2030

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The plans are only funded in an amount equal to benefits paid. The following table presents the changes in benefit obligation and plan assets for 2019 and 2018:

<i>In millions</i>	2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Change in projected benefit obligation:				
Benefit obligation, January 1	\$ 213	\$ 24	\$ 270	\$ 25
Service cost	—	1	1	—
Interest cost	8	1	8	2
Participants' contributions	4	—	5	—
Actuarial (gain) loss	20	8	(34)	2
Benefits paid	(32)	(2)	(38)	(1)
Less: Federal subsidy	1	—	1	—
Currency Impact	—	(1)	—	(4)
Benefit obligation, December 31	\$ 214	\$ 31	\$ 213	\$ 24
Change in plan assets:				
Fair value of plan assets, January 1	\$ —	\$ —	\$ —	\$ —
Company contributions	28	2	33	1
Participants' contributions	4	—	5	—
Benefits paid	(32)	(2)	(38)	(1)
Fair value of plan assets, December 31	\$ —	\$ —	\$ —	\$ —
Funded status, December 31	\$ (214)	\$ (31)	\$ (213)	\$ (24)
Amounts recognized in the consolidated balance sheet under ASC 715:				
Current liability	\$ (21)	\$ (1)	\$ (23)	\$ (1)
Non-current liability	(193)	(30)	(190)	(23)
	\$ (214)	\$ (31)	\$ (213)	\$ (24)
Amounts recognized in accumulated other comprehensive income under ASC 715 (pre-tax):				
Net actuarial loss (gain)	\$ 47	\$ 19	\$ 31	\$ 15
Prior service credit	(2)	(18)	(4)	(22)
	\$ 45	\$ 1	\$ 27	\$ (7)

The non-current portion of the liability is included with the postemployment liability in the accompanying consolidated balance sheet under Postretirement and postemployment benefit obligation.

The components of the \$18 million and \$8 million change in the amounts recognized in OCI during 2019 for U.S. and non-U.S. plans, respectively, consisted of:

<i>In millions</i>	U.S. Plans	Non-U.S. Plans
Current year actuarial (gain) loss	\$ 20	\$ 7
Amortization of actuarial (loss) gain	(4)	(2)
Current year prior service cost	—	—
Amortization of prior service credit	2	3
Currency impact	—	—
	\$ 18	\$ 8

The portion of the change in the funded status that was recognized in net periodic benefit cost and OCI for the U.S. plans was \$29 million, \$(25) million and \$25 million in 2019, 2018 and 2017, respectively. The portion of the change in funded status for the non-U.S. plans was \$9 million, \$5 million, and \$3 million in 2019, 2018 and 2017, respectively.

At December 31, 2019, estimated total future postretirement benefit payments, net of participant contributions and estimated future Medicare Part D subsidy receipts, were as follows:

<i>In millions</i>	Benefit Payments	Subsidy Receipts	Benefit Payments
	U.S. Plans	U.S. Plans	Non-U.S. Plans
2020	\$ 22	\$ 1	\$ 1
2021	21	1	—
2022	20	1	1
2023	18	1	1
2024	17	1	1
2025 – 2029	73	4	6

NOTE 21 INCENTIVE PLANS

International Paper currently has an Incentive Compensation Plan (ICP). The ICP authorizes grants of restricted stock, restricted or deferred stock units, performance awards payable in cash or stock upon the attainment of specified performance goals, dividend equivalents, stock options, stock appreciation rights, other stock-based awards, and cash-based awards at the discretion of the Management Development and

Compensation Committee of the Board of Directors (the Committee) that administers the ICP. Additionally, restricted stock, which may be deferred into RSU's, may be awarded under a Restricted Stock and Deferred Compensation Plan for Non-Employee Directors.

PERFORMANCE SHARE PLAN

Under the Performance Share Plan (PSP), contingent awards of International Paper common stock are granted by the Committee. The PSP awards are earned over a three-year period. PSP awards are earned based on the achievement of defined performance of Return on Invested Capital (ROIC) measured against our internal benchmark and ranking of Total Shareholder Return (TSR) compared to the TSR peer group of companies. The 2017-2019 Award is weighted 75% for ROIC and 25% for TSR for all participants except for officers for whom the awards are weighted 50% for ROIC and 50% for TSR. The 2018-2020 and 2019-2021 Awards are weighted 50% ROIC and 50% TSR for all participants. The ROIC component of the PSP awards is valued at the closing stock price on the day prior to the grant date. As the ROIC component contains a performance condition, compensation expense, net of estimated forfeitures, is recorded over the requisite service period based on the most probable number of awards expected to vest. The TSR component of the PSP awards is valued using a Monte Carlo simulation as the TSR component contains a market condition. The Monte Carlo simulation estimates the fair value of the TSR component based on the expected term of the award, a risk-free rate, expected dividends, and the expected volatility for the Company and its competitors. The expected term is estimated based on the vesting period of the awards, the risk-free rate is based on the yield on U.S. Treasury securities matching the vesting period, and the volatility is based on the Company's historical volatility over the expected term. PSP grants are made in performance-based restricted stock units.

The following table sets forth the assumptions used to determine compensation cost for the market condition component of the PSP plan:

	Twelve Months Ended December 31, 2019
Expected volatility	22.81%-24.60%
Risk-free interest rate	1.47%-2.44%

The following summarizes PSP activity for the three years ended December 31, 2019:

	Share/Units	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2016	5,950,130	\$35.89
Granted	2,163,912	51.78
Shares issued	(1,876,134)	51.00
Forfeited	(438,024)	45.96
Outstanding at December 31, 2017	5,799,884	36.17
Granted	1,751,235	62.97
Shares issued	(1,588,642)	53.67
Forfeited	(196,000)	56.57
Outstanding at December 31, 2018	5,766,477	38.79
Granted	2,353,613	43.49
Shares issued	(2,367,135)	36.79
Forfeited	(238,227)	50.64
Outstanding at December 31, 2019	5,514,728	\$41.14

RESTRICTED STOCK AWARD PROGRAMS

The service-based Restricted Stock Award program (RSA), designed for recruitment, retention and special recognition purposes, provides for awards of restricted stock to key employees.

The following summarizes the activity of the RSA program for the three years ended December 31, 2019:

	Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2016	169,331	\$45.34
Granted	63,319	57.24
Shares issued	(59,650)	47.90
Forfeited	(6,700)	53.53
Outstanding at December 31, 2017	166,300	48.63
Granted	66,100	51.43
Shares issued	(100,289)	48.44
Forfeited	—	—
Outstanding at December 31, 2018	132,111	50.17
Granted	87,910	43.70
Shares issued	(52,021)	48.90
Forfeited	(7,300)	45.10
Outstanding at December 31, 2019	160,700	\$47.27

At December 31, 2019, 2018 and 2017 a total of 9.8 million, 11.9 million and 13.2 million shares, respectively, were available for grant under the ICP.

Stock-based compensation expense and related income tax benefits were as follows:

<i>In millions</i>	2019	2018	2017
Total stock-based compensation expense (included in selling and administrative expense)	\$ 130	\$ 135	\$ 147
Income tax benefits related to stock-based compensation	30	16	45

At December 31, 2019, \$92 million of compensation cost, net of estimated forfeitures, related to unvested restricted performance shares, executive continuity awards and restricted stock attributable to future performance had not yet been recognized. This amount will be recognized in expense over a weighted-average period of 1.6 years.

NOTE 22 FINANCIAL INFORMATION BY BUSINESS SEGMENT AND GEOGRAPHIC AREA

International Paper's business segments, Industrial Packaging, Global Cellulose Fibers and Printing Papers, are consistent with the internal structure used to manage these businesses. See the [Description of Business Segments](#) in [Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations](#) for a description of the types of products and services from which each reportable segment derives its revenues. All segments are differentiated on a common product, common customer basis consistent with the business segmentation generally used in the Forest Products industry.

Business segment operating profits are used by International Paper's management to measure the earnings performance of its businesses. Management believes that this measure allows a better understanding of trends in costs, operating efficiencies, prices and volumes. Business segment operating profits are defined as earnings (loss) from continuing operations before income taxes and equity earnings, but including the impact of equity earnings and noncontrolling interests, and excluding interest expense, net, corporate items, net, corporate special items, net, business special items, net, and non-operating pension expense. In 2019, the Company changed its measure of business segment operating profits to exclude items considered by management to be unusual (business special items, net) from the normal operations of the business segment. As a result, all prior periods have been restated to reflect the current measure.

External sales by major product is determined by aggregating sales from each segment based on similar products or services. External sales are defined as those that are made to parties outside International Paper's consolidated group, whereas sales by segment in the Net Sales table are determined using a management approach and include intersegment sales.

INFORMATION BY BUSINESS SEGMENT

Net Sales

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 15,326	\$ 15,900	\$ 15,077
Global Cellulose Fibers	2,551	2,819	2,551
Printing Papers	4,291	4,375	4,157
Corporate and Intersegment Sales (a)	208	212	(42)
Net Sales	\$ 22,376	\$ 23,306	\$ 21,743

Operating Profit

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 2,076	\$ 2,277	\$ 1,919
Global Cellulose Fibers	(6)	262	116
Printing Papers	529	543	459
Business Segment Operating Profit	2,599	3,082	2,494
Earnings (loss) from continuing operations before income taxes and equity earnings	1,604	1,781	848
Interest expense, net	491	536	572
Noncontrolling interests / equity earnings adjustment (b)	3	(10)	(2)
Corporate expenses, net (a)	54	67	91
Corporate special items, net (a)	104	9	76
Business special items, net	307	205	425
Non-operating pension expense	36	494	484
	\$ 2,599	\$ 3,082	\$ 2,494

Business Special Items, Net

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 78	\$ 184	\$ 372
Global Cellulose Fibers	68	11	51
Printing Papers	161	10	2
Business Special Items, Net	\$ 307	\$ 205	\$ 425

Assets

<i>In millions</i>	2019	2018
Industrial Packaging	\$ 16,338	\$ 15,859
Global Cellulose Fibers	3,733	3,880
Printing Papers	3,476	3,905
Corporate and other (c)	9,924	9,932
Assets	\$ 33,471	\$ 33,576

Capital Spending

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 922	\$ 1,061	\$ 836
Global Cellulose Fibers	162	183	188
Printing Papers	172	303	235
Subtotal	1,256	1,547	1,259
Corporate and other	20	25	21
Capital Spending	\$ 1,276	\$ 1,572	\$ 1,280

Depreciation, Amortization and Cost of Timber Harvested

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 794	\$ 803	\$ 815
Global Cellulose Fibers	263	262	264
Printing Papers	244	258	254
Corporate (d)	5	5	10
Depreciation and Amortization	\$ 1,306	\$ 1,328	\$ 1,343

External Sales By Major Product

<i>In millions</i>	2019	2018	2017
Industrial Packaging	\$ 15,259	\$ 15,828	\$ 14,946
Global Cellulose Fibers	2,545	2,810	2,524
Printing Papers	4,284	4,359	4,142
Other (e)	288	309	131
Net Sales	\$ 22,376	\$ 23,306	\$ 21,743

INFORMATION BY GEOGRAPHIC AREA
Net Sales (f)

<i>In millions</i>	2019	2018	2017
United States (g)	\$ 16,948	\$ 17,609	\$ 16,247
EMEA	3,258	3,321	3,129
Pacific Rim and Asia	415	605	625
Americas, other than U.S.	1,755	1,771	1,742
Net Sales	\$ 22,376	\$ 23,306	\$ 21,743

Long-Lived Assets (h)

<i>In millions</i>	2019	2018
United States	\$ 10,706	\$ 10,586
EMEA	1,368	1,315
Pacific Rim and Asia	—	201
Americas, other than U.S.	1,321	1,367
Long-Lived Assets	\$ 13,395	\$ 13,469

- (a) Includes sales of \$15 million, operating profits (losses) of \$0 million and corporate special items expense of \$9 million in 2017 from previously divested businesses.
- (b) Operating profits for industry segments include each segment's percentage share of the profits of subsidiaries included in that segment that are less than wholly-owned. The pre-tax noncontrolling interests and equity earnings for these subsidiaries is added here to present consolidated earnings from continuing operations before income taxes and equity earnings.
- (c) Includes corporate assets and assets of businesses held for sale.
- (d) Includes \$1 million in 2017 from previously divested businesses.
- (e) Includes \$15 million in 2017 from previously divested businesses.
- (f) Net sales are attributed to countries based on the location of the seller.
- (g) Export sales to unaffiliated customers were \$2.7 billion in 2019, \$3.1 billion in 2018 and \$2.9 billion in 2017.
- (h) Long-Lived Assets includes Forestlands and Plants, Properties and Equipment, net.

INTERIM FINANCIAL RESULTS (UNAUDITED)

<i>In millions, except per share amounts and stock prices</i>	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
2019					
Net sales	\$ 5,643	\$ 5,667	\$ 5,568	\$ 5,498	\$ 22,376
Earnings (loss) from continuing operations before income taxes and equity earnings	418 (a)	334 (a)	452 (a)	400 (a)	1,604 (a)
Gain (loss) from discontinued operations	—	—	—	—	—
Net earnings (loss) attributable to International Paper Company	424 (a-b)	292 (a-c)	344 (a-c)	165 (a-b)	1,225 (a-c)
Basic earnings (loss) per share attributable to International Paper Company common shareholders:					
Earnings (loss) from continuing operations	\$ 1.06	\$ 0.74	\$ 0.88	\$ 0.42	\$ 3.10
Gain (loss) from discontinued operations	—	—	—	—	—
Net earnings (loss)	1.06	0.74	0.88	0.42	3.10
Diluted earnings (loss) per share attributable to International Paper Company common shareholders:					
Earnings (loss) from continuing operations	1.05	0.73	0.87	0.42	3.07
Gain (loss) from discontinued operations	—	—	—	—	—
Net earnings (loss)	1.05	0.73	0.87	0.42	3.07
Dividends per share of common stock	0.5000	0.5000	0.5000	0.5125	2.0125
2018					
Net sales	\$ 5,621	\$ 5,833	\$ 5,901	\$ 5,951	\$ 23,306
Earnings (loss) from continuing operations before income taxes and equity earnings	356 (d)	490 (d)	553 (d)	382 (d)	1,781 (d)
Gain (loss) from discontinued operations	368 (e)	(23) (e)	— (e)	— (e)	345 (e)
Net earnings (loss) attributable to International Paper Company	729 (d-f)	405 (d-f)	562 (d-f)	316 (d-f)	2,012 (d-f)
Basic earnings (loss) per share attributable to International Paper Company common shareholders:					
Earnings (loss) from continuing operations	\$ 0.87	\$ 1.03	\$ 1.38	\$ 0.79	\$ 4.07
Gain (loss) from discontinued operations	0.89	(0.05)	—	—	0.84
Net earnings (loss)	1.76	0.98	1.38	0.79	4.91
Diluted earnings (loss) per share attributable to International Paper Company common shareholders:					
Earnings (loss) from continuing operations	0.86	1.02	1.37	0.78	4.02
Gain (loss) from discontinued operations	0.88	(0.05)	—	—	0.83
Net earnings (loss)	1.74	0.97	1.37	0.78	4.85
Dividends per share of common stock	0.4750	0.4750	0.4750	0.5000	1.9250

Note: International Paper's common shares (symbol: IP) are listed on the New York Stock Exchange.

Note: Since basic and diluted earnings per share are computed independently for each period and category, full year per share amounts may not equal the sum of the four quarters.

Footnotes to Interim Financial Results

(a) Includes the following pre-tax charges (gains):

In millions	2019			
	Q1	Q2	Q3	Q4
India impairment	\$ —	\$ 152	\$ 8	\$ (1)
India divestiture transaction costs	—	—	—	3
Global Cellulose Fibers goodwill impairment	—	—	—	52
Litigation reserves	—	—	22	19
Italian antitrust fine	—	—	32	—
Environmental remediation reserve adjustment	—	—	15	10
(Gain) loss on sale of EMEA Packaging box plant	(7)	—	—	1
EMEA Packaging business optimization	—	—	—	17
Multi-employer pension plan exit liability	16	—	(7)	—
Abandoned property removal	11	11	13	15
Riverdale mill conversion costs	1	1	1	2
Foreign VAT refund accrual including interest	—	—	—	(6)
Debt extinguishment costs	—	—	—	21
Gain on sale of previously closed Oregon mill site	—	—	(9)	—
Overhead cost reduction initiative	—	—	21	—
Other items	—	1	—	3
Non-operating pension expense	10	8	9	9
Total	\$ 31	\$ 173	\$ 105	\$ 145

(b) Includes the following tax expenses (benefits):

In millions	2019			
	Q1	Q2	Q3	Q4
Luxembourg statutory tax rate change	\$ —	\$ 9	\$ —	\$ —
State income tax legislative changes	—	(3)	—	—
Foreign tax audits	—	3	—	—
Internal investment restructuring	—	—	—	(53)
Foreign deferred tax valuation allowance	—	—	—	203
Tax impact of other special items	(6)	(5)	(14)	(28)
Tax impact of non-operating pension expense	(2)	(2)	(2)	(2)
Total	\$ (8)	\$ 2	\$ (16)	\$ 120

(c) Includes allocation of loss to noncontrolling interest of \$7 million and \$2 million for the three months ended June 30, 2019 and September 30, 2019, respectively, associated with the impairment of the net assets of our India Papers business.

(d) Includes the following pre-tax charges (gains):

In millions	2018			
	Q1	Q2	Q3	Q4
Smurfit-Kappa acquisition proposal costs	\$ —	\$ 12	\$ —	\$ —
Legal settlement	9	—	—	—
Litigation settlement recovery	—	—	—	(5)
Environmental remediation reserve adjustment	—	—	9	—
EMEA Packaging business optimization	22	26	—	(1)
Abandoned property removal	9	9	6	8
Riverdale mill conversion costs	—	—	5	4
Brazil Packaging impairment	—	—	122	—
Debt extinguishment costs	—	—	—	10
Gain on sale of investment in Liaison Technologies	—	—	—	(31)
Non-operating pension expense	4	36	25	429
Total	\$ 44	\$ 83	\$ 167	\$ 414

(e) Includes the following pre-tax charges (gains):

In millions	2018			
	Q1	Q2	Q3	Q4
North American Consumer Packaging transaction costs	\$ 23	\$ 2	\$ —	\$ —
North American Consumer Packaging gain on transfer	(516)	28	—	—
Total	\$ (493)	\$ 30	\$ —	\$ —

(f) Includes the following tax expenses (benefits):

In millions	2018			
	Q1	Q2	Q3	Q4
State income tax legislative changes	\$ —	\$ 9	\$ —	\$ —
Tax benefit of Tax Cuts and Jobs Act	—	—	(36)	—
Internal investment restructuring	—	—	—	19
Foreign tax audits	—	—	—	25
Tax impact of other special items	(9)	(13)	(46)	3
Tax impact of non-operating pension expense	(1)	(9)	(6)	(107)
Total	\$ (10)	\$ (13)	\$ (88)	\$ (60)

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

As of December 31, 2019, an evaluation was carried out under the supervision and with the participation of the Company's management, including our principal executive officer and principal financial officer, of the effectiveness of our disclosure controls and procedures (as that term is defined in Rule 13a-15(f) and 15d-15(f) of the Exchange Act). Based upon this evaluation, our principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2019.

The Company completed the acquisitions of four packaging businesses located in Portugal (Ovar), France (Torigni and Cabourg), and Spain (Tavernes de la Vallidigna and Montblanc) over the course of 2019. Due to the timing of these acquisitions, we have excluded these businesses from our evaluation of the effectiveness of internal control over financial reporting. For the period ended December 31, 2019, sales and assets for these businesses represented approximately 0.4% of net sales and 0.6% of total assets.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There have been no changes in our internal control over financial reporting during the quarter ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

[See Item 8. Financial Statements and Supplementary Data](#) on pages 37 and 38 of this Form 10-K for management's annual report on our internal control over financial reporting and the attestation report of our independent public accounting firm.

ITEM 9B. OTHER INFORMATION

None.

PART III.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information concerning our directors is hereby incorporated by reference to our definitive proxy statement that will be filed with the Securities and Exchange Commission (SEC) within 120 days of the close of our fiscal year. The Audit and Finance

Committee of the Board of Directors has at least one member who is a financial expert, as that term is defined in Item 401(d)(5) of Regulation S-K. Further information concerning the composition of the Audit and Finance Committee and our audit committee financial experts is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year. Information with respect to our executive officers is set forth on pages 4 through 6 in [Part I](#) of this Form 10-K under the caption, "[Information About Our Executive Officers.](#)"

Executive officers of International Paper are elected to hold office until the next annual meeting of the Board of Directors following the annual meeting of shareholders and, until the election of successors, subject to removal by the Board.

The Company's Code of Business Ethics (Code) is applicable to all employees of the Company, including the chief executive officer and senior financial officers, as well as the Board of Directors. We disclose any amendments to our Code and any waivers from a provision of our Code granted to our directors, chief executive officer and senior financial officers on our website within four business days following such amendment or waiver. To date, no waivers of the Code have been granted.

We make available free of charge on our website at www.internationalpaper.com, and in print to any shareholder who requests them, our Corporate Governance Principles, our Code of Business Ethics and the Charters of our Audit and Finance Committee, Management Development and Compensation Committee, Governance Committee and Public Policy and Environment Committee. Requests for copies may be directed to the corporate secretary at our corporate headquarters.

Information with respect to compliance with Section 16(a) of the Exchange Act and our corporate governance is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year.

ITEM 11. EXECUTIVE COMPENSATION

Information with respect to the compensation of executives and directors of the Company is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year.

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

A description of the security ownership of certain beneficial owners and management and equity

compensation plan information is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year.

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

A description of applicable information with respect to certain relationships and related transactions and director independence matters, is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information with respect to fees paid to, and services rendered by, our independent registered public accounting firm, and our policies and procedures for pre-approving those services, is hereby incorporated by reference to our definitive proxy statement that will be filed with the SEC within 120 days of the close of our fiscal year.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (1) Financial Statements – See [Item 8. Financial Statements and Supplementary Data](#).
- (2) Financial Statement Schedules – The following additional financial data should be read in conjunction with the consolidated financial statements in [Item 8. Financial Statements and Supplementary Data](#). Schedules not included with this additional financial data have been omitted because they are not applicable, or the required information is shown in the consolidated financial statements or the notes thereto.

Additional Financial Data **2019, 2018 and 2017**

- (2.1) [Transaction Agreement, dated October 23, 2017, by and among the Company, Graphic Packaging Holding Company, Gazelle Newco LLC and Graphic Packaging International, Inc. \(incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K dated October 24, 2017\).](#)
- (3.1) [Restated Certificate of Incorporation of the Company \(incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated May 13, 2013\).](#)

- (3.2) [By-laws of the Company, as amended through February 9, 2016 \(incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated February 8, 2016\).](#)
- (4.1) [Indenture, dated as of April 12, 1999, between the Company and The Bank of New York, as Trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 16, 2000\).](#)
- (4.2) [Supplemental Indenture \(including the form of Notes\), dated as of June 4, 2008, between the Company and The Bank of New York, as Trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 4, 2008\).](#)
- (4.3) [Supplemental Indenture \(including the form of Notes\), dated as of May 11, 2009, between International Paper Company and The Bank of New York Mellon, as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated May 11, 2009\).](#)
- (4.4) [Supplemental Indenture \(including the form of Notes\), dated as of August 10, 2009, between the Company and The Bank of New York Mellon, as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated August 10, 2009\).](#)
- (4.5) [Supplemental Indenture \(including the form of Notes\), dated as of December 7, 2009, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated December 7, 2009\).](#)
- (4.6) [Supplemental Indenture \(including the form of Notes\), dated as of November 16, 2011, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated November 16, 2011\).](#)
- (4.7) [Supplemental Indenture \(including the form of Notes\), dated as of June 10, 2014, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 10, 2014\).](#)
- (4.8) [Supplemental Indenture \(including the form of Notes\), dated as of May 26, 2015, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated May 26, 2015\).](#)

(4.9)	Supplemental Indenture (including the form of Notes), dated as of August 11, 2016, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated August 11, 2016).	(10.6)	Form of Performance Share Plan award certificate (incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017). +
(4.10)	Supplemental Indenture (including the form of Notes), dated as of August 9, 2017, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated August 9, 2017).	(10.7)	Pension Restoration Plan for Salaried Employees (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009). +
(4.11)	Supplemental Indenture (including the form of Notes), dated as of June 10, 2019, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 10, 2019).	(10.8)	Amendment Number One to the International Paper Pension Restoration Plan for Salaried Employees effective January 1, 2013.* +
(4.12)	In accordance with Item 601 (b) (4) (iii) (A) of Regulation S-K, certain instruments respecting long-term debt of the Company have been omitted but will be furnished to the Commission upon request.	(10.9)	Amendment Number Two to the International Paper Pension Restoration Plan for Salaried Employees effective January 1, 2013.* +
(4.13)	Description of Securities.*	(10.10)	Amendment Number Three to the International Paper Pension Restoration Plan for Salaried Employees effective January 1, 2015.* +
(10.1)	Amended and Restated 2009 Incentive Compensation Plan (ICP) (corrected version of a previously filed exhibit) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019). +	(10.11)	Amendment Number Four to the International Paper Pension Restoration Plan for Salaried Employees effective July 1, 2014.* +
(10.2)	Restricted Stock and Deferred Compensation Plan for Non-Employee Directors, Amended and Restated as of May 10, 2010 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010). +	(10.12)	Amendment Number Five to the International Paper Pension Restoration Plan for Salaried Employees effective January 1, 2019.* +
(10.3)	Form of Restricted Stock Award Agreement (incorporated by reference to Exhibit 10.3 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017). +	(10.13)	Unfunded Supplemental Retirement Plan for Senior Managers, as amended and restated effective January 1, 2008 (incorporated by reference to Exhibit 10.21 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007). +
(10.4)	Form of Restricted Stock Unit Award Agreement (cash settled) (incorporated by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017). +	(10.14)	Amendment No. 1 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective October 13, 2008 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K dated October 17, 2008). +
(10.5)	Form of Restricted Stock Unit Award Agreement (stock settled) (incorporated by reference to Exhibit 10.5 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017). +	(10.15)	Amendment No. 2 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective October 14, 2008 (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K dated October 17, 2008). +
		(10.16)	Amendment No. 3 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective December 8, 2008 (incorporated by reference to Exhibit 10.20 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008). +

- (10.17) [Amendment No. 4 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective January 1, 2009 \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009\).](#) +
- (10.18) [Amendment No. 5 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective October 31, 2009 \(incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009\).](#) +
- (10.19) [Amendment No. 6 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers, effective January 1, 2012 \(incorporated by reference to Exhibit 10.21 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2011\).](#) +
- (10.20) [Amendment No. 7 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers effective July 12, 2016.*](#) +
- (10.21) [Amendment No. 8 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers effective January 1, 2019.*](#) +
- (10.22) [Amendment No. 9 to the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers effective November 1, 2019 \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019\).](#) †
- (10.23) [Form of Non-Competition Agreement, entered into by certain Company employees \(including named executive officers\) who have received restricted stock \(incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008\).](#) +
- (10.24) [Form of Non-Solicitation Agreement, entered into by certain Company employees \(including named executive officers\) who have received restricted stock \(incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006\).](#) +
- (10.25) [Form of Change-in-Control Agreement - Tier I, for the Chief Executive Officer and all "grandfathered" senior vice presidents elected prior to 2012 \(all but one named executive officer\) - approved September 2013 \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013\).](#) +
- (10.26) [Form of Change-in-Control Agreement - Tier II, for all future senior vice presidents and all "grandfathered" vice presidents \(one named executive officer\) elected prior to February 2008 - approved September 2013 \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013\).](#) +
- (10.27) [Form of Indemnification Agreement for Directors \(incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003\).](#) +
- (10.28) [Board Policy on Severance Agreements with Senior Executives \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 18, 2005\).](#) +
- (10.29) [Board Policy on Change of Control Agreements \(incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on October 18, 2005\).](#) +
- (10.30) [Time Sharing Agreement, dated October 17, 2014 \(and effective November 1, 2014\), by and between Mark S. Sutton and International Paper Company \(incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K dated October 14, 2014\).](#) +
- (10.31) [Five-Year Credit Agreement dated as of December 12, 2016, among International Paper Company, JPMorgan Chase Bank, N.A., individually and as administrative agent, and certain lenders \(incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed June 6, 2017\).](#)
- (10.32) [Commitment Agreement, dated September 26, 2017, between International Paper Company and The Prudential Insurance Company of America, relating to the Retirement Plan of International Paper Company \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017\).](#) †
- (10.33) [Credit Agreement, dated December 8, 2017, by and among the Company, Bank of America, N.A. and BNP Paribas \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed December 12, 2017\).](#)

(10.34)	Commitment Agreement, dated September 25, 2018, between International Paper Company and Prudential Insurance Company of America, relating to the Retirement Plan of International Paper Company (corrected version of previously filed exhibit) (incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018). * +
(21)	Subsidiaries and Joint Ventures.*
(23.1)	Consent of Independent Registered Public Accounting Firm.*
(23.2)	Consent of Independent Auditors.*
(24)	Power of Attorney (contained on the signature page to the Company's Annual Report on Form 10-K for the year ended December 31, 2019).*
(31.1)	Certification by Mark S. Sutton, Chairman and Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
(31.2)	Certification by Tim S. Nicholls, Senior Vice President and Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
(32)	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**
(99.1)	Audited Financial Statements for Ilim S.A. and its subsidiaries as of and for the year ended December 31, 2019 and 2018.*

(101.INS)	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document.*
(101.SCH)	XBRL Taxonomy Extension Schema *
(101.CAL)	XBRL Taxonomy Extension Calculation Linkbase *
(101.DEF)	XBRL Taxonomy Extension Definition Linkbase *
(101.LAB)	XBRL Taxonomy Extension Label Linkbase *
(101.PRE)	XBRL Extension Presentation Linkbase *

+ Management contract or compensatory plan or arrangement.

* Filed herewith

** Furnished herewith

† Confidential treatment has been granted for certain information pursuant to Rule 24b-2 under the Securities Act of 1934, as amended.

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.

INTERNATIONAL PAPER COMPANY

By: _____ /s/ SHARON R. RYAN
Sharon R. Ryan
Senior Vice President, General Counsel
and Corporate Secretary

February 19, 2020

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Sharon R. Ryan and Matthew Barron as his or her true and lawful attorney-in-fact and agent, acting alone, with full power of substitution and resubstitution for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments to this annual report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing requisite or necessary to be done, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ MARK S. SUTTON</u> Mark S. Sutton	Chairman of the Board & Chief Executive Officer and Director	February 19, 2020
<u>/s/ WILLIAM J. BURNS</u> William J. Burns	Director	February 19, 2020
<u>/s/ CHRISTOPHER M. CONNOR</u> Christopher M. Connor	Director	February 19, 2020
<u>/s/ AHMET C. DORDUNCU</u> Ahmet C. Dorduncu	Director	February 19, 2020
<u>/s/ ILENE S. GORDON</u> Ilene S. Gordon	Director	February 19, 2020
<u>/s/ ANDERS GUSTAFSSON</u> Anders Gustafsson	Director	February 19, 2020

<u>/s/ JACQUELINE C. HINMAN</u> Jacqueline C. Hinman	Director	February 19, 2020
<u>/s/ CLINTON A. LEWIS, JR.</u> Clinton A. Lewis, Jr.	Director	February 19, 2020
<u>/S/ KATHRYN D. SULLIVAN</u> Kathryn D. Sullivan	Director	February 19, 2020
<u>/s/ J. STEVEN WHISLER</u> J. Steven Whisler	Director	February 19, 2020
<u>/s/ RAY G. YOUNG</u> Ray G. Young	Director	February 19, 2020
<u>/s/ TIMOTHY S. NICHOLLS</u> Timothy S. Nicholls	Senior Vice President and Chief Financial Officer	February 19, 2020
<u>/s/ VINCENT P. BONNOT</u> Vincent P. Bonnot	Vice President – Finance and Controller	February 19, 2020

2019 LISTING OF FACILITIES

(all facilities are owned except noted otherwise)

PRINTING PAPERS	Rome, Georgia	Stockton, California
	Savannah, Georgia	Tracy, California
Uncoated Papers	Cayuga, Indiana	Golden, Colorado
U.S.:	Cedar Rapids, Iowa	Wheat Ridge, Colorado
Selma, Alabama (Riverdale Mill)	Henderson, Kentucky	Putnam, Connecticut
Ticonderoga, New York	Maysville, Kentucky	Orlando, Florida
Eastover, South Carolina	Bogalusa, Louisiana	Plant City, Florida
Georgetown, South Carolina	Campti, Louisiana	<i>Tampa, Florida leased</i>
Sumter, South Carolina	Mansfield, Louisiana	Columbus, Georgia
	Vicksburg, Mississippi	Forest Park, Georgia
International:	Valliant, Oklahoma	Griffin, Georgia
Luiz Antônio, São Paulo, Brazil	Springfield, Oregon	<i>Kennesaw, Georgia leased</i>
Mogi Guacu, São Paulo, Brazil	Orange, Texas	Lithonia, Georgia
Três Lagoas, Mato Grosso do Sul, Brazil		Savannah, Georgia
Saillat, France	International:	<i>Tucker, Georgia</i>
Kadium, India ²	Franco da Rocha, São Paulo, Brazil	Aurora, Illinois (3 locations)
Rajahmundry, India ²	Nova Campina, São Paulo, Brazil	<i>Bedford Park, Illinois (2 locations) 1 leased</i>
Kwidzyn, Poland	Paulinia, São Paulo, Brazil	Belleville, Illinois
Svetogorsk, Russia	Veracruz, Mexico	Carol Stream, Illinois
	Kenitra, Morocco	Des Plaines, Illinois
GLOBAL CELLULOSE FIBERS	Madrid, Spain	Lincoln, Illinois
		Montgomery, Illinois
Pulp	Corrugated Container	Northlake, Illinois
U.S.:	U.S.:	Rockford, Illinois
Cantonment, Florida (Pensacola Mill)	Bay Minette, Alabama	Butler, Indiana
Flint River, Georgia	Decatur, Alabama	Crawfordsville, Indiana
Port Wentworth, Georgia	<i>Dothan, Alabama leased</i>	Fort Wayne, Indiana
Columbus, Mississippi	Huntsville, Alabama	Indianapolis, Indiana (2 locations)
New Bern, North Carolina	Conway, Arkansas	Saint Anthony, Indiana
Riegelwood, North Carolina	Fort Smith, Arkansas (2 locations)	Tipton, Indiana
Eastover, South Carolina	Russellville, Arkansas (2 locations)	Cedar Rapids, Iowa
Georgetown, South Carolina	Tolleson, Arizona	Waterloo, Iowa
Franklin, Virginia	Yuma, Arizona	Garden City, Kansas
	Anaheim, California	Kansas City, Kansas
International:	<i>Buena Park, California leased</i>	Bowling Green, Kentucky
Grande Prairie, Alberta, Canada	Camarillo, California	Lexington, Kentucky
Saillat, France	<i>Carson, California</i>	Louisville, Kentucky
Gdansk, Poland	<i>Cerritos, California leased</i>	Walton, Kentucky
Kwidzyn, Poland	Compton, California	Bogalusa, Louisiana
Svetogorsk, Russia	Elk Grove, California	Lafayette, Louisiana
	Exeter, California	Shreveport, Louisiana
INDUSTRIAL PACKAGING	Gilroy, California (2 locations)	Springhill, Louisiana
	Los Angeles, California	Auburn, Maine
Containerboard	Modesto, California	Three Rivers, Michigan
U.S.:	Ontario, California	Arden Hills, Minnesota
Pine Hill, Alabama	Salinas, California	Austin, Minnesota
Prattville, Alabama	Sanger, California	Fridley, Minnesota
Cantonment, Florida (Pensacola Mill)	Santa Fe Springs, California (2 locations)	<i>Minneapolis, Minnesota leased</i>

Shakopee, Minnesota	Laurens, South Carolina	San Jose Iturbide, Mexico
White Bear Lake, Minnesota	Lexington, South Carolina	Santa Catarina, Mexico
Houston, Mississippi	<i>Ashland City, Tennessee leased</i>	Silao, Mexico
Jackson, Mississippi	Cleveland, Tennessee	Toluca, Mexico
<i>Magnolia, Mississippi leased</i>	<i>Elizabethton, Tennessee leased</i>	Villa Nicolas Romero, Mexico ¹
Olive Branch, Mississippi	Morristown, Tennessee	Zapopan, Mexico
Fenton, Missouri	Murfreesboro, Tennessee	Agadir, Morocco
Kansas City, Missouri	Amarillo, Texas	Casablanca, Morocco
Maryland Heights, Missouri	Carrollton, Texas (2 locations)	Tangier, Morocco
<i>North Kansas City, Missouri leased</i>	Edinburg, Texas	Ovar, Portugal
St. Joseph, Missouri	El Paso, Texas	Barcelona, Spain
St. Louis, Missouri	<i>Ft. Worth, Texas leased</i>	Bilbao, Spain
Omaha, Nebraska	Grand Prairie, Texas	Gandia, Spain
Barrington, New Jersey	Hidalgo, Texas	Las Palmas, Spain
Bellmawr, New Jersey	McAllen, Texas	Madrid, Spain
Milltown, New Jersey	San Antonio, Texas (2 locations)	Montblanc, Spain
Spotswood, New Jersey	Sealy, Texas	Tavernes de la Valldigna, Spain
Thorofare, New Jersey	Waxahachie, Texas	Tenerife, Spain
Binghamton, New York	Lynchburg, Virginia	Adana, Turkey
Buffalo, New York	Petersburg, Virginia	Bursa, Turkey
Rochester, New York	Richmond, Virginia	Corlu, Turkey ⁴
Scotia, New York	Moses Lake, Washington	Corum, Turkey
Utica, New York	Olympia, Washington	Gebze, Turkey
<i>Charlotte, North Carolina (2 locations) 1 leased</i>	Yakima, Washington	Izmir, Turkey
Lumberton, North Carolina	Fond du Lac, Wisconsin	
Manson, North Carolina	Manitowoc, Wisconsin	Recycling
Newton, North Carolina		U.S.:
Statesville, North Carolina	International:	Phoenix, Arizona
Byesville, Ohio	Manaus, Amazonas, Brazil	Fremont, California
Delaware, Ohio	Paulinia, São Paulo, Brazil	Norwalk, California
Eaton, Ohio	Rio Verde, Goias, Brazil	West Sacramento, California
Madison, Ohio	Suzano, São Paulo, Brazil	Itasca, Illinois
Marion, Ohio	Rancagua, Chile	Des Moines, Iowa
<i>Marysville, Ohio leased</i>	Arles, France	Wichita, Kansas
Middletown, Ohio	Cabourg, France	Roseville, Minnesota
Mt. Vernon, Ohio	Chalon-sur-Saone, France	Omaha, Nebraska
Newark, Ohio	Creil, France ³	Charlotte, North Carolina
Streetsboro, Ohio	LePuy, France (Espaly Box Plant)	Beaverton, Oregon
Wooster, Ohio	Mortagne, France	<i>Springfield, Oregon leased</i>
Oklahoma City, Oklahoma	Saint Amand, France	Carrollton, Texas
Beaverton, Oregon (3 locations)	Guadeloupe, French West Indies	Salt Lake City, Utah
Hillsboro, Oregon	Bellusco, Italy	Richmond, Virginia
Portland, Oregon	Catania, Italy	Kent, Washington
<i>Salem, Oregon leased</i>	Pomezia, Italy	
Biglerville, Pennsylvania (2 locations)	San Felice, Italy	International:
Eighty-four, Pennsylvania	<i>Apodaco (Monterrey), Mexico leased</i>	<i>Monterrey, Mexico leased</i>
Hazleton, Pennsylvania	Ixtaczoquitlan, Mexico	<i>Xalapa, Veracruz, Mexico leased</i>
Kennett Square, Pennsylvania	<i>Juarez, Mexico leased</i>	
Lancaster, Pennsylvania	Los Mochis, Mexico	
Mount Carmel, Pennsylvania	<i>Puebla, Mexico leased</i>	
Georgetown, South Carolina	Reynosa, Mexico	

Bags

U.S.:

Buena Park, California

Beaverton, Oregon

Grand Prairie, Texas

Coated Paperboard

International:

Kwidzyn, Poland

Svetogorsk, Russia

DISTRIBUTION

IP Asia

International:

Guangzhou, China leased

Hong Kong, China leased

Shanghai, China leased

Japan leased

Korea leased

Singapore leased

FOREST RESOURCES

International:

Approximately 329,400 acres

in Brazil

1) Closed July 2019

2) Sold October 2019

3) Sold March 2019

4) Closed April 2019

2019 CAPACITY INFORMATION

<i>(in thousands of short tons except as noted)</i>	U.S.	EMEA	Americas, other than U.S.	Total
Industrial Packaging				
Containerboard ^(a)	13,507	302	364	14,173
Coated Paperboard	—	443	—	443
Total Industrial Packaging	13,507	745	364	14,616
Global Cellulose Fibers				
Dried Pulp <i>(in thousands of metric tons)</i>	2,988	268	489	3,745
Printing Papers				
Uncoated Freesheet & Bristols ^(b)	1,959	1,152	1,135	4,246
Newsprint	—	96	—	96
Total Printing Papers	1,959	1,248	1,135	4,342

(a) In addition to Containerboard, this also includes saturated kraft, kraft bag, and gypsum.

(b) In addition to Uncoated Freesheet and Bristols, includes bleached multiwall bag and plate.

Forest Resources

We own, manage or have an interest in approximately 1.2 million acres of forestlands worldwide. These forestlands and associated acres are located in the following regions:		(M Acres)
Brazil		329
We have harvesting rights in:		
Russia		862
Total		1,191

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

As of December 31, 2019, International Paper Company (the "Company," "we," "us" and "our") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our Common Stock.

Description of Common Stock

The following description of our common stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the actual terms and provisions contained in our Restated Certificate of Incorporation (the "Certificate of Incorporation") and our Bylaws (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.12 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the New York Business Corporation Law ("NYBCL"), for additional information.

Authorized Shares of Capital Stock

Our authorized capital stock at December 31, 2019 consisted of 990,850,000 shares of common stock, \$1.00 par value; 400,000 shares of cumulative \$4 preferred stock, without par value (stated value \$100 per share); and 8,750,000 shares of serial preferred stock, \$1 par value.

Fully Paid and Nonassessable

The outstanding shares of common stock are fully paid and nonassessable.

Voting Rights

The common stock holders are entitled to one vote per share on all matters submitted to a vote of shareholders and do not have cumulative voting rights. At a meeting of stockholders, all questions shall be decided by a majority vote of a quorum at a meeting whether present in person or by proxy at the meeting, unless the matter is one upon which a different vote is required by law or by the Certificate of Incorporation, other certificate filed pursuant to law or the Bylaws. Our Certificate of Incorporation provides for the annual election of our directors.

Dividends

Subject to the rights of the holders of any shares of our preferred stock or \$4 preferred stock, which may at the time be outstanding, common stock holders are entitled to receive dividends as may be declared at various times by the board of directors out of legally available funds.

Absence of Other Rights

The common stock holders have no preemptive, conversion or redemption rights.

Liquidation Rights

Common stock holders are entitled to receive, upon any liquidation of International Paper, all remaining assets available for distribution to shareholders after satisfaction of our liabilities and the preferential rights of any preferred stock that may then be issued and outstanding.

Listing

Our common stock is listed on the New York Stock Exchange under the symbol "IP."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Description of Serial Preferred Stock

The following description of our serial preferred stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the actual terms and provisions contained in our Certificate of Incorporation which is incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.12 is a part. Additionally, you should read the terms of any series of preferred stock, which will be described in more detail in an applicable prospectus supplement. If indicated in an applicable prospectus supplement, the terms of any series may differ from the terms described below. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the NYBCL, for additional information.

Terms of Preferred Stock to Be Offered

Any prospectus supplement offering our preferred stock will furnish the following information with respect to the preferred stock offered by that prospectus supplement:

- titles and number of shares;
- dividend rates;
- any redemption provisions;
- special or relative rights in the event of the liquidation, dissolution, distribution or winding up of International Paper;
- any sinking fund provisions;
- any conversion provisions;
- any voting rights; and
- any other preferences, privileges, powers, rights, qualifications, limitations and restrictions, as will be described as and when established by our board of directors.

The shares of each series of preferred stock will be, when issued, fully paid and non-assessable and holders will have no preemptive rights in connection with the shares.

So long as any shares of \$4 preferred stock are outstanding, the preferences, privileges and voting powers, if any, of the shares of preferred stock of any series, and the restrictions or qualifications thereof will be subject to the

preferences, privileges and voting powers, if any, of the shares of \$4 preferred stock and the restrictions and qualifications of those shares.

Rank

Each series of preferred stock will, regarding rights on liquidation, winding up and dissolution, rank:

- senior to all classes of common stock and to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank junior to each series of preferred stock. We refer to these securities as the junior liquidation securities;
- on a parity with all equity securities issued by us, the terms of which specifically provide that the equity securities will rank on a parity with each series of preferred stock. We refer to these securities as parity liquidation securities; and
- junior to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank senior to each series of preferred stock, including any \$4 preferred stock.

In addition, each series of preferred stock will, regarding dividend rights, rank:

- senior to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank junior to each series of preferred stock and, to the extent provided in the applicable certificate of designation, to common stock;
- on a parity with all equity securities issued by us, the terms of which specifically provide that the equity securities will rank on a parity with each series of preferred stock and, to the extent provided in the applicable certificate of designation, to common stock parity dividend securities; and
- junior to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank senior to each series of preferred stock, including any \$4 preferred stock. As used in any certificate of designation for these purposes, the term equity securities will not include debt securities convertible into or exchangeable for equity securities.

Dividends

Preferred stock holders will be entitled to receive, when and if declared by our board of directors out of legally available funds, cash dividends at the rates and on the dates described in an applicable prospectus supplement. Dividends will be payable to holders of record of preferred stock as they appear on our books, or if applicable, the records of the depository on the record dates fixed by our board of directors. Dividends on any series of preferred stock may be cumulative or non-cumulative.

No full dividends may be declared or paid on funds set apart for the payment of dividends on any series of preferred stock, unless dividends will have been paid or set apart for the payment on the parity dividend securities. If full dividends are not so paid, each series of preferred stock will share dividends pro rata with the parity dividend securities.

Voting Rights

Except as indicated below or in an applicable prospectus supplement relating to a particular series of preferred stock or except as expressly required by applicable law, the holders of shares of preferred stock will have no voting rights.

Liquidation Preference

Upon any voluntary or involuntary liquidation, dissolution or winding up of International Paper, holders of each series of preferred stock that ranks senior to the junior liquidation securities will be entitled to receive, out of our assets available for distribution to shareholders, before any distribution is made on any junior liquidation securities (including common stock), distributions upon liquidation in the amount described in an applicable prospectus supplement relating to each series of preferred stock, plus any accrued and unpaid dividends.

If, upon any voluntary or involuntary liquidation, dissolution or winding up of International Paper, the amounts payable regarding the preferred stock of any series and any other parity liquidation securities are not paid in full, the holders of the preferred stock of the series and the parity liquidation securities will share ratably in any distribution of our assets, in proportion to the full liquidation preferences to which each is entitled. After payment of the full amount of the liquidation preference to which they are entitled, the holders of each series of preferred stock will not be entitled to any further participation in any distribution of our assets.

Conversion and Exchange Rights

The applicable prospectus supplement for each series of preferred stock will state the terms, if any, that shares of such series are convertible into shares of another series of preferred stock or common stock or exchangeable for another series of preferred stock, common stock or debt securities of ours. Our common stock is described above under the caption "Description of Common Stock."

Redemption

A series of preferred stock may be redeemable at any time, in whole or in part, at our option or the option of the holders of the shares and may be subject to mandatory redemption pursuant to a sinking fund or otherwise upon terms and at the redemption prices described in the applicable prospectus supplement relating to the series.

In the event of partial redemptions of preferred stock, whether by mandatory or optional redemption, the shares to be redeemed will be determined by lot or pro rata, as may be determined by our board of directors, or by any other method determined by our board of directors to be equitable. On and after a redemption date, unless we default in the payment of the redemption price, dividends will cease to accrue on shares of preferred stock that are called for redemption, and all rights of the holders of the shares will end except for the right to receive the redemption price.

Description of Cumulative Preferred Stock

The following description of our cumulative preferred stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the actual terms and provisions contained in our Certificate of Incorporation and our Bylaws, each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.12 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the NYBCL, for additional information.

Dividends

Our \$4 preferred stock is senior to the common stock and the preferred stock as to the payment of dividends and distributions of assets on liquidation, dissolution or winding up of International Paper. The \$4 preferred stock bears a dividend of \$4.00 per share per annum from our surplus or net profits, but only when and as declared by our board of directors. Dividends on the \$4 preferred stock are cumulative. Such dividends are payable quarterly in each year on the dates as at various times may be fixed by our board of directors. Accumulated dividends do not bear interest.

If dividends on any outstanding shares of the \$4 preferred stock for all past quarterly dividend periods and the then current quarterly period have not been paid in full or declared and set apart for payment, no dividends, other than those dividends payable in stock ranking junior to the \$4 preferred stock, will be declared or paid or set apart for payment on, nor will any distribution be made to, any class of stock ranking junior to the \$4 preferred stock.

Voting Rights

Holders of the \$4 preferred stock have no general voting rights but have the right to vote in specified circumstances.

If at the time of any annual meeting of shareholders, dividends have not been paid on the shares of the \$4 preferred stock in an aggregate amount equal to four full quarterly dividends, whether consecutive or not, then at the annual meeting, the holders of the \$4 preferred stock will have the sole right, to the exclusion of all other classes of stock, to vote for and elect one-third, or the nearest whole number thereto, of the total number of directors to be elected at the annual meeting and thereafter at all meetings for the election of directors until all arrearages of dividends accumulated on the \$4 preferred stock for all preceding dividend periods have been paid or declared and set apart for payment. Whenever all arrearages of dividends have been paid or declared and set apart for payment, all powers of the holders of the \$4 preferred stock to vote for directors will end, and the tenure of all directors elected by them will automatically end.

So long as any shares of the \$4 preferred stock are outstanding, we may not, without first obtaining a majority vote of the holders of the outstanding shares of the \$4 preferred stock:

- increase the authorized number of shares of \$4 preferred stock;
- authorize, create or issue stock of any class ranking on a parity with the \$4 preferred stock as to the payment of dividends or distributions upon dissolution, liquidation or winding up; or
- sell, lease or otherwise dispose of all or substantially all of our assets, otherwise than by merger or consolidation.

In addition, so long as any shares of \$4 preferred stock are outstanding, we may not, without first obtaining the vote of holders of at least two-thirds of the outstanding shares of \$4 preferred stock, authorize, create or issue stock of any class ranking, as to the payment of dividends or distribution upon dissolution, liquidation or winding up, senior to the \$4 preferred stock.

Our Certificate of Incorporation provides that for so long as any shares of preferred stock are outstanding, we will not issue any shares of \$4 preferred stock without first obtaining the affirmative vote of the holders of at least a majority of the outstanding shares of preferred stock.

Liquidation Preference

Upon the dissolution, liquidation or winding up of International Paper, the holders of the \$4 preferred stock will be entitled to receive out of our net assets, whether represented by capital or surplus, the following:

- if the dissolution, liquidation or winding up is voluntary, cash in an amount per share of \$105; and
- if the dissolution, liquidation or winding up is involuntary, cash in the amount of \$100 per share.

In addition, holders will be entitled to receive, in either case, an amount equal to all dividends accrued and unpaid on shares up to and including the date fixed for distribution, whether or not earned or declared and, in either case, before any distribution of the assets to be distributed is made to the holders of stock ranking junior to the \$4 preferred stock.

Certain Provisions of the NYBCL and Our Certificate of Incorporation and Bylaws

The following paragraphs summarize certain provisions of the NYBCL and our Certificate of Incorporation and Bylaws. The summary does not purport to be complete and is subject to and qualified in its entirety by reference to the actual terms and provisions contained in our Certificate of Incorporation and our Bylaws, each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.12 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the NYBCL, for additional information.

Anti-Takeover Effects

Provisions in our Certificate of Incorporation and Bylaws and anti-takeover provisions of the NYBCL could discourage, delay or prevent an unsolicited change in control of our company, which could adversely affect the price of our common stock. These provisions may also have the effect of making it more difficult for third parties to replace our current management without the consent of the board of directors.

Special Meetings of Stockholders

Our Certificate of Incorporation and Bylaws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by our chairman of the board, a majority of our board of directors, by the President or upon the written request of the stockholders holding no less than twenty percent of the common stock of the Company.

Additional Authorized Shares of Capital Stock

Our Certificate of Incorporation permits our board of directors, in its absolute discretion, at any time, and from time to time, without any action by the stockholders of the Company and whether or not in connection with the issue or sale of any shares of stock or other securities of the Company, to grant rights entitling the holders thereof to purchase from the Company any shares of its capital stock.

Provisions of NYBCL Governing Business Combinations

We are subject to the provisions of Section 912 of the NYBCL which prohibits a New York domestic corporation with a class of voting stock subject to Section 12 of the Exchange Act from engaging in any “business combination” with any “interested shareholder” for a period of five years from the date that such shareholder became an interested shareholder unless the business combination or such interested shareholder's purchase of stock is approved by the board of directors of the corporation prior to such shareholder becoming an interest shareholder. An “interested shareholder” is defined as any person that (a) is the beneficial owner, directly or indirectly, of 20% or more of the

outstanding voting stock of the New York resident domestic corporation or (b) is an affiliate or associate of the corporation that at any time during the five years prior was the beneficial owner, directly or indirectly, of 20% or more of the then outstanding voting stock. A "business combination" includes a merger or consolidation, a sale, lease, exchange, mortgage, pledge, transfer or other disposition of assets, a stock issuance or transfer, a liquidation or dissolution, a reclassification of securities, a recapitalization, or any transaction in which an interest shareholder or its affiliates or associates benefits disproportionately in relation to any other shareholder.

Even if an interested shareholder waits five years, the business combination is prohibited unless either:

- the business combination or the purchase of stock by such interested shareholder was approved by the board of directors of the corporation prior to such shareholder becoming an interested shareholder;
- the business combination is approved by a majority vote of all outstanding shares of stock not beneficially owned by such interested shareholder or its affiliates or associates at a meeting held at least five years after such interested shareholder becomes an interested shareholder; or
- the price paid to all shareholders meets certain statutory fair price requirements.

**AMENDMENT NUMBER ONE
TO THE
INTERNATIONAL PAPER COMPANY
PENSION RESTORATION PLAN
FOR SALARIED EMPLOYEES**

The International Paper Company Pension Restoration Plan for Salaried Employees, as amended and restated effective January 1, 2009 (the "Plan") is hereby amended effective January 1, 2013, by adding the following new Article VI:

**ARTICLE VI
PARTICIPATION OF FORMER EMPLOYEES OF TIN INC.**

6.01 **Eligibility and Effective Date.** Active employees of TIN Inc. as of December 31, 2012, who (a) were not employed in the Building Products Division of TIN Inc.; (b) were hired prior to January 1, 2012; and (c) were Participants in the Temple-Inland Retirement Plan, as in effect on December 31, 2012; shall become Eligible Participants in the Plan effective as of January 1, 2013.

6.02 **Vesting Service.** Those who become Eligible Participants as described in Section 6.01 shall receive Vesting Service as defined in Article II, under the Plan prospectively beginning January 1, 2013. Each such Eligible Participant's Vesting Service through December 31, 2012, shall be as determined under the Temple-Inland Retirement Plan.

6.03 **Benefit Amount.** For purposes of Section 3.01 of the Plan, the Benefit Amount for an Eligible Participant as described in Section 6.01 shall be determined by adding (a) and (b) where:

(a) for an Eligible Participant as described in Section 6.01 who becomes a participant in the Retirement Plan of International Paper Company ("IP Retirement Plan") on January 1, 2013, equals the Benefit Amount payable at "Normal Retirement Date" (as defined in the IP Retirement Plan) calculated under Section 3.01 using credited service from January 1, 2013, to the date of determination, and using "Final Average Compensation" as defined in the IP Retirement Plan; and

(b) equals the monthly amount as defined in Sections 5.2 and 6.2 of the Temple-Inland Supplemental Executive Retirement Plan ("Temple-Inland SERP"), using credited service thereunder through December 31, 2012, except applying the definition of "Final Average Compensation" in the IP Retirement Plan instead of the definition of "Final Average Monthly Compensation" in the Temple-Inland Retirement Plan (used in the Temple-Inland SERP), and applying the definition of "Compensation" in the IP Retirement Plan as modified in the definition of "Unrestricted Benefit" in Section 1.13 of the Plan. Notwithstanding the foregoing, the definition of "Compensation" under the Temple-Inland Retirement Plan shall be used during periods where a participant is identified as being a "Commissioned Sales Representative" as defined in the Temple-Inland Retirement Plan.

6.04 Frozen Temple-Inland SERP Benefit. For purposes of Section 6.05, this term shall mean the accrued monthly amount as defined in Sections 5.2 and 6.2 under the Temple-Inland SERP as of December 31, 2012.

6.05 Time and Form of Payment of Benefits.

A. The Frozen Temple-Inland SERP Benefit in Section 6.04, limited to the sum of (a) and (b) in Section 6.03, is to be paid in the form of a lump sum payment at the time specified in Article 8 of the Temple-Inland SERP. The amount of any lump sum payable under this section 6.05 will be determined under the provisions of the Temple-Inland SERP.

B. Any amount of the sum of (a) and (b) in Section 6.03 that exceeds the Frozen Temple-Inland SERP Benefit in Section 6.04 will be paid in the form and at the time specified in Article IV of the Plan, with the Eligible Participant able to elect any of the forms of benefit payment offered under the Plan. In determining the amount of the benefit payable under this Section 6.05 (B), (i) the early retirement or early commencement reduction factors in the IP Retirement Plan, if any, shall be applied based on the Eligible Participant's age on his Designated Retirement Date, and (ii) the charge for the Pre-Retirement Surviving Spouse's Benefit coverage, if applicable, shall be determined in the same manner as under the IP Retirement Plan as of the Eligible Participant's Designated Retirement Date. In the event the Eligible Participant has not made a valid benefit election by his Mandatory Payment Date, the charge for the Pre-Retirement Surviving Spouse's Benefit coverage, if applicable, shall be determined based on the last known marital status of the Eligible Participant following his termination of employment with the Company.

**AMENDMENT NUMBER TWO
TO THE
INTERNATIONAL PAPER COMPANY
PENSION RESTORATION PLAN
FOR SALARIED EMPLOYEES**

The International Paper Company Pension Restoration Plan for Salaried Employees, as amended and restated effective January 1, 2009 (the "Plan") is hereby amended effective January 1, 2013, by adding the following new Article VI:

**ARTICLE VI
PARTICIPATION OF FORMER EMPLOYEES OF TIN INC.**

6.01 Eligibility and Effective Date. Active employees of TIN Inc. as of December 31, 2012, who (a) were not employed in the Building Products Division of TIN Inc.; (b) were hired prior to January 1, 2012; and (c) were Participants in the Temple-Inland Retirement Plan, as in effect on December 31, 2012; shall become Eligible Participants in the Plan effective as of January 1, 2013.

6.02 Vesting Service. Those who become Eligible Participants as described in Section 6.01 shall receive Vesting Service as defined in Article II, under the Plan prospectively beginning January 1, 2013. Each such Eligible Participant's Vesting Service through December 31, 2012, shall be as determined under the Temple-Inland Retirement Plan.

6.03 Benefit Amount. For purposes of Section 3.01 of the Plan, the Benefit Amount for an Eligible Participant as described in Section 6.01 shall be determined by adding (a) and (b) where:

(a) for an Eligible Participant as described in Section 6.01 who becomes a participant in the Retirement Plan of International Paper Company ("IP Retirement Plan") on January 1, 2013, equals the Benefit Amount payable at "Normal Retirement Date" (as defined in the IP Retirement Plan) calculated under Section 3.01 using credited service from January 1, 2013, to the date of determination, and using "Final Average Compensation" as defined in the IP Retirement Plan; and

(b) equals the Eligible Participant's monthly amount as defined in Sections 5.2 and 6.2 of the Temple-Inland Supplemental Executive Retirement Plan ("Temple-Inland SERP"), using credited service thereunder through December 31, 2012.

6.04 Frozen Temple-Inland SERP Benefit. For purposes of Section 6.05, this term shall mean the vested accrued monthly amount as defined in Sections 5.2 and 6.2 under the Temple-Inland SERP as of December 31, 2012.

6.05 Time and Form of Payment of Benefits.

A. The Frozen Temple-Inland SERP Benefit in Section 6.04, limited to the sum of (a) and (b) in Section 6.03, is to be paid in the form of a lump sum payment at the time specified in Article 8 of the Temple-Inland SERP. The amount of any lump sum payable under this section 6.05 will be determined under the provisions of the Temple-Inland SERP.

B. Any amount of the sum of (a) and (b) in Section 6.03 that exceeds the Frozen Temple-Inland SERP Benefit in Section 6.04 will be paid in the form and at the time specified in Article IV of the Plan, with the Eligible Participant able to elect any of the forms of benefit payment offered under the Plan. In determining the amount of the benefit payable under this Section 6.05 (B), (i) the early retirement or early commencement reduction factors in the IP Retirement Plan, if any, shall be applied based on the Eligible Participant's age on his Designated Retirement Date, and (ii) the charge for the Pre-Retirement Surviving Spouse's Benefit coverage, if applicable, shall be determined in the same manner as under the IP Retirement Plan as of the Eligible Participant's Designated Retirement Date. In the event the Eligible Participant has not made a valid benefit election by his Mandatory Payment Date, the charge for the Pre-Retirement Surviving Spouse's Benefit coverage, if applicable, shall be determined based on the last known marital status of the Eligible Participant following his termination of employment with the Company.

**AMENDMENT NUMBER THREE
TO THE
INTERNATIONAL PAPER COMPANY
PENSION RESTORATION PLAN
FOR SALARIED EMPLOYEES**

(as amended and restated effective as of January 1, 2009)

WHEREAS, effective as of January 1, 2009, the International Paper Company Pension Restoration Plan for Salaried Employees (the “Plan”) was amended and restated in its entirety;

WHEREAS, pursuant to Section 5.02 of the Plan the Company reserves the right to amend, modify, or terminate the Plan at any time;

WHEREAS, the undersigned is the “Plan Administrator” of the Plan within the meaning of Section 5.01 of the Plan;

WHEREAS, in discharging his responsibility for proper administration of the Plan, the Plan Administrator desires to clarify the way that taxes under the Federal Insurance Contributions Act (“FICA”) are administered with respect to the benefits of Eligible Participants under the Plan; and to state in the definition of “Plan Administrator” the job responsibility of the Plan Administrator without mention of a specific title;

WHEREAS, the Company desires to exclude any employee who is a nonresident alien with respect to the United States and who is not an “Eligible Participant” as defined in the Plan, from designation as a “Specified Employee” as defined in the Plan; and

WHEREAS, on July 11, 2016, the Management Development and Compensation Committee of the Board of Directors delegated its authority to review and approve non-substantive changes to the nonqualified plans of the Company to the administrator for each of such plans;

NOW, THEREFORE, the Plan is amended effective as of January 1, 2015, or such other date specified below, as follows:

1. Section 5.01 is hereby amended by replacing the first sentence thereof with the following: “The Plan Administrator of this Plan shall be the head of the Global Compensation and Benefits function of the Company.”

2. Section 5.05 of the Plan is hereby amended and restated, as follows:

“5.05 Payment of FICA Taxes. At the time Federal Insurance Contributions Act (“FICA”) taxes become due and payable by an Eligible Participant on his benefit under the Plan, the amount of the FICA taxes and any corresponding federal, state or local income tax withholding shall be paid from the Plan on behalf of the Eligible Participant to the U.S. Treasury and other applicable tax authorities, and the Eligible Participant’s benefit shall be reduced by the amount of these tax payments”.

3. Effective on the execution date of this amendment, Section 1.12 of the Plan is hereby amended by adding the following three sentences at the end thereof:

“Effective on **[the execution date of this amendment]**, the election in accordance with paragraph (i)(8) of Treasury Regulations Section 1.409A-1 to apply the rule of Treasury Regulations Section 1.415(c)-2(g)(5)(ii) to not treat as compensation under Section 415 of the Code certain compensation, applies to the Plan. The compensation excluded from consideration under Section 415 is compensation excludible from an employee’s gross income because it is attributable to services performed outside the United States by an employee who is a nonresident alien as defined in Section 7701(b)(1) (B) of the Code, and is not an Eligible Participant, that is not effectively connected with the conduct of a trade or business within the United States. The effect of this election is that an employee who is a nonresident alien and is not an Eligible Participant will not meet the definition of “specified employee” under Section 409A(a)(2)(B)(i) of the Code.”

4. In all respects not amended, the Plan is hereby ratified and confirmed.

IN WITNESS WHEREOF, this amendment is executed this 11th day of July, 2016.

INTERNATIONAL PAPER COMPANY

By: /s/ Mark M. Azzarello

Name: Mark M. Azzarello

Title: Vice President, Global Compensation and
Benefits and as Plan Administrator of
the International Paper Company
Pension Restoration Plan For Salaried
Employees

**AMENDMENT NUMBER FOUR
TO THE
INTERNATIONAL PAPER COMPANY
PENSION RESTORATION PLAN
FOR SALARIED EMPLOYEES**

(as amended and restated effective as of January 1, 2009)

WHEREAS, effective as of January 1, 2009, the International Paper Company Pension Restoration Plan for Salaried Employees (the “Plan”) was amended and restated in its entirety;

WHEREAS, pursuant to Section 5.02 of the Plan the Company reserves the right to amend, modify, or terminate the Plan at any time;

WHEREAS, the undersigned is the “Plan Administrator” of the Plan within the meaning of Section 5.01 of the Plan;

WHEREAS, in discharging his responsibility for proper administration of the Plan, the Plan Administrator desires to clarify the application of Plan provisions to employees of the former xpedx division of the Company, which was spun off effective July 1, 2014, and to employees of Shorewood Packaging Corporation, the stock of which was sold by the Company on December 31, 2011; and

WHEREAS, on July 11, 2016, the Management Development and Compensation Committee of the Board of Directors delegated its authority to review and approve non-substantive changes to the nonqualified plans of the Company to the administrator for each of such plans;

NOW, THEREFORE, the Plan is amended effective as of July 1, 2014, or such other date specified below, as follows:

1. Article I of the Plan is hereby amended by adding the following new defined terms:

1.14 “Transferred xpedx Employee” shall mean (i) an Eligible Participant who is an active employee of the Company primarily working in the xpedx Business immediately prior to July 1, 2014, and (ii) an Eligible Participant who otherwise would be included in (i) above but for the fact that he or she is absent from active employment on such date on account of vacation, ordinary sick leave reasonably expected to result in an absence of short duration, short-term disability, leave under the federal Family and Medical Leave Act or leave under any similar law, or any other reason that is similar in nature and duration;

provided, however, that no individual shall be a "Transferred xpedx Employee" if his or her employment is not transferred from the Company to Veritiv Corporation ("Veritiv") or xpedx Holding Company, LLC in connection with the spinoff of the xpedx Business (the "Spinoff"); and provided further that, at the written direction of the Company, one or more individuals who are active employees of the Company but not primarily working in the xpedx Business immediately prior to July 1, 2014 may also be treated as a Transferred xpedx Employee.

1.15 "xpedx Business" shall mean the business segment of the Company referred to in its Annual Report on Form 10-K for the fiscal year ended December 31, 2012, as "xpedx"; provided that "xpedx Business" shall not include (i) International Paper Asia Distribution Limited and (ii) except as the term "xpedx Business" is used in connection with financial statements, IP Canadian Packaging Operations Inc. and EM xpedx, S.A. De C.V."

2. Article II of the Plan is hereby amended by adding the following sentence to the end thereof, as a separate paragraph:

"A Transferred xpedx Employee shall be 100% vested in his benefit under the Plan as of the close of business on June 30, 2014."

3. Section 4.03 of the Plan is hereby amended by adding the following sentence to the end thereof, as a separate paragraph:

"A Transferred xpedx Employee shall not have a termination of employment until the cessation of his employment with Veritiv."

4. Appendix C is added to the Plan effective as of January 1, 2012, as follows:

APPENDIX C
PARTICIPANTS EMPLOYED BY SHOREWOOD
PACKAGING CORPORATION

On March 26, 2000, the Company acquired 100% of the stock of Shorewood Packaging Corporation ("Shorewood"). The Company sold 100% of the stock of Shorewood to Atlas AGI Holdings LLC, on December 31, 2011.

Therefore, from March 26, 2000, to the close of December 31, 2011, Shorewood was a wholly-owned subsidiary of the Company, and was a member of the controlled group of corporations, as described in Section 414(b) of the Code, which includes the Company. Shorewood was a participating employer in the Plan, and each employee of Shorewood who met the requirements to be an Eligible Participant was eligible to participate in the Plan.

As of the close of December 31, 2011, Shorewood was no longer a member of the controlled group of corporations which includes the Company, and Shorewood employees who had been Eligible Participants ceased to qualify as such and became inactive participants in the Plan. Each such participant does not have a "termination of employment" for purposes of the Plan until the cessation of his or her employment with Shorewood on account of death, disability, severance, or any other reason.

For purposes of determining the Designated Retirement Date of each such participant under Section 4.03 of the Plan, the phrase "termination of employment with the Company" shall mean "termination of employment" with Shorewood, as explained in the preceding paragraph; and the term "Eligible Participant" shall include each of these inactive participants in the Plan.

5. In all respects not amended, the Plan is hereby ratified and confirmed.

IN WITNESS WHEREOF, this amendment is executed this 27th day of November, 2018.

INTERNATIONAL PAPER COMPANY

By: /s/ Mark M. Azzarello

Name: Mark M. Azzarello

Title: Vice President, Global Compensation and Benefits and as Plan Administrator of the International Paper Company Pension Restoration Plan For Salaried Employees

**AMENDMENT NUMBER FIVE
TO THE
INTERNATIONAL PAPER COMPANY
PENSION RESTORATION PLAN
FOR SALARIED EMPLOYEES**

(as amended and restated effective as of January 1, 2009)

WHEREAS, International Paper Company (the “Company”) maintains the International Paper Company Pension Restoration Plan for Salaried Employees, as amended and restated effective as of January 1, 2009 (the “Plan”);

WHEREAS, pursuant to Section 5.02 of the Plan the Company reserves the right to amend, modify, or terminate the Plan at any time;

WHEREAS, by Instrument of Written Consent dated February 27, 2014, the Management Development and Compensation Committee (the “Committee”), acting on behalf of the Company, approved the freezing of participation (including credited service and compensation) in the Plan effective as of January 1, 2019;

WHEREAS, the Company desires to amend the Plan to reflect the Plan freeze as approved by the Committee, and the Committee has authorized the undersigned Plan Administrator to do so on its behalf;

NOW, THEREFORE, the Plan is amended, effective as of January 1, 2019, as follows:

1. A new paragraph is added to the end of the Preamble of the Plan to read as follows:

Effective January 1, 2019, all Eligible Participants in the Plan shall cease accruing benefits under this Plan. No employee shall become an Eligible Participant in the Plan after December 31, 2018.

2. A new sentence is added to the end of Section 1.06 of the Plan to read as follows:

Notwithstanding the foregoing, no employee of the Company or any of its United States subsidiaries or affiliated business entities shall become an Eligible Participant in the Plan after December 31, 2018.

3. A new sentence is added to the end of Article II of the Plan to read as follows:

For the avoidance of doubt, employees who are Eligible Participants shall continue to accrue Vesting Service under the Plan after December 31, 2018.

4. A new paragraph is added to the end of Section 3.01 of the Plan to read as follows:

An Eligible Participant's Unrestricted Benefit and Maximum Benefit shall be calculated only through December 31, 2018. Thus, no service performed or compensation received by an Eligible Participant after December 31, 2018 shall be considered in calculating his benefit under this Plan, except in the limited circumstances provided for in the Retirement Plan of International Paper Company (including, for example, 2018 variable compensation awards paid in 2019 and post-2018 service credited to, and Compensation as defined in that Plan for certain disabled participants).

5. A new sentence is added to the end of Section 4.07 of the Plan to read as follows:

For the avoidance of doubt, any Pre-Retirement Surviving Spouse's Benefit payable hereunder shall be calculated taking into account the provisions of Section 3.01 of the Plan freezing benefit accruals hereunder effective as of January 1, 2019.

6. A new paragraph is added to the end of Section 6.03 of the Plan to read as follows:

Notwithstanding anything in the Plan to the contrary, the Benefit Amount for an Eligible Participant as described in Section 6.01 shall be frozen as of January 1, 2019. Thus, no service performed or compensation received by such an Eligible Participant after December 31, 2018 shall be considered in calculating the Benefit Amount pursuant to this Section 6.03, except in the limited circumstances provided for in the Retirement Plan of International Paper Company (including, for example, 2018 variable compensation awards paid in 2019 and post-2018 service credited to, and Compensation as defined in that Plan for certain disabled participants).

7. In all respects not amended, the Plan is hereby ratified and confirmed.

[Signature page follows this page.]

IN WITNESS WHEREOF, this amendment is executed this 20th day of December, 2018.

INTERNATIONAL PAPER COMPANY

By: /s/ Mark M. Azzarello

Name: Mark M. Azzarello

Title: Vice President, Global Compensation and Benefits and Plan Administrator of the
International Paper Company Pension Restoration Plan for Salaried Employees

AMENDMENT NO. 7

INTERNATIONAL PAPER COMPANY
UNFUNDED SUPPLEMENTAL RETIREMENT PLAN
FOR SENIOR MANAGERS

WHEREAS, effective as of January 1, 2008, the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers (the “Plan”) was amended and restated in its entirety;

WHEREAS, pursuant to Section 9 of the Plan the Company reserves the right to amend, modify, or terminate the Plan at any time by action of the Board;

WHEREAS, the undersigned is the “Plan Administrator” of the Plan within the meaning of Section 10 of the Plan;

WHEREAS, the Company desires to exclude any employee who is a nonresident alien with respect to the United States and who is not an “Eligible Employee” as defined in the Plan, from designation as a “Specified Employee” as defined in Section 409A(a)(2)(B)(i) of the Internal Revenue Code of 1986, as amended, and regulations issued thereunder; and

WHEREAS, on July 11, 2016, the Management Development and Compensation Committee of the Board of Directors delegated its authority to review and approve non-substantive changes to the nonqualified plans of the Company to the administrator for each of such plans;

NOW, THEREFORE, the Plan is amended effective as of the execution date of this Amendment, as follows:

1. By inserting the following new language at the end of Section 9:

“Effective on **[the execution date of this amendment]**, the election in accordance with paragraph (i)(8) of Treasury Regulations Section 1.409A-1 to apply the rule of Treasury Regulations Section 1.415(c)-2(g)(5)(ii) to not treat as compensation under Section 415 of the Internal Revenue Code certain compensation, applies to the Plan. The compensation excluded from consideration under Section 415 is compensation excludible from an employee’s gross income because it is attributable to services performed outside the United States by an employee who is a nonresident alien as defined in Section 7701(b)(1)(B) of the Internal Revenue Code, and is not an Eligible Employee, that is not effectively connected with the conduct of a trade or business

within the United States. The effect of this election is that an employee who is a nonresident alien and is not an Eligible Employee will not meet the definition of “specified employee” under Section 409A(a)(2)(B)(i) of the Internal Revenue Code.”

IN WITNESS WHEREOF, this amendment is executed this 12th day of July, 2016.

INTERNATIONAL PAPER COMPANY

By: /s/ Thomas G. Kadien

Name: Thomas G. Kadien

Title: Senior Vice President, Human Resources,
Government Relations and Global
Citizenship, and as Plan Administrator of
the International Paper Company
Unfunded Supplemental Retirement Plan
For Senior Managers

AMENDMENT NO. 8

INTERNATIONAL PAPER COMPANY
UNFUNDED SUPPLEMENTAL RETIREMENT PLAN
FOR SENIOR MANAGERS

WHEREAS, effective as of January 1, 2008, the International Paper Company Unfunded Supplemental Retirement Plan for Senior Managers (the “Plan”) was amended and restated in its entirety;

WHEREAS, pursuant to Section 9 of the Plan, International Paper Company (the “Company”) reserves the right to amend, modify, or terminate the Plan at any time;

WHEREAS, by Instrument of Written Consent dated February 27, 2014, the Management Development and Compensation Committee (the “Committee”), acting on behalf of the Company, approved the freezing of participation (including credited service and compensation) in the Plan effective as of January 1, 2019;

WHEREAS, the Company desires to amend the Plan to reflect the Plan freeze as approved by the Committee, and the Committee has authorized the undersigned Plan Administrator to do so on its behalf;

NOW, THEREFORE, the Plan is amended, effective as of January 1, 2019, as follows:

1. By inserting the following new paragraph at the end of the Preamble to the Plan:

The Plan was amended effective January 1, 2019 to reflect the freeze of participation and benefits under the Plan as of such date.

2. By inserting the following new language at the end of Section 4 of the Plan:

For the avoidance of doubt, all Eligible Employees under the Plan shall continue to accrue Vesting Service under the plan for periods of employment with the Company after December 31, 2018.

3. By inserting the following new paragraph at the end of Section 5(A)(i) of the Plan:

The Participant’s annual Unrestricted Benefit under the Pension Restoration Plan shall be calculated by taking into account the provisions of that plan freezing benefit accruals under that plan effective as of January 1, 2019.

4. By amending Section 5(A)(ii)(c)(2) in its entirety to read as follows:

The ratio of years of the Eligible Employee's Credited Service as of January 1, 2019 to his or her Credited Service projected to age 65.

5. By amending Section 5(A)(iv)(b) in its entirety to read as follows:

The terms "**Credited Service**" and "**Primary Social Security Benefit**" shall have the same meaning as defined in the Retirement Plan (taking into account the Retirement Plan provisions freezing Credited Service and the Primary Social Security Benefit as of January 1, 2019) except the term "Credited Service," with respect to an Eligible Employee, shall also include (i) service by such Eligible Employee with an acquired company or with an Affiliated Company, where employment with such entity is not considered Credited Service under the Retirement Plan, in either case solely to the extent specified by the Plan Administrator (and, for the avoidance of doubt, solely to the extent such Credited Service is for service performed prior to January 1, 2019), and (ii) any period prior to such Eligible Employee's attainment of age 65 during which he or she is entitled to benefits under the Company's long-term disability plan applicable to him or her if such Eligible Employee is entitled to receive such benefits as of immediately prior to January 1, 2019.

6. By amending the first sentence of Section 5(A)(iv)(c) in its entirety to read as follows:

Except as set forth below, the term "**Compensation**," with respect to any Eligible Employee and any determination date, shall equal the sum of:

- (1) such Eligible Employee's highest annual base salary during the three consecutive calendar years prior to the earlier of (I) such date of determination, or (II) January 1, 2019; plus
- (2) the Eligible Employee's target award (whether or not deferred) under the Company's Management Incentive Plan for the earlier of (I) the year in which the Eligible Employee terminates or retires, or (II) 2018.

7. By amending the last paragraph of Section 5(A)(iv)(c) in its entirety to read as follows:

Further, in the case of any Eligible Employee who as of December 31, 2018, is Disabled under the Retirement Plan, Section 5(A)(iv)(c)(1) and Section 5(A)(iv)(c)(2) shall be replaced as follows:

- (1) such Eligible Employee's annual base salary in effect as of the last day of active employment prior to becoming entitled to benefits under the Company's long-term disability plan applicable to him or her, or if earlier, as of December 31, 2018; and
- (2) the Eligible Employee's target award (whether or not deferred) under the Company's Management Incentive Plan for the year in which the Eligible Employee became disabled, or if earlier, for 2018.

8. By inserting the following new paragraphs at the end of Section 5(B):

The Participant's annual Unrestricted Benefit under the Pension Restoration Plan shall be calculated by taking into account the provisions of that plan freezing benefit accruals under that plan effective as of January 1, 2019.

For the avoidance of doubt, no Credited Service may be granted by the Plan Administrator for periods after December 31, 2018 for purposes of calculating the Supplemental Benefit hereunder, unless consistent with the provisions of the Retirement Plan freezing benefit service under that Plan effective as of January 1, 2019.

9. By amending the first sentence of Section 5(C) in its entirety to read as follows:

The Supplemental Benefit is the Participant's annual Unrestricted Benefit determined under the terms of the Pension Restoration Plan (taking into account the provisions of that plan freezing benefit accruals under that plan effective as of January 1, 2019) that would be paid to the Eligible Employee, on a single life annuity basis, assuming he or she is eligible for a pension under the 1.67% salaried benefit formula of the Retirement Plan, such amount reduced by the Eligible Employee's Retirement Savings Account balances in the Salaried Savings Plan and the Deferred Compensation Savings Plan as of his or her termination of employment with the Company.

10. By adding the following sentence to the end of the second paragraph of Section 5(C):

For the avoidance of doubt, no Credited Service may be granted by the Plan Administrator for periods after December 31, 2018 for purposes of calculating the Supplemental Benefit hereunder, unless consistent with the provisions of the Retirement Plan freezing benefit service under that Plan effective as of January 1, 2019.

11. By adding the following to the end of the third paragraph of Section 5(C):

In applying the terms of this paragraph, no compensation received by a Participant after December 31, 2018 shall be considered in calculating any benefit under this Plan, unless it would otherwise be taken into account under the terms of the Retirement Plan of International Paper Company implementing a freeze on compensation under that plan as of January 1, 2019.

12. In all respects not amended, the Plan is hereby ratified and confirmed.

IN WITNESS WHEREOF, this Amendment to the Plan is executed this 20th day of December, 2018.

INTERNATIONAL PAPER COMPANY

By: /s/ Thomas J. Plath

Name: Thomas J. Plath

Title: Senior Vice President, Human Resources and Global Citizenship, and Plan Administrator of the International Paper Company Unfunded Supplemental Retirement Plan For Senior Managers

**International Paper Company (NY)
Subsidiaries and Joint Ventures (Majority Owned)
as of December 31, 2019**

Name	Jurisdiction
Balsa Forests LLC	Delaware
Basswood Forests IIA LLC	Delaware
Basswood Forests LLC	Delaware
Branigar Organization, Inc., The	Illinois
Carton y Papel Reciclado, S.A.	Spain
Cartonajes Internacional, S.L.	Spain
Cartonajes Union S.L.	Spain
Cartonnerie de Martinique SAS	France
Certified Forest Management LLC	Delaware
CircleTree Insurance Company	Vermont
CMCP - INTERNATIONAL PAPER S.A.S.	Morocco
Commercial Realty & Properties LLC	Delaware
Comptoir des Bois de Brive SAS	France
Creapack PLV	France
Dogal Kagit Hammaddeleri Sanayi ve Ticaret Limited Sirketi	Turkey
EM Xpedx, S.A. De C.V.	Mexico
Embacorp - Soluções em Embalagens de Papel Ltda.	Brazil
Emballages Laurent SAS	France
English Oak LLC	Delaware
Envases Antonio Grau, S.A.	Spain
Envases Grau, S.L.	Spain
Federal Forestlands Inc.	Delaware
Haig Point, Inc.	Delaware
I.P. CONTAINER HOLDINGS (SPAIN) S.L.	Spain
Instituto Internacional Paper	Brazil
International Paper - Comércio de Papel e Participações Arapoti Ltda.	Brazil
International Paper - Kwidzyn Sp. Z O.O.	Poland
International Paper (Asia) Limited	Hong Kong
International Paper (Deutschland) GmbH	Germany
International Paper (Europe) S.à r.l.	Luxembourg
International Paper (India) Private Limited	India
International Paper (New Zealand) Limited	New Zealand
International Paper (Poland) Holding sp. z o.o.	Poland
International Paper (UK) Limited	Scotland
International Paper Agroflorestral Ltda.	Brazil
International Paper Asia Limited (Branch Office)	Korea
International Paper Benelux SPRL	Belgium
International Paper Cabourg SAS	France
International Paper Canada Pulp Holdings ULC	Alberta
International Paper Cartones Ltda.	Chile
International Paper Cartovar, S.A.	Portugal
International Paper Cellulose Fibers (Poland) sp. z o.o.	Poland
International Paper Cellulose Fibers Sales Sàrl	Switzerland
International Paper Company Employee Relief Fund	New York
International Paper Company Foundation	New York
International Paper Company Limited	England & Wales
International Paper Container (France) Holding SAS	France
International Paper CTA (Mexico), S.A. de C.V., SOFOM, E.N.R.	Mexico

International Paper Company (NY)
Subsidiaries and Joint Ventures (Majority Owned)
as of December 31, 2019

Name	Jurisdiction
International Paper Czech Republic, s.r.o.	Czech Republic
International Paper Distribution (Shanghai) Limited	China
International Paper do Brasil Ltda.	Brazil
INTERNATIONAL PAPER DUTCH SERVICES B.V.	Netherlands
International Paper Embalagens da Amazônia Ltda.	Brazil
International Paper Export Sales, Inc.	Delaware
International Paper Exportadora Ltda.	Brazil
International Paper Financial Services, Inc.	Delaware
International Paper France SAS	France
International Paper Global Cellulose Fibers Holdings S.à r.l.	Luxembourg
International Paper Group (UK) Limited	England & Wales
International Paper Holdings (Luxembourg) S.à r.l.	Luxembourg
International Paper Hungary Kereskedelmi Kft.	Hungary
International Paper Investment (Shanghai) Co., Ltd.	China
International Paper Investment (Shanghai) Co., Ltd., Guangzhou Branch	China
International Paper Investments (France) S.A.S	France
International Paper Investments (Luxembourg) S.à r.l.	Luxembourg
International Paper Italia Srl	Italy
International Paper Japan Limited	Japan
International Paper Madrid Mill, S.L.	Spain
International Paper Manufacturing & Distribution Limited	Hong Kong
International Paper Mexico Company, S. de R.L. de C.V.	Mexico
International Paper Montblanc, S.L.	Spain
International Paper Nordic Sales Company Oy	Finland
International Paper Papiers de Bureau SARL	France
International Paper Peru S.R.L.	Peru
International Paper Polska Sp. z o.o.	Poland
International Paper Professional Services Corporation	Delaware
International Paper Russia Holding B.V.	Netherlands
International Paper S.A.	France
International Paper Saint-Amand	France
International Paper Switzerland GmbH	Switzerland
International Paper Trading (Shanghai) Limited	China
International Paper Ukraine SE	Ukraine
IP Belgian Services Company SRL	Belgium
IP Canada Holdings Limited	Canada
IP Cartones Y Corrugados, S. de R.L. de C.V.	Mexico
IP CBPR Properties 2 LLC	Delaware
IP CBPR Properties LLC	Delaware
IP Celimo SAS	France
IP Commercial Properties LLC	Delaware
IP Corporate Management (Shanghai) Co. Ltd.	China
IP Eagle LLC	Delaware
IP East Holding (Singapore) Pte. Ltd.	Singapore
IP Forest Resources Company	Delaware
IP Foret Services	France
IP International Holdings, Inc.	Delaware
IP Investment (Brazil) S.a r.l.	Luxembourg
IP Mexico Holdings S.à r.l.	Luxembourg

International Paper Company (NY)
Subsidiaries and Joint Ventures (Majority Owned)
as of December 31, 2019

Name	Jurisdiction
IP Mineral Holdings LLC	Delaware
IP Papers Holding S.a r.l.	Luxembourg
IP Petroleum LLC	Delaware
IP Realty Holdings LLC	Delaware
IP Singapore Holding Pte. Ltd.	Singapore
IP Timberlands Operating Company, Ltd.	Texas
IP-35, Inc.	Delaware
Joshua Tree Forests LLC	Delaware
Juniper Forests LLC	Delaware
Lacebark LLC	Delaware
Lake Superior Land Company	Delaware
Longleaf Insurance Company	Tennessee
Lost Creek, Inc.	Delaware
Med Packaging SARL	Morocco
Northwest Pines, Inc.	Delaware
Olmuksan International Paper Ambalaj Sanayi ve Ticaret Anonim Sirketi	Turkey
Papeteries d'Espaly SAS	France
Piper LLC	Delaware
Przedsiębiorstwo Produkcyjno-Handlowe "Tor-Pal" Spolka z Ograniczona Odpowiedzialnoscia	Poland
Red Bird Receivables, LLC	Delaware
Sabine River & Northern Railroad Company	Texas
Societe Guadeloupeenne de Carton Ondule SAS	France
Societe Mauritanienne de Cartons - SOMACAR, S.A.	Mauritania
Societe Mediterranee d'Emballages SAS	France
Societe Normande de Carton Ondule SAS	France
SP Forests L.L.C.	Delaware
Supplier Finance Company, LLC	Delaware
Sustainable Forests L.L.C.	Delaware
Sycamore Forests LLC	Delaware
Temple Associates LLC	Texas
Timberlands Capital Corp. II, Inc.	Delaware
Timberlands Capital Corp. III, Inc.	Delaware
TIN Intermediate, LLC	Delaware
TIN Land Financing, LLC	Delaware
TIN Timber Financing, LLC	Delaware
U. C. Realty LLC	Delaware
Velarium Oy Ab	Finland
ZAO International Paper	Russia
ZAO Tikhvinsky Kompleksny Lespromokhoz	Russia

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-223170 on Form S-3 and Registration Statements Nos. 333-01667, 333-75235, 333-37390, 333-85830, 333-85828, 333-85826, 333-85824, 333-85822, 333-85818, 333-85820, 333-108046, 333-120293, 333-145459, 333-154522, 333-154523, 333-159336, 333-129011, 333-164230, 333-212998 and 333-212999 on Forms S-8 of our reports dated February 19, 2020, relating to the consolidated financial statements of International Paper Company, and the effectiveness of International Paper Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of International Paper for the year ended December 31, 2019.

/s/ Deloitte & Touche LLP

Memphis, Tennessee
February 19, 2020

CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in Registration Statement No. 333-223170 on Form S-3 and Registration Statements Nos. 333-01667, 333-75235, 333-37390, 333-85830, 333-85828, 333-85826, 333-85824, 333-85822, 333-85818, 333-85820, 333-108046, 333-120293, 333-145459, 333-154522, 333-154523, 333-159336, 333-129011, 333-164230, 333-212998 and 333-212999 on Forms S-8 of our report dated February 19, 2020, relating to the consolidated financial statements of Ilim S.A. and its subsidiaries, appearing in this Annual Report on Form 10-K of International Paper Company for the year ended December 31, 2019.

/s/ AO Deloitte & Touche CIS

Moscow, Russia
February 19, 2020

CERTIFICATION

I, Mark S. Sutton, certify that:

1. I have reviewed this annual report on Form 10-K of International Paper Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 19, 2020

/s/ Mark S. Sutton

Mark S. Sutton

Chairman and Chief Executive Officer

CERTIFICATION

I, Timothy S. Nicholls, certify that:

1. I have reviewed this annual report on Form 10-K of International Paper Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 19, 2020

/s/ Timothy S. Nicholls

Timothy S. Nicholls

Senior Vice President and Chief
Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

The certification set forth below is being submitted in connection with the Annual Report of International Paper Company (the "Company") on Form 10-K for the period ended December 31, 2019 for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code. Mark S. Sutton, Chief Executive Officer of the Company, and Timothy S. Nicholls, Chief Financial Officer of the Company, each certify that, to the best of his or her knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Mark S. Sutton

Mark S. Sutton
Chairman and Chief Executive Officer
February 19, 2020

/s/ Timothy S. Nicholls

Timothy S. Nicholls
Senior Vice President and Chief Financial Officer
February 19, 2020

Ilim S.A. and its Subsidiaries

**Consolidated Financial Statements
At December 31, 2019 and 2018
and for the Years Ended December 31, 2019,
2018 and 2017**

ILIM S.A. AND ITS SUBSIDIARIES

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Ilim S.A.:

We have audited the accompanying consolidated financial statements of Ilim S.A. and its subsidiaries (the "Group"), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, cash flows and changes in equity for the years ended December 31, 2019, 2018 and 2017, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Group's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Ilim S.A. and its subsidiaries as of December 31, 2019 and 2018 and the results of their operations and their cash flows for the years ended December 31, 2019, 2018 and 2017, in accordance with accounting principles generally accepted in the United States of America.

/s/ AO Deloitte & Touche CIS

Moscow, Russia
February 19, 2020

ILIM S.A. AND ITS SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

AT DECEMBER 31, 2019 AND 2018

(All amounts are presented in thousands of US Dollars, unless otherwise stated)

	Notes	December 31, 2019	December 31, 2018
ASSETS			
Current assets			
Cash and cash equivalents	4	269,314	529,436
Accounts receivable	4	130,935	143,373
Accounts receivable from related parties	10	24,526	27,473
Value added tax receivable		61,175	30,123
Prepayments		25,631	23,629
Inventories	4	283,756	224,426
Other current assets		9,090	2,286
Total current assets		804,427	980,746
Non-current assets			
Plant, properties and equipment, net	4	2,353,169	1,565,972
Prepayments for plant, property and equipment		176,514	66,405
Right of use assets	5	153,844	-
Intangible assets	4	38,080	27,658
Goodwill	4	12,370	6,982
Deferred income tax assets	6	303	6,946
Other non-current assets	4	79,110	36,246
Total non-current assets		2,813,390	1,710,209
TOTAL ASSETS		3,617,817	2,690,955
LIABILITIES AND EQUITY			
Current liabilities			
Current maturities of long-term debt	5,8	703,275	286,563
Accounts payable		76,775	62,206
Accounts payable to related parties	10	11,649	7,101
Accrued payroll and benefits		32,715	36,030
Lease obligations, including related parties	5	17,222	-
Taxes payable		18,401	22,711
Other accruals and liabilities	4	154,481	130,425
Total current liabilities		1,014,518	545,036
Non-current liabilities			
Long-term debt	5,8	1,531,620	1,350,312
Deferred income tax liabilities	6	159,736	105,501
Long-term lease obligations, including related parties	5	134,118	-
Employee benefit plan obligation		6,366	5,001
Other liabilities		11,799	8,984
Total non-current liabilities		1,843,639	1,469,798
Equity			
Common stock (1 CHF par value; 133,582,480 shares)	9	109,341	109,341
Additional paid-in capital		42,959	41,693
Receivables from shareholders	10	(92,232)	(158,434)
Retained earnings		1,174,671	1,228,262
Accumulated other comprehensive loss	3	(491,375)	(555,319)
Total Ilim S.A. shareholders' equity		743,364	665,543
Non-controlling interests		16,296	10,578
Total equity		759,660	676,121
TOTAL LIABILITIES AND EQUITY		3,617,817	2,690,955

The notes set forth on pages 8 to 30 form an integral part of these consolidated financial statements.

The consolidated financial statements as set forth on pages 3 to 30 were approved on February 19, 2020.

ILIM S.A. AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

	Notes	2019	2018	2017
NET SALES	4	2,189,069	2,713,368	2,150,029
COSTS AND EXPENSES				
Cost of products sold, excluding depreciation and amortization		(1,018,751)	(1,010,042)	(959,001)
Distribution and selling costs		(292,396)	(303,905)	(279,985)
General and administration costs		(127,612)	(129,734)	(150,817)
Depreciation		(126,860)	(150,573)	(144,880)
Amortization		(6,507)	(6,220)	(6,205)
Taxes other than payroll and income taxes		(30,752)	(39,209)	(25,972)
Other operating expenses, net	4	(14,963)	(23,147)	(39,444)
Foreign exchange gain (loss)		79,115	(203,632)	37,179
Interest expense, net	4	(81,507)	(70,265)	(87,203)
EARNINGS BEFORE INCOME TAXES		568,836	776,641	493,701
Income tax expense	6	(130,874)	(184,174)	(115,184)
NET EARNINGS		437,962	592,467	378,517
Less net earnings attributable to non-controlling interests		(13,784)	(21,267)	(16,375)
NET EARNINGS ATTRIBUTABLE TO ILIM S.A.		424,178	571,200	362,142

The notes set forth on pages 8 to 30 form an integral part of these consolidated financial statements.

ILIM S.A. AND ITS SUBSIDIARIES

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
 FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017**
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

	Notes	2019	2018	2017
NET EARNINGS		437,962	592,467	378,517
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX				
Remeasurement of defined benefit obligation (net of income tax of \$(83), \$48 and \$99 respectively)		(330)	190	396
Change in cumulative foreign currency translation adjustments		66,660	(62,850)	21,446
TOTAL OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX	3	66,330	(62,660)	21,842
Total comprehensive income		504,292	529,807	400,359
Less:				
Net earnings attributable to non-controlling interests		(13,784)	(21,267)	(16,375)
Other comprehensive (income) loss attributable to non-controlling interests		(2,386)	1,935	(1,869)
COMPREHENSIVE INCOME ATTRIBUTABLE TO ILIM S.A.		488,122	510,475	382,115

The notes set forth on pages 8 to 30 form an integral part of these consolidated financial statements.

ILIM S.A. AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017

(All amounts are presented in thousands of US Dollars, unless otherwise stated)

	Notes	2019	2018	2017
OPERATING ACTIVITIES				
Net earnings		437,962	592,467	378,517
Adjustments to reconcile net earnings to net cash provided by operating activities:				
Depreciation and amortization		133,367	156,793	151,085
Income tax expense, net	6	130,874	184,174	115,184
Interest expense, net	4	81,507	70,265	87,203
Loss (gain) on disposal of plant, properties and equipment	4	60	(1,177)	64
Loss from disposal of other assets	4	2,485	10,571	2,132
Foreign exchange (gain) loss		(79,115)	203,632	(37,179)
Allowance for doubtful accounts receivable		1,469	344	1,059
Impairment of plant, properties and equipment	4	8,063	7,838	8,960
Write down of inventories		(63)	2,925	1,554
Gain from bargain purchase and revaluation of investments		(8,100)	-	-
Other, net		(2,527)	4,314	11,114
Changes in current assets and liabilities				
Accounts receivable		41,397	(22,481)	(24,260)
Inventories		(26,956)	(30,794)	(25,213)
Accounts payable and accrued liabilities		12,924	(37,498)	35,524
Taxes payable other than income tax		(27,905)	4,947	790
Interest paid		(87,898)	(72,198)	(93,086)
Income tax paid	6	(109,087)	(194,515)	(95,251)
CASH PROVIDED BY OPERATING ACTIVITIES		508,457	879,607	518,197
INVESTMENT ACTIVITIES				
Invested in capital projects		(778,625)	(455,140)	(405,850)
Proceeds from sale of plant, properties and equipment		7,106	4,107	3,289
Acquisition of subsidiaries		(2,972)	-	-
Acquisition of forestry harvesting rights		(17,667)	-	(12,275)
Refundable lease security deposit		(2,507)	-	-
Other		(23,990)	3,079	3,683
CASH USED FOR INVESTMENT ACTIVITIES		(818,655)	(447,954)	(411,153)
FINANCING ACTIVITIES				
Issuance of debt		1,041,481	1,202,586	365,579
Repayment of debt		(565,527)	(1,061,751)	(285,435)
Loan issued to a shareholder	10	(30,000)	(20,000)	-
Loans repaid by shareholders	10	109,717	15,906	6,699
Purchase of non-controlling interest in JSC Ilim Group		-	-	(80,191)
Dividends paid	9	(483,327)	(250,604)	(260,143)
CASH USED FOR FINANCING ACTIVITIES		72,344	(113,863)	(253,491)
Effect of exchange rate changes on cash and cash equivalents		(20,178)	(26,389)	(12,436)
Change in cash and cash equivalents		(258,032)	291,401	(158,883)
Cash, cash equivalents and restricted cash				
Beginning of the year	4	529,436	238,035	396,918
End of the year *	4	271,404	529,436	238,035

* Cash and cash equivalents balance at December 31, 2019 includes \$ 2,090 of restricted cash, presented within Accounts receivable in the consolidated balance sheet (see Note 4).

The notes set forth on pages 8 to 30 form an integral part of these consolidated financial statements.

ILIM S.A. AND ITS SUBSIDIARIES
**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017**
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

	Ilim S.A. Shareholders				Accumulated Other Comprehensive Loss	Total Ilim S.A. Shareholders' Equity	Non-controlling Interests	Total Equity
	Common Stock	Additional Paid- in Capital	Receivables From Shareholders	Retained Earnings				
BALANCE, JANUARY 1, 2017	109,341	11,141	(156,974)	814,992	(502,339)	276,161	21,679	297,840
Dividends paid (\$ 1.81 per share; Note 9)	-	-	-	(241,760)	-	(241,760)	-	(241,760)
Dividends paid to non-controlling interests by subsidiary (Note 9)	-	-	-	-	-	-	(10,829)	(10,829)
Loan issued to a shareholder, net (Note 10)	-	4,868	4,294	-	-	9,162	(61)	9,101
Purchase of non-controlling interest in subsidiaries from third parties	-	(70)	(2,411)	(42,053)	(12,228)	(56,762)	(23,429)	(80,191)
Comprehensive income	-	-	-	362,142	19,973	382,115	18,244	400,359
BALANCE, DECEMBER 31, 2017	109,341	15,939	(155,091)	893,321	(494,594)	368,916	5,604	374,520
Dividends paid (\$ 1.74 per share; Note 9)	-	-	-	(232,632)	-	(232,632)	-	(232,632)
Dividends paid to non-controlling interests by subsidiary (Note 9)	-	-	-	-	-	-	(17,981)	(17,981)
Loans issued to / collected from shareholders, net (Note 10)	-	25,754	(3,343)	-	-	22,411	(4)	22,407
Change of non-controlling interest in subsidiaries	-	-	-	(3,627)	-	(3,627)	3,627	-
Comprehensive income (loss)	-	-	-	571,200	(60,725)	510,475	19,332	529,807
BALANCE, DECEMBER 31, 2018	109,341	41,693	(158,434)	1,228,262	(555,319)	665,543	10,578	676,121
Dividends paid (\$ 3.56 per share; Note 9)	-	-	-	(477,769)	-	(477,769)	-	(477,769)
Dividends paid to non-controlling interests by subsidiary (Note 9)	-	-	-	-	-	-	(11,946)	(11,946)
Loans issued to / collected from shareholders, net (Note 10)	-	1,266	66,202	-	-	67,468	1,494	68,962
Comprehensive income	-	-	-	424,178	63,944	488,122	16,170	504,292
BALANCE, DECEMBER 31, 2019	109,341	42,959	(92,232)	1,174,671	(491,375)	743,364	16,296	759,660

The notes set forth on pages 8 to 30 form an integral part of these consolidated financial statements.

ILIM S.A. AND ITS SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017 (All amounts are presented in thousands of US Dollars, unless otherwise stated)

1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Financial statements

These consolidated financial statements at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 have been prepared in conformity with accounting principles generally accepted in the United States of America that require the use of management's estimates. Estimates are used when accounting for certain items such as the recoverability of long-lived assets, allowance for doubtful accounts, obligations related to employee benefits, useful lives of plant, properties and equipment and intangible assets, asset retirement obligations, environmental remediation obligations, legal and tax contingencies, valuation of inventories. Estimates are based on historical experience, where applicable, and other assumptions that management believes are reasonable under the circumstances. Actual results could differ from management's estimates.

Nature of business

The principal activity of Ilim S.A. (the "Company") and its subsidiaries (together - the "Group", which also may be referred to as "we") is forestry and pulp and paper production. The Group was formed in 2006 as a result of the restructuring of a group of legal entities under common control, collectively referred to as Ilim Pulp Group.

Ilim S.A. is a joint stock company incorporated in Switzerland. The Company is a joint venture of International Paper Company ("IP") and a group of Russian shareholders. IP and the Russian shareholders (collectively) each own 50% of the Company's shares.

The Group's manufacturing operations are located in the Russian Federation and sales are made in Russia and abroad. At December 31, 2019, the Group employed 17,025 employees (December 31, 2018: 16,613 employees).

The Group consists of 16 legal entities (December 31, 2018: 8 entities) which are incorporated in the Russian Federation (except as otherwise indicated). Increases associated with acquisitions of subsidiaries including forestry entities are described in Note 4.

The Company's ownership and voting power in its subsidiaries were as follows:

Entity	Principal activity	Country of incorporation	Ownership Percentage and Voting Rights	
			December 31, 2019	December 31, 2018
JSC Ilim Group	Manufacturing of pulp, paper and linerboard	Russia	96.37%	96.37%
LLC Fintrans GL	Transportation of cargo	Russia	96.37%	96.37%
LLC Ilim Gofra	Corrugated packaging	Russia	96.37%	96.37%
LLC Amber Stream	Wood chemistry	Russia	96.37%	50.00%

JSC Ilim Group, the most significant Group subsidiary, representing more than 90% of the Group's sales, has branches in Bratsk, Ust-Ilimsk and Koryazhma, Russia, where the three pulp and paper mills are located.

In December 2019, the Group acquired the remaining 50% equity interest in LLC Amber Stream from our joint venture partner and obtained control over the entity. Details of this transaction are described in Note 4.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017**
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Consolidation

These consolidated financial statements include the accounts of the Company and its wholly-owned and controlled majority-owned subsidiaries. All intercompany balances and transactions are eliminated.

Revenue recognition

Generally, the Group recognizes revenue on a point-in-time basis when the customer takes title to the goods and assumes the risks and rewards for the goods.

The Group's revenue is primarily derived from fixed consideration; however, the Group has contract terms that give rise to variable consideration, primarily cash discounts and volume rebates. The Group offers early payment discounts to customers across the Group's businesses. Management estimates the expected cash discounts and other customer refunds based on the historical experience across the Group's portfolio of customers to record reductions in revenue which is consistent with the most likely amount method outlined in ASC 606 "Revenue from Contracts with Customers.". Management has concluded that this method is the best estimate of the consideration the Group will be entitled to from its customers.

The Group accounts for its shipping and handling activities as fulfillment activities, and recognizes the incremental costs of obtaining a contract as expense when incurred if the amortization period of the asset the Group would recognize is one year or less, and has elected not to record interest income or interest expense when the difference in timing of control or transfer and customer payment is one year or less.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, cash held on demand with banks, bank deposits repayable on demand without penalty and bank deposits with original maturities of three months or less. Cash and cash equivalents are carried at cost plus interest accrued, which approximates market value. Bank deposits with original maturities of more than three months are classified as short-term or long-term investments depending on the expected maturity and are carried at amortized cost using the effective interest method.

Inventories

Inventories are valued at the lower of cost or market value and include all costs directly associated with manufacturing products: materials, labor and manufacturing overhead. Cost is determined on the weighted average basis.

Plant, properties and equipment

Plant, properties and equipment are stated at cost less accumulated depreciation. Expenditures for improvements are capitalized, whereas normal repairs and maintenance are expensed as incurred. Upon sale or retirement, the cost and related accumulated depreciation are eliminated.

Gains and losses on disposal are determined by comparing the proceeds with the carrying amount and are included in other operating income or expense.

Costs of repair and maintenance activities are expensed in the month that the related activity is performed.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017**
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Assets are depreciated on a straight-line basis from the date they are ready for use. Land, assets under construction and equipment for installation are not depreciated.

The estimated useful lives are as follows:

Asset category	Useful life (years)
Buildings	35-50
Plant and equipment	5-25
Other	3-20

Group as the lessee - accounting policy since January 1, 2019

Leasing transactions are classified according to the lease agreements which specify the rewards and risks associated with the leased asset. Leasing transactions where the Group is the lessee are classified as either a finance lease or an operating lease.

The Group classifies a lease as a finance lease, when the lease meets any of the following criteria at lease commencement:

- the lease transfers ownership of the underlying asset to the lessee by the end of the lease term;
- the lease grants the lessee an option to purchase the underlying asset that is reasonably certain to be exercised;
- the lease term is for the major part of the remaining economic life of the underlying asset, except for the cases when the commencement date falls at or near the end of the economic life of the underlying asset;
- the present value of the sum of the lease payments equals or exceeds substantially all of the fair value of the underlying asset;
- the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term.

When none of the criteria above are met, the lease is classified as an operating lease.

The Group determines if an arrangement contains a lease at inception. If it does, the Group recognizes both the right of use assets and the lease liabilities arising from financing and operating leases in the same amounts, with the exception of short-term leases and leases of low-value assets. Right of use assets represent the right of the Group to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Short-term leases having a lease term of 12 months or less and low-value leased assets of \$5,000 or less, when new, are not recorded on the balance sheet and the related lease expense is presented as a single line item in the income statement.

As of the lease commencement date, the Group recognizes:

- A liability for its lease obligation, initially measured at the present value of lease payments not yet paid, discounted using the incremental borrowing rate of the Group based on the information available at commencement date through market sources.
- An asset for its right to use the underlying asset, initially measured equal to the lease liability and adjusted for lease payments made at or before lease commencement, lease incentives, and any initial direct costs.

For the finance lease, the right of use assets are amortized on a straight-line basis. This amortization, when combined with the interest on the lease liability, results in a front-loaded expense profile in which interest and amortization are presented separately in the consolidated statement of operations. The operating leases result in a straight-line expense profile that is presented partially within Cost of products sold, Distribution and selling costs, General and administration costs, and disclosed as a single line item in Note 5.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2019, 2018 AND 2017**
(All amounts are presented in thousands of US Dollars, unless otherwise stated)

1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Certain of the Group's leases include variable payments, which may vary based upon changes in facts or circumstances after the start of the lease. The Group excludes variable payments from recognition as part of lease liabilities and related right of use assets, to the extent not considered fixed, and instead, expenses variable payments as incurred.

One of the key management judgments relates to the lease term, which is the non-cancellable period in which the lessee has the right to use an underlying asset together with optional periods (1) for which it is reasonably certain that the lessee will exercise the renewal option or not exercise the termination option or (2) covered by an option to extend (or not to terminate) the lease in which the exercise of the option is controlled by the lessor.

The Group's leases generally have remaining lease terms of one year to 49 years, some of which include extension options. For the majority of the leases with options to extend the lease term, those options are up to 5 years with the ability to terminate the lease within 1 month. The exercise of lease renewal options is at the Group's discretion and our lease assets and liabilities reflect only the options that are reasonably certain to be exercised.

Intangible assets

All of the Group's intangible assets have finite useful lives and include primarily computer software, patents, and licenses. Intangible assets are amortized using the straight-line method from the date they are ready for use over their estimated useful lives as follows:

Asset category	Useful life (years)
Management accounting system (SAP)	5-10
Other software	3-5
Licenses and patents	3-5
Other	3-5

Goodwill

Goodwill related to a single business reporting unit is included as an asset of the applicable segment. Annual testing for possible goodwill impairment is performed at the end of the year, with additional interim testing performed when management believes that it is more likely than not events and circumstances have occurred that would result in the impairment of the reporting unit's goodwill.

In performing this evaluation, the Group calculates the estimated fair value of its reporting units using the projected future cash flows to be generated by each unit, discounted using the estimated discount rate for each reporting unit. Key assumptions in the quantitative goodwill impairment test considered by management include the discount rate, long-term growth rate, tax rate, inflation rate, and current business forecast. For reporting units whose recorded value of net assets plus goodwill is in excess of their estimated fair values, the Group will record an impairment charge by the amount that the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. See Note 4 for further discussion.

Forestlands

The Group uses forests for logging from local forestry authorities under 49-year agreements, cancellable by the Group at any time. Logging volumes and other conditions are determined annually. The Group does not own the trees until they are harvested. At December 31, 2019, the Group has exclusive harvesting rights on forest areas exceeding 19.5 million acres (7.9 million hectares) (December 31, 2018: 18.9 million acres (7.7 million hectares)).

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1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Impairment of long-lived assets

Long-lived assets (or groups of assets) are reviewed for impairment upon the occurrence of events or changes in circumstances that indicate that the carrying value of the assets may not be recoverable. A recoverability test is performed based on undiscounted cash flows, requiring judgments as to the weighting of operational alternatives being considered by management and estimates of the amount and timing of expected future cash flows from the use of long-lived assets generated by their use. Impaired assets are recorded at their estimated fair value.

Accounts receivable

Accounts receivable are carried at face value, less an allowance for doubtful accounts. An allowance for doubtful accounts is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of sale.

The primary factors that the Group considers in determining whether receivables are impaired are their overdue status and the reliability of related collateral, if any. Other principal criteria used to determine whether there is objective evidence that an impairment loss has occurred, are as follows:

- the counterparty experiences a significant financial difficulty as evidenced by its financial information;
- the counterparty considers bankruptcy or a financial reorganization;
- there is an adverse change in the payment status of the counterparty as a result of changes in the national or local economic conditions that impact the counterparty.

The amount of the allowance is the difference between the face value and the recoverable amount, being the present value of expected cash flows discounted at the market rate of interest for similar borrowers that prevailed when the receivable was originated. Uncollectible receivables are written off against the related allowance for doubtful accounts after all necessary procedures to recover the receivables have been completed and the amount of the loss has been determined.

Subsequent recoveries of amounts previously written off are credited to the impairment loss account within the consolidated statement of operations.

Loans issued to shareholders

Loans issued to shareholders are recorded as a reduction of equity.

Debt

Debt includes bank loans and finance lease liabilities. Borrowings are recognized initially at fair value, net of transaction costs incurred, and are subsequently carried at amortized cost using the effective interest method; any difference between the amount at initial recognition and the redemption amount is recognized as interest expense over the period of the debt. Interest payable on debt is included in other accruals and liabilities.

Income taxes

The Group uses the asset and liability method of accounting for income taxes, whereby deferred income taxes are recorded for the future tax consequences attributable to differences between the financial statement and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years, in which those temporary differences are expected to be recovered or settled. Deferred tax assets and liabilities are remeasured to reflect new tax rates in the periods rate changes are enacted.

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1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

The Group records its tax provision based on the respective tax rules and regulations of the jurisdictions in which it operates. Where the Group believes that a tax position is supportable for income tax purposes, the item is included in its income tax returns. Where treatment of a position is uncertain, liabilities are recorded based upon the Group's evaluation of the "more likely than not" outcome considering the technical merits of the position based on specific tax regulations and the facts of each matter. Changes to recorded liabilities are made only when an identifiable event occurs that changes the likely outcome, such as settlement with the relevant tax authority, the expiration of statutes of limitation for the subject tax year, a change in tax laws, or a recent court case that addresses the matter.

While the judgments and estimates made by the Group are based on management's evaluation of the technical merits of a matter, assisted as necessary by consultation with outside consultants, historical experience and other assumptions that management believes are appropriate and reasonable under current circumstances, actual resolution of these matters may differ from recorded estimated amounts, resulting in charges or credits that could materially affect future financial statements.

The Group provides valuation allowances for deferred tax assets for which it does not consider realization of such assets to be more likely than not. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the historical taxable income generation, projected future taxable income, the reversal of existing deferred tax liabilities and tax planning strategies in making this assessment.

Environmental remediation costs

Costs associated with environmental remediation obligations are accrued when such costs are probable and reasonably estimable. Such accruals are adjusted as further information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are discounted to their present value when the amount and timing of expected cash payments are reliably determinable.

Translation of financial statements

Functional and presentation currency

Following the merger of its trading subsidiary based in Switzerland into Ilim SA in December 2018, the functional currency of the Company was changed from the Swiss Franc (CHF) to the US Dollar (USD). The change in functional currency was applied on a prospective basis.

The functional currency of the Group's entities domiciled in the Russian Federation is the Russian Ruble (RUB). Functional currencies noted above reflect the economic substance of the underlying events and the circumstances of the Group entities.

The US Dollar has been chosen as the presentation currency for these consolidated financial statements.

Translation of foreign currency items into functional currency

Transactions in foreign currencies are translated to the respective functional currency of each entity in the Group, at the foreign exchange rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the reporting date, into the functional currency at the exchange rates prevailing at that date. Foreign exchange gains and losses resulting from the settlement of the transactions and from the translation of monetary assets and liabilities at year-end exchange rates are recognized in the statement of operations.

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1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Translation from functional to presentation currency

The results and financial position are translated from functional currency into US Dollars for presentation purposes using the following procedures:

- assets and liabilities for each balance sheet are translated at the closing rate at the date of that balance sheet;
- share capital and other equity components are translated at historical rates;
- income and expenses for each statement of operations and statement of comprehensive income are translated at average monthly exchange rates that approximate the translation using the actual transaction date rates; and
- all resulting exchange differences are recognized as a separate component of equity in accumulated other comprehensive income.

Value-added tax

Output value-added tax ("VAT") related to sales is payable to tax authorities on the earlier of (a) collection of the receivables from customers or (b) delivery of the goods or services to customers. Input VAT is generally recoverable against output VAT upon receipt of the VAT invoice. The tax authorities permit the settlement of VAT on a net basis. VAT related to purchases, where all the specified conditions for recovery have not been met yet, is recognized in the consolidated balance sheet and disclosed separately within current assets, while input VAT that has been claimed is netted off with the output VAT payable. Where an allowance has been made for the impairment of receivables, an impairment loss is recorded for the gross amount of the receivable, including VAT.

Financial instruments

Financial instruments - key measurement terms

Depending on their classification, financial instruments are carried at fair value or amortized cost as described below.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The best evidence of fair value is the price in an active market. An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

The fair value of current financial assets and liabilities approximates their carrying amounts.

Valuation techniques such as discounted cash flow models, or models based on recent arm's length transactions, or consideration of financial data of the investees are used to measure fair value of certain financial instruments for which external market pricing information is not available. Fair value measurements are analyzed by level in the fair value hierarchy as follows:

(i) level one are measurements at quoted prices (unadjusted) in active markets for identical assets or liabilities, (ii) level two measurements are valuation techniques with all material inputs observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices), and (iii) level three measurements are valuations not based on solely observable market data (that is, the measurement requires significant unobservable inputs).

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1. SUMMARY OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Transaction costs are costs to sell an asset or transfer a liability in the principal (or most advantageous) market for the asset or liability, that are directly attributable to the disposal of the asset or the transfer of the liability and meet both of the following criteria: they result directly from and are essential to the transaction and they wouldn't have been incurred by the entity had the decision to sell an asset or transfer the liability not been made. Transaction costs include fees and commissions paid to agents (including employees acting as selling agents), advisors, brokers and dealers, levies by regulatory agencies and securities exchanges, and transfer taxes and duties. Transaction costs do not include debt premiums or discounts, financing costs or internal administrative or holding costs.

Amortized cost is the amount at which the financial instrument was recognized at initial recognition less cash collected, plus accrued interest, and for financial assets, less any write-down to date. Accrued interest includes amortization of transaction costs deferred at initial recognition and of any premium or discount to the maturity amount using the effective interest method. Accrued interest income and accrued interest expense, including both accrued coupon and amortized discount or premium (including fees deferred at origination, if any), are not presented separately and are included in the carrying values of the related items in the consolidated balance sheet.

2. RECENT ACCOUNTING DEVELOPMENTS

Certain new standards and pronouncements have been issued that are mandatory for annual periods beginning on or after January 1, 2019 or later. Other than as described below, no new accounting pronouncement issued but not yet effective or pronouncement that became effective in the current reporting year has had or is expected to have a material impact on the consolidated financial statements.

Leases

In February 2016, the FASB issued ASU 2016-02, (Leases Topic 842): "Leases", which requires that lessees recognize virtually all of their leases on the balance sheet, by recording a right of use assets and lease liability. The Group adopted the provisions of this guidance effective January 1, 2019, using the modified retrospective optional transition method. Therefore, the standard was applied beginning January 1, 2019, and prior periods were not restated. The adoption of the standard did not result in a cumulative effect adjustment to the opening balance of Retained earnings. The Group has implemented a new lease accounting system and has executed changes to its internal controls to address the collection, recording, and accounting for leases in accordance with the new guidance.

The Group has elected to use a number of practical expedients which permit under the transition guidance within the new lease accounting standard, the Group not to reassess the following for any expired or existing contracts: (i) whether any contracts contain leases; (ii) lease classification (i.e. operating lease or finance/capital lease); and (iii) initial direct costs.

The adoption of the new standard resulted in the recognition of a right of use assets and short-term and long-term liabilities recorded on the Group's consolidated balance sheet related to operating leases. Accounting for finance leases remained substantially unchanged. In addition, the adoption of the standard did not have a material impact on the Group's results of operations or cash flows.

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2. RECENT ACCOUNTING DEVELOPMENTS (CONTINUED)

Financial instruments - Credit losses

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This guidance replaces the current incurred loss impairment method with a method that reflects expected credit losses. This guidance is effective for annual reporting periods beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted. The Group will adopt this guidance using the modified retrospective approach on its effective date of January 1, 2020. As a result of using this approach, the Group will recognize the cumulative effect adjustment to the opening balance of retained earnings for initial application of the guidance. The Group has substantially completed its evaluation of the provisions of this guidance and determined it will not have a material impact on the consolidated statement of position, results of operations or cash flows.

Income Taxes

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." This guidance removes certain exceptions from recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. It also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. This guidance is effective for annual reporting periods beginning after December 15, 2020, and interim periods within those years. Early adoption of the amendments is permitted, including adoption in any interim period for public business entities for periods for which financial statements have not yet been issued. The Group is currently evaluating the provisions of this guidance and their potential effect on the Group's financial statements.

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3. OTHER COMPREHENSIVE LOSS

The following tables present changes in accumulated other comprehensive income (loss) (AOCI), net of tax, for the years ended December 31, 2019, 2018 and 2017:

	Defined Benefit Obligation Items	Change in Cumulative Foreign Currency Translation Adjustments	Total
Balance at December 31, 2018	836	(556,155)	(555,319)
Other comprehensive income (loss)	(499)	66,660	66,161
Amounts reclassified from accumulated other comprehensive income	169	0	169
Net current period other comprehensive income (loss)	(330)	66,660	66,330
Other comprehensive income (loss) attributable to non-controlling interest	12	(2,398)	(2,386)
Balance at December 31, 2019	518	(491,893)	(491,375)

	Defined Benefit Obligation Items	Change in Cumulative Foreign Currency Translation Adjustments	Total
Balance at December 31, 2017	653	(495,247)	(494,594)
Other comprehensive income (loss)	17	(62,850)	(62,833)
Amounts reclassified from accumulated other comprehensive income	173	0	173
Net current period other comprehensive income (loss)	190	(62,850)	(62,660)
Other comprehensive income (loss) attributable to non-controlling interest	(7)	1,942	1,935
Balance at December 31, 2018	836	(556,155)	(555,319)

	Defined Benefit Obligation Items	Change in Cumulative Foreign Currency Translation Adjustments	Total
Balance at December 31, 2016	271	(502,610)	(502,339)
Other comprehensive income	179	21,446	21,625
Amounts reclassified from accumulated other comprehensive income (loss)	217	0	217
Net current period other comprehensive income (loss)	396	21,446	21,842
Other comprehensive income (loss) attributable to non-controlling interest	(14)	(1,855)	(1,869)
Adjustment due to purchase of non-controlling shares	0	(12,228)	(12,228)
Balance at December 31, 2017	653	(495,247)	(494,594)

ILIM S.A. AND ITS SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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3. OTHER COMPREHENSIVE LOSS (CONTINUED)

The following table presents details of the reclassifications out of AOCI, net of tax, reported in the consolidated financial statements for the three years ended December 31:

	Amounts Reclassified from Accumulated Other Comprehensive Loss			Location of Amounts Reclassified from AOCI
	2019	2018	2017	
Defined benefit obligation items:				
Prior-service costs	(457)	(416)	(477) (a)	Cost of products sold
Actuarial gains	246	200	206 (a)	Cost of products sold
Total pre-tax amount	(211)	(216)	(271)	
Tax benefit	42	43	54	
Net of tax	(169)	(173)	(217)	

(a) These accumulated other comprehensive income components are included in the computation of net periodic defined benefit plan cost.

4. SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION

Cash and cash equivalents

	December 31, 2019	December 31, 2018
Bank deposits	254,680	501,310
Cash in current bank accounts	14,634	28,126
Total	269,314	529,436

Cash transactions are conducted through high-credit-quality financial institutions. Cash is placed with financial institutions (most of them are rated from A+ to BBB- based on Standard and Poor's and Fitch national ratings for the Russian Federation), which are considered at the time of deposit to have minimal risk of default.

Accounts receivable

	December 31, 2019	December 31, 2018
Trade receivables	137,270	149,406
Other receivables	5,206	2,808
Less: allowance for doubtful accounts	(12,154)	(10,032)
Total financial assets within trade and other receivables	130,322	142,182
Other	613	1,191
Total	130,935	143,373

A substantial majority of the Group's customers operate in the pulp and paper industry. As a result, the Group's exposure to credit risk may be affected by negative developments in the industry. In addition, the top ten customers of the Group comprise 42% of the Group's gross trade receivables at December 31, 2019 (December 31, 2018: 50%) and default of any of these customers may have a significant effect on the Group. There is a long-standing history of trading relationships with these customers with no defaults in the past.

Included in Other receivables at December 31, 2019, is \$ 2,090 of restricted cash held on deposit as consideration to be paid for the acquisition of a forestry company in January 2020.

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4. SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION (CONTINUED)

The movement in the allowance for doubtful accounts is as follows:

	Trade receivables	Other receivables	Total
At January 1, 2018	10,777	618	11,395
Additions charged to earnings	630	19	649
Deductions from allowance (a)	(332)	(10)	(342)
Translation difference	(1,563)	(107)	(1,670)
At December 31, 2018	9,512	520	10,032
Additions charged to earnings	1,061	52	1,113
Deductions from allowance (a)	(4)	0	(4)
Translation difference	1,116	(103)	1,013
At December 31, 2019	11,685	469	12,154

(b) Includes write offs, less recoveries, of uncollectible accounts.

Inventories

	December 31, 2019	December 31, 2018
Raw materials	167,331	107,855
Operating supplies	34,490	54,382
Finished pulp, paper and packaging products	67,077	50,557
Other	14,858	11,632
Total	283,756	224,426

Plant, properties and equipment

	December 31, 2019	December 31, 2018
Plant and equipment	1,888,796	1,411,034
Land and buildings	454,040	365,625
Other	579,136	425,996
Assets under construction and equipment for installation	662,151	350,449
Gross cost	3,584,123	2,553,104
Less: accumulated depreciation	(1,230,954)	(987,132)
Plant, properties and equipment, net	2,353,169	1,565,972

Business combination and goodwill

In February 2019, the Group acquired control of LLC Ilimlestrans, a company which provides transportation services to employees of the Ust-Ilimsk mill by tram and buses. The fair value of the net assets acquired was \$5,399 and the consideration paid was \$3,055. As a result of the transaction, the Group recognized a gain from the bargain purchase in amount of \$2,344, which is recorded in Other operating income in the accompanying consolidated financial statements.

On December 9, 2019, JSC Ilim Group acquired the remaining 50% equity interest in LLC Amber Stream from our joint venture partner for \$6,394. LLC Amber Stream is a joint venture that was formed in 2017 for the production of wood chemistry from the Group's by-products. Prior to this transaction, JSC Ilim Group held a 50% equity interest in LLC Amber Stream which we accounted for by the equity method. As a result of this transaction, LLC Amber Stream is consolidated in the accompanying consolidated financial statements effective on the acquisition date.

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4. SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION (CONTINUED)

Following the transaction, the Group's previously held 50% interest was remeasured to a fair value of \$ 7,546, resulting in a gain from revaluation of \$ 5,756, which is the difference between the Group's investment in LLC Amber Stream prior to the transaction and the fair value of the Group's 50% equity interest. The gain is included in Other operating income in the accompanying consolidated financial statements.

At the acquisition date, the fair value of the net assets of LLC Amber Stream was \$ 9,535. As a result of the transaction, the Group recognized goodwill of \$ 4,405.

	December 31, 2019	December 31, 2018
Opening balance	6,982	8,421
Goodwill from acquisition of LLC Amber Stream	4,405	0
Translation difference	983	(1,439)
Closing balance	12,370	6,982

The residual balance of goodwill relates to the acquisition of LLC Gofra-Dmitrov in 2016.

As a result of impairment testing, no goodwill impairment was recorded in 2019 and 2018.

Other non-current assets

	December 31, 2019	December 31, 2018
Forestry harvesting rights	52,214	0
Prepayment to pension fund	7,515	6,966
Prepayment for non-current assets other than plant, properties and equipment	0	14,364
Non-current receivables	856	19
Other non-current assets	18,525	14,897
Total	79,110	36,246

In 2019, the Group completed the acquisition of five entities, which have forestry harvesting rights in the Siberian region of Russia, where the forestry plots are well situated for wood supply to the Bratsk and Ust-Ilimsk mills. Terms of the transactions require a pre-payment of \$ 14,364 that was made partially in 2016 and 2017 (recorded in "Prepayment for non-current assets other than plant, properties and equipment" line), payments of \$ 17,667 in 2019, payment of \$ 7,024 in 2020 and payment of \$ 1,354 in 2022.

The entities do not constitute businesses. Accordingly, each transaction was accounted for as an asset acquisition, with the purchase price allocated to the assets acquired based on their relative fair values at the acquisition date. Asset recognized is subject to deferred tax liability accrual for \$ 10,132 (see Note 6).

Other accruals and liabilities

	December 31, 2019	December 31, 2018
Payables and accruals for plant, properties and equipment	59,729	45,112
Customer advances	40,056	43,067
Unused vacations	22,797	20,341
Accruals for audit and consulting services	2,888	2,868
Interest payable on debt	3,011	2,842
Other accruals and liabilities	26,000	16,195
Total	154,481	130,425

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4. SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION (CONTINUED)

The customer advances represent a contract liability that is created when customers prepay for goods prior to the Group transferring those goods to the customer. The contract liability is reduced once control of the goods is transferred to the customer. The majority of our customer prepayments are received during the fourth quarter of each year for goods that will be transferred to customers over the following year.

Net sales

A geographic disaggregation of revenues across the Group products and service lines in the following tables provide information to assist in evaluating the nature, timing and uncertainty, if any, of revenue and cash flows and how they may be impacted by economic factors.

2019	Pulp	Cardboard	Paper	Timber	Services	Other	Total
Asia without the Middle East	901,334	79,051	24,318	17,700	0	4,407	1,027,353
Russia and the CIS	162,125	129,266	320,073	100,604	33,205	151,227	896,500
Europe	70,840	50,447	61,022	0	525	3,564	186,398
Other	19,506	36,752	23,092	0	0	11	78,818
Total	1,153,805	295,516	428,505	118,304	33,730	159,209	2,189,069
2018	Pulp	Cardboard	Paper	Timber	Services	Other	Total
Asia without the Middle East	1,245,290	130,184	31,042	42,082	0	4,164	1,452,762
Russia and the CIS	183,925	165,589	314,342	86,029	33,092	146,523	929,500
Europe	99,845	73,014	51,556	0	669	5,208	230,292
Other	22,298	57,801	20,677	0	0	38	100,814
Total	1,551,358	426,588	417,617	128,111	33,761	155,933	2,713,368
2017	Pulp	Cardboard	Paper	Timber	Services	Other	Total
Asia without the Middle East	941,918	89,301	21,610	42,337	52	5,291	1,100,509
Russia and the CIS	126,137	150,045	285,440	70,831	27,099	143,319	802,871
Europe	71,116	55,059	54,202	0	701	3,485	184,563
Other	14,675	32,263	15,148	0	0	0	62,086
Total	1,153,846	326,668	376,400	113,168	27,852	152,095	2,150,029

The nature of the Group's contracts can vary based on the business, customer type and region; however, in all instances it is the Group's customary business practice to receive a valid order from the customer, in which each parties' rights and related payment terms are clearly identifiable.

Contracts or purchase orders with customers could include a single type of product or they could include multiple types/grades of products. Regardless, the contracted price with the customer is agreed to at the individual product level outlined in the customer contracts or purchase orders. The Group does not bundle prices; however, we do negotiate with customers on pricing and rebates for the same products based on a variety of factors (e.g. contractual volume, geographical location, etc.). Management has concluded that the prices negotiated with each individual customer are representative of the stand-alone selling price of the product.

Shipping and handling costs

	2019	2018	2017
Shipping and handling costs	251,779	261,524	245,492

Shipping and handling costs (such as freight to the customers) are included in distribution and selling costs in the consolidated statement of operations.

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4. SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION (CONTINUED)

Other operating income

	2019	2018	2017
Income from the government grant funding (railroad tariff subsidy)	7,909	18,256	0
Gain from revaluation of investment (Note 4)	5,756	0	0
Insurance settlement	3,887	0	0
Gain from bargain purchase (Note 4)	2,344	0	0
Penalties received	2,230	1,054	1,297
Reversal of allowance for doubtful receivables and prepayments	4	343	54
Gain on disposal of plant, properties and equipment	0	1,177	0
Other	6,449	4,976	1,612
Total	28,579	25,806	2,963

Other operating expenses

	2019	2018	2017
Social costs and donations	11,509	10,851	12,654
Losses from outage due to modernization	8,980	0	0
Impairment of plant, properties and equipment	8,063	7,838	8,960
Loss from disposal of non-core materials and spare parts	2,485	10,571	7,219
Allowance for doubtful receivables and prepayments	1,473	687	1,113
Redundancy expenses	1,393	2,181	2,160
Non-refundable VAT	1,209	2,185	1,755
Penalties paid	828	746	554
Loss from disposal of plant, properties and equipment	60	0	64
Other	7,542	13,894	7,928
Total	43,542	48,953	42,407

Interest

	2019	2018	2017
Interest income	10,178	8,197	4,485
Interest expense	(91,685)	(78,462)	(91,688)
Total interest expense, net	(81,507)	(70,265)	(87,203)
Capitalized interest costs	34,487	15,539	7,631

Intangible assets

Intangible assets include the following:

	At December 31, 2019		At December 31, 2018	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Management accounting system (SAP)	56,116	28,819	41,771	22,272
Other software	29,672	19,434	22,679	14,949
Licenses and patents	884	404	616	258
Other	314	249	285	214
Total	86,986	48,906	65,351	37,693

Based on current intangibles subject to amortization, estimated amortization expense for each of the next 5 years and thereafter is as follows: 2020 - \$ 15,855, 2021 - \$ 5,455, 2022 - \$ 4,625, 2023 - \$ 3,663, 2024 - \$ 2,635, and cumulatively thereafter- \$ 5,847.

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5. LEASES

The Group leases various groups of assets, including office premises, warehouses, land and rail cars. The Group's leases have remaining lease terms of one year to 49 years.

COMPONENTS OF LEASE EXPENSE	2019
Finance lease cost:	
Amortization of lease assets	636
Interest on lease liabilities	687
Operating lease costs	28,228
Variable lease costs	514
Short-term lease costs	122
Total lease cost	30,187

SUPPLEMENTAL BALANCE SHEET INFORMATION RELATED TO LEASES

	Classification	December 31, 2019
Assets		
Operating lease assets	Right of use assets	153,844
Finance lease assets	Plants, properties and equipment, net (a)	6,084
Total leased assets		159,928
Liabilities		
Current		
Operating leases	Lease obligations, including related parties	17,222
Finance leases	Current maturities of long-term debt	560
Non-current		
Operating leases	Long-term lease obligations, including related parties	134,118
Finance leases	Long-term debt	6,954
Total lease liabilities		158,854

(a) Finance lease assets are recorded net of accumulated amortization of \$ 16,318.

LEASE TERM AND DISCOUNT RATE	December 31, 2019
Weighted average remaining lease term	
Operating leases	10 years
Finance leases	9 years
Weighted average discount rate	
Operating leases	9.6%
Finance leases	9.2%

SUPPLEMENTAL CASH FLOW INFORMATION RELATED TO LEASES

	2019
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows related to operating leases	26,854
Operating cash flows related to finance leases	687
Financing cash flows related to finance leases	489
Supplemental non-cash information on lease liabilities arising from obtaining right of use assets	
Right of use assets obtained in exchange for operating lease liabilities	161,138

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5. LEASES (CONTINUED)

MATURITY OF LEASE LIABILITIES

Operating Leases	Less than 1 year	1 - 5 years	Over 5 years	Total
Minimum lease payments at 31.12.2019	27,885	118,596	120,636	267,117
Less future finance charges	(10,663)	(40,239)	(64,875)	(115,777)
Present value of minimum lease payments at 31.12.2019	17,222	78,357	55,761	151,340
Finance Leases				
Minimum lease payments at 31.12.2019	1,229	4,918	4,990	11,137
Less future finance charges	(669)	(2,085)	(869)	(3,623)
Present value of minimum lease payments at 31.12.2019	560	2,833	4,121	7,514

6. INCOME TAXES

The components of the Group's earnings from continuing operations before income taxes by taxing jurisdiction were as follows:

	2019	2018	2017
Earnings			
Russia	480,278	744,735	443,450
Other markets	88,558	31,906	50,251
Earnings from continuing operations before income taxes	568,836	776,641	493,701

The (expense) benefit for income taxes (excluding non-controlling interests) by taxing jurisdiction was as follows:

	2019	2018	2017
Current tax expense			
Russia	(74,758)	(147,883)	(80,070)
Other markets	(21,081)	(31,166)	(26,043)
	(95,839)	(179,049)	(106,113)
Deferred tax (expense) benefit			
Russia	(28,063)	(7,558)	(15,380)
Other markets	(6,972)	2,433	6,309
	(35,035)	(5,125)	(9,071)
Income tax (expense)	(130,874)	(184,174)	(115,184)

The Group made income tax payments, net of refunds, of \$ 109,087, \$ 194,515 and \$ 95,251 in 2019, 2018 and 2017, respectively.

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6. INCOME TAXES (CONTINUED)

A reconciliation of income tax expense using the statutory Russian income tax rate compared with the actual income tax expense was as follows:

	2019	2018	2017
Earnings from continuing operations before income taxes	568,836	776,641	493,701
Statutory Russian income tax rate	20%	20%	20%
Tax (expense) using statutory Russian income tax rate	(113,767)	(155,328)	(98,740)
Tax rate and permanent differences on non-Russian earnings	3,470	3,763	4,453
Non-deductible expenses	(6,804)	(8,022)	(7,451)
Tax on dividends	(15,873)	(24,484)	(12,619)
Other, net	2,100	(103)	(827)
Income tax (expense)	(130,874)	(184,174)	(115,184)
Effective income tax rate	23%	24%	23%

The tax effects of significant temporary differences and tax loss carryforwards, representing deferred income tax assets and liabilities at December 31, 2019 and 2018, were as follows:

	December 31, 2019	December 31, 2018
Deferred income tax assets:		
Net operating loss carryforwards	349	687
Inventory	3,080	9,849
Lease obligations	29,852	1,430
Other	27,814	11,913
Deferred income tax assets	61,095	23,879
Deferred income tax liabilities:		
Intangible assets	(8,287)	(5,325)
Plant, properties and equipment	(171,695)	(116,423)
Right of use assets	(29,683)	0
Acquisition of forestry harvesting rights	(10,132)	0
Other	(731)	(686)
Deferred income tax liabilities	(220,528)	(122,434)
Net deferred income tax (liabilities)	(159,433)	(98,555)

In 2019 and 2018, the Group utilized part of its tax loss carryforwards. The remaining tax loss carryforwards at December 31, 2019, in the amount of \$ 349 have an unlimited life. Taking this into account and having assessed the Group's cash flow forecasts in the context of current and projected market conditions, the Group concluded that it is not more likely than not that any portion of the deferred taxes will not be realized; and therefore, no valuation allowance was recorded against the Group's deferred income tax assets at December 31, 2019 and December 31, 2018.

The Group does not recognize a deferred tax liability for temporary differences associated with the accumulated retained earnings of the Group subsidiaries at the beginning of the respective year, as these earnings are considered indefinitely invested. Future dividends, if any, will be paid out of earnings of the current year and subsequent years. No such deferred tax liability is recorded for this temporary difference at December 31, 2019 (December 31, 2018: nil). Temporary differences for which no deferred taxes are provided are \$ 223,793 (December 31, 2018: \$ 283,363)

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7. COMMITMENTS AND CONTINGENT LIABILITIES

Operating environment of the Group

Emerging markets such as Russia are subject to different risks than more developed markets, including economic, political and social, and legal and legislative risks. Laws and regulations affecting businesses in Russia continue to change rapidly and tax and regulatory frameworks are subject to varying interpretations. The Russian economy was growing in the last three years, after overcoming the economic recession of 2016 and previous years. The future economic direction of Russia is heavily influenced by the fiscal and monetary policies adopted by the government, together with developments in the legal, regulatory, and political environment. Because Russia produces and exports large volumes of oil and gas, its economy is particularly sensitive to the price of oil and gas on the world market.

Starting from 2014, sanctions have been imposed in several packages by the U.S. and the E.U. on certain Russian officials, businessmen and companies. This led to reduced access of the Russian businesses to international capital markets.

The impact of further economic and political developments on future operations and the financial position of the Group is uncertain, but might be significant.

Tax legislation

Russian tax and customs legislation, which was enacted or substantively enacted at the end of the reporting period, is subject to varying interpretations when being applied to the transactions and activities of the Group. Consequently, tax positions taken by management and the formal documentation supporting the tax positions may be challenged by the tax authorities. Russian tax administration is gradually strengthening, including the fact that there is a higher risk of review of tax transactions without a clear business purpose or with tax non-compliant counterparties. There are also cases, where companies were penalized by the tax authorities for their counterparties not being compliant with VAT legislation. Fiscal periods remain open to review by the authorities, with respect to taxes, for three calendar years preceding the year when decisions about the review were made. Under certain circumstances reviews may cover longer periods.

The Russian transfer pricing legislation is to a large extent, based on international transfer pricing principles developed by the Organization for Economic Cooperation and Development (OECD). This legislation provides the possibility for tax authorities to make transfer pricing adjustments and impose additional tax liabilities, with respect to controlled transactions (transactions with related parties and some types of transactions with unrelated parties), provided that the transaction price is not arm's length. Management has implemented internal controls to be in compliance with this transfer pricing legislation.

Tax liabilities arising from transactions between companies are determined using actual transaction prices. It is possible, with the evolution of the interpretation of the transfer pricing rules, that such transfer prices could be challenged. The impact of any such challenge cannot be reliably estimated; however, it may be significant to the financial position and/or the overall operations of the Group.

As Russian tax legislation does not provide definitive guidance in certain areas, the Group adopts, from time to time, interpretations of such uncertain areas that reduce the overall tax rate of the Group. While management currently estimates that it is probable that tax positions and interpretations will be sustained, there is a possible risk that an outflow of resources will be required should such tax positions and interpretations be challenged by the tax authorities. The impact of any such challenge cannot be reliably estimated; however, it may be significant to the financial position and/or the overall operations of the Group.

The Group has evaluated additional tax obligations from its exposure to different tax risks assessed by tax authorities due to examinations of prior periods and no additional tax liability was recognized at December 31, 2019 (December 31, 2018: \$143).

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7. COMMITMENTS AND CONTINGENT LIABILITIES (CONTINUED)

The Company's management estimated the risk of the accrual of additional taxes, penalties and fines, the total of which is believed to be less than 1% of revenue as at December 31, 2019.

Legal proceedings

From time to time and in the normal course of business, claims against the Group may be received. At December 31, 2019 and 2018, the Group estimates that it does not have any material potential obligations from exposure to possible legal risks.

Environmental matters

The enforcement of environmental regulation in the Russian Federation is evolving and the enforcement posture of government authorities is continually being reconsidered. The Group annually evaluates its obligations under environmental regulations. As obligations are determined to be probable and reasonably estimable, they are recognized immediately. Potential liabilities, which might arise as a result of changes in existing regulations, civil litigation or legislation are uncertain but could be material.

Forestry legislation

The Group's logging activities are subject to the forestry legislation of the Russian Federation. Management believes that the Group's activities are in compliance with current legislation.

The Group has an obligation to perform reforestation of the timberland it harvests. This obligation arises and the liability for the respective costs is recorded when the Group commences harvesting of a particular plot. At December 31, 2019 and 2018, the Group had substantially fulfilled its obligations.

Insurance matters

The Group is subject to political, legislative, fiscal and regulatory developments and risks, which are not covered by insurance. No provisions for self-insurance are required and therefore are not included in these consolidated financial statements. The occurrence of significant losses and impairments could have a material effect on the Group's operations.

Sales commitments

During the year ended December 31, 2019, the Group had a commitment to supply heating and water (in prior years also electricity) to inhabitants of Koryazhma, since the Group owns the only steam generator and electricity station in the town. The supply terms are renewed annually, with prices determined by the respective local state energy commissions. Management estimates that revenue and related costs from the supply of heating and water in Koryazhma for the year ending December 31, 2020 are expected to be approximately \$ 4,650 and \$ 4,250, respectively.

Contractual capital expenditure commitments

At December 31, 2019, the Group had outstanding contractual commitments to purchase or construct plant, properties and equipment in the amount of \$ 761,588 (December 31, 2018: \$ 310,640).

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8. DEBT AND LINES OF CREDIT

A summary of long-term debt is as follows:

	Weighted average interest rates	Notional currency	December 31, 2019	December 31, 2018
Fixed rate long-term bank loans	7.71%	RUB	468,258	753,827
Floating rate long-term bank loans	7.71%	RUB	1,055,751	0
Floating rate long-term bank loans	4.26%	US Dollar	682,188	875,897
Letter of credit	1.55%	EUR	21,184	0
Finance lease liabilities	9.21%	RUB	7,514	7,151
Total long-term borrowings (a)			2,234,895	1,636,875
Less: current maturities			703,275	286,563
Long-term debt			1,531,620	1,350,312

(c) The estimated fair market value was approximately \$ 2,236,737 at December 31, 2019 and \$ 1,641,111 at December 31, 2018. The fair values are determined on the basis of expected cash flows discounted at current interest rates for new instruments with similar credit risks and remaining maturities and were categorized to level 2 of the fair value hierarchy.

Total maturities of long-term debt over the next 5 years and thereafter are 2021 - \$ 932,624; 2022 - \$ 586,268; 2023 - \$ 7,799; 2024 - \$ 808; 2025 and later - \$ 4,121.

At December 31, 2019 and 2018, no assets were pledged as collateral for the above borrowings. At December 31, 2019 and 2018, the Group was in compliance with all the financial covenants of its loan agreements.

At December 31, 2019 the Group has unused lines of credit in the amount of \$ 96,922 (December 31, 2018: \$ 57,578).

9. CAPITAL STOCK

At December 31, 2019 and 2018, authorised, fully paid, outstanding and issued share capital of the Company comprised 133,582,480 ordinary shares with par value of CHF 1 (\$ 0.82) each. Each ordinary share entitles a shareholder to one vote.

Dividends

The Company declared and paid dividends of \$ 477,769 (CHF 3.56 (\$ 3.58) per share) in April 2019, of \$ 232,632 (CHF 1.65 (\$ 1.74) per share) in March 2018 and \$ 241,760 (CHF 1.83 (\$ 1.81) per share) in March 2017.

In December 2019, the Shareholders of JSC Ilim Group approved dividends of \$ 253,689 (RUB 2.95 (\$ 0.05) per share). In June 2019, the Shareholders of JSC Ilim Group approved dividends of \$ 75,658 (RUB 0.90 (\$ 0.01) per share). Dividends attributable to non-controlling interests amounted to \$ 11,946 in 2019.

In November 2018, the Shareholders of JSC Ilim Group approved dividends of \$ 411,587 (RUB 4.90 (\$ 0.07) per share). In June 2018, the Shareholders of JSC Ilim Group approved dividends of \$ 84,160 (RUB 0.95 (\$ 0.02) per share). Dividends attributable to non-controlling interests amounted to \$ 17,981 in 2018.

In December 2017, the Shareholders of JSC Ilim Group approved dividends of \$ 197,548 (RUB 2.10 (\$ 0.04) per share). In June 2017, the Shareholders of JSC Ilim Group approved dividends of \$ 58,023 (RUB 0.60 (\$ 0.01) per share). Dividends attributable to non-controlling interests amounted to \$ 10,829 in 2017.

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10. RELATED PARTY TRANSACTIONS

Related party relationships are determined by reference to ASC No. 850, *Related Parties Disclosures*.

Related parties of the Group fall into the following categories:

- companies controlled by the Russian Shareholders;
- International Paper Company.

Amounts purchased from and sold to related parties are recorded in these consolidated financial statement line items where similar non-related party transactions are recorded. Outstanding balances at December 31, 2019 and 2018 are recorded in the accompanying consolidated balance sheet in accounts receivable from related parties and accounts payable to related parties.

Companies controlled by the Russian Shareholders

Operating transactions

Balances with the companies controlled by the Russian Shareholders at December 31, 2019 and 2018 consist of the following:

Sales/purchases of:	December 31, 2019		December 31, 2018	
	Receivables	Payables	Receivables	Payables
Raw materials	6,353	(277)	1,562	(615)
Other services	1,589	(3)	3,815	(2)
Operating lease	272	(3,148)	248	0
Energy, gas, water and heat	240	0	139	0
Transport services	46	(226)	319	(508)
Total	8,500	(3,654)	6,083	(1,125)

All outstanding balances with related parties are required to be settled in cash and are not secured. Management believes that the terms and conditions of these related party transactions are generally similar to those that are available or are reasonably expected to be available for similar transactions with unrelated parties.

Transactions during the years ended December 31, 2019, 2018 and 2017 between the Group and the companies controlled by the Russian Shareholders were as follows:

	2019		2018		2017	
	Sales	Purchases	Sales	Purchases	Sales	Purchases
Raw materials	52,123	(6,658)	50,990	(8,365)	46,377	(5,578)
Energy, gas, water and heat	2,174	0	2,038	0	1,353	0
Other services	1,779	(9,217)	2,014	(7,834)	1,682	(8,617)
Transport services	742	0	840	0	1,085	0
Operating lease	497	(1,332)	861	(1,624)	447	(1,580)
Plant, properties and equipment	0	(15,000)				
Right of use assets	0	(3,931)				
Total	57,315	(36,138)	56,743	(17,823)	50,944	(15,775)

ILIM S.A. AND ITS SUBSIDIARIES

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10. RELATED PARTY TRANSACTIONS (CONTINUED)

Loans issued to shareholders

The Group extended loans to companies controlled by the Russian shareholders as presented below:

Year of issuance	Principal amount	Security	Maturity date	Principal outstanding	
				2019	2018
Loan 1	2015	75,000 shares in a non-listed company	July 2021	0	34,213
Loan 2	2016	100,000 shares in a non-listed company	July 2021	58,283	100,000
Loan 3	2018	20,000	April 2019	0	20,000
Loan 4	2019	35,000 shares in a non-listed company	August 2021	30,000	0
Total				88,283	154,213

All loans are denominated in US Dollars, and accrue interest at market rates. Under the terms of the loans, the Borrowers shall perform early partial prepayments of the principal amount of the loans in the amount equal to the substantial portion of the dividend that the Company may pay for the benefit of that Russian shareholder, less higher priority payments (including accrued interest, charges, fees, costs and expenses related to the loan) provided that the amount of such portion of the dividend is sufficient to cover those higher priority payments. During 2019, a new loan of \$ 35,000 was extended to a Russian shareholder and Borrowers repaid \$ 100,930 of principal and \$ 13,787 of interest.

The related interest income accrued in the amount of \$ 11,987 (2018: \$ 13,022) and foreign exchange loss in the amount of \$ 11,186 (2018: gain of \$ 19,042) have been presented within equity and are included in additional paid-in capital and receivables from the shareholders, respectively, in these consolidated financial statements.

International Paper Company

Balances with International Paper Company and its subsidiaries were as follows:

Sales/purchases of:	December 31, 2019		December 31, 2018	
	Receivables	Payables	Receivables	Payables
Finished goods	16,019	(2,435)	21,390	(1,081)
Services	7	(8,708)	0	(4,895)
Total	16,026	(11,143)	21,390	(5,976)

Transactions between the Group and International Paper Company and subsidiaries were as follows:

	2019		2018		2017	
	Sales	Purchases	Sales	Purchases	Sales	Purchases
Finished goods	220,695	0	234,041	0	221,838	0
Services	127	(3,554)	95	(2,831)	158	(1,816)
Total	220,822	(3,554)	234,136	(2,831)	221,996	(1,816)

11. SUBSEQUENT EVENTS

On January 13, 2020, the Group acquired control of LLC Firma Sibtl LTD, a forestry company, for a purchase price of \$ 3,885, including \$ 2,090 paid at the acquisition date from a deposit, classified as restricted cash at December 31, 2019 (see Note 4).