
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

(Mark One)

Registration statement pursuant to Section 12(b) or 12(g) of the Securities Exchange Act of 1934

or

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

for the fiscal year ended December 31, 2019

or

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

or

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

Commission file number: 001-31518

TENARIS S.A.

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's name into English)

Grand Duchy of Luxembourg
(Jurisdiction of incorporation or organization)

26, Boulevard Royal – 4th Floor
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(Address of principal executive offices)

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

Title of Each Class

Name of Each Exchange On Which Registered

American Depositary Shares
Ordinary Shares, par value \$1.00 per share

New York Stock Exchange
New York Stock Exchange*

* Ordinary shares of Tenaris S.A. are not listed for trading but only in connection with the registration of American Depositary Shares which are evidenced by American Depositary Receipts.

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

1,180,536,830 ordinary shares, par value \$1.00 per share

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

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note – checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

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 and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer

Accelerated Filer

Non-accelerated filer
Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, 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.

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board

Other

If "Other" has been checked in response to the previous question indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Please send copies of notices and communications from the Securities and Exchange Commission to:

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CERTAIN DEFINED TERMS

Unless otherwise specified or if the context so requires:

- References in this annual report to “the Company” are exclusively to Tenaris S.A., a Luxembourg *société anonyme*.
- References in this annual report to “Tenaris”, “we”, “us” or “our” are to Tenaris S.A. and its consolidated subsidiaries. See “II. Accounting Policies A. Basis of presentation” and “II. Accounting Policies B. Group accounting” to our audited consolidated financial statements included in this annual report.
- References in this annual report to “San Faustin” are to San Faustin S.A., a Luxembourg *société anonyme* and the Company’s controlling shareholder.
- “shares” refers to ordinary shares, par value \$1.00, of the Company.
- “ADSs” refers to the American Depositary Shares, which are evidenced by American Depositary Receipts, and represent two shares each.
- “OCTG” refers to oil country tubular goods. See Item 4.B. “Information on the Company – Business Overview – Our Products”.
- “tons” refers to metric tons; one metric ton is equal to 1,000 kilograms, 2,204.62 pounds, or 1.102 U.S. (short) tons.
- “billion” refers to one thousand million, or 1,000,000,000.
- “U.S. dollars”, “US\$”, “USD” or “\$” each refers to the United States dollar.
- “EUR” refers to the Euro.
- “BRL” refers to the Brazilian real.
- “ARS” refers to the Argentine peso.

PRESENTATION OF CERTAIN FINANCIAL AND OTHER INFORMATION

Accounting Principles

We prepare our consolidated financial statements in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board (“IASB”), and in accordance with IFRS, as adopted by the European Union. IFRS differs in certain significant aspects from generally accepted accounting principles in the United States, commonly referred to as U.S. GAAP. Additionally, this annual report includes certain non-IFRS alternative performance measures such as EBITDA, Net cash/debt position and Free Cash Flow. See Exhibit 7.2 for more details on these alternative performance measures.

Following the sale in January 2017 of our steel electric conduit business in North America, known as Republic Conduit, the results of Republic Conduit are presented as discontinued operations in accordance with IFRS 5, “Non-current Assets Held for Sale and Discontinued Operations”. Consequently, all amounts related to discontinued operations within each line item of the consolidated income statement are reclassified into discontinued operations. The consolidated statement of cash flows includes the cash flows for continuing and discontinued operations; cash flows and earnings per share from discontinued operations are disclosed separately in note 29 “Discontinued Operations” to our audited consolidated financial statements included in this annual report, as well as additional information detailing net assets of disposal group classified as held for sale and discontinued operations.

We publish consolidated financial statements presented in increments of a thousand U.S. dollars. This annual report includes our audited consolidated financial statements for the years ended December 31, 2019, 2018 and 2017. We completed the acquisition of IPSCO Tubulars Inc. (“IPSCO”) discussed elsewhere in this annual report on January 2, 2020. Accordingly, the balance sheet and results of operations of IPSCO as of and for the year ended December 31, 2019, have not been reflected in our consolidated financial statements included in this annual report.

Rounding

Certain monetary amounts, percentages and other figures included in this annual report have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be the arithmetic aggregation of the figures that precede them, and figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

Our Internet Website is Not Part of this Annual Report

We maintain an Internet website at www.tenaris.com. Information contained in or otherwise accessible through our Internet website is not a part of this annual report. All references in this annual report to this Internet site are inactive textual references to these URLs, or “uniform resource locators” and are for informational reference only. We assume no responsibility for the information contained on our Internet website.

Industry Data

Unless otherwise indicated, industry data and statistics (including historical information, estimates or forecasts) in this annual report are contained in or derived from internal or industry sources believed by Tenaris to be reliable. Industry data and statistics are inherently predictive and are not necessarily reflective of actual industry conditions. Such statistics are based on market research, which itself is based on sampling and subjective judgments by both the researchers and the respondents, including judgments about what types of products and transactions should be included in the relevant market. In addition, the value of comparisons of statistics for different markets is limited by many factors, including that (i) the markets are defined differently, (ii) the underlying information was gathered by different methods and (iii) different assumptions were applied in compiling the data. Such data and statistics have not been independently verified, and the Company makes no representation as to the accuracy or completeness of such data or any assumptions relied upon therein.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This annual report and any other oral or written statements made by us to the public may contain “forward-looking statements” within the meaning of and subject to the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. This annual report contains forward-looking statements, including with respect to certain of our plans and current goals and expectations relating to Tenaris’s future financial condition and performance.

Sections of this annual report that by their nature contain forward-looking statements include, but are not limited to, Item 3. “Key Information”, Item 4. “Information on the Company”, Item 5. “Operating and Financial Review and Prospects”, Item 8. “Financial Information” and Item 11. “Quantitative and Qualitative Disclosure About Market Risk”.

We use words and terms such as “aim”, “will likely result”, “will continue”, “contemplate”, “seek to”, “future”, “objective”, “goal”, “should”, “will pursue”, “anticipate”, “estimate”, “expect”, “project”, “intend”, “plan”, “believe” and words and terms of similar substance to identify forward-looking statements, but they are not the only way we identify such statements. All forward-looking statements are management’s present expectations of future events and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. These factors include the risks related to our business discussed under Item 3.D. “Key Information – Risk Factors”, including among them, the following:

- the impact of the COVID-19 crisis and other pandemics on the world’s economy, the energy sector in general, or our business and operations;
- our ability to implement our business strategy or to grow through acquisitions, joint ventures and other investments;
- the competitive environment in our business and our industry;
- our ability to price our products and services in accordance with our strategy;
- our ability to absorb cost increases and to secure supplies of essential raw materials and energy;
- our ability to adjust fixed and semi-fixed costs to fluctuations in product demand;
- trends in the levels of investment in oil and gas exploration and drilling worldwide;
- general macroeconomic, political, social and public health conditions and developments in the countries in which we operate or distribute pipes; *and*
- changes to applicable laws and regulations, including the imposition of tariffs or quotas or other trade barriers.

By their nature, certain disclosures relating to these and other risks are only estimates and could be materially different from what actually occurs in the future. As a result, actual future gains or losses that may affect our financial condition and results of operations could differ materially from those that have been estimated. You should not place undue reliance on the forward-looking statements, which speak only as of the date of this annual report. Except as required by law, we are not under any obligation, and expressly disclaim any obligation to, update or alter any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

A. Selected Financial Data

The selected consolidated financial data set forth below have been derived from our audited consolidated financial statements for each of the years and at the dates indicated therein ⁽¹⁾. Our consolidated financial statements were prepared in accordance with IFRS, and were audited by PricewaterhouseCoopers, Société coopérative, *Cabinet de révision agréé* ("PwC Luxembourg"), an independent registered public accounting firm. PwC Luxembourg is a member firm of PwC International Limited ("PwC"). IFRS differs in certain significant aspects from U.S. GAAP.

For a discussion of the accounting principles affecting the financial information contained in this annual report, please see "Presentation of Certain Financial and Other Information – Accounting Principles".

Thousands of U.S. dollars (except number of shares and per share amounts)

	For the year ended December 31,				
	2019	2018	2017	2016	2015
Selected consolidated income statement data ⁽¹⁾					
Continuing operations					
Net sales	7,294,055	7,658,588	5,288,504	4,293,592	6,903,123
Cost of sales	(5,107,495)	(5,279,300)	(3,685,057)	(3,165,684)	(4,747,760)
Gross profit	2,186,560	2,379,288	1,603,447	1,127,908	2,155,363
Selling, general and administrative expenses	(1,365,974)	(1,509,976)	(1,270,016)	(1,196,929)	(1,593,597)
Other operating income (expenses), net ⁽²⁾	11,805	2,501	1,157	9,964	(395,971)
Operating income (loss)	832,391	871,813	334,588	(59,057)	165,795
Finance income	47,997	39,856	47,605	66,204	34,574
Finance cost	(43,381)	(36,942)	(27,072)	(22,329)	(23,058)
Other financial results	14,667	34,386	(43,550)	(21,921)	3,076
Income (loss) before equity in earnings (losses) of non-consolidated companies and income tax	851,674	909,113	311,571	(37,103)	180,387
Equity in earnings (losses) of non-consolidated companies ⁽³⁾	82,036	193,994	116,140	71,533	(39,558)
Income before income tax	933,710	1,103,107	427,711	34,430	140,829
Income tax	(202,452)	(229,207)	17,136	(17,102)	(234,384)
Income (loss) for the year for continuing operations	731,258	873,900	444,847	17,328	(93,555)
Discontinued operations					
Result for discontinued operations	-	-	91,542	41,411	19,130
Income (loss) for the year ⁽⁴⁾	731,258	873,900	536,389	58,739	(74,425)
Income (loss) attributable to ⁽⁴⁾:					
Owners of the parent	742,686	876,063	544,737	55,298	(80,162)
Non-controlling interests	(11,428)	(2,163)	(8,348)	3,441	5,737
Income (loss) for the year ⁽⁴⁾	731,258	873,900	536,389	58,739	(74,425)
Depreciation and amortization for continuing operations	(539,521)	(664,357)	(608,640)	(657,109)	(653,313)
Weighted average number of shares outstanding	1,180,536,830	1,180,536,830	1,180,536,830	1,180,536,830	1,180,536,830
Basic and diluted earnings (losses) per share for continuing operations	0.63	0.74	0.38	0.01	(0.08)
Basic and diluted earnings (losses) per share	0.63	0.74	0.46	0.05	(0.07)
Dividends per share ⁽⁵⁾	0.41	0.41	0.41	0.41	0.45

(1) Following the sale in January 2017 of our steel electric conduit business in North America, known as Republic Conduit, the results of that business are presented as discontinued operations in accordance with IFRS 5, "Non-current Assets Held for Sale and Discontinued Operations". Consequently, all amounts related to discontinued operations within each line item of the consolidated income statement are reclassified into discontinued operations.

(2) Other operating income (expenses), net in 2015 includes an impairment charge of \$400 million on our North American welded pipe operations.

(3) Equity in earnings (losses) of non-consolidated companies includes impairment charges on the investment in Usiminas (as such term is defined below) investment of \$29 million in 2015.

(4) International Accounting Standard No. 1 ("IAS 1") (revised) requires that income for the year as shown on the income statement does not exclude non-controlling interests. Earnings per share, however, continue to be calculated on the basis of income attributable solely to the owners of the parent (i.e., the Company).

(5) Dividends per share correspond to the dividends proposed or paid in respect of the year.

Thousands of U.S. dollars (except number of shares)	At December 31,				
	2019	2018	2017	2016	2015
Selected consolidated financial position data					
Current assets	5,670,607	5,464,192	5,381,154	4,817,154	5,743,031
Property, plant and equipment, net	6,090,017	6,063,908	6,229,143	6,001,939	5,672,258
Other non-current assets	3,082,367	2,723,199	2,787,921	3,032,765	3,471,685
Assets of disposal group classified as held for sale	-	-	-	151,417	-
Total assets	14,842,991	14,251,299	14,398,218	14,003,275	14,886,974
Current liabilities	1,780,457	1,718,363	2,070,899	1,713,036	1,754,775
Non-current borrowings	40,880	29,187	34,645	31,542	223,221
Deferred tax liabilities	336,982	379,039	457,970	550,657	750,325
Other non-current liabilities	498,300	249,218	253,734	276,874	292,597
Liabilities of disposal group classified as held for sale	-	-	-	18,094	-
Total liabilities	2,656,619	2,375,807	2,817,248	2,590,203	3,020,918
Capital and reserves attributable to owners of the parent	11,988,958	11,782,882	11,482,185	11,287,417	11,713,344
Non-controlling interests	197,414	92,610	98,785	125,655	152,712
Total equity	12,186,372	11,875,492	11,580,970	11,413,072	11,866,056
Total liabilities and equity	14,842,991	14,251,299	14,398,218	14,003,275	14,886,974
Share capital	1,180,537	1,180,537	1,180,537	1,180,537	1,180,537
Number of shares outstanding	1,180,536,830	1,180,536,830	1,180,536,830	1,180,536,830	1,180,536,830

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

You should carefully consider the risks and uncertainties described below, together with all other information contained in this annual report, before making any investment decision. Any of these risks and uncertainties could have a material adverse effect on our business, revenues, financial condition and results of operations, which could in turn affect the price of shares and ADSs.

Risks Relating to Our Industry

The COVID-19 pandemic could have an adverse effect of a magnitude we cannot predict.

A novel strain of coronavirus (SARS-CoV-2) surfaced in China in December 2019 and subsequently spread to the rest of the world in early 2020. In March 2020, the World Health Organization declared COVID-19, the disease caused by SARS-CoV-2, a global pandemic. In response to the COVID-19 outbreak, countries have taken different measures in relation to prevention and containment, and several countries introduced bans on business activities or locked down cities or countries, including countries where Tenaris has operations (such as Argentina, China, Colombia, Italy, Mexico and the United States). The rapid expansion of COVID-19 and the measures taken to contain it have triggered a severe fall in global economic activity and a serious crisis in the energy sector.

Given the uncertainty around the extent and timing of the future spread of the SARS-CoV-2 virus and the timing or relaxation of protective measures, it is not possible at this time to predict the magnitude of COVID-19's effects on any of the world's economy, the energy industry generally, or Tenaris in particular, nor is it feasible to reasonably estimate the impact of the pandemic on Tenaris's operations, results, cash flows or financial condition. For more information on the impact of the COVID-19 pandemic, see Item 5G, "Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

Sales and profitability have fallen as a result of downturns in the international price of oil and gas and other factors and circumstances (including the recent COVID-19 outbreak) affecting the oil and gas industry, and may continue to be adversely impacted for a prolonged period of time.

We are a global steel pipe manufacturer with a strong focus on manufacturing products and related services for the oil and gas industry. The oil and gas industry is a major consumer of steel pipe products worldwide, particularly for products manufactured under high quality standards and demanding specifications. Demand for steel pipe products from the oil and gas industry has historically been volatile and depends primarily upon the number of oil and natural gas wells being drilled, completed and reworked, and the depth and drilling conditions of these wells. The level of exploration, development and production activities of, and the corresponding capital spending by, oil and gas companies, including national oil companies, depends primarily on current and expected future prices of oil and natural gas and is sensitive to the industry's view of future economic growth and the resulting impact on demand for oil and natural gas. Several factors, such as the supply and demand for oil and gas, and political and global economic conditions, affect these prices. When the price of oil and gas falls, oil and gas companies generally reduce spending on production and exploration activities and, accordingly, make fewer purchases of steel pipe products. Major oil-and gas-producing nations and companies have frequently collaborated to balance the supply (and thus the price) of oil in the international markets. A major vehicle for this collaboration has been the Organization of Petroleum Exporting Countries ("OPEC"), and many of our customers are state-owned companies in member countries of OPEC. A more recent factor affecting oil and gas prices has been the ability of producers in the United States and Canada to rapidly increase production from their reserves of tight oil and shale gas in response to changes in market conditions. For example, in recent years, Saudi Arabia and Russia have cooperated in trimming crude production to try to counter falling prices resulting from the increased production in the United States and Canada. While the extent of the effects of COVID-19 on the global economy and oil demand were still unclear, in March 2020, the members of OPEC+ (OPEC plus other major oil producers including Russia) did not agree to extend their agreement to cut oil production and Saudi Arabia precipitated a wave of additional supply on the market triggering a collapse in oil prices below \$30 per barrel. This exacerbated what soon became clear to be an unprecedented situation of oversupply, caused primarily by the sudden and dramatic fall in oil consumption as a result of the measures taken to contain the spread of the virus around the world. Although OPEC+ subsequently reached an equally unprecedented agreement to cut production by as much as 9.7 million barrels per day, a situation of acute oversupply remains, causing oil prices to hit a record lows. By the end of trading on April 20, 2020, the West Texas Intermediate (WTI) forward price for delivery in May, which had to be closed out the following day, fell to a negative value for the first time in history, as oil storage facilities were completely committed, and producers were forced to pay buyers to take their barrels. It is not known how long it will take for oil and gas demand to recover or to achieve a more balanced position between supply and demand. As a result, prices are expected to remain at low levels for an extended period. In these circumstances, most of our customers have announced, or are making, significant cuts to their investment plans and are likely to announce further cuts, in which case demand for our products will decline further and have a material impact on our operations, revenues, profitability and financial condition. For more information on the impact of the COVID-19 pandemic and the oil and gas crisis, see Item 5G, "Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

Competition in the global market for steel pipe products may cause us to lose market share and hurt our sales and profitability.

The global market for steel pipe products is highly competitive, with the primary competitive factors being price, quality, service and technology. In recent years, substantial investments have been made, especially in China but also in the United States, to increase production capacity of seamless steel pipe products, and as a result there is significant excess production capacity, particularly for “commodity” or standard product grades. Capacity for the production of more specialized product grades has also increased. At the same time, the high cost and long lead times required to develop the most complex projects, particularly deepwater and oil sands projects, has led to a slowdown in the sanctioning of new developments in a context of low and more volatile oil prices. Despite our efforts to develop products and services that differentiate us from our competitors, reduced demand for steel pipe products from these complex projects means that the competitive environment is expected to remain intense in the coming years and effective competitive differentiation will be a key success factor for Tenaris. In addition, there is a risk of unfairly traded steel pipe imports in markets in which Tenaris produces and sells its products and, despite the application of antidumping duties and tariffs, we can give no assurance with respect to the effectiveness of these actions. Therefore, we may not continue to compete effectively against existing or potential producers and preserve our current shares of geographic or product markets, and increased competition may have a material impact on the pricing of our products and services, which could in turn adversely affect our revenues, profitability and financial condition.

Increases in the cost of raw materials, energy and other costs, limitations or disruptions to the supply of raw materials and energy, and price mismatches between raw materials and our products may hurt our profitability.

The manufacture of seamless steel pipe products requires substantial amounts of steelmaking raw materials and energy; welded steel pipe products, in turn, are processed from steel coils and plates. The availability and pricing of a significant portion of the raw materials and energy we require are subject to supply and demand conditions, which can be volatile, and to tariffs and other government regulations, which can affect continuity of supply and prices. In addition, disruptions, restrictions or limited availability of energy resources in markets where we have significant operations could lead to higher costs of production and eventually to production cutbacks at our facilities in such markets. For example, in Mexico, the decrease in the national production of natural gas and constraints in natural gas transportation capacity have led to increased imports of natural gas which have resulted in increased natural gas transportation costs and, thus, higher steel pipe production costs. See “Risks Relating to Our Business – Adverse economic or political conditions in the countries where we operate or sell our products and services may decrease our sales or disrupt our manufacturing operations, thereby adversely affecting our revenues, profitability and financial condition”. At any given time, we may be unable to obtain an adequate supply of critical raw materials with price and other terms acceptable to us. The availability and prices of raw materials may also be negatively affected by new laws and regulations, including import controls, allocation by suppliers, interruptions in production, accidents or natural disasters, changes in exchange rates, worldwide price fluctuations, and the availability and cost of transportation. In addition, we may not be able to recover, partially or fully, increased costs of raw materials and energy through increased selling prices on our products, or it may take an extended period of time to do so, and limited availability could force us to curtail production, which could adversely affect our sales and profitability.

Our results of operations and financial conditions could be adversely affected by low levels of capacity utilization.

Like other manufacturers of steel-related products, we have fixed and semi-fixed costs (e.g., labor and other operating and maintenance costs) that cannot adjust rapidly to fluctuations in product demand for several reasons, including operational constraints and regulatory restrictions. If demand for our products falls significantly, or if we are unable to operate due to, for example, governmental measures or unavailability of workforce, these costs may adversely affect our profitability and financial condition. In response to the abrupt and steep downturn of the oil and gas industry, we have been required to implement cost-containment measures, including reduction of our operating activities in several jurisdictions, temporary closure of facilities in the United States and review of our capital expenditure plans. Temporary suspensions of operations or closure of facilities generally lead to layoffs of employees, which may in turn give rise to labor conflicts and impact operations. Moreover, cost containment measures may also affect profitability and result in charges for asset impairments. For more information on the impact of the COVID-19 pandemic and the oil and gas crisis, see Item 5G. “Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition”; and for more information on liquidity and capital resources, see “Item 5G. “Operating and Financial Review and Prospects —B. Liquidity and Capital Resources - Principal Sources of Funding”.

Climate change legislation or regulations could curtail demand for fossil fuels and therefore demand for our products and services could be reduced.

We provide products and services to the oil and gas industry, which is generally blamed for greenhouse gas emissions. There is an increased attention on greenhouse gas emissions and climate change from different sectors of society. Existing or future legislation and regulations related to greenhouse gas emissions and climate change, as well as government initiatives to promote the use of alternative energy sources (with many jurisdictions implementing tax advantages and other subsidies to promote the development of renewable energy sources, or even requiring minimum thresholds for power generation from renewable sources), may significantly curtail demand for and production of fossil fuels such as oil and natural gas. These initiatives, together with the growing social awareness regarding climate change and other environmental matters, have resulted in increased investor and consumer demand for renewable energy and additional compliance requirements for fossil energy projects, which are likely to become more stringent over time and to result in substantial increases in costs for the oil and natural gas industry. Furthermore, ongoing technological developments in the renewable energy industry are making renewable energy increasingly competitive against fossil-fuels. If this trend continues, energy demand could shift increasingly towards “cleaner” sources such as hydroelectrical, solar, wind and other renewable energies, which would, in turn, reduce demand for oil and natural gas, thus negatively affecting demand for our products and services and, ultimately, our future results of operations.

Risks Relating to Our Business

Adverse economic or political conditions in the countries where we operate or sell our products and services may decrease our sales or disrupt our manufacturing operations, thereby adversely affecting our revenues, profitability and financial condition.

We have significant operations in various countries, including Argentina, Brazil, Canada, China, Colombia, Indonesia, Italy, Japan, Mexico, Nigeria, Romania, Saudi Arabia and the United States, and we sell our products and services throughout the world. Additionally, in 2019, we formed a joint venture with PAO Severstal (“Severstal”), and we are currently building a welded pipe plant in Russia. Therefore, like other companies with worldwide operations, our business and operations have been, and could in the future be, affected from time to time to varying degrees by political, economic, social and public health developments and changes in laws and regulations. These developments and changes may include, among others, nationalization, expropriation or forced divestiture of assets; restrictions on production, imports and exports; travel, transportation or trade bans; interruptions in the supply of essential energy inputs; exchange and/or transfer restrictions, inability or increasing difficulties to repatriate income or capital or to make contract payments; inflation; devaluation; war or other international conflicts; civil unrest and local security concerns, including high incidences of crime and violence involving drug trafficking organizations that threaten the safe operation of our facilities and operations; direct and indirect price controls; tax increases and changes (including retroactive) in the interpretation, application or enforcement of tax laws and other claims or challenges; cancellation of contract rights; and delays or denials of governmental approvals. Both the likelihood of such occurrences and their overall impact upon us vary greatly from country to country and are not predictable. Realization of these risks could have an adverse impact on the results of operations and financial condition of our subsidiaries located in the affected country and, depending on their materiality, on the results of operations and financial condition of Tenaris as a whole.

Our business and operations in Argentina, from where in 2019 we derived more than 10% of our revenues, including sales to domestic and export markets, may be materially and adversely affected by economic, political, social, fiscal and regulatory developments, including the following:

- Macroeconomic and political conditions in Argentina may adversely affect our business and operations. Increased state intervention in the economy, along with the introduction of changes to government policies, could have an adverse effect on our operations and financial results. Similarly, they could also negatively impact the business and operations of our customers -oil and gas companies operating in Argentina- and consequently our revenues and profitability.
- Our business and operations in Argentina may be adversely affected by inflation or by the measures that may be adopted by the government to address inflation. In particular, increases in services and labor costs could negatively affect our results of operations. In addition, an increased level of labor demands in response to spiraling inflation could trigger higher levels of labor conflicts, and eventually result in strikes or work stoppages. Any such disruption of operations could have an adverse effect on our operations and financial results.

- Other developments that may have an adverse effect on our operations and financial results include increased taxes, exchange controls, restrictions on capital flows and export and import taxes or restrictions. Additionally, in 2019 the Argentine Central Bank introduced several rules and regulations including restrictions on capital outflows from Argentina. Argentine subsidiaries are required to repatriate U.S. dollars collected in connection with exports from Argentina (including U.S. dollars obtained through advance payment and pre-financing facilities) into the country and convert them into ARS at the official exchange rate, which is generally materially lower than the exchange rate available for other purposes. The Argentine government tightened its controls on transactions that would represent capital outflows from Argentina, limiting the ability of Argentine companies to transfer funds outside of Argentina.

These existing controls, and any additional restrictions of this kind that may be imposed in the future, could expose us to the risk of losses arising from fluctuations in the ARS/USD exchange rate or affect our ability to finance our investments and operations in Argentina, or impair our ability to convert and transfer outside the country funds generated by Argentine subsidiaries to pay dividends or royalties or make other offshore payments. For additional information on current Argentine exchange controls and restrictions see Item 10.D. “Additional Information – Exchange Controls – Argentina.”

- In recent years, our operations in Argentina experienced constraints in their electricity and natural gas supply requirements on many occasions. Shortages of energy and natural gas in Argentina have led in the past (and could lead in the future) to production cutbacks negatively affecting our revenues and profitability; we could also face increased costs when using alternative sources of energy.

In Mexico, from where in 2019 we derived more than 10% of our revenues, our business could be materially and adversely affected by economic, political, social, fiscal and regulatory developments, including the following:

- The Mexican government exercises significant influence over the Mexican economy and, therefore, governmental actions concerning the economy and state-owned enterprises could have a significant impact on Mexico’s private sector and on our Mexican-related operations. In addition, changes of the United States-Mexico-Canada Agreement (“USMCA”), could adversely affect the investment climate and economic activity in Mexico, Canada and/or in the United States and impact our results of operations and net results.
- We have a growing credit exposure to Petróleos Mexicanos S.A. de C.V. (“Pemex”), a Mexican state-owned entity and our main customer in Mexico. During 2019 and early 2020 we started building a hefty balance of accounts receivable with Pemex, which started to decrease as a result of large collections recorded as from February 2020. If we are not able to reduce our exposure to Pemex and Pemex defaults on its payments, our revenues and profitability may be adversely affected. However, Pemex has communicated to the market and its suppliers, that it has access to ample lines of credit and that in addition it has been able to refinance part of its maturities for 2020, therefore guaranteeing payment of its obligations to creditors and suppliers alike.
- Our Mexican operations could also be affected by criminal violence, primarily due to the activities of drug cartels and related organized crime that Mexico has experienced and may continue to experience. The city of Veracruz, where our facility is located, has experienced several incidents of violence. Although the Mexican government has implemented various security measures and has strengthened its military and police forces, drug-related crime continues to exist in Mexico. Our business may be materially and adversely affected by these activities, their possible escalation and the violence associated with them.
- In 2017, 2018 and 2019, our operations in Mexico experienced several days of union-led stoppages due to an internal dispute within the local union; such internal dispute is ongoing and we cannot assure it will not cause further disruptions in our Mexican operations.

In the Middle East and Africa, our business could be adversely affected by political and other events in the region, such as armed conflicts, terrorist attacks and social unrest, which could materially impact the operations of companies active in the region’s oil and gas industry.

If we do not successfully implement our business strategy, our ability to grow, our competitive position and our sales and profitability may suffer.

We plan to continue implementing our business strategy of developing integrated product and service solutions designed to differentiate our offering from those of our competitors and meet the needs of our customers for lower operational costs and reliable performance even in the most demanding environments, as well as continuing to pursue strategic investment opportunities. Any of the components of our overall business strategy could cost more than anticipated, may not be successfully implemented or could be delayed or abandoned. For example, we may fail to create sufficient differentiation in our Rig Direct® services to compensate the added costs of providing such services, or fail to find suitable investment opportunities, including acquisition targets that enable us to continue to grow and improve our competitive position. Even if we successfully implement our business strategy, it may not yield the expected results.

We could be subject to regulatory risks associated with our international operations.

The shipment of goods and services across international borders subjects us to extensive trade laws and regulations. Our import and export activities are governed by customs laws and regulations in each of the countries where we operate. Moreover, the European Union, the United States and other countries control the import and export of certain goods and services and impose related import and export recordkeeping and reporting obligations. Those governments have also imposed economic sanctions against certain countries, persons and other entities, such as sanctions involving sales to Iran, Syria and Venezuela, that restrict or prohibit transactions involving such countries, persons and entities. Similarly, we are subject to the U.S. anti-boycott laws. These laws and regulations are complex and frequently changing, and they may be enacted, amended, enforced or interpreted in a manner that could materially impact our operations. For example, in March 2018, under Section 232 of the Trade Expansion Act of 1962 (“Section 232”), the U.S. imposed a 25% tariff on steel articles imported from all countries. However, Canada and Mexico, as member states of the USMCA, are exempt from the 25% tariff since May 2019. Additionally, imports of steel tubes from Australia, Argentina, Brazil and South Korea are exempt from the 25% tariff; the latter three with specific quotas per product. The U.S. government has also granted the exemption on imports of steel billets from Italy, Mexico and Romania, to be used at our Bay City mill, for an aggregate annual amount of 435,000 tons until September 2020. Any of these exemptions may be revoked or not renewed, thus adversely affecting our operations or revenues. In addition, failure to comply with applicable trade regulations could also result in criminal and civil penalties and sanctions.

Changes in applicable tax regulations and resolutions of tax disputes could negatively affect our financial results.

We are subject to tax laws in numerous foreign jurisdictions where we operate. However, the integrated nature of our worldwide operations can produce conflicting claims from revenue authorities in different countries as to the profits to be taxed in the individual countries, including disputes relating to transfer pricing. The majority of the jurisdictions in which we operate have double tax treaties with other foreign jurisdictions, which provide a framework for mitigating the impact of double taxation on our results. However, mechanisms developed to resolve such conflicting claims are largely untried, and can be expected to be very lengthy.

In recent years, tax authorities around the world have increased their scrutiny of company tax filings and have become more rigid in exercising any discretion they may have. As part of this, the Organization for Economic Co-operation and Development (“OECD”) has proposed a number of tax law changes under its Base Erosion and Profit Shifting (“BEPS”) Action Plans to address issues of transparency, coherence and substance. At the EU level, the European Commission has adopted its Anti Tax Avoidance Directive (“ATAD”), which seeks to prevent tax avoidance by companies and to ensure that companies pay appropriate taxes in the markets where profits are effectively made and business is effectively performed.

Changes to tax laws and regulations in the countries where we operate require us to continually assess our organizational structure and could lead to increased risk of international tax disputes. Our interpretations and application of the tax laws could differ from that of the relevant governmental taxing authority, which could result in the payment of additional taxes, penalties or interest, negatively affecting our profitability and financial condition.

Future acquisitions, strategic partnerships and capital investments may not perform in accordance with expectations or may disrupt our operations and hurt our profits.

One element of our business strategy is to identify and pursue growth-enhancing strategic opportunities. As part of that strategy, we regularly make significant capital investments and acquire interests in, or businesses of, various companies. For example, on January 21, 2019, we completed the acquisition of 47.79% of the shares of Saudi Steel Pipe Company (“SSPC”), a welded steel pipes producer listed on the Saudi Stock Exchange, for a total purchase price of approximately \$141 million; on February 5, 2019, we reached an agreement with Severstal to build during the coming years, a welded pipe plant to produce OCTG products in the Surgut area, West Siberia, Russian Federation, with an estimated cost of \$280 million, in which Tenaris will hold a 49% interest; and on January 2, 2020, we acquired IPSCO, a wholly-owned subsidiary of PAO TMK (“TMK”) and a U.S. producer of seamless and welded OCTG and line pipe products, for approximately \$1,067 million, subject to a contractual true-up adjustment based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date. Consistent with our growth strategy, we intend to continue considering strategic acquisitions, investments and partnerships from time to time to expand our operations and establish a local presence in our markets. We must necessarily base any assessment of potential acquisitions, joint ventures and capital investments on assumptions with respect to timing, profitability, market and customer behavior and other matters that may subsequently prove to be incorrect. For example, we negotiated the terms for the acquisition of IPSCO in early 2019 based on assumptions made at that time, but due to the length of the antitrust review process, we were able to complete the acquisition only in 2020 under materially worse market circumstances. For more information on IPSCO’ acquisition see note 35 “Subsequent Events – Acquisition of IPSCO Tubulars, Inc.” and note 36 “Update as of April 29, 2020 - Acquisition of IPSCO Tubulars, Inc.” to our audited consolidated financial statements included in this annual report, and for information on impairment charges on our U.S. operations see Item 5G. “Operating and Financial Review and Prospects – Recent Developments – The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”. Our past or future acquisitions, significant investments and alliances may not perform in accordance with our expectations and could adversely affect our operations and profitability. In addition, new demands on our existing organization and personnel resulting from the integration of new acquisitions could disrupt our operations and adversely affect our operations and profitability. Moreover, as part of future acquisitions, we may acquire assets that are unrelated to our business, and we may not be able to integrate these assets or sell them under favorable terms and conditions.

Disruptions to our manufacturing processes could adversely affect our operations, customer service levels and financial results.

Our steel pipe manufacturing processes depend on the operation of critical steelmaking equipment, such as electric arc furnaces, continuous casters, rolling mills, heat treatment and various operations that support them, such as our power generation facilities. Despite the investments we make to maintain critical production equipment, such equipment may incur downtime as a result of unanticipated failures or other events, such as fires, explosions, floods, accidents and severe weather conditions.

Similarly, natural disasters or severe weather conditions could significantly damage our production facilities and general infrastructure or affect the normal course of business. For example, our Mexican production facility located in Veracruz is located in or close to regions prone to earthquakes, and our Bay City facility in Texas, United States is located in an area prone to strong winds and hurricanes, and occasional floods. More generally, changing weather patterns and climatic conditions in recent years have added to the unpredictability and frequency of natural disasters.

Our operations may also be adversely affected as a result of stoppages or other labor conflicts. In 2017, 2018 and 2019, our operations in Mexico experienced several days of union-led stoppages due to an internal dispute within the local union; such internal dispute is ongoing and we cannot assure it will not cause further disruptions in Mexico. In addition, in some of the countries in which we have significant production facilities (e.g., Argentina and Brazil), significant fluctuations in exchange rates, together with inflationary pressures, affect our costs, increase labor demands and could eventually generate higher levels of labor conflicts.

Following the COVID-19 outbreak, some of our facilities have been affected, and may continue to be affected, by shutdowns or other restrictions mandated by governmental authorities or otherwise adopted as a preventive measure, or by the unavailability of workforce. For more information on the status of our operations see Item 5G. “Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

Some of the previously described emergency situations could result in damage to property, delays in production or shipments and, in extreme cases, death or injury to persons. Any of the foregoing could create liability for Tenaris. To the extent that lost production or delays in shipments cannot be compensated for by unaffected facilities, such events could have an adverse effect on our profitability and financial condition. Additionally, we do not carry business interruption insurance, and the insurance we maintain for property damage and general liability may not be adequate or available to protect us under such events, its coverage may be limited, or the amount of our insurance may be less than the related loss. For more information on our insurance coverage see Item 4.B. “Information on the Company – B. Business overview – Insurance”.

We may be required to record a significant charge to earnings if we must reassess our goodwill or other assets as a result of changes in assumptions underlying the carrying value of certain assets, particularly as a consequence of deteriorating market conditions.

Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Intangible assets with indefinite useful life, including goodwill, are subject to at least an annual impairment test. At December 31, 2019 we had \$1,320 million in goodwill corresponding mainly to the acquisition of Hydril Company (“Hydril”) in 2007 (\$920 million) and Maverick Tube Corporation (“Maverick”) in 2006 (\$229 million). We recognized goodwill for approximately \$357 million in connection with our acquisition of IPSCO. As a result of the severe deterioration of business conditions and in light of the presence of impairment indicators for its U.S. operations, Tenaris recorded impairment charges as at March 31, 2020, for an aggregate amount of approximately \$622 million. For more information on impairment charges on our U.S. operations see Item 5G. “Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

Our results of operations and financial condition could be adversely affected by movements in exchange rates.

As a global company we manufacture and sell products in a number of countries throughout the world and a portion of our business is carried out in currencies other than the U.S. dollar, which is the Company's functional and presentation currency. As a result, we are exposed to foreign exchange rate risk. Changes in currency values and foreign exchange regulations could adversely affect our financial condition and results of operations. For information on our foreign exchange rate risk, please see Item 11. "Quantitative and Qualitative Disclosure About Market Risk – Foreign Exchange Rate Risk".

If we do not comply with laws and regulations designed to combat corruption in countries in which we sell our products, we could become subject to governmental investigations, fines, penalties or other sanctions and to private lawsuits and our sales and profitability could suffer.

We operate globally and conduct business in certain countries known to experience corruption. Although we are committed to conducting business in a legal and ethical manner in compliance with local and international statutory requirements and standards applicable to our business, there is a risk that our employees, representatives, affiliates, or other persons may take actions that violate applicable laws and regulations that generally prohibit the making of improper payments, including to foreign government officials, for the purpose of obtaining or keeping business, including laws relating to the 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions such as the U.S. Foreign Corrupt Practices Act ("FCPA"). Investigations by government authorities may occupy considerable management time and attention and result in significant expenditures, fines, penalties or other sanctions, as well as private lawsuits.

For information on matters related to an ongoing investigation in connection with certain allegedly improper payments in Brazil, please refer to Item 8. A. "Consolidated and Other Financial Information – Legal Proceedings".

The cost of complying with environmental regulations and potential environmental and product liabilities may increase our operating costs and negatively impact our business, financial condition, results of operations and prospects.

We are subject to a wide range of local, provincial and national laws, regulations, permit requirements and decrees relating to the protection of human health and the environment, including laws and regulations relating to hazardous materials and radioactive materials and environmental protection governing air emissions, water discharges and waste management. Laws and regulations protecting the environment have become increasingly complex and more stringent and expensive to implement in recent years. Additionally, international environmental requirements vary. While standards in the European Union, Canada, and Japan are generally comparable to U.S. standards, other nations, particularly developing nations, including China, have substantially lesser requirements that may give competitors in such nations a competitive advantage. It is possible that any international agreement to regulate emissions may provide exemptions and lesser standards for developing nations. In such case, we may be at a competitive disadvantage relative to competitors having more or all of their production in such developing nations.

Environmental laws and regulations may, in some cases, impose strict liability rendering a person liable for damages to natural resources or threats to public health and safety without regard to negligence or fault. Some environmental laws provide for joint and several strict liability for remediation of spills and releases of hazardous substances. These laws and regulations may expose us to liability for the conduct of or conditions caused by others or for acts that were in compliance with all applicable laws at the time they were performed.

Compliance with applicable requirements and the adoption of new requirements could have a material adverse effect on our consolidated financial condition, results of operations or cash flows. The costs and ultimate impact of complying with environmental laws and regulations are not always clearly known or determinable since regulations under some of these laws have not yet been promulgated or are undergoing revision. The expenditures necessary to remain in compliance with these laws and regulations, including site or other remediation costs, or costs incurred as a result of potential violations of environmental laws could have a material adverse effect on our financial condition and profitability. While we incur and will continue to incur expenditures to comply with applicable laws and regulations, there always remains a risk that environmental incidents or accidents may occur that may negatively affect our reputation or our operations.

Our oil and gas casing, tubing and line pipe products are sold primarily for use in oil and gas drilling, gathering, transportation, processing and power generation facilities, which are subject to inherent risks, including well failures, line pipe leaks, blowouts, bursts and fires, that could result in death, personal injury, property damage, environmental pollution or loss of production. Any of these hazards and risks can result in environmental liabilities, personal injury claims and property damage from the release of hydrocarbons.

Defects in specialty tubing products could result in death, personal injury, property damage, environmental pollution, damage to equipment and facilities or loss of production.

We normally warrant the oilfield products and specialty tubing products we sell or distribute in accordance with customer specifications, but as we pursue our business strategy of providing customers with additional services, such as Rig Direct®, we may be required to warrant that the goods we sell and services we provide are fit for their intended purpose. Actual or claimed defects in our products may give rise to claims against us for losses suffered by our customers and expose us to claims for damages. The insurance we maintain will not be available in cases of gross negligence or willful misconduct, in other cases may not be adequate or available to protect us in the event of a claim, its coverage may be limited, canceled or otherwise terminated, or the amount of our insurance may be less than the related impact on enterprise value after a loss. Similarly, our sales of tubes and components for the automotive industry subject us to potential product liability risks that could extend to being held liable for the costs of the recall of automobiles sold by car manufacturers and their distributors.

Limitations on our ability to protect our intellectual property rights, including our trade secrets, could cause a loss in revenue and any competitive advantage we hold.

Some of our products or services, and the processes we use to produce or provide them, have been granted patent protection, have patent applications pending, or are trade secrets. Our business may be adversely affected if our patents are unenforceable, the claims allowed under our patents are not sufficient to protect our technology, our patent applications are denied or our trade secrets are not adequately protected. Our competitors may be able to develop technology independently that is similar to ours without infringing on our patents or gaining access to our trade secrets, which could adversely affect our financial condition, results of operations and cash flows.

Cyberattacks could have a material adverse impact on our business and results of operation.

We rely heavily on information systems to conduct our business. Although we devote significant resources to protect our systems and data, we have experienced and will continue to experience varying degrees of cyber incidents in the normal conduct of our business, which may occasionally include sophisticated cybersecurity threats such as unauthorized access to data and systems, loss or destruction of data, computer viruses or other malicious code, phishing, spoofing and/or cyberattacks. These threats often arise from numerous sources, not all of which are within our control, such as fraud or malice from third parties, including fraud involving business email compromises, failures of computer servers or other accidental technological failures, electrical or telecommunication outages or other damage to our property or assets. For example, in 2019, we suffered five spoofing attempts with no material impact on results. Given the rapidly evolving nature of cyber threats, there can be no assurance that the systems we have designed to prevent or limit the effects of cyber incidents or attacks will be sufficient to prevent or detect such incidents or attacks, or to avoid a material adverse impact on our systems when such incidents or attacks do occur. While we attempt to mitigate these risks, we remain vulnerable to additional known or unknown threats, including theft, misplacement or loss of data, programming errors, employee errors and/or dishonest behavior that could potentially lead to the compromising of sensitive information, improper use of our systems or networks, as well as unauthorized access, use, disclosure, modification or destruction of such information, systems and/or networks. If our systems for protecting against cybersecurity risks are circumvented or breached, this could also result in disruptions to our business operations (including but not limited to, defective products or production downtimes), access to our financial reporting systems, the loss of access to critical data or systems, misuse or corruption of critical data and proprietary information (including our intellectual property and customer data), as well as damage to our reputation with our customers and the market, failure to meet customer requirements, customer dissatisfaction and/or other financial costs and losses. In addition, given that cybersecurity threats continue to evolve, we may be required to devote additional resources in the future to enhance our protective measures or to investigate and/or remediate any cybersecurity vulnerabilities. Moreover, any investigation of a cyberattack would take time before completion, during which we would not necessarily know the extent of the actual or potential harm or how best to remediate it, and certain errors or actions could be repeated or compounded before duly discovered and remediated (all or any of which could further increase the costs and consequences arising out of such cyberattack). Tenaris does not maintain any specific insurance coverage to protect against cybersecurity risks.

Risks Relating to the Structure of the Company

The Company's dividend payments depend on the results of operations and financial condition of its subsidiaries and could be affected by legal, contractual or other limitations or tax changes.

The Company is a holding company and conducts all its operations through subsidiaries. Dividends or other intercompany transfers of funds from those subsidiaries are the Company's primary source of funds to pay its expenses, debt service and dividends and to repurchase shares or ADSs.

The ability of the Company's subsidiaries to pay dividends and make other payments to us will depend on their results of operations and financial condition and could be restricted by applicable corporate and other laws and regulations, including those imposing foreign exchange controls or restrictions on the repatriation of capital or the making of dividend payments, and agreements and commitments of such subsidiaries. If earnings and cash flows of the Company's operating subsidiaries are substantially reduced, including as a result of deteriorating market conditions, the Company may not be in a position to meet its operational needs or to pay dividends. For information concerning potential restrictions on our ability to collect dividends from certain subsidiaries, see "Risks Relating to Our Business – Adverse economic or political conditions in the countries where we operate or sell our products and services may decrease our sales or disrupt our manufacturing operations, thereby adversely affecting our revenues, profitability and financial condition" and "Item 5G. "Operating and Financial Review and Prospects –Recent Developments – Annual Dividend Proposal".

The Company's ability to pay dividends to shareholders is subject to legal and other requirements and restrictions in effect at the holding company level. For example, the Company may only pay dividends out of net profits, retained earnings and distributable reserves and premiums, each as defined and calculated in accordance with Luxembourg law and regulations.

The Company's controlling shareholder may be able to take actions that do not reflect the will or best interests of other shareholders.

As of the date of this annual report, San Faustin beneficially owned 60.45% of our outstanding voting shares. Rocca & Partners Stichting Administratiekantoor Aandelen San Faustin ("RP STAK"), holds voting rights in San Faustin sufficient to control San Faustin. As a result, RP STAK is indirectly able to elect a substantial majority of the members of the Company's board of directors and has the power to determine the outcome of most actions requiring shareholder approval, including, subject to the requirements of Luxembourg law, the payment of dividends. The decisions of the controlling shareholder may not reflect the will of other shareholders. In addition, the Company's articles of association permit the Company's board of directors to waive, limit or suppress preemptive rights in certain cases. Accordingly, the Company's controlling shareholder may cause its board of directors to approve in certain cases an issuance of shares for consideration without preemptive rights, thereby diluting the minority interest in the Company. See "Risks Relating to shares and ADSs – Holders of shares and ADSs in the United States may not be able to exercise preemptive rights in certain cases".

Risks Relating to shares and ADSs

Holders of shares or ADSs may not have access to as much information about us as they would in the case of a domestic issuer.

There may be less publicly available information about us than is regularly published by or about domestic issuers. Also, corporate and securities regulations governing Luxembourg companies may not be as extensive as those in effect in other jurisdictions and U.S. securities regulations applicable to foreign private issuers, such as the Company, differ in certain respects from those applicable to U.S. domestic issuers. Furthermore, IFRS, the accounting standards in accordance with which we prepare our consolidated financial statements, differ in certain material aspects from U.S. GAAP.

Holders of ADSs may not be able to exercise, or may encounter difficulties in the exercise of, certain rights afforded to shareholders.

Certain shareholders' rights under Luxembourg law, including the rights to participate and vote at general meetings of shareholders, to include items on the agenda for the general meetings of shareholders, to receive dividends and distributions, to bring actions, to examine our books and records and to exercise appraisal rights may not be available to holders of ADSs, or may be subject to restrictions and special procedures for their exercise, as holders of ADSs only have those rights that are expressly granted to them in the deposit agreement. Deutsche Bank Trust Company Americas, as depositary under the ADS deposit agreement, or the Depositary, through its custodian agent, is the registered shareholder of the deposited shares underlying the ADSs, and therefore only the Depositary can exercise the shareholders' rights in connection with the deposited shares. For example, if we make a distribution in the form of securities, the Depositary is allowed, at its discretion, to sell the right to acquire those securities on your behalf and instead distribute the net proceeds to you. Also, under certain circumstances, such as our failure to provide the Depositary with properly completed voting instructions on a timely basis, you may not be able to vote at general meetings of shareholders by giving instructions to the Depositary. If the Depositary does not receive voting instructions from the holder of ADSs by the prescribed deadline, or the instructions are not in proper form, then the Depositary shall deem such holder of ADSs to have instructed the Depositary to vote the underlying shares represented by ADSs in favor of any proposals or recommendations of the Company (including any recommendation by the Company to vote such underlying shares on any given issue in accordance with the majority shareholder vote on that issue), for which purposes the Depositary shall issue a proxy to a person appointed by the Company to vote such underlying shares represented by ADSs in favor of any proposals or recommendations of the Company. Under the ADS deposit agreement, no instruction shall be deemed given and no proxy shall be given with respect to any matter as to which the Company informs the Depositary that (i) it does not wish such proxy given, (ii) it has knowledge that substantial opposition exists with respect to the action to be taken at the meeting, or (iii) the matter materially and adversely affects the rights of the holders of ADSs.

Holders of shares and ADSs in the United States may not be able to exercise preemptive rights in certain cases.

Pursuant to Luxembourg corporate law, existing shareholders of the Company are generally entitled to preferential subscription rights (preemptive rights) in the event of capital increases and issues of shares against cash contributions. Under the Company's articles of association, the board of directors has been authorized to waive, limit or suppress such preemptive subscription rights. Although the validity period of such authorization will expire on June 5, 2020, the board of directors has convened an extraordinary meeting of shareholders to be held on June 2, 2020, which will consider the renewal of such authorization for an additional five year-period. Notwithstanding the waiver of any preemptive subscription rights, any issuance of shares for cash within the limits of the authorized share capital shall be subject to the pre-emptive subscription rights of existing shareholders, except (i) any issuance of shares (including without limitation, the direct issuance of shares or upon the exercise of options, rights convertible into shares, or similar instruments convertible or exchangeable into shares) against a contribution other than in cash; and (ii) any issuance of shares (including by way of free shares or at discount), up to an amount of 1.5% of the issued share capital of the Company, to directors, officers, agents, employees of the Company, its direct or indirect subsidiaries or its affiliates (or, collectively, the Beneficiaries), including without limitation, the direct issuance of shares or upon the exercise of options, rights convertible into shares or similar instruments convertible or exchangeable into shares, issued for the purpose of compensation or incentive of the Beneficiaries or in relation thereto (which the board of directors shall be authorized to issue upon such terms and conditions as it deems fit).

Holders of ADSs in the United States may, in any event, not be able to exercise any preemptive rights, if granted, for shares underlying their ADSs unless additional shares and ADSs are registered under the U.S. Securities Act of 1933, as amended, ("Securities Act"), with respect to those rights, or an exemption from the registration requirements of the Securities Act is available. We intend to evaluate, at the time of any rights offering, the costs and potential liabilities associated with the exercise by holders of shares and ADSs of the preemptive rights for shares, and any other factors we consider appropriate at the time, and then to make a decision as to whether to register additional shares. We may decide not to register any additional shares, requiring a sale by the Depositary of the holders' rights and a distribution of the proceeds thereof. Should the Depositary not be permitted or otherwise be unable to sell preemptive rights, the rights may be allowed to lapse with no consideration to be received by the holders of the ADSs.

It may be difficult to enforce judgments against us outside Luxembourg.

The Company is a *société anonyme* organized under the laws of Luxembourg, and most of its assets are located in other jurisdictions. Furthermore, most of the Company's directors and officers named in this annual report reside in different jurisdictions. As a result, investors may not be able to effect service of process upon us or our directors or officers. Investors may also not be able to enforce against us or our directors or officers in the investors' domestic courts, judgments predicated upon the civil liability provisions of the domestic laws of the investors' home countries. Likewise, it may be difficult for investors not domiciled in Luxembourg to bring an original action in a Luxembourg court predicated upon the civil liability provisions of other securities laws, including U.S. federal securities laws, against the Company, its directors and officers. There is also uncertainty with regard to the enforceability of original actions of civil liabilities predicated upon the civil liability provisions of securities laws, including U.S. federal securities laws, outside the jurisdiction where such judgments have been rendered; and enforceability will be subject to compliance with procedural requirements under applicable local law, including the condition that the judgment does not violate the public policy of the applicable jurisdiction.

Item 4. Information on the Company

Overview

We are the leading manufacturer of pipes and related services for the world's energy industry and certain other industrial applications. Our manufacturing system integrates steelmaking, pipe rolling and forming, heat treatment, threading and finishing across 18 countries. We also have a research and development ("R&D") network focused on enhancing our product portfolio and improving our production processes. Our team, based in more than 30 countries worldwide, is united by a passion for excellence in everything we do.

Through our integrated, worldwide network of seamless and welded manufacturing facilities, service centers and R&D centers, we work with customers to meet their needs, upholding the highest standards of safety, quality and performance.

Our mission is to deliver value to our customers through product and process innovation, manufacturing excellence, supply chain integration, technical assistance and customer service, aiming to reduce risk and costs, increase flexibility and improve time-to-market. Wherever we operate, we are committed to safety and minimizing our impact on the environment, providing opportunities for our people, and contributing to the sustainable development of our communities.

A. History and Development of the Company

The Company

Our holding company's legal and commercial name is Tenaris S.A. The Company was established as a *société anonyme* organized under the laws of the Grand Duchy of Luxembourg on December 17, 2001. The Company's registered office is located at 26 Boulevard Royal, 4th Floor, L-2449, Luxembourg, telephone (352) 2647-8978. Its agent for U.S. federal securities law purposes is Tenaris Global Services (U.S.A.) Corporation ("TEUS"), located at 2200 West Loop South, Suite 800, Houston, TX 77027.

Tenaris

Tenaris began with the formation of Siderca S.A.I.C. ("Siderca"), the sole Argentine producer of seamless steel pipe products, by San Faustin's predecessor in Argentina in 1948. We acquired Siat S.A., an Argentine welded steel pipe manufacturer, in 1986. We grew organically in Argentina and then, in the early 1990s, began to evolve beyond this initial base into a global business through a series of strategic investments. As of the date of this annual report, our investments include controlling or strategic interests in:

- Tubos de Acero de México S.A. ("Tamsa"), the sole Mexican producer of seamless steel pipe products;
- Dalmine S.p.A. ("Dalmine"), a leading Italian producer of seamless steel pipe products;
- Confab Industrial S.A. ("Confab"), the leading Brazilian producer of welded steel pipe products;
- NKKTubes K.K. ("NKKTubes"), a leading Japanese producer of seamless steel pipe products;
- Algoma Tubes Inc. ("AlgomaTubes"), the sole Canadian producer of seamless steel pipe products;
- S.C. Silcotub S.A. ("Silcotub"), a leading Romanian producer of seamless steel pipe products;
- Maverick, a U.S. producer of welded steel pipe products;
- Prudential Steel Ltd. ("Prudential"), a welded pipe mill producing OCTG, and line pipe products in Canada;
- Tenaris TuboCaribe Ltda. ("TuboCaribe"), a welded mill producing OCTG products including finishing of welded and seamless pipes, line pipe products and a couplings facility in Colombia;
- Hydril, a North American manufacturer of premium connection products for oil and gas drilling production;
- PT Seamless Pipe Indonesia Jaya ("SPIJ"), an Indonesian OCTG processing business with heat treatment and premium connection threading facilities;
- Tenaris Qingdao Steel Pipes Ltd. ("Tenaris Qingdao"), a Chinese producer of premium joints and couplings;
- Pipe Coaters Nigeria Ltd. ("Pipe Coaters") the leading company in the Nigerian coating industry;
- Ternium S.A. ("Ternium"), one of the leading flat steel producers of the Americas with operating facilities in Mexico, Brazil, Argentina, Colombia, the southern United States and Central America;
- Usinas Siderúrgicas de Minas Gerais S.A. ("Usiminas"), a Brazilian producer of high quality flat steel products used in the energy, automotive and other industries;
- Techgen S.A. de C.V. ("Techgen"), an electric power plant in Mexico;
- sucker rod businesses, in various countries;

- Tenaris Bay City Inc. (“Tenaris Bay City”), a state-of-the-art seamless pipe mill in Bay City, Texas; *and*
- SSPC, a Saudi producer of welded steel pipe products.

On January 2, 2020, we acquired IPSCO, a North American manufacturer of seamless and welded steel pipes. For more information on IPSCO’s acquisition, see Item 5G. “Operating and Financial Review and Prospects – Recent Developments – Acquisition of IPSCO Tubulars Inc.,” as well as note 35 “Subsequent Events – Acquisition of IPSCO Tubulars, Inc.” and note 36 “Update as of April 29, 2020 - Acquisition of IPSCO Tubulars, Inc.” to our audited consolidated financial statements included in this annual report.

Moreover, we are currently building a welded pipe plant in West Siberia, Russian Federation as part of our joint venture with Severstal.

In addition, we have established a global network of pipe finishing, distribution and service facilities with a direct presence in most major oil and gas markets and a global network of research and development centers.

For information on Tenaris’s principal capital expenditures and divestitures, see Item 4.B. “Information on the Company – Business Overview – Capital Expenditure Program”.

B. Business Overview

Our business strategy is to consolidate our position as a leading global supplier of integrated product and service solutions to the energy and other industries by:

- pursuing strategic investment opportunities in order to further strengthen our presence in local and global markets;
- expanding our comprehensive range of products and developing new products designed to meet the needs of customers operating in challenging environments;
- enhancing our Rig Direct® offer of technical and pipe management services designed to enable customers to optimize their selection and use of our products and reduce their overall operating costs; *and*
- securing an adequate supply of production inputs and reducing the manufacturing costs of our core products.

Pursuing strategic investment opportunities and alliances

We have a solid record of growth through strategic investments and acquisitions. We pursue selective strategic investments and acquisitions as a means to expand our operations and presence in select markets, enhance our global competitive position and capitalize on potential operational synergies. For example:

- In January 2019 we acquired a 47.79% interest in SSPC, a welded steel pipes producer located in Saudi Arabia.
- In February 2019, we entered into a joint venture with Severstal and we are currently building a welded pipe plant in West Siberia, Russian Federation.
- In January 2020, we acquired IPSCO, a U.S. manufacturer of steel pipes, from TMK. The acquisition price was determined on a cash-free, debt-free basis, and the amount paid in cash at the closing, following contractual adjustments for cash, indebtedness, working capital and certain other items as estimated by the seller as of the closing date, was US\$1,067 million. The final acquisition price is subject to a contractual true-up adjustment based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date. IPSCO’s facilities are located mainly in the midwestern and northeastern regions of the country. IPSCO’s steel shop in Koppel, Pennsylvania, is Tenaris’s first in the United States, providing vertical integration through domestic production of a relevant part of its steel bar needs. Its Ambridge, Pennsylvania, mill adds a second seamless manufacturing facility and complements Tenaris’s seamless plant in Bay City, Texas. Our track record on companies’ acquisitions is described above (see “History and Development of the Company – Tenaris”).

Expanding our range of products

We have developed an extensive range of high-value products suitable for most of our customers’ operations using our network of specialized research and testing facilities and by investing in our manufacturing facilities. As our customers expand their operations, we seek to supply high-value products that reduce costs and enable them to operate safely in challenging environments, including for complex offshore and unconventional operations.

Enhancing our offer of technical and pipe management services - Rig Direct® - and extending their global deployment

We continue to enhance our offer of Rig Direct® services, and extend their deployment worldwide. For many years, we have provided these services, managing customer inventories and directly supplying pipes to their rigs on a just-in-time basis, complemented by technical advice and assistance on the selection of materials and their use in the field, in markets like Mexico and Argentina. In response to changes in market conditions and the increased focus of customers on reducing costs and improving the efficiency of their operations, the deployment of our Rig Direct® services was extended throughout North America and in other markets around the world (e.g. North Sea, Romania, Indonesia and, most recently, the UAE). Through the provision of Rig Direct® services, we seek to integrate our operations with those of our customers using digital technologies to shorten the supply chain and simplify operational and administrative processes, as well as technical services for well planning and well integrity, to reduce costs, improve safety and minimize environmental impact. They are also intended to differentiate us from our competitors and further strengthen our relationships with customers worldwide through long-term agreements.

Securing inputs for our manufacturing operations

We seek to secure our existing sources of raw material and energy inputs, and to gain access to new sources of low-cost inputs which can help us maintain or reduce the cost of manufacturing our core products over the long term. We aim to achieve a vertically integrated value chain for our production. To this end, we purchase most of our supplies through Exiros, a specialized procurement company whose ownership we share with Ternium. Exiros offers us integral procurement solutions, supplier sourcing activities; category organized purchasing; suppliers' performance administration; and inventory management. Moreover, since 2014, we have an agreement with our affiliates Ternium and Tecpetrol International S.A. ("Tecpetrol") (a wholly-owned subsidiary of San Faustin, the controlling shareholder of both Tenaris and Ternium) to operate a natural gas-fired combined cycle electric power plant in Mexico for the supply of Tenaris's and Ternium's respective Mexican industrial facilities. The company started producing energy in December 2016 with a power capacity of 900 megawatts. For more information on the power plant, see note 12 c) "Investments in non-consolidated companies – Techgen S.A. de C.V." to our audited consolidated financial statements included in this annual report. For more information on the Company's commitments under the power plant, see item 5.E. "Operating and Financial Review and Prospects - Off-Balance Sheet Arrangements".

Our Competitive Strengths

We believe our main competitive strengths include:

- our global production, commercial and distribution capabilities, offering a full product range with flexible supply options backed up by local service capabilities in important oil and gas producing and industrial regions around the world;
- our ability to develop, design and manufacture technologically advanced products;
- our solid and diversified customer base and historic relationships with major international oil and gas companies around the world, and our strong and stable market shares in most of the countries in which we have manufacturing operations;
- our proximity to our customers;
- our human resources around the world with their diverse knowledge and skills;
- our low-cost operations, primarily at state-of-the-art, strategically located production facilities with favorable access to raw materials, energy and labor, and more than 60 years of operating experience; *and*
- our strong financial condition.

Business Segments

Tenaris has one major business segment, "Tubes", which is also the reportable operating segment.

The Tubes segment includes the production and sale of both seamless and welded steel tubular products and related services mainly for the oil and gas industry, particularly OCTG used in drilling operations, and for other industrial applications with production processes that consist in the transformation of steel into tubular products. Business activities included in this segment are mainly dependent on the oil and gas industry worldwide, as this industry is a major consumer of steel pipe products, particularly OCTG used in drilling activities. Demand for steel pipe products from the oil and gas industry has historically been volatile and depends primarily upon the number of oil and natural gas wells being drilled, completed and reworked, and the depth and drilling conditions of such wells. Sales are generally made to end users, with exports being done through a centrally managed global distribution network and domestic sales made through local subsidiaries. Corporate general and administrative expenses have been allocated to the Tubes segment.

The “Others” segment includes all other business activities and operating segments that are not required to be separately reported, including the production and selling of sucker rods, industrial equipment, coiled tubing, heat exchangers, utility conduits for buildings, and the sale of energy and raw materials that exceed internal requirements.

For more information on our business segments, see “II C. Accounting Policies – Segment information” to our audited consolidated financial statements included in this annual report.

Our Products

Our principal finished products are seamless and welded steel casing and tubing, line pipe and various other mechanical and structural steel pipes for different uses. Casing and tubing are also known as oil country tubular goods (“OCTG”). We manufacture our steel pipe products in a wide range of specifications, which vary in diameter, length, thickness, finishing, steel grades, coating, threading and coupling. For more complex applications, including high pressure and high temperature applications, seamless steel pipes are usually specified and, for some standard applications, welded steel pipes can also be used.

Casing . Steel casing is used to sustain the walls of oil and gas wells during and after drilling.

Tubing . Steel tubing is used to conduct crude oil and natural gas to the surface after drilling has been completed.

Line pipe . Steel line pipe is used to transport crude oil and natural gas from wells to refineries, storage tanks and loading and distribution centers.

Mechanical and structural pipes . Mechanical and structural pipes are used by general industry for various applications, including the transportation of other forms of gas and liquids under high pressure.

Cold-drawn pipe . The cold-drawing process permits the production of pipes with the diameter and wall thickness required for use in boilers, superheaters, condensers, heat exchangers, automobile production and several other industrial applications.

Premium joints and couplings . Premium joints and couplings are specially designed connections used to join lengths of steel casing and tubing for use in high temperature or high pressure environments. A significant portion of our steel casing and tubing products are supplied with premium joints and couplings. We own an extensive range of premium connections, and following the integration of the premium connections business of Hydril, we have marketed our premium connection products under the “TenarisHydril” brand name. In addition, we hold licensing rights to manufacture and sell the Atlas Bradford range of premium connections outside the United States and, since our acquisition of IPSCO in January 2020, we now own the Ultra range of premium connections, marketed under the “Ultra” brand, which are used mainly in US onshore applications.

Coiled tubing . Coiled tubing is used for oil and gas drilling and well workovers and for subsea pipelines.

Other products . We also manufacture sucker rods used in oil extraction activities and industrial equipment of various specifications and diverse applications, including liquid and gas storage equipment. In addition, we produce shell and tube heat exchangers for various applications, and we sell energy and raw materials that exceed our internal requirements.

Production Process and Facilities

We operate relatively low-cost production facilities, which we believe is the result of:

- state-of-the-art, strategically located plants;
- favorable access to high quality raw materials, energy and labor at competitive costs;
- operating history of more than 60 years, which translates into solid industrial know-how;
- constant benchmarking and best-practices sharing among the different facilities;
- increasing specialization of each of our facilities in specific product ranges; *and*
- extensive use of information technology in our production processes.

Our seamless pipes production facilities are located in North and South America, Europe and Asia and our welded pipes production facilities are located in North and South America and, from January 2019, in Saudi Arabia. In addition, we have tubular accessories facilities, such as sucker rods, in Argentina, Brazil, Mexico, Romania, and the United States. We produce couplings in Argentina, China, Colombia, Indonesia, Mexico and Romania, and pipe fittings in Mexico. In addition to our pipe threading and finishing facilities at our integrated pipe production facilities, we also have pipe threading facilities for steel pipes manufactured in accordance with the specifications of the American Petroleum Institute (“API”), and premium joints in the United States, Canada, China, Denmark, Ecuador, Kazakhstan, Indonesia, Nigeria, the United Kingdom and Saudi Arabia.

The following table shows our aggregate installed production capacity of seamless and welded steel pipes and steel bars at the dates indicated as well as the aggregate actual production volumes for the periods indicated.

Capacity of welded tubes in 2019 increased in respect to 2018 due to the acquisition of SSPC, while capacity of seamless tubes in 2018 increased in respect to 2017 due to the completion of Tenaris Bay City, our state-of-the-art pipe mill in Bay City, Texas.

	At or for the year ended December 31,		
	2019	2018	2017
<i>Thousands of tons</i>			
Steel Bars			
Effective Capacity (annual) ⁽¹⁾	3,985	3,935	3,835
Actual Production	2,835	3,167	2,793
Tubes – Seamless			
Effective Capacity (annual) ⁽¹⁾	4,300	4,300	3,680
Actual Production	2,629	2,798	2,347
Tubes – Welded			
Effective Capacity (annual) ⁽¹⁾	2,980	2,620	2,620
Actual Production	671	799	544

⁽¹⁾ Effective annual production capacity is calculated based on standard productivity of production lines, theoretical product mix allocations, the maximum number of possible working shifts and a continued flow of supplies to the production process.

In 2020 our production capacity - for steel bars, seamless and welded pipes - is expected to increase due to the acquisition of IPSCO. Due to the acquisition of IPSCO, Tenaris owns its first steel shop in the US. Furthermore, Tenaris integrated IPSCO’s seamless, welded, finishing and threading facilities.

Production Facilities – Tubes

North America

In North America, we have a fully integrated seamless pipe manufacturing facility, a threading plant and a pipe fittings facility in Mexico, a seamless pipe rolling mill, three welded pipe manufacturing facilities and three threading plants in the United States, and a seamless pipe rolling mill, a welded pipe manufacturing facility and one threading plant in Canada.

Mexico

In Mexico, our fully integrated seamless pipe manufacturing facility is located near the major exploration and drilling operations of Pemex, about 13 kilometers from the port of Veracruz on the Gulf of Mexico. Situated on an area of 650 hectares, the plant includes two state-of-the-art seamless pipe mills and has an installed annual production capacity of approximately 1,230,000 tons of seamless steel pipes (with an outside diameter range of 2 to 20 inches) and 1,200,000 tons of steel bars. The plant is served by two highways and a railroad and is close to the port of Veracruz, which reduces transportation costs and facilitates product shipments to export markets.

The Veracruz facility comprises:

- a steel shop, including an electric arc furnace, refining equipment, vacuum degassing, five-strand continuous caster and a cooling bed;
- a multi-stand pipe mill, including a rotary furnace, direct piercing equipment, mandrel mill with retained mandrel, sizing mill and a cooling bed;
- a premium quality finishing (“PQF”), technology mill (2 ³/₈ to 7 inches), including a rotary furnace, direct piercing equipment, mandrel mill with retained mandrel, sizing mill and a cooling bed;
- a pilger pipe mill, including a rotary furnace, direct piercing equipment, a reheating furnace, sizing mill and a cooling bed;
- six finishing lines, including heat treatment lines, upsetting machines and threading and inspection equipment;
- a cold-drawing mill; *and*
- an automotive components production center.

The major operational units at the Veracruz facility and the corresponding effective annual production capacity (in thousands of tons per year, except for the auto components facility, which is in millions of parts) as of December 31, 2019, are as follows:

	Effective Annual Production Capacity (thousands of tons) ⁽¹⁾
Steel Shop	1,200
Pipe Production	
Multi-Stand Pipe Mill	700
PQF Mill	450
Pilger Mill	80
Cold-Drawing Mill	35
Auto Components Facility	30

⁽¹⁾ Effective annual production capacity is calculated based on standard productivity of production lines, theoretical product mix allocations, the maximum number of possible working shifts and a continued flow of supplies to the production process.

In Veracruz, located near our fully integrated seamless pipe manufacturing facility, we have a threading plant, which produces premium connections and accessories.

In addition to the Veracruz facilities, we operate a manufacturing facility near Monterrey in the state of Nuevo León, Mexico, for the production of weldable pipe fittings. This facility has an annual production capacity of approximately 15,000 tons.

In Mexico, beginning in April 2020, Tenaris reduced its activity following the imposition of mandatory lockdowns, and our plants in Mexico are currently operating at technical minimums. For further information on the status of our operations see Item 5G. “Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

United States

In the United States we have the following production facilities:

Bay City, Texas: Our 1.2 million square foot greenfield seamless mill was inaugurated in December 2017. The facility is the result of an investment of \$1.8 billion and includes a state-of-the-art rolling mill with a capacity of approximately 600,000 tons per year (with an outside diameter range of 4 ¹/₂ to 9 ⁵/₈ inches), as well as finishing and heat treatment lines and a logistics center.

The Bay City facility comprises:

- a retained mandrel mill premium quality finishing (“PQF”);
- a fully automated intermediate warehouse;
- a heat treatment line; and
- a finishing line.

Hickman, Arkansas : This facility, which is our main U.S. welded production facility and covers an area of 78 hectares, processes steel coils to produce electric resistance welded (“ERW”), OCTG and line pipe with an outside diameter range from 2 ³/₈ to 16 inches and has an annual production capacity of approximately 900,000 tons. It includes:

- a plant comprising two mills producing 2 ³/₈ through 5 ¹/₂ inches API products with two finishing lines and two heat treatment lines;
- a plant comprising two mills producing 4 ¹/₂ through 16 inches API products with two finishing lines; and
- a coating facility coating sizes up to 16 inches.

Conroe, Texas : A plant located on an area of 47 hectares which processes steel coils to produce ERW OCTG, with an outside diameter range of 4 ¹/₂ to 8 ⁵/₈ inches with an annual production capacity of approximately 250,000 tons. The facility includes one mill, one heat treatment line and one finishing line. For efficiency reasons, since December 2019, the plant is not operational.

Counce, Tennessee : A plant located on an area of 54 hectares which processes steel coils to produce line pipe with an outside diameter range of 4 ¹/₂ to 8 ⁵/₈ inches and has an annual production capacity of approximately 90,000 tons. The plant has one mill and a finishing line capable of producing line pipe products. For efficiency reasons, the plant is currently not operational and these products are being produced by our Hickman plant.

Koppel, Pennsylvania : Tenaris’s first steel shop in the United States providing vertical integration through domestic production of a relevant part of its steel bar needs.

Ambridge, Pennsylvania : The mill adds a second seamless manufacturing facility and complements the Bay City facility.

Additionally, we have the following threading facilities, which are mainly dedicated to the finishing of tubes with premium connections:

- *McCarty* : a threading facility in Houston, Texas, which comprises two main production buildings in an area of approximately 20 hectares;
- *Westwego* : a threading facility located in Louisiana. In June 2015, we suspended operations at the Westwego facility, mainly due to the decline in drilling activity driven by the low price of oil; and
- *Bakersfield* : a threading facility in California, mainly used as a repair shop.

Over the last two months, as a result of the abrupt and steep decline in market demand for our products, our facilities in Koppel and Ambridge (PA), Brookfield (OH), Blytheville (AR), Wilder (KY), and Odessa and Baytown (TX), have been temporarily closed until market conditions improve. In addition, Tenaris is in the process of performing employee reductions and adjusting production levels at its other facilities in line with market demand. For further information on the status of our operations, see Item 5G. “Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

Canada

In Canada, we have a seamless steel pipe manufacturing facility located in Sault Ste. Marie, near the mouth of Lake Superior in the province of Ontario. The facility includes a retained mandrel mill, a stretch reducing mill and heat treatment and finishing facilities producing seamless pipe products with an outside diameter range of 3 ¹/₂ to 9 ⁷/₈ inches. The effective annual production capacity of the facility is approximately 300,000 tons. We use steel bars produced by our integrated facilities in Romania, Italy, Mexico and Argentina.

We also own a welded steel pipe manufacturing facility located in Calgary, Alberta, which processes steel coils into ERW OCTG and line pipe with an outside diameter range of 2 ³/₈ to 12 ³/₄ inches. The facility includes a slitter, three welding lines and four threading lines. The effective annual production capacity of this plant is approximately 400,000 tons.

In addition, we have a threading facility in Nisku, Alberta, near the center of Western Canadian drilling area. The facility has ten computer numerical control (“CNC”), lathes dedicated to premium connections and accessories including related repairs.

South America

In South America, we have a fully integrated seamless pipe facility in Argentina. In addition, we have welded pipe manufacturing facilities in Argentina, Brazil and Colombia.

Argentina

Our principal manufacturing facility in South America is a fully integrated plant on the banks of the Paraná river near the city of Campana, approximately 80 kilometers north from the city of Buenos Aires, Argentina. Situated on over 300 hectares, the plant includes a state-of-the-art seamless pipe facility and has an effective annual production capacity of approximately 900,000 tons of seamless steel pipe (with an outside diameter range of 1 1/4 to 10 3/4 inches) and 1,300,000 tons of steel bars.

The Campana facility comprises:

- a direct reduced iron (“DRI”) production plant;
- a steel shop with two production lines, each including an electric arc furnace, refining equipment, four-strand continuous caster and a cooling bed;
- two continuous mandrel mills, each including a rotary furnace, direct piercing equipment and a cooling bed and, one of them, also including a stretch reducing mill;
- seven finishing lines, including heat treatment lines, upsetting machines, threading and inspection equipment and make-up facilities;
- a cold-drawing mill; and
- a port on the Paraná river for the supply of raw materials and the shipment of finished products.

In Argentina, until the end of January 2019 we had a 160 megawatt power generation plant located at San Nicolás that reached the end of its useful life, which together with a smaller thermo-electric power generating plant located within the Campana facility, was sufficient to supply the electric energy requirements of our steelmaking facility at Campana. Currently, our energy requirements in Argentina are mainly satisfied from the local market and by the plant located in Campana.

The major operational units at the Campana facility and corresponding effective annual production capacity (in thousands of tons per year) as of December 31, 2019, are as follows:

	Effective Annual Production Capacity (thousands of tons) ⁽¹⁾
DRI	960
Steel Shop	
Continuous Casting I	530
Continuous Casting II	770
Pipe Production	
Mandrel Mill I	330
Mandrel Mill II	570
Cold-Drawing Mill	20

(1) Effective annual production capacity is calculated based on standard productivity of production lines, theoretical product mix allocations, the maximum number of possible working shifts and a continued flow of supplies to the production process.

In addition to our main integrated seamless pipe facility, we also have two welded pipe manufacturing facilities in Argentina. One is located at Valentín Alsina, south of the city of Buenos Aires. This facility includes ERW and submerged arc welding (“SAW”), rolling mills with one spiral line. The facility was originally opened in 1948 and processes steel coils and plates to produce welded steel pipes with an outside diameter range of 4 1/2 to 80 inches, which are used for the conveying of fluids at low, medium and high pressure and for mechanical and structural purposes. The facility has an annual production capacity of approximately 350,000 tons. The other welded facility, located at Villa Constitución in the province of Santa Fe, has an annual production capacity of approximately 80,000 tons of welded pipes with an outside diameter range of 1 to 8 inches.

In Argentina, Tenaris has reduced its activity following the imposition of mandatory lockdowns that began on March 20, 2020; our plants in Argentina are currently operating at technical minimums. For further information on the status of our operations see Item 5G. “Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

Brazil

In Brazil we have the Confab welded pipe manufacturing facility, located at Pindamonhangaba, 160 kilometers northeast from the city of São Paulo. This facility includes an ERW rolling mill and a SAW rolling mill with one spiral line and one longitudinal line. The facility, which was originally opened in 1974, processes steel coils and plates to produce welded steel pipes with an outside diameter range from 5 1/2 to 100 inches for various applications, including OCTG and line pipe for oil, petrochemical and gas applications. The facility also supplies anticorrosion pipe coating made of extruded polyethylene or polypropylene, external and internal fusion bonded epoxy, thermal insulation, concrete weight coating and paint for internal pipe coating. The facility has an annual production capacity of approximately 500,000 tons.

Colombia and Ecuador

In Colombia we have TuboCaribe, a pipe manufacturing facility in Cartagena, on an area of 60 hectares, including a state-of-the-art finishing plant for seamless pipes. The total estimated annual finishing capacity is approximately 250,000 tons, with an estimated annual ERW production capacity of approximately 140,000 tons. This facility produces OCTG and line pipe products with an outside diameter range of 2 3/8 to 9 5/8 inches, and includes two ERW mills, one heat treatment line, one slotting line and three threading lines, including premium connections capacity. Inspection lines and materials testing laboratories complete the production facility. A 2 to 42 inches diameter multilayer coating facility complements our line pipe production facilities.

In addition, we have a coupling shop with fifty-four lathes, ten cutting machines, and two phosphatizing lines. Inspection and finishing lines complete this facility. The shop has an estimated annual production capacity of 2.3 million pieces, including API and premium threads.

In Colombia, Tenaris has reduced its activity following the imposition of mandatory lockdowns that began on March 24, 2020, and our plant in Colombia is currently operating at technical minimums. For further information on the status of our operations, see Item 5G. "Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

In Ecuador we have a threading and finishing facility with an annual capacity of 35,000 tons, and a service center which is designed to support our RigDirect® strategy, both situated in Machachi.

Europe

In Europe, we have several seamless pipe manufacturing facilities in Italy and one in Romania and premium connection threading facilities in Denmark and the United Kingdom.

Italy

Our principal manufacturing facility in Europe is an integrated plant located in the town of Dalmine, in the industrial area of Bergamo, about 40 kilometers from Milan in northern Italy. Situated on an area of 150 hectares, the plant includes a state-of-the-art seamless pipe mill and has an annual production capacity of approximately 650,000 tons of seamless steel pipes and 935,000 tons of steel bars.

The Dalmine facility comprises:

- a steel shop, including an electric arc furnace, two ladle furnaces, two vacuum degassing and two continuous casters with their own cooling beds;
- a continuous floating mandrel mill whose operations have been suspended;
- a retained mandrel mill with two in-line-high-productivity finishing lines including one heat treatment;
- a rotary expander with a finishing line including a heat treatment; *and*
- two premium connection threading lines.

The major operational units at the Dalmine facility and corresponding effective annual production capacity (in thousands of tons per year) as of December 31, 2019, are as follows:

	Effective Annual Production Capacity (thousands of tons) ⁽¹⁾
Steel Shop	935
Pipe Production	
Retained Mandrel Mill Medium Diameter (plus Rotary Expander for Large Diameter)	650

(1) Effective annual production capacity is calculated based on standard productivity of production lines, theoretical product mix allocations, the maximum number of possible working shifts and a continued flow of supplies to the production process.

The Dalmine facility manufactures seamless steel pipes with an outside diameter range of 146 to 711 mm (5.70 to 28.00 inches), mainly from carbon, low alloy and high alloy steels for diverse applications. The Dalmine facility also manufactures steel bars for processing at our facilities in Italy and elsewhere.

Our production facilities located in Italy have a collective annual production capacity of approximately 800,000 tons of seamless steel pipes. In addition to the main facility mentioned above, they include:

- the Costa Volpino facility, which covers an area of approximately 31 hectares and comprises a cold-drawing mill and an auto components facility producing cold-drawn carbon, low alloy and high alloy steel pipes with an outside diameter range of 12 to 380 mm (0.47 to 15 inches), mainly for automotive, mechanical and machinery companies in Europe. The Costa Volpino facility has an annual production capacity of approximately 80,000 tons; *and*
- the Arcore facility, which covers an area of approximately 26 hectares and comprises a Diescher mill with associated finishing lines. Production is concentrated in heavy-wall mechanical pipes with an outside diameter range of 48 to 219 mm (1.89 to 8.62 inches). The Arcore facility has an annual production capacity of approximately 150,000 tons.

In addition to these facilities, we operate a manufacturing facility at Sabbio which manufactures gas cylinders with an annual production capacity of approximately 14,000 tons or 270,000 pieces, and a large vessels plant inside the Dalmine facility, recently revamped, with a production capacity of around 5,000 pieces per year.

In order to reduce the cost of electrical energy at our operations in Dalmine, we constructed a gas-fired, combined heat and power station with a capacity of 120 megawatts in Dalmine. Our operations in Dalmine consume most of the power generated at the power station which is designed to have sufficient capacity to meet the electric power requirements of these operations at peak load. Excess power is sold to third-party consumers and heat is sold for district heating.

In Italy, Tenaris reduced its activity following the imposition of mandatory lockdowns that began on March 16, 2020, and for a limited period of time our Dalmine facility was used exclusively for the manufacturing of oxygen tanks to aid local hospitals and health centers. Over time, however, the facility is gradually resuming operations. For further information on the status of our operations, see Item 5G. "Operating and Financial Review and Prospects – Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

Romania

We have a seamless steel pipe manufacturing facility in northwest Romania, located in the city of Zalau, 530 kilometers from Bucharest. The facility includes a hot rolling mill and has an annual production capacity of approximately 250,000 tons of hot rolled pipes and 210,000 tons of finished products, of which 25,000 tons are cold drawn. The plant produces carbon and alloy steel tubes with an outside diameter range of 21.3 to 159 mm (0.839 to 6.26 inches) for hot rolled tubes and 8 to 120 mm (0.315 to 4.724 inches) for cold drawn tubes. We also have a steelmaking facility in southern Romania, located in the city of Calarasi, with an annual steelmaking capacity of 550,000 tons, supplying steel bars for European operations as well as to other rolling mills in our industrial system. The industrial center in Romania comprises:

- a steel shop including an electric arc furnace, a ladle furnace and a continuous caster;
- a floating mandrel mill;
- four finishing lines, including heat treatment lines, upsetting machine, line pipe, threading, make-up and inspection equipment facilities;
- a coupling shop;
- an accessories line;
- a cold-drawing plant with finishing area; *and*
- automotive and hydraulic cylinders components' production machinery.

United Kingdom

In Aberdeen, we have a premium connection threading, manufacturing and repair facility, which works as a hub to service our customers working in the North Sea region. The facility has an annual production capacity of approximately 20,000 pieces, with a production range of 2 ³/₈” to 20”.

Denmark

In Esbjerg, we have a facility for the manufacturing of casing and tubing accessories and the provision of casing and tubing repairs, with a production range of 2 ³/₈” to 18 ⁵/₈” and production capacity of 4,200 ends per year.

Middle East and Africa

We have a threading facility for the production of premium joints and accessories in Saudi Arabia. The facility has an annual production capacity of 120,000 tons. In 2019 we acquired a controlling participation in SSPC, a welded steel pipe producer. SSPC operates 5 production lines and produces welded pipes for the local oil & gas industry (OCTG and Line Pipe) and for the industrial and construction sectors. Annual capacity is 360,000 tons covering a diameter range from ½” to 20”.

Additionally, we have a premium threading facility in Kazakhstan. The state-of-the-art facility has the capacity to produce 45,000 tons of OCTG annually for threading seamless pipes and gas-tight premium connections to serve the local market.

In Nigeria we have a facility dedicated to the production of premium joints and couplings located in Onne. This plant comprises a threading facility for both API and premium connections with an annual production capacity of approximately 40,000 tons, inspection facilities and a stockyard. In addition, in October 2011, we acquired 40% of the shares of Pipe Coaters, a leading company in the Nigerian pipe coating industry. Also, located in Onne, Pipe Coaters supplies a wide variety of products and services for the oil and gas industry, such as internal, anticorrosion, concrete and thermal insulation coatings for onshore and offshore (including deepwater) applications.

Asia Pacific

Our seamless pipe manufacturing facility in Asia, operated by NKKTubes, is located in Kawasaki, Japan, in the Keihin steel complex owned by JFE Holdings Inc. (“JFE”). The facility includes a floating mandrel mill, a plug mill and heat treatment and upsetting and threading facilities producing seamless steel pipe products with an outside diameter range of 1 to 17 inches. The NKKTubes facility produces a wide range of carbon, alloy and stainless steel pipes for the local market and high value-added products for export markets. The effective annual production capacity of the facility is approximately 260,000 tons. The plant was operated by Nippon Kokan K. until its acquisition by NKKTubes in 2000. Steel bars and other essential inputs and services are supplied under a long-term agreement by JFE, which retains a 49% interest in NKKTubes through its subsidiary JFE Steel Corporation. On March 27, 2020, JFE informed Tenaris of its decision to permanently cease as from JFE’s fiscal year ending March 2024 the operations of certain of its steel manufacturing facilities and other facilities located at the Keihin complex. The closure of JFE’s Keihin facilities may result in the unavailability of steel bars and other essential inputs or services used in NKKTubes’ manufacturing process, thereby affecting its operations. Tenaris and JFE have agreed to engage in discussions to seek mutually acceptable solutions. We own a facility for the production of premium joints and couplings in Qingdao, on the east coast of China. The facility has an annual production capacity of approximately 40,000 tons of premium joints. Additionally, in 2016 we opened a facility that produces components for the local automotive industry.

In addition, in Indonesia, we hold 89.17% of SPIJ, an Indonesian OCTG processing business with heat treatment, premium connection threading facilities, coupling shop and a quality-testing laboratory, including an ultrasonic testing machine, which has an annual processing capacity of approximately 120,000 tons. We also have a premium joints accessories threading facility in the state of Batam, which we integrated to our operations following the acquisition of Hydril.

Production Facilities – Others

We have facilities for the manufacture of sucker rods in Villa Mercedes (San Luis, Argentina), Moreira Cesar (São Paulo, Brazil), Veracruz (Mexico), Campina (Romania) and Conroe (Texas, United States). Our total annual manufacturing capacity of sucker rods is approximately 3.8 million units.

In Moreira Cesar (São Paulo, Brazil), we also have facilities for the manufacturing of industrial equipment. In many cases, we also provide the assembly service of this equipment at the client’s site.

In Italy, we have the Piombino facility, which covers an area of approximately 67 hectares and comprises a hot dip galvanizing line and associated finishing facilities. Production is focused on finishing of small diameter seamless pipes for plumbing applications in the domestic market, such as residential water, gas transport and firefighting. The Piombino facility has an annual production capacity of approximately 100,000 tons.

In addition, we have specialized facilities in the Houston area producing coiled tubing and umbilical tubing:

- A coiled tubing facility of approximately 150,000 square feet of manufacturing space on 4 hectares. The plant consists of two mills and coating operations capable of producing coiled tubing products in various grades, sizes and wall thicknesses. A new continuous heat treatment line has been recently installed.
- An umbilical tubing facility of approximately 85,000 square feet of manufacturing space on 6 hectares. The facility is capable of producing stainless or carbon steel tubing in various grades, sizes and wall thickness.

Sales and Marketing

Net Sales

Our total net sales amounted to \$7,294 million in 2019, compared to \$7,659 million in 2018 and \$5,289 million in 2017. For further information on our net sales see Item 5.A. "Operating and Financial Review and Prospects – Results of Operations".

The following table shows our net sales by business segment for the periods indicated therein:

Millions of U.S. dollars	For the year ended December 31,					
	2019		2018		2017	
Tubes	6,870	94%	7,233	94%	4,966	94%
Others	424	6%	426	6%	323	6%
Total	7,294	100%	7,659	100%	5,289	100%

Tubes

The following table indicates, for our Tubes business segment, net sales by geographic region:

Millions of U.S. dollars	For the year ended December 31,					
	2019		2018		2017	
Tubes						
- North America	3,307	48%	3,488	48%	2,362	48%
- South America	1,240	18%	1,284	18%	982	20%
- Europe	641	9%	628	9%	497	10%
- Middle East & Africa	1,337	19%	1,541	21%	921	19%
- Asia Pacific	345	5%	292	4%	204	4%
Total Tubes	6,870	100%	7,233	100%	4,966	100%

North America

Sales to customers in North America accounted for 48% of our sales of tubular products and services in 2019, 2018 and 2017.

We have significant sales and production facilities in each of the United States, Canada and Mexico, where we provide customers with an integrated product and service offering based on local production capabilities supported by our global industrial system. In the past few years, we have extended our integrated product and service model, which we call Rig Direct®, throughout North America, and in late 2017, we started operations at our seamless pipe mill at Bay City, Texas, which is strategically located to serve the Eagle Ford and Permian regions. Under Rig Direct®, we manage the whole supply chain from the mill to the rig for customers under long-term agreements, integrating mill production with customer drilling programs, reducing overall inventory levels and simplifying operational processes. We first introduced the Rig Direct® model to Pemex in Mexico in 1994, and since then we have supplied them with pipes on a just-in-time basis. At the end of 2019, we supplied the majority of our U.S. and Canadian customers for OCTG products with Rig Direct® services. On January 2, 2020, we completed the acquisition of IPSCO Tubulars, which will further strengthen our local production capabilities and capacity to provide Rig Direct® services in the United States.

Sales to our oil and gas customers in the United States and Canada are highly sensitive to oil prices and regional natural gas prices. In the past few years, the drilling of productive shale gas and tight oil reserves, made possible by new drilling technology, has transformed drilling activity and oil and gas production in the United States and Canada. Following 25 years of declining production, U.S. crude oil production began to increase in 2009 and has risen significantly, from 5.6 million b/d in 2011 to 12.8 million b/d at the end of 2019. Production of natural gas liquids ("NGLs") has also increased significantly in the past few years in North America. This rapid increase in production, however, contributed to an excess of supply in the global oil market in 2014 and a consequent collapse in the price of oil, as other producers, were for a time unwilling to adjust their production levels to balance the market. Further rapid increases in production in 2018 and 2019 led to OPEC member country producers and other producers agreeing to cut production to balance the market and support oil prices. In 2020, however, the impact of the COVID-19 pandemic has led to a substantial reduction in global oil demand in the first quarter. In March 2020, the members of OPEC+ (OPEC plus other major oil producers including Russia) did not agree to extend their agreement to cut oil production and Saudi Arabia precipitated a wave of additional supply on the market triggering a collapse in oil prices below \$30 per barrel. This exacerbated what soon became clear was an unprecedented situation of oversupply, caused primarily by the sudden and dramatic fall in oil consumption consequent to the measures taken to contain the spread of the virus around the world. Although OPEC+ subsequently reached an equally unprecedented agreement to cut production by as much as 9.7 million barrels per day, a situation of acute oversupply remains, causing oil prices to hit record lows. By the end of trading on April 20, 2020, the West Texas Intermediate (WTI) forward price for delivery in May, which had to be closed out the following day, fell to a negative value for the first time in history, as oil storage facilities were completely committed, and producers were forced to pay buyers to take their barrels. At the same time, U.S. shale producers are finding it more difficult to access financial markets to finance production growth and are having to deleverage their balance sheets, and the financial condition of many smaller producers is under threat.

Natural gas production has risen rapidly over the past few years and the U.S. became a net exporter of natural gas for the first time in 2017 and has now become a significant exporter of LNG to global markets. In Canada, there has been a similar shift towards drilling of shale gas and tight oil reserves.

The drop in oil prices in the second half of 2014 led to a drastic reduction in drilling activity throughout North America until the second half of 2016 when activity began to recover in the United States and Canada as a result of sharply lower production costs and more stable oil prices. In 2017 and 2018, drilling activity recovered and oil and gas production increased in the United States and Canada but declined throughout 2019, in response to a drop in oil prices at the end of 2018 and producers reducing drilling budget as they focused on balancing cash flows.

Demand for, and our sales of, OCTG products in the United States and Canada plummeted in 2015 and 2016, to less than a quarter of the level reached in 2014, affected by high inventory levels as well as the collapse of drilling activity. In 2017 and 2018, however, demand and sales recovered strongly as drilling activity increased and inventory levels returned to more normal levels. In 2019, however, demand and sales declined, as U.S. rigs decreased by approximately 25% in the year. During the first months of 2020 U.S. rig count declined by more than 40%, reaching its lowest level since 2016.

During 2018, the U.S. government introduced Section 232 tariffs and quotas on the imports of steel products, including steel pipes, with the objective of strengthening domestic production capacity utilization and investment. The proportion of the OCTG market supplied by imports has declined from around 60% prior to the imposition of tariffs and quotas to around 35% at the end of 2019.

Our sales in the United States are also affected by the level of investment of oil and gas companies in exploration and production in offshore projects. The blow-out at the Macondo well in the Gulf of Mexico and the subsequent spillage of substantial quantities of oil resulted in a moratorium that halted drilling activity. The drilling moratorium was lifted in October 2010, when new regulations affecting offshore exploration and development activities were announced. Since then, drilling activity recovered but, with the 2014 fall in oil prices, drilling activity declined.

Oil and gas drilling in Canada is subject to strong seasonality, with the peak drilling season in Western Canada being during the winter months when the ground is frozen. During the spring, as the ice melts, drilling activity is severely restricted by the difficulty of moving equipment in muddy terrain.

In Mexico, we have enjoyed a long and mutually beneficial relationship with Pemex, the Mexican state-owned oil company, and one of the world's largest crude oil and condensates producers. In 1994, we began supplying Pemex with Rig Direct® services. In early 2018, we renewed our just in time agreement with Pemex for an additional five-year period.

At the end of 2013, Mexico reformed its constitution to allow increased private and foreign investment in the energy industry. Pursuant to these reforms, foreign and private investors are allowed to participate in profit and production sharing contracts and licenses and Pemex has been transformed into a state-owned production company, but ceased having a monopoly on production. In addition, a new regulatory framework was developed and contracts with foreign and private investors were awarded.

Following the 2014 decline in oil prices, drilling activity in Mexico and demand for our OCTG products plummeted as the financial condition of Pemex has deteriorated and the impact of investments from the energy reform process in Mexico had yet to take effect. In 2019, however, drilling activity at Pemex recovered as the Mexican government has increased funding available for the company as part of a policy of arresting and reversing production decline and investments from the reform process have proceeded. The new government, however, has halted further progress on the energy reform process and the financial condition of Pemex remains under stress.

South America

Sales to customers in South America accounted for 18% of our sales of tubular products and services in 2019, compared to 18% in 2018 and 20% in 2017.

Our largest market in South America is Argentina. We also have significant sales in Brazil and Colombia.

We have manufacturing subsidiaries in Argentina, Brazil and Colombia.

Our sales in South America are sensitive to the international price of oil and its impact on the drilling activity of participants in the oil and gas sectors, as well as to general economic conditions in these countries. In addition, sales in Argentina, as well as export sales from our manufacturing facilities in Argentina, are affected by governmental actions and policies, such as the taxation of oil and gas exports, measures affecting gas prices in the domestic market and other matters affecting the investment climate. Sales in Brazil are also affected by governmental actions and policies and their consequences, such as measures relating to the taxation and ownership of oil and gas production activities and the operations of *Petróleo Brasileiro S.A.* (“Petrobras”).

A principal component of our marketing strategy in South American markets is the establishment of long-term supply agreements and Rig Direct® services with national and international oil and gas companies operating in those markets.

In Argentina, we have a significant share of the market for OCTG products. We have longstanding business relationships with YPF S.A. (“YPF”), the Argentine state-controlled company, and with other operators in the oil and gas sector. We strengthened our relationship with YPF in 2013 through a long-term business alliance, which we renewed for an additional five-year term at the beginning of 2018, under which we provide Rig Direct® services with the objective of reducing YPF’s operational costs as it aims to increase production through investments in Argentina’s shale oil and gas reserves. In spite of the 2014 drop in international oil prices, drilling activity was sustained for most of 2015 and 2016 before falling significantly at the end of 2019, when drilling in the southern part of the country came to a halt. The administration that took office in December 2015 introduced significant changes in domestic energy policies, including the gradual normalization of domestic gas and energy prices, encouraging investment in the Vaca Muerta shale play, which is considered to be one of the world’s most promising unconventional reserves. In 2018, there was a significant increase in investments in Vaca Muerta, led by Tectpetrol’s investment in the Fortin de Piedra gas resource. 2019 started with a high activity level, but our sales started to fall after the primary presidential elections held in August (“PASO”). After August, fuel prices did not maintain their path of adjustment with international prices, and there still persists a large uncertainty regarding the energy framework to be implemented by the new government.

In Brazil, we have a longstanding business relationship with Petrobras. We supply Petrobras with casing (including premium connections) and line pipe products, most of which are produced in our Brazilian welded pipe facility, for both offshore and onshore applications. With the development of Brazil’s deepwater pre-salt complex, our mix of products sold in Brazil has evolved from one including mainly line pipe for onshore pipeline projects to one which includes large diameter conductor and surface casing and line pipe for use in deepwater applications. Consumption of OCTG products in Brazil stabilized over the past three years, after falling in the period 2014-2016 as Petrobras had reduced its investments in response to budgetary constraints, concentrating on developing its most productive reserves in the pre-salt fields and halting other investments. Demand for line pipe for pipeline projects has declined to very low levels with only one major project implemented in the past five years. In response to market-opening measures and the attractiveness of the deepwater reserves, major oil companies have increased their investments in Brazil while Petrobras is planning to increase its investments which could lead to increased activity in 2020 and future years. Our sales in the local market are currently mostly concentrated on large diameter conductors and surface casing with connectors for the pre-salt and other offshore developments, as well as smaller diameter casing for use in offshore and in the remaining onshore exploration and production activity.

In Colombia, we have established a leading position in the market for OCTG products since 2006, following our acquisition of TuboCaribe, a welded pipe manufacturing facility located in Cartagena. Although the market grew rapidly when oil prices were high as the country encouraged investment in its hydrocarbon industry and opened its national oil company to private investment, drilling activity in Colombia was deeply affected by the 2014 collapse in oil prices and fell to a very low level in 2016. However, activity has recovered in the past three years in response to higher oil prices. Our principal customer in Colombia is Ecopetrol S.A., which we supply with Rig Direct® services and with whom we renewed a long-term agreement in the beginning of 2018. We have recently strengthened our industrial position in Colombia through investing in the installation of modern heat treatment, pipe threading and processing facilities which enables us to serve this market with more local industrial content and our customers with more efficient Rig Direct® services.

In Guyana, the new Lisa deepwater offshore play is being developed and, since 2018, we have been providing casing for the development wells in this play under Rig Direct® conditions.

We also have sales in Ecuador, supplying Petroamazonas, the national oil company, as well as private operators. To increase local content, we have established a local OCTG threading facility in Machachi.

We have been present in the Venezuelan OCTG market for many years and we maintained business relationships with Petróleos de Venezuela S.A. (“PDVSA”) and the joint venture operators in the oil and gas sector until the implementation of the OFAC sanctions. Additionally, we maintained business relationships with Chevron in Venezuela until April 22, 2020, when their general License 8E of the sanctions expired. Our sales in Venezuela, however, have declined to a low level and we do not foresee any significant recovery at this time.

Europe

Sales to customers in Europe accounted for 9% of our sales of tubular products and services in 2019, compared to 9% in 2018 and 10% in 2017.

Our single largest country market in Europe is Italy. The market for steel pipes in Italy (as in much of the European Union) is affected by general industrial production trends, especially in the mechanical and automotive industry, and by investment in power generation, petrochemical and oil refining facilities. Sales to the mechanical and automotive industries and for HPI and power generation projects in Italy and the rest of Europe over the past three years have been affected by lower prices reflecting increased competitive pressures, but volumes have been relatively stable.

In Europe we also have significant sales to the oil and gas sector, particularly in the North Sea. Demand from this market is affected by oil and gas prices in the international markets and their consequent impact on oil and gas drilling activities in the North Sea and other areas, like Romania. In addition, U.S. and European sanctions are affecting demand for our premium pipe products in Russia and limited exploration success in unconventional shale plays in Eastern Europe has led international operators to cut back on their investments in this area.

In February 2019, we announced the formation of a joint venture with Severstal, a leading Russian flat steel producer, to build and operate a welded pipe mill to manufacture OCTG products in Surgut, Western Siberia, which is expected to begin production in late 2021. Our share in the joint venture is 49%.

Middle East and Africa

Sales to customers in the Middle East and Africa accounted for 19% of our sales of tubular products and services in 2019, compared to 21% in 2018 and 19% in 2017.

Our sales in the region remain sensitive to international prices of oil and gas and their impact on drilling activities as well as to the production policies pursued by OPEC, many of whose members are located in this region. In the past few years, oil and gas producing countries in the Middle East, led by Saudi Arabia, have increased investments to develop gas reserves to fuel regional gas-based industrial development, which have positively affected their consumption of premium OCTG products. Saudi Arabia, in particular, has shown strong growth in sour and high pressure gas field drilling activity. They have also maintained and, in some cases, increased investments to offset decline and add oil production capacity. Additionally, in the eastern Mediterranean, vast reserves of natural gas have been discovered, some of which have been targeted for fast track development. In Africa, international oil companies increased investments in exploration and production in offshore projects in 2012 and 2013 but began to postpone or reduce their investment commitments in 2014 due to the high cost of offshore project developments and a lower success rate in exploration activity. Since 2015, following the oil price collapse, exploration activity has been sharply cut back and major project commitments have been postponed. The effect on demand was compounded by the high inventory levels held in the region.

In the past few years, uprisings affected drilling activity in countries such as Syria, Libya and Yemen and, in the case of Libya, the oil and gas industry was effectively shut down in 2011. In addition, in recent years, U.S. and E.U. sanctions have affected production and exports in Iran.

Our sales in the Middle East and Africa could be adversely affected by political and other events in the region, such as armed conflicts, terrorist attacks and social unrest, that could materially impact the operations of companies active in the region’s oil and gas industry. Our sales in the region can also be affected by the levels of inventories held by the principal national oil companies in the region and their effect on purchasing requirements. For example, Saudi Aramco, after purchasing pipes in excess of its consumption requirements in 2013 and the first half of 2014, subsequently substantially reduced purchases during the second half of 2014 and throughout 2015, notwithstanding increased drilling activity, as it reduced inventory levels. In 2017 and 2018, purchasing was more in line with consumption patterns, but recently Saudi Aramco has begun a destocking process which will affect demand through 2020.

Over the past three years our sales in the Middle East have been relatively stable but sales in sub-Saharan Africa have been affected by the slowdown in drilling activity and investments in deepwater projects. On the other hand, our sales in the second half of 2017 and throughout 2018 were boosted by sales of line pipe for offshore gas projects in the Eastern Mediterranean. In 2018, these sales came to a peak amounting to 8% of total sales, which is unlikely to be repeated in the near future.

In January 2019, we completed the acquisition of 47.79% of SSPC, a listed welded steel pipe producer in Saudi Arabia. SSPC produces OCTG, line pipe and commercial pipe products mainly for the local market. It is qualified to supply Saudi Aramco for certain products. Through this investment, Tenaris is increasing its local industrial presence in an important oil and gas market where policies are being implemented to diversify the economy and increase local manufacturing. In February 2020, SSPC was awarded a recognition by Saudi Aramco for having the highest local content of any local pipe producer in Saudi Arabia.

In August 2019 we were awarded a long-term agreement with Rig Direct® conditions, valued at \$1.9 billion, to supply approximately half of Abu Dhabi National Oil Company's ("ADNOC") OCTG requirements in Abu Dhabi over the next five to seven years. In order to serve this market, we will expand our local service base and construct a new premium OCTG threading facility.

Asia Pacific

Sales to customers in the Asia Pacific accounted for 5% of our sales of tubular products and services in 2019, compared to 4% in 2018 and 4% in 2017.

We have a significant presence in the region with local production facilities in Indonesia, China and Japan and, in recent years, we have established service centers in Australia and Thailand.

Sales to Indonesia and other markets in South East Asia and Oceania are mainly affected by the level of oil and gas drilling activity, particularly offshore drilling activity. The collapse in the price of oil has deeply affected drilling activity and our sales throughout the region, where drilling is mainly onshore. In 2016, however, we won a significant long-term agreement to provide pipes with Rig Direct® services in Thailand which has made Thailand our largest market in the region. Our future sales in Thailand, however, will be affected by recent changes in the ownership of oil and gas development concessions and the conclusion of this long-term agreement.

Our sales in China are concentrated on premium OCTG products used in oil and gas drilling activities. Over the past years, China has significantly reduced its imports of OCTG products as local producers compete ferociously in an oversupplied market. We continue, however, to seek new markets in niche applications and in 2016 we opened a components facility for processing pipes for use in airbags for automobiles. More recently, we have begun to supply pipes under a Rig Direct® contract for a shale gas operation.

In Japan, our subsidiary, NKK Tubes, competes against other domestic producers. The market for steel pipe products in Japan is mostly industrial and depends on general factors affecting domestic investment, including production activity.

Others

Our other products and services include sucker rods used in oil extraction activities, coiled tubes used in oil and gas extraction activities, industrial equipment of various specifications and for diverse applications, sales of pipe for construction activities from our Italian Piombino mill, sales of raw materials and energy that exceed our internal requirements and heat exchangers. In January 2017, we sold our electrical conduit pipes business in the United States. Net sales of other products and services amounted to 6% of total net sales in 2019 and 2018.

Competition

The global market for steel pipe products is highly competitive. Seamless steel pipe products, which are used extensively in the oil and gas industry particularly for offshore, high pressure, high stress and other complex applications, are produced in specialized mills using round steel billets and specially produced ingots. Welded steel pipe products are produced in mills which process steel coils and plates into steel pipes. Steel companies that manufacture steel coils and other steel products but do not operate specialized seamless steel mills are generally not competitors in the market for seamless steel pipe products, although they often produce welded steel pipes or sell steel coils and plates used to produce welded steel pipes.

The production of steel pipe products following the stringent requirements of major oil and gas companies operating in offshore and other complex operations requires the development of specific skills and significant investments in manufacturing facilities. By contrast, steel pipe products for standard applications can be produced in most seamless pipe mills worldwide and sometimes compete with welded pipe products for such applications including OCTG applications. Welded pipe, however, is not generally considered a satisfactory substitute for seamless steel pipe in high-pressure or high-stress applications.

Over the past decade, substantial investments have been made, especially in China but also in other regions around the world, to increase production capacity of seamless steel pipe products. Production capacity for more specialized product grades has also increased. With the downturn between 2014 and 2016 in the price of oil and demand for tubes for oil and gas drilling, the overcapacity in steel pipe and seamless steel pipe production worldwide has become acute, and now extends beyond commodity grades. The competitive environment has, as a result, become more intense, and we expect that this will continue for some time. Effective competitive differentiation will be a key factor for Tenaris.

Our principal competitors in steel pipe markets worldwide are described below.

- Vallourec S.A. (“Vallourec”), a French company, has mills in Brazil, China, Germany and the United States. Vallourec has a strong presence in the European market for seamless pipes for industrial use and a significant market share in the international market with customers primarily in Europe, the United States, Brazil, China, the Middle East and Africa. Vallourec is an important competitor in the international OCTG market, particularly for high-value premium joint products, where it operates a technology partnership for VAM[®] premium connections with Nippon Steel & Sumitomo Metal Corporation (“NSSMC”). Prior to the collapse in oil prices in 2014 to 2016, Vallourec increased its production capacity by building mills in Brazil (jointly with NSSMC) and, Youngstown, Ohio, acquiring three tubular businesses in the United States and Saudi Arabia, concluding an agreement with a Chinese seamless steel producer, Tianda Oil Pipe Company (“Tianda”) to distribute products from Tianda in markets outside China. In early 2016, in response to accumulating losses, Vallourec announced a \$1 billion capital increase, more than half of which was provided by a French government fund and NSSMC, who each agreed to increase their equity participation to 15%. At the same time, an industrial restructuring program was announced under which Vallourec reduced capacity in Europe, closing its rolling mills in France, combined its operations in Brazil with that of the new mill held with NSSMC, acquired a majority position in Tianda and bought out the remaining minority interest, and strengthened its cooperation with NSSMC for the development and testing of premium connection products and technology. Despite this restructuring program, Vallourec’s losses have continued through 2019 and, in February 2020, it announced a further capital increase of \$0.8 billion to take place later this year, to which the French government fund has agreed to subscribe in proportion to its existing shareholding while NSSMC has agreed to subscribe a less than proportional amount and reduce its shareholding to 10%.
- Japanese players NSSMC and JFE together enjoy a significant share of the international market, having established strong positions in markets in the Far East and the Middle East. They are internationally recognized for their supply of high-alloy grade pipe products. In recent years, NSSMC has increased its capacity to serve international markets through the construction with Vallourec of a new seamless pipe mill in Brazil, and has further strengthened its ties with Vallourec through participating in Vallourec’s 2016 capital increase and combining their respective Brazilian operations.
- In recent years, TMK, a Russian company, has led consolidation of the Russian steel pipe industry, invested to modernize and expand its production capacity in Russia and expanded internationally through acquisitions into Eastern Europe and the United States where it acquired a significant position in the U.S. market through its acquisition of IPSCO’s tubular operations. In 2012, TMK opened a research and development center in Houston and has been expanding its capacity to produce premium connection products. TMK also expanded in the Middle East through the acquisition of a controlling interest in Gulf International Pipe Industry LLC (“Gulf International Pipe”), a welded pipe producer in Oman. More recently, however, TMK adopted a strategy of monetizing its international assets by reducing its participation in Gulf International Pipe and selling IPSCO to Tenaris.

- Over the past two decades, Chinese producers increased production capacity substantially and strongly increased their exports of steel pipe products around the world. Due to unfair trading practices, many countries, including the United States, the European Union, Canada, Mexico and Colombia, have imposed anti-dumping restrictions on Chinese imports to those regions. The largest Chinese producer of seamless steel pipes, Tianjin Pipe (Group) Corporation Limited (“TPCO”), announced a plan in 2009 to build a new seamless pipe facility in the United States; heat treatment and pipe finishing facilities have been constructed and steelmaking and hot rolling facilities are currently under construction in Corpus Christi, Texas. Although producers from China compete primarily in the “commodity” sector of the market, some of these producers, including TPCO, have been upgrading their facilities and processes with the intention of entering into the market for more specialized products.
- The tubes and pipes business in the United States and Canada have experienced a significant consolidation process. Following the acquisitions of Maverick and Hydril by Tenaris and the earlier acquisition of North Star Steel by Vallourec, U.S. Steel Corporation acquired Lone Star Steel Technologies. In 2008, Evraz Group S.A. (“Evraz”) and TMK, two Russian companies, acquired IPSCO’s Tubular division, with Evraz retaining IPSCO’s operations in Canada and TMK acquiring IPSCO’s operations in the United States. More recently, however, many new players have built, or announced plans to build, pipe mills in the United States. These include, in addition to TPCO, Boomerang LLC, a company formed by a former Maverick executive that opened a welded pipe mill in Liberty, Texas, in 2010; Benteler International A.G. (“Benteler”), a European seamless pipe producer that built a new seamless pipe mill in Louisiana, which opened in September 2015; and OCT Pipe, LLC, a company building a seamless pipe mill with heat treatment and OCTG threading facilities in Norfolk, Nebraska. North American pipe producers are largely focused on supplying the U.S. and Canadian markets, where they have their production facilities. In January 2020, TMK completed the sale of IPSCO to Tenaris.
- Korean welded pipe producers, who have a limited domestic market, have expanded capacity in recent years and targeted the U.S. market for standard applications. They have gained a relevant market position, despite the application of anti-dumping duties for unfair trading practices and being subject to Section 232 quotas.
- Tubos Reunidos S.A. (“Tubos Reunidos”) of Spain, Benteler International A.G. of Germany and Voest Alpine A.G. of Austria each have a significant presence in the European market for seamless steel pipes for industrial applications, while the latter also has a relevant presence in the U.S. and international OCTG markets, and in 2016, Tubos Reunidos opened an OCTG threading facility targeting international markets. In 2006, ArcelorMittal S.A. (“ArcelorMittal”) created a tubes division through several acquisitions and has mills in North America, Eastern Europe, Venezuela, Algeria and South Africa and has built a seamless pipe mill in Saudi Arabia.
- In the Middle East, particularly in Saudi Arabia, which has implemented policies to encourage local production for its oil and gas industry, a number of pipe mills have been established including a seamless pipe mill built by Jubail Energy Services Company (“JESCO”), a company established with majority participation from a state-backed industrial development company, and a seamless pipe mill built by ArcelorMittal. These local players have been strengthening their capabilities and are taking an increasing share of the pipes supplied to Saudi Aramco as well as exporting to other countries in the Middle East and the rest of the world. In January 2019, Tenaris acquired a controlling 47.79% participation in SSPC, a local welded pipe producer.

Producers of steel pipe products can maintain strong competitive positions in markets where they have their pipe manufacturing facilities due to logistical and other advantages that permit them to offer value-added services and maintain strong relationships with domestic customers, particularly in the oil and gas sectors. Our subsidiaries have established strong ties with major consumers of steel pipe products in their home markets, reinforced by Rig Direct® services, as discussed above.

Capital Expenditure Program

During 2019, our capital expenditures, including investments at our plants and information systems (IT), amounted to \$350 million, compared to \$349 million in 2018 and \$558 million in 2017. Of these capital expenditures, 2019 investment at our plants reached \$314 million compared to \$318 million in 2018 and \$525 million in 2017.

In 2019 we focused on enhancing automation and digitalization of our industrial processes, improvements on safety and environmental issues, product differentiation and competitiveness.

The major highlights of our capital spending program during 2019 included: investments in our three-year global automation plan covering all of our industrial system worldwide; new equipment and related infrastructure to improve safety conditions at our entire industrial system; the revamping of the shaft furnace at the DRI plant, the expansion of the dedusting system capacity at the steel shop (still ongoing) and a capacity increase of the component center at our Campana mill in Argentina; the completion of the steel shop fumes dedusting and cooling systems project, the handling revamping - including range extension to 3.8 tons/pcs- of the multi-stand plug mill (“MPM”) hot rolling mill, innovative solutions at the Non-Destructive Tests (“NDTs”) of the FAT2 finishing lines and increase of threading capacity at the couplings plant at our Veracruz Facility in Mexico; the consolidation of the new heat treatment plant, the revamping of the main ultrasonic test equipment, and an innovative NDT inspection system for the expander mill production line at our Dalmine facility in Italy; the revamping of the threading and phosphatizing lines in our McCarty facility in the US; the steel shop capacity increase of our Calarasi plant which is still on going, the installation of a new airbag production line with full automatic inspection system at our mill in Zalau, Romania and the installation of a new service center in Pindamonhangaba, Brasil.

Our capital expenditure programs are being reviewed to address short-term changes in business conditions, and capital expenditures in 2020 are expected to be significantly lower than the level of 2019: they will include the completion of some of the projects started in 2019 described above, as well as the construction of a new premium threading plant in Abu Dhabi as required under an agreement with ADNOC. Furthermore, as part of the ongoing integration of IPSCO, we will assess whether any investments are necessary at the newly acquired business.

In addition to capital expenditures at our plants, we have invested in information systems for the integration of our production, commercial and managerial activities, together with investments in cybersecurity for the protection of our information technology and our industrial systems. These investments are intended to promote the further integration of our operating facilities and enhance our ability to provide value-added services to customers worldwide. Investments in information systems totaled \$35 million in 2019, compared to \$32 million in 2018 and \$28 million in 2017.

Raw Materials and Energy

The majority of our seamless steel pipe products are manufactured in integrated steelmaking operations using the electric arc furnace route, with the principal raw materials being steel scrap, DRI, hot briquetted iron ("HBI"), pig iron and ferroalloys. In Argentina we produce our own DRI from iron ore using natural gas as a reductant. Our integrated steelmaking operations consume significant quantities of electric energy, purchased from the local market. Our welded steel pipe products are processed from purchased steel coils and plates. Although the weight of the different steelmaking raw materials and steel, vary among the different production facilities in our industrial system, depending on the specifications of the final products and other factors, on average steel scrap, pig iron, HBI and DRI represent approximately 23% of our steel pipe products' costs, while steel in the form of billets or coils represents approximately 17%, with direct energy accounting for approximately 4%.

The above raw material inputs are subject to price volatility caused by supply, political and economic situations, financial variables and other unpredictable factors. For further information on price volatility, see Item 3.D. "Key Information – Risk Factors – Risks Relating to Our Industry – Increases in the cost of raw materials, energy and other costs, limitations or disruptions to the supply of raw materials and energy, and price mismatches between raw materials and our products may hurt our profitability". The costs of steelmaking raw materials and of steel coils and plates generally decreased in 2019 in comparison to 2018, continuing with high levels of volatility, with the exception of iron ore prices, which rose affected by supply restrictions following Vale's Brumadinho mine incident discussed below.

Steel scrap, pig iron and HBI

Steel scrap, pig iron and HBI for our steelmaking operations are sourced from local, regional and international sources. In Argentina we produce our own DRI and source ferrous scrap domestically through a wholly owned scrap collecting and processing subsidiary. In Italy we purchase pig iron and ferrous scrap from local and regional markets. In Mexico we import our pig iron and HBI requirements and purchase scrap from domestic and international markets. In Romania we source ferrous scrap mainly from the domestic market and we import pig iron.

International prices for steel scrap, pig iron and HBI can vary substantially in accordance with supply and demand conditions in the international steel industry. Overall costs for these materials decreased in 2019, following a decline in world steel prices near the end of 2018. As a reference, prices for Scrap Shredded U.S. East Coast, published by CRU, averaged \$335 per ton in 2018 and \$274 per ton in 2019, ascending to levels around \$286 per ton at the beginning of 2020.

Iron ore

We consume iron ore in the form of pellets, for the production of DRI in Argentina. Siderca's annual consumption of iron ore during 2019 was approximately 625,000 tons, supplied mainly from Brazil by Vale International S.A.

On January 25, 2019, Vale's Brumadinho mine dam collapsed resulting in the death of 300 people. Consequently, the Brazilian government shut down other mines with similar structures, reducing the iron ore market supply by 90 million tons. As a result of such reduced iron ore supply and strong demand from China, iron ore IODEX 62% Fe (CFR North China) prices spiked above 120 USD/ton, a 5-year high. As mines were cleared to operate again, prices settled around 90 USD/ton, with an annual average of 93.4 USD/ton, a 34% year on year increase.

In the first half of 2019, iron ore direct reduction (“DR”) grade pellet premiums continued to grow as the previous year. However, in the second half of the year demand dropped due to high prices and lower steel production from EU, pressuring premiums to lower levels. Platts DR grade pellet premium averaged 62 USD/ton in 2019, fluctuating between 39 and 76 USD/ton.

Round steel bars

We mainly satisfy our steel bars and ingots requirements with materials produced in our steelmaking facilities in Romania, Italy, Mexico and Argentina. We complement this internal supply with purchases of steel bars and ingots from third parties as required, and particularly for use in our seamless steel pipe facilities in Japan, Canada, Mexico and the USA.

In Japan, we purchase these materials from JFE, our partner in NKKTubes. These purchases are made under a supply arrangement pursuant to which the purchase price varies in relation to changes in the cost of production. As a result of their location within a larger production complex operated by the supplier, our operations in Japan are substantially dependent on these contracts for the supply of raw materials and energy. JFE uses imported iron ore, coal and ferroalloys as principal raw materials for producing steel bars at Keihin.

In Canada we mainly source our steel bars requirements from our facilities mentioned above.

In Mexico, we have been sourcing steel bars from Ternium’s Mexican facilities since 2011, under a long term contract that grants us, during an eight and a half year period until April 2020, preferential right to purchase up to 250,000 tons of round steel bars per year. Currently, a renegotiation of the contract is taking place and we expect that Ternium will continue providing steel bars to our Mexican facilities.

In the United States, we currently use steel bars produced in our integrated facilities in Romania, Italy and Mexico and have been granted an exclusion from Section 232 tariffs for the imports of these steel bars. Additionally, we have a contract in place with Nucor Steel to purchase a portion of the steel bars requirements in our Tenaris Bay City mill. From 2020 Tenaris will have its first steelmaking facility in the United States in Koppel, Pennsylvania.

Steel coils and plates

For the production of welded steel pipe products, we purchase steel coils and steel plates principally from domestic producers for processing into welded steel pipes. We have welded pipe operations in Argentina, Brazil, Canada, Colombia and the United States.

Steel coil market prices decreased in 2019. As a reference, prices for hot rolled coils, HRC Midwest USA Mill, published by CRU, averaged \$670 per metric ton in 2019 and \$915 per metric ton in 2018.

For our welded pipe operations in the United States, a significant part of our requirements for steel coils are supplied by Nucor Steel which is our principal supplier in the United States. Nucor Steel has a steel coil manufacturing facility in Hickman, Arkansas, near to our principal welded pipe facility in the United States. To secure a supply of steel coils for our U.S. facilities, during 2019 we renewed a long-term purchase agreement with Nucor Steel which is due to expire at the end of 2022.

In Canada, we have long-term agreements with our main steel suppliers for our welded pipe operations with prices referenced to market levels in U.S. dollars (i.e., CRU HRC index). Among such suppliers is ArcelorMittal Dofasco, which has steel coil manufacturing facilities in Hamilton, Ontario. Additionally, we purchase steel on a spot basis from Algoma Steel, which has steel coil manufacturing facilities in Sault Ste. Marie, Ontario.

We also purchase steel coils and plates for our welded pipe operations in South America (Colombia, Brazil and Argentina) principally from Usiminas and Gerdau S.A. (“Gerdau”) in Brazil, from Ternium Argentina S.A. (“Ternium Argentina”), a subsidiary of Ternium in Argentina, and from Ternium’s facilities in Mexico. In addition, in Brazil we also source plates and coils from international suppliers when not produced domestically.

Energy

We consume substantial quantities of electric energy at our electric steel shops in Argentina, Italy, Mexico and Romania. In Argentina, up to the end of January 2019, we had a 160 megawatt power generation plant located at San Nicolás that reached the end of its useful life, which together with a smaller thermo-electric power generating plant located within the Campana facility, was sufficient to supply the requirements of our steelmaking facility at Campana. Currently, our electric energy requirements in Argentina are mainly satisfied from the local market and by the plant located in Campana. In Dalmine, Italy, we have a 120 megawatt power generation facility which is designed to have sufficient capacity to meet most of the electric power requirements of the operations. The additional energy needed to cover the peaks of consumption and the excess energy produced are purchased and sold to the market while heat is sold for district heating. In Mexico, our electric power requirements are mainly satisfied by Techgen, a natural gas-fired combined cycle electric power plant in the Pesquería area of the State of Nuevo León, while a small portion of our energy requirements are furnished by the Mexican government-owned Comisión Federal de Electricidad, or the Federal Electric Power Commission. In Romania, we source electric energy from the local market.

We consume substantial volumes of natural gas in Argentina, particularly in the generation of DRI and to operate our power generation facilities. Tecpetrol is our main natural gas supplier in Argentina. Tecpetrol is a subsidiary of San Faustin, which supplies us with natural gas under market conditions and according to local regulations.

We have transportation capacity agreements with Transportadora de Gas del Norte S.A. (“TGN”), a company in which San Faustin holds a significant but non-controlling interest, corresponding to capacity of 1,000,000 cubic meters per day until April 2027. In order to meet our transportation requirements for natural gas above volumes contracted with TGN, we also have agreements with Naturgy S.A. (formerly Gas Natural Ban S.A.), for a maximum transportation capacity corresponding to approximately 970,000 cubic meters per day. For the final transportation phase, we have a supply contract with Naturgy S.A. Both contracts with Naturgy S.A. are in place until April 2020 and are expected to be renewed.

In addition to the normal amount of gas consumed at our Italian plants, we also consume substantial quantities of natural gas in connection with the operation of our power generation facility in Italy. Our natural gas requirements in Italy are currently supplied by Eni S.p.A.

Our costs for electric energy and natural gas vary from country to country. In the last few years energy costs have remained generally flat thanks to the increasing availability of natural gas from shale plays and additional renewable energy generation at more competitive prices. In 2018 the cost of natural gas for industrial use in Argentina began to decrease with the increase in production of natural gas from the Vaca Muerta gas play. In the second half of 2019, however, continuing uncertainty about the policies that the new Argentine government would implement has led to a sharp fall in investment and drilling activity in Vaca Muerta. The demand for natural gas in winter continues to outpace supply, which is why Argentina must import natural gas from Bolivia, Chile and Liquefied natural gas (“LNG”) from the international market, in addition to using liquid fuel to generate electricity. See Item 3.D. “Key Information – Risk Factors – Risks Relating to Our Industry – Increases in the cost of raw materials, energy and other costs, limitations or disruptions to the supply of raw materials and energy; and price mismatches between raw materials and our products may hurt our profitability” and Item 3.D. “Key Information – Risk Factors – Risks Relating to Our Business – Adverse economic or political conditions in the countries where we operate or sell our products and services may decrease our sales or disrupt our manufacturing operations, thereby adversely affecting our revenues, profitability and financial condition”.

Ferroalloys

For each of our steel shops we coordinate our purchases of ferroalloys worldwide. The international costs of ferroalloys can vary substantially within a short period. Prices for the main ferroalloys consumed by Tenaris decreased gradually during 2019. Although some materials have started to gain momentum upward by the start of 2020, current prices remain below 2018 averages.

Product Quality Standards

Our steel products (tubular products, accessories and sucker rods) are manufactured in accordance with the specifications of the American Petroleum Institute (API), the American Society for Testing and Materials (ASTM), the International Standardization Organization (ISO), the Japan Industrial Standards (JIS), and European Standards (EN), among other standards. The products must also satisfy our proprietary standards as well as our customers’ requirements. We maintain an extensive quality assurance and control program to ensure that our products continue to satisfy proprietary and industry standards and are competitive from a product quality standpoint with products offered by our competitors.

We currently maintain, for all our manufacturing facilities and services centers, a Quality Management System Certified to ISO 9001:2015 by Lloyd’s Register Quality Assurance and API product licenses granted by API, which are requirements for selling to the major oil and gas companies, which have rigorous quality standards. In addition, the majority of our testing laboratories are certified to ISO 17025. Our Quality Management System (QMS), based on the ISO 9001 and API Q1 specifications assures that products and services comply with customer requirements from the acquisition of raw materials to the delivery of the final product and services. The QMS is designed to ensure the reliability and improvement of the product and the manufacturing operations processes as well as the associated services. Additionally, we are in the process of certifying the QMS to API Q2, a certification specifically developed for companies which offer services in the oil and gas industry.

All of our mills involved in the manufacturing of material for the automotive market are certified according to the standard IATF 16949 by Lloyd's Register Quality Assurance.

Research and Development

Research and development, or R&D, of new products and processes to meet the increasingly stringent requirements of our customers is an important aspect of our business.

R&D activities are carried out primarily at our global R&D network with its main office in Amsterdam, the Netherlands and specialized research and testing facilities located in Campana, Argentina, in Veracruz, Mexico, in Dalmine, Italy, and at the product testing facilities of NKK Tubes, Japan. Additionally, we have a Wedge Technology Center in Houston, Texas, USA. We strive to engage some of the world's leading industrial research institutions to solve the problems posed by the complexities of oil and gas projects with innovative applications. In addition, our global technical sales team is made up of experienced engineers who work with our customers to identify solutions for each particular oil and gas drilling environment.

Product R&D currently being undertaken are focused on the increasingly challenging energy markets and include:

- proprietary premium joint products including Dopeless® technology;
- heavy-wall deepwater line pipe, risers and welding technology;
- proprietary steels;
- tubes and components for the car industry and mechanical applications;
- tubes for boilers;
- welded pipes for oil and gas and other applications;
- sucker rods;
- coiled tubing;
- coatings; *and*
- large vessels for hydrogen storage and refueling stations.

In addition to R&D aimed at new or improved products, we continuously study opportunities to optimize our manufacturing processes. Recent projects in this area include modeling of rolling and finishing process and the development of different process controls, with the goal of improving product quality and productivity at our facilities.

We seek to protect our innovation, through the use of patents, trade secrets, trademarks and other intellectual property tools that allow us to differentiate ourselves from our competitors.

We spent \$61 million in R&D in 2019, compared to \$63 million in 2018 and \$64 million in 2017.

Capitalized costs were not material for the years 2019, 2018 and 2017.

Environmental Regulation

We are subject to a wide range of local, provincial and national laws, regulations, permit requirements and decrees relating to the protection of human health and the environment, including laws and regulations relating to hazardous materials and radioactive materials and environmental protection governing air emissions, water discharges and waste management. Laws and regulations protecting the environment have become increasingly complex and more stringent and expensive to implement in recent years. International environmental requirements vary from one jurisdiction to another.

The ultimate impact of complying with existing laws and regulations is not always clearly known or determinable since regulations under some of these laws are not yet effective or are undergoing revision. The expenditures necessary to remain in compliance with these laws and regulations, including site or other remediation costs, or costs incurred from potential environmental liabilities, could have a material adverse effect on our financial condition and profitability. While we incur and will continue to incur, in expenditures to comply with applicable laws and regulations, there always remains a risk that environmental incidents or accidents may occur that may negatively affect our reputation or our operations.

Compliance with applicable environmental laws and regulations is a significant factor in our business. We have not been subject to any material penalty for any material environmental violation in the last five years, and we are not aware of any current material legal or administrative proceedings pending against us with respect to environmental matters which could have an adverse material impact on our financial condition or results of operations.

Insurance

We carry property damage, general liability and certain other insurance coverage in line with industry practice. However, we do not carry business interruption insurance. Our current general liability coverage includes third party, employers, sudden and accidental seepage and pollution and product liability, up to a limit of \$300 million. Our current property insurance has indemnification caps up to \$250 million for direct damage, depending on the different plants; and a deductible of \$100 million.

Disclosure Pursuant to Section 13(r) of the Exchange Act

Tenaris

The Iran Threat Reduction and Syria Human Rights Act of 2012 (“ITRA”), created a new subsection (r) in Section 13 of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”), which requires a reporting issuer to provide disclosure if the issuer or any of its affiliates knowingly engaged in certain enumerated activities relating to Iran, including activities involving the Government of Iran. Tenaris is providing the following disclosure pursuant to Section 13(r) of the Exchange Act.

In July 2015, the Islamic Republic of Iran entered into the Joint Comprehensive Plan of Action (“JCPOA”) with China, France, Germany, Russia, the United Kingdom and the U.S., which resulted in the partial lifting in January 2016 of certain sanctions and restrictions against Iran, including most U.S. secondary sanctions against such country. On May 8, 2018, the U.S. announced that it would cease participation in the JCPOA and would begin re-imposing nuclear-related sanctions against Iran after a wind-down period. Following the U.S. withdrawal from the JCPOA, the European Union updated Council Regulation (EC) No. 2271/96 of 22 November 1996 (the “EU Blocking Statute”), to expand its scope to cover the re-imposed U.S. nuclear-related sanctions. The EU Blocking Statute aims to counteract the effects of the U.S. secondary sanctions.

As previously reported, Tenaris ceased all deliveries of products and services to Iran by the end of October 2018, that is, during the wind-down period and before the full reinstatement of U.S. secondary sanctions on November 5, 2018. Tenaris has not, directly or indirectly, delivered any goods or services to Iran or Iranian companies during 2019 and does not intend to explore any commercial opportunities in Iran, nor does it intend to participate in tender offers by, or issue offers to provide products or services to, Iranian companies or their subsidiaries.

During 2019 Tenaris collected certain payments for sales of goods or services in connection with past commercial activities relating to Iran, as further described below. Tenaris believes that such activities do not violate any U.S. or foreign law. In addition, in all cases, Tenaris collected amounts owed for sales of goods or performance of services in accordance with OFAC regulations. Tenaris has procedures in place designed to ensure that such activities comply with all applicable U.S. and other international export control and economic sanctions laws and regulations.

Previous pending payments:

- In May 2016, TGS was awarded by Toos Payvand Co., a Tehran-based company, a spot purchase order for carbon steel pipes for the Esfahan Oil Refinery Project (end user National Iranian Oil Company or “NIOC”), for a total value of EUR3.5 million (approximately \$4.0 million). TGS delivered most of the items requested under such purchase order, for which the customer made advance payments, during 2017 and during the wind-down period associated with the reinstatement of U.S. secondary sanctions. Shipments under this purchase order were suspended as of October 2018. As of December 31, 2019, TGS recorded an advance payment from Toos Payvand Co. for undelivered goods for approximately EUR 0.04 million (approximately \$0.04 million).
- During 2018, Dalmine was awarded spot orders from Mapna International FZE for a total value of EUR4.1 million (approximately \$4.7 million) of which EUR 4.0 million (approximately \$4.5 million) were collected as of December 31, 2018. By October 2018, Dalmine had delivered all ordered items. On April 18, 2019, Dalmine collected the outstanding balance of approximately EUR0.1 million (approximately \$0.1 million) in compliance with OFAC regulations. No obligations are outstanding, and no amounts are due to Dalmine in connection with these purchase orders.

- During 2018, Dalmine received an order from U.K.-based company BP Exploration Operating Co. Ltd. for EUR0.2 million (approximately \$0.2 million) for the provision of casing and coupling to be used in the Rhum Gas Oilfield (located in the U.K.). At the time of the order, the partners in the Rhum Gas Oilfield are BP Exploration Operating Co Ltd. (50%) and Iranian Oil Co UK Ltd (50%), a subsidiary of NIOC. All items were delivered by October 2018. On May 21, 2019, Dalmine collected the outstanding balance of approximately EUR0.2 million (approximately \$0.2 million) from BP Exploration Operating Co. Ltd. in compliance with OFAC regulations. No obligations are outstanding, and no amounts are due to Dalmine in connection with this purchase order.

The aggregate amount collected during 2019 in connection with past commercial activities relating to Iran amounted to approximately \$0.3 million. All revenue and profit in connection of these sales was recorded in the fiscal year in which such sales were performed and, therefore, no revenue and profit has been reported in connection with commercial activities related to Iran for the year ended December 31, 2019.

Tenaris's Affiliates

Pursuant to Section 13(r) of the Exchange Act, Tenaris is also required to disclose whether any of its affiliates have engaged in certain Iran-related activities and transactions. Tenova S.p.A. ("Tenova"), an Italian supplier of equipment for the mining and the steelmaking industry, is indirectly controlled by San Faustin and, accordingly, is deemed "affiliate" of Tenaris, as that term is defined in Exchange Act Rule 12b-2.

In response to our inquiry, Tenova informed us that:

- During 2019, Tenova or its subsidiaries provided engineering services for the steel-making and raw material handling industries to Iranian customers for agreements entered prior to 2018. As a result of the reinstatement of U.S. secondary sanctions, Tenova has terminated/suspended all commercial activities related to contracts involving Iranian entities. In addition, Tenova has informed that, as of May 2019, it has formally required its employees to stop any travel to Iran and that it does not intend to explore any commercial opportunities in Iran, nor does it intend to participate in tender offers by, or issue offers to provide products or services to, Iranian companies or their subsidiaries.
- None of the services provided to Iranian customers is connected to the activities described in Sections 5(a) or (b) of the Iran Sanctions Act of 1996, or Sections 104(c)(2), 104(d)(1) or 105A(b)(2) of the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010. In addition, no such activities were performed in favor of persons whose property and interests in property are blocked pursuant to Executive Order 13224 (terrorists and terrorist supporters) or 13382 (weapons of mass destruction proliferators and supporters), nor in favor of any person or entity identified under Section 560.304 of Title 31, Code of Federal Regulations (relating to the definition of the Government of Iran).

Tenova reported total revenue for 2019 derived from services provided to Iranian customers for an amount of approximately \$7.8 million; and estimated that net profits from such transactions, after direct project cost allocation and taxes, were approximately \$3.3 million.

No other consulted affiliate reported any Iran-related activity.

C. Organizational Structure and Subsidiaries

We conduct all our operations through subsidiaries. The following table shows the principal subsidiaries of the Company and its direct and indirect ownership in each subsidiary as of December 31, 2019, 2018 and 2017.

Company	Country of Incorporation	Main activity	Percentage of ownership at December 31, (*)		
			2019	2018	2017
ALGOMA TUBES INC.	Canada	Manufacturing of seamless steel pipes	100%	100%	100%
CONFAB INDUSTRIAL S.A. and subsidiaries	Brazil	Manufacturing of welded steel pipes and capital goods	100%	100%	100%
DALMINE S.p.A.	Italy	Manufacturing of seamless steel pipes	100%	100%	100%
HYDRIL COMPANY and subsidiaries (except detailed) (a)	USA	Manufacture and marketing of premium connections	100%	100%	100%
KAZAKHSTAN PIPE THREADERS LIMITED LIABILITY PARTNERSHIP	Kazakhstan	Threading of premium products	100%	100%	100%
MAVERICK TUBE CORPORATION and subsidiaries	USA	Manufacturing of welded steel pipes	100%	100%	100%
NKKTUBES	Japan	Manufacturing of seamless steel pipes	51%	51%	51%
P.T. SEAMLESS PIPE INDONESIA JAYA	Indonesia	Manufacturing of seamless steel products	89%	89%	89%
PRUDENTIAL STEEL LTD.	Canada	Manufacturing of welded steel pipes	100%	100%	100%
S.C. SILCOTUB S.A.	Romania	Manufacturing of seamless steel pipes	100%	100%	100%
SAUDI STEEL PIPE CO.	Saudi Arabia	Manufacturing of welded steel pipes	48%	NA	NA
SIAT SOCIEDAD ANONIMA	Argentina	Manufacturing of welded and seamless steel pipes	100%	100%	100%
SIDERCA SOCIEDAD ANONIMA INDUSTRIAL Y COMERCIAL and subsidiaries	Argentina	Manufacturing of seamless steel pipes	100%	100%	100%
TALTA - TRADING E MARKETING SOCIEDADE UNIPessoal LDA.	Portugal	Holding Company	100%	100%	100%
TENARIS BAY CITY, INC.	USA	Manufacturing of seamless steel pipes	100%	100%	100%
TENARIS CONNECTIONS BV	Netherlands	Development, management and licensing of intellectual property	100%	100%	100%
TENARIS FINANCIAL SERVICES S.A.	Uruguay	Financial company	100%	100%	100%
TENARIS GLOBAL SERVICES (CANADA) INC.	Canada	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (U.S.A.) CORPORATION	USA	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (UK) LTD	United Kingdom	Holding company and marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES S.A. and subsidiaries (except detailed) (b)	Uruguay	Holding company and marketing of steel products	100%	100%	100%
TENARIS INVESTMENTS (NL) B.V.	Netherlands	Holding company	100%	NA	NA
TENARIS INVESTMENTS S.à.r.l.	Luxembourg	Holding company	100%	100%	100%
TENARIS INVESTMENTS SWITZERLAND AG and subsidiaries	Switzerland	Holding company	100%	100%	100%
TENARIS TUBOCARIBE LTDA.	Colombia	Manufacturing of welded and seamless steel pipes	100%	100%	100%
TUBOS DE ACERO DE MEXICO, S.A.	Mexico	Manufacturing of seamless steel pipes	100%	100%	100%

(*) All percentages rounded.

(a) Tenaris Investments S.à.r.l. holds 100% of Hydril's subsidiaries shares except for Technical Drilling & Production Services Nigeria. Ltd where it holds 80% for 2019, 2018 and 2017.

(b) Tenaris Investments S.à.r.l. holds 97,5% of Tenaris Supply Chain S.A. and 40% of Tubular Technical Services Ltd. and Pipe Coaters Nigeria Ltd., 49% of Amaja Tubular Services Limited, 49% Tubular Services Angola Lda.

Other Investments

Ternium

We have a significant investment in Ternium, a Luxembourg company controlled by San Faustin, whose securities are listed on the NYSE. As of December 31, 2019, the Company held 11.46% of Ternium's share capital (including treasury shares).

The Company is a party to a shareholders' agreement with Techint Holdings S.à.r.l. ("Techint Holdings"), a wholly owned subsidiary of San Faustin and Ternium's main shareholder, dated January 9, 2006, pursuant to which Techint Holdings is required to take actions within its power to cause one of the members of Ternium's board of directors to be nominated by the Company and any directors nominated by the Company to be removed only pursuant to previous written instructions from the Company. The Company and Techint Holdings also agreed to cause any vacancies on Ternium's board of directors to be filled with new directors nominated by either the Company or Techint Holdings, as applicable. The shareholders' agreement will remain in effect so long as each of the parties holds at least 5% of the shares of Ternium or until it is terminated by either the Company or Techint Holdings pursuant to its terms. Carlos Condorelli was nominated by the Company as a director of Ternium pursuant to this shareholders' agreement.

Usiminas

On January 16, 2012, Confab, acquired 5.0% of the shares with voting rights and 2.5% of the total share capital in Usiminas, a leading Brazilian producer of high quality flat steel products used in the energy, automotive and other industries. The acquisition was part of a larger transaction pursuant to which Confab and Ternium's subsidiaries Ternium Investments S.à.r.l., Ternium Argentina and Prosid Investments S.A. (jointly, the "Ternium Entities") formed the so-called T/T Group and joined Usiminas' existing control group through the acquisition of ordinary shares representing 27.7% of Usiminas' total voting capital and 13.8% of Usiminas' total share capital. In addition, the T/T Group entered into a shareholders' agreement with the NSSMC Group (formed by NSSMC, Mitsubishi Corporation do Brasil S.A. and Metal One Corporation) and Previdência Usiminas, an Usiminas employee fund, governing the parties' rights within the Usiminas control group. Following a subsequent subscription in 2016 to 1.3 million Usiminas preferred shares and 11.5 million Usiminas ordinary shares, as of December 31, 2019, Confab owned 36.5 million ordinary shares and 1.3 million preferred shares of Usiminas, representing 5.2% of Usiminas' total voting capital and 3.07% of Usiminas' total share capital.

In 2014, a conflict arose within the T/T Group and NSSMC with respect to the governance of Usiminas, including with respect to the rules applicable to the appointment of senior managers, the application of the shareholders' agreement in matters involving fiduciary duties, and generally with respect to Usiminas' business strategy.

On February 8, 2018, the dispute was resolved; on April 10, 2018, the T/T Group entities (including Confab), the NSSMC Group entities and Previdência Usiminas entered into a new shareholders' agreement for Usiminas, amending and restating the previously existing shareholders' agreement ("the New SHA"). Usiminas' control group now holds, in the aggregate, 483.6 million ordinary shares bound to the New SHA, representing approximately 68.6% of Usiminas' voting capital, with the T/T Group holding approximately 47.1% of the total shares held by the control group (39.5% corresponding to the Ternium Entities and the other 7.6% corresponding to Confab); the NSSMC Group holding approximately 45.9% of the total shares held by the control group; and Previdência Usiminas holding the remaining 7% of the total shares held by the control group.

The New SHA reflects the agreed-upon corporate governance rules for Usiminas, including, among others, an alternation mechanism for the nomination of each of the chief executive officer and the chairman of the board of directors, as well as a mechanism for the nomination of other members of Usiminas' executive board. The New SHA also incorporates an exit mechanism consisting of a buy-and-sell procedure, exercisable at any time during the term of the New SHA after the fourth-and-a-half-year anniversary from the coming election of Usiminas' executive board in May 2018. Such exit mechanism shall apply with respect to shares held by the NSSMC Group and the T/T Group, and would allow either Ternium (on behalf of the T/T Group) or NSSMC to purchase all or a majority of the Usiminas shares held by the other shareholder group.

In connection with the execution of the New SHA, the Ternium Entities and Confab amended and restated their separate shareholders' agreement governing their respective rights and obligations as members of the T/T Group to include provisions relating to the exit mechanism and generally to conform such separate shareholders' agreement to the other provisions of the New SHA.

Techgen

Techgen is a Mexican joint venture company owned 48% by Ternium, 30% by Tecpetrol and 22% by Tenaris. Techgen operates a natural gas-fired combined cycle electric power plant in the Pesquería area of the State of Nuevo León, Mexico. Tenaris, Ternium and Tecpetrol are parties to a shareholder's agreement relating to the governance of Techgen.

On February 13, 2019 Techgen entered into a \$640 million syndicated loan agreement with several banks to refinance an existing loan, resulting in the release of certain corporate guarantee issued by Techgen's shareholders.

Techgen's obligations under the current facility, which is "non-recourse" on the sponsors, are guaranteed by a Mexican security trust covering Techgen's shares, assets and accounts as well as Techgen's affiliates rights under certain contracts.

TenarisSeverstal

On February 5, 2019, Tenaris entered into an agreement with Severstal to build a welded pipe plant to produce OCTG products in the Surgut area, West Siberia, Russian Federation. Tenaris holds a 49% interest in the company, while Severstal owns the remaining 51%. The plant, which is estimated to require an investment of \$280 million, is planned to have an annual production capacity of 300,000 tons. As of December 31, 2019, Tenaris contributed approximately \$19.6 million in the project.

D. Property, Plants and Equipment

For a description of our property, plants and equipment, please see B. "– Business Overview – Production Process and Facilities" and "– Business Overview – Capital Expenditure Program".

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The following discussion and analysis of our financial condition and results of operations are based on, and should be read in conjunction with, our audited consolidated financial statements and the related notes included elsewhere in this annual report. This discussion and analysis presents our financial condition and results of operations on a consolidated basis. We prepare our consolidated financial statements in conformity with IFRS. IFRS differ in certain significant respects from U.S. GAAP.

Certain information contained in this discussion and analysis and presented elsewhere in this annual report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. See “Cautionary Statement Concerning Forward-Looking Statements”. In evaluating this discussion and analysis, you should specifically consider the various risk factors identified in Item 3.D. “Key Information – Risk Factors”, other risk factors identified elsewhere in this annual report and other factors that could cause results to differ materially from those expressed in such forward-looking statements.

Overview

We are a leading global manufacturer and supplier of steel pipe products and related services for the energy industry and other industries.

We are a leading global manufacturer and supplier of steel pipe products and related services for the world’s energy industry as well as for other industrial applications. Our customers include many of the world’s leading oil and gas companies, engineering companies engaged in constructing oil and gas gathering and processing and power facilities, and industrial companies operating in a range of industries. We operate an integrated worldwide network of steel pipe manufacturing, research, finishing and service facilities with industrial operations in the Americas, Europe, Asia and Africa and a direct presence in most major oil and gas markets.

Our main source of revenue is the sale of products and services to the oil and gas industry, and the level of such sales is sensitive to international oil and gas prices and their impact on drilling activities.

Demand for our products and services from the global oil and gas industry, particularly for tubular products and services used in drilling operations, represents a substantial majority of our total Tubes sales (84% in 2019). Our sales, therefore, depend on the condition of the oil and gas industry and our customers’ willingness to invest capital in oil and gas exploration and development as well as in associated downstream processing activities. The level of these expenditures is sensitive to oil and gas prices as well as the oil and gas industry’s view of such prices in the future. Crude oil prices fell from over \$100 per barrel in June 2014 to less than \$30 per barrel in February 2016, before recovering to around \$80 per barrel in the third quarter of 2018, but subsequently fell 40% in the fourth quarter of 2018 before recovering in 2019. Prices have fallen again to historically low levels in the wake of the COVID-19 pandemic and the oil price conflict between Saudi Arabia and Russia. North American natural gas prices (Henry Hub), which were around \$4 per million BTU in 2014, also briefly fell below \$2 per million BTU at the beginning of 2016, before recovering to average levels of \$3 per million BTU during the past three years, but have subsequently fallen back below \$2 per million BTU.

In 2019, worldwide drilling activity, as represented in the number of active drilling rigs published by Baker Hughes, decreased 2% compared to the level of 2018, with larger decreases concentrated in the U.S. and Canadian shale plays, partially compensated by a gradual increase in international rigs which started in the second half of 2018. In the United States the rig count in 2019 decreased by 9%, with an average of 943 active rigs, but ended the year with more than 200 fewer active rigs than at the beginning. Drilling activity in the United States declined throughout the year but has stabilized around 790 rigs in the beginning of 2020, prior to the most recent decline in oil prices. In Canada, the rig count in 2019 declined by 30% compared with 2018, while in the rest of the world, it rose 11%.

Prior to the 2014 downturn in oil prices, a growing proportion of exploration and production spending by oil and gas companies had been directed at offshore, deep drilling and non-conventional drilling operations in which high-value tubular products, including special steel grades and premium connections, are usually specified. The success, however, of shale drilling operators, with their inherently short investment cycles, in adapting to lower oil and gas costs and increasing production, and the increasing share of oil produced in shale plays as a proportion of global supply, has led to a slowdown in new developments of complex offshore projects with long investment lead times in a context of low and more volatile oil prices, consequently affecting the level of product differentiation.

Our business is highly competitive.

The global market for steel pipes is highly competitive, with the primary competitive factors being price, quality, service and technology. We sell our products in a large number of countries worldwide and compete primarily against European and Japanese producers in most markets outside North America. In the United States and Canada, we compete against a wide range of local and foreign producers. Over the past decade, substantial investments have been made, especially in China but also in other regions around the world, to increase production capacity of seamless steel pipe products. Production capacity for more specialized product grades has also increased. With the downturn between 2014 and 2016 in the price of oil and demand for tubes for oil and gas drilling, the overcapacity in steel pipe and seamless steel pipe production worldwide has become acute, and now extends beyond commodity grades. The competitive environment has, as a result, become more intense, and we expect that this will continue for some time. Effective competitive differentiation will be a key factor for Tenaris.

In addition, there is an increased risk of unfairly traded steel pipe imports in markets in which we produce and sell our products. In September 2014, the United States imposed anti-dumping duties on OCTG imports from various countries, including South Korea. Despite the duties imposed, imports from South Korea continued at a very high level. As a result, U.S. domestic producers have requested successive reviews of South Korea's exports, which are ongoing. At the same time South Korean producers have appealed the duties imposed. Similarly, in Canada, the Canada Border Services Agency introduced anti-dumping duties on OCTG imports from South Korea and other countries in April 2015.

During 2018, in addition to anti-dumping duties, the U.S. government introduced tariffs and quotas pursuant Section 232 on the imports of steel products, including steel pipes, with the objective of strengthening domestic production capacity utilization and investment. Quotas were imposed on the imports of steel products from South Korea, Brazil and Argentina, while 25% tariffs were imposed on imports from most other countries, except Australia. The proportion of the OCTG market supplied by imports has declined from around 60% prior to the imposition of tariffs and quotas to around 35% at the end of 2019. This included, as a direct result of the fixed quota imposed on the imports of steel pipes from South Korea, that South Korean imports have halved compared to prior levels.

Our production costs are sensitive to prices of steelmaking raw materials and other steel products.

We purchase substantial quantities of steelmaking raw materials, including ferrous steel scrap, direct reduced iron (DRI), pig iron, iron ore and ferroalloys, for use in the production of our seamless pipe products. In addition, we purchase substantial quantities of steel coils and plates for use in the production of our welded pipe products. Our production costs, therefore, are sensitive to prices of steelmaking raw materials and certain steel products, which reflect supply and demand factors in the global steel industry and in the countries where we have our manufacturing facilities.

The costs of steelmaking raw materials and of steel coils and plates decreased during 2019. As a reference, prices for hot rolled coils, HRC Midwest USA Mill, published by CRU, averaged \$670 per ton in 2019 compared to \$915 per ton in 2018.

Summary of results

In 2019, our sales declined 5% compared to 2018, reflecting lower drilling activity in Canada and the USA and lower sales in the Middle East and Africa. Despite the integration of SSPC and a strong level of premium sales for Indian offshore gas projects, sales in the Middle East and Africa region were affected by Aramco destocking in Saudi Arabia and did not include the extraordinary level of sales to East Mediterranean gas pipelines recorded in 2018.

Operating income declined 5% in line with the decline in sales. Although gross margins were affected by lower volumes and high maintenance and start-up delays associated with the major overhauls and investments we carried out at many of our industrial facilities including Tamsa in Mexico, these were compensated by lower amortization charges. Shareholders net income declined 15% for the year, reflecting the decline in operating income and lower returns on our investment in Ternium.

Cash flow provided by operating activities amounted to \$1,528 million during 2019, which included a reduction in working capital of \$523 million. This amounted to a free cash flow margin of 16%, following capital expenditures of \$350 million. During the year we made dividend payments of \$484 million, an investment of \$133 million in SSPC, and our net cash position increased by \$495 million to \$980 million at December 31, 2019.

Outlook

The rapid decline in economic activity and unprecedented collapse in global oil demand as a result of the measures taken to contain the spread of the COVID-19 pandemic around the world has resulted in an equally unprecedented collapse in oil prices, due to the imbalance between production, storage capacity and demand. At this moment, it is not possible to determine how long it will take for economic activity and oil and gas demand to recover and for supply and demand to rebalance. In this environment, investments in exploration and production of oil and gas are being severely curtailed and are not expected to recover in the short term.

We are taking action to preserve adequate levels of operation while protecting the health and safety of our employees, fulfill our commitments to customers, strengthen the medical response capability in the local communities where we have our operations and ensure the financial stability of the company.

To mitigate the impact of expected lower sales, we are working on a worldwide rightsizing program and cost containment plan aimed at preserving financial resources and liquidity and maintaining the continuity of our operations. The actions include:

- (i) adjusting the level of our operations and workforce around the world, including the temporary closure of facilities and production lines in the USA;
- (ii) downsizing our fixed cost structure, including pay reductions for the board and senior management with aggregated cost savings of approximately \$220 million by year end;
- (iii) reducing capital expenditures and R&D expenses by approximately \$150 million compared to 2019;
- (iv) proposing to limit the payment of the dividend in respect of the 2019 fiscal year to the \$153 million payment already made as an interim dividend during November;
- (v) reducing working capital in accordance with activity levels.

For the second quarter of 2020, we are expecting a substantial reduction in sales and margins, particularly in the Americas, though sales in the rest of the world may remain more stable. In this highly uncertain environment, sales could be around 35% lower than the first quarter and our EBITDA margin, excluding restructuring charges, could fall to a high single digit. We do, however, expect to reduce working capital further and continue to generate positive free cash flow.

For more information on the impact of the COVID-19 pandemic and the oil and gas crisis, see Item 5G. "Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

Functional and presentation currency

The functional and presentation currency of the Company is the U.S. dollar. The U.S. dollar is the currency that best reflects the economic substance of the underlying events and circumstances relevant to Tenaris's global operations.

Except for the Brazilian and Italian subsidiaries whose functional currencies are their local currencies, Tenaris determined that the functional currency of its other subsidiaries is the U.S. dollar, based on the following principal considerations:

- Sales are mainly negotiated, denominated and settled in U.S. dollars. If priced in a currency other than the U.S. dollar, the sales price may consider exposure to fluctuation in the exchange rate versus the U.S. dollar;
- Prices of their critical raw materials and inputs are priced and settled in U.S. dollars;
- Transaction and operational environment and the cash flow of these operations have the U.S. dollars as reference currency;
- Significant level of integration of local operations within Tenaris's international global distribution network;
- Net financial assets and liabilities are mainly received and maintained in U.S. dollars; *and*
- The exchange rate of certain legal currencies has long been affected by recurring and severe economic crises.

Critical Accounting Estimates

This discussion and analysis of our financial condition and results of operations are based on our audited consolidated financial statements, which have been prepared in accordance with IFRS. IFRS differs in certain significant aspects from U.S. GAAP.

The preparation of our audited consolidated financial statements and related disclosures in conformity with IFRS requires us to make estimates and assumptions that might affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenue and expenses. Management evaluates its accounting estimates and assumptions, including those related to impairment of long-lived tangible and intangible assets; assets useful lives; deferred income tax; obsolescence of inventory; doubtful accounts; post-employment benefits; and loss contingencies, and revises them when appropriate. Management bases its estimates on historical experience and on various other assumptions it believes to be reasonable under the circumstances. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Although management believes that these estimates and assumptions are reasonable, they are based upon information available at the time they are made. Actual results may differ significantly from these estimates under different assumptions or conditions.

Our most critical accounting estimates are those that are most important to the portrayal of our financial condition and results of operations, and which require us to make our most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Our most critical accounting estimates and judgments are the following:

Accounting for business combinations

To account for our business combinations we use the acquisition method, which requires the acquired assets and assumed liabilities to be recorded at their respective fair value as of the acquisition date. The determination of fair values of assets acquired, liabilities and contingent liabilities assumed and determination of useful lives, requires us to make estimates and use valuation techniques, including the use of independent valuers, when market value is not readily available. The excess of the aggregate of the consideration transferred and the amount of any non-controlling interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the income statement.

Impairment and recoverability of goodwill and other assets

Long-lived assets including identifiable intangible assets are reviewed for impairment at the lowest level for which there are separately identifiable cash flows (cash generating units, or "CGU"). Most of Tenaris's principal subsidiaries that constitute a CGU have a single main production facility and, accordingly, each of such subsidiary represents the lowest level of asset aggregation that generates largely independent cash inflows.

Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Intangible assets with indefinite useful life, including goodwill, are subject to at least an annual impairment test.

In assessing whether there is any indication that a CGU may be impaired, external and internal sources of information are analyzed. Material facts and circumstances specifically considered in the analysis usually include the discount rate used in Tenaris's cash flow projections and the business condition in terms of competitive and economic factors, such as the cost of raw materials, oil and gas prices, capital expenditure programs for Tenaris's customers and the evolution of the rig count.

An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher between the asset's value in use and fair value less costs of disposal. Any impairment loss is allocated to reduce the carrying amount of the assets of the CGU in the following order:

- a) first, to reduce the carrying amount of any goodwill allocated to the CGU; and
- b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units), considering not to reduce the carrying amount of the asset below the highest of its fair value less cost of disposal, its value in use or zero.

The value in use of each CGU is determined on the basis of the present value of net future cash flows which would be generated by such CGU. Tenaris uses cash flow projections for a five-year period with a terminal value calculated based on perpetuity and appropriate discount rates.

For purposes of calculating the fair value less costs of disposal Tenaris uses the estimated value of future cash flows that a market participant could generate from the corresponding CGU.

Management judgment is required to estimate discounted future cash flows. Actual cash flows and values could vary significantly from the forecasted future cash flows and related values derived using discounting techniques.

Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal at each reporting date.

No impairment charge was recorded in 2019, 2018, or 2017. For more information on impairment and recoverability of goodwill and other assets, see "II. Accounting Policies G. Impairment of non-financial assets" to our audited consolidated financial statements included in this annual report. For information on impairment charges on our U.S. operations, see Item 5G. "Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

Reassessment of Property, Plant and Equipment Assets Useful Lives

Property, plant and equipment are stated at directly attributable historical acquisition or construction cost less accumulated depreciation and impairment losses, if any. Property, plant and equipment acquired through acquisitions accounted for as business combinations are valued initially at fair market value of the assets acquired. Depreciation of the cost of the asset (apart from land, which is not depreciated) to its residual value over its estimated useful life, is done using the straight line method. The depreciation method is reviewed at each year end. Estimating useful lives for depreciation is particularly difficult as the service lives of assets are also impacted by maintenance and changes in technology, and our ability to adapt technological innovation to the existing asset base. In accordance with IAS 16, "Property, Plant and Equipment", the depreciation method, the residual value and the useful life of an asset must be reviewed at least at each financial year-end, and, if expectations differ from previous estimates, the change must be treated as a change in an accounting estimate. Management's re-estimation of asset useful lives performed in accordance with IAS 16 did not materially affect depreciation expense for 2019. However, if management's estimates prove incorrect, the carrying value of plant and equipment and its useful lives may be required to be reduced from amounts currently recorded. Any such reductions may materially affect asset values and results of operations.

Reassessment of Useful Lives of Customer Relationships

In accordance with IFRS 3, "Business Combinations" and IAS 38, "Intangible Assets" Tenaris has recognized the value of customer relationships separately from goodwill attributable to the acquisition of Maverick and Hydril groups, as well as the more recent acquisition of SSPC.

Customer relationships acquired in a business combination are recognized at fair value at the acquisition date, have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight line method over the initial expected useful life of approximately 14 years for Maverick, 10 years for Hydril and 9 years for SSPC.

In 2018 the Company reviewed the useful life of Maverick's Tubes customer relationships and decided to reduce the remaining useful life from 2 years to zero, consequently a higher amortization charge of approximately \$109 million was recorded in the Consolidated Income Statement under Selling, general and administrative expenses for the year ended December 31, 2018.

As of December 31, 2019, the net book value of SSPC's customer relationship amounted to \$72.9 million, with a residual useful life of 8 years. Maverick's coiled tubing customer relationships amounted to \$9.9 million with a residual useful life of 1 year, while Hydril's customer relationships is fully amortized.

Allowance for Obsolescence of Supplies and Spare Parts and Slow-Moving Inventory

Inventories are stated at the lower between cost and net realizable value. The cost of finished goods and goods in process is comprised of raw materials, direct labor, utilities, freights and other direct costs and related production overhead costs, and it excludes borrowing costs. The allocation of fixed production costs, including depreciation and amortization charges, is based on the normal level of production capacity. Inventories cost is mainly based on the FIFO method. Tenaris estimates net realizable value of inventories by grouping, where applicable, similar or related items. Net realizable value is the estimated selling price in the ordinary course of business, less any estimated costs of completion and selling expenses. Goods in transit as of year-end are valued based on the supplier's invoice cost.

Tenaris establishes an allowance for obsolete or slow-moving inventories related to finished goods, goods in process, supplies and spare parts. For slow moving or obsolete finished products, an allowance is established based on management's analysis of product aging. An allowance for obsolete and slow-moving inventory of supplies and spare parts is established based on management's analysis of such items to be used as intended and the consideration of potential obsolescence due to technological changes, aging and consumption patterns.

Allowances for Doubtful Accounts

Trade and other receivables are recognized initially at fair value that corresponds to the amount of consideration that is unconditional unless they contain significant financing components. The Company holds trade receivables with the objective of collecting the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method. Due to the short-term nature, their carrying amount is considered to be the same as their fair value.

Tenaris applies the IFRS 9 simplified approach to measure expected credit losses, which uses a lifetime expected loss allowance for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on the payment profiles of sales over a period of three years and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

Deferred income tax

Deferred income tax is recognized applying the liability method on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the consolidated financial statements. The principal temporary differences arise from the effect of currency translation on depreciable fixed assets and inventories, depreciation on property, plant and equipment, valuation of inventories, provisions for pension plans and fair value adjustments of assets acquired in business combinations. Deferred tax assets are also recognized for net operating loss carry-forwards. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the time period when the asset is realized or the liability is settled, based on tax laws that have been enacted or substantively enacted at the reporting date.

Deferred tax assets are recognized to the extent that it is probable that future taxable income will be available against which the temporary differences can be utilized. At the end of each reporting period, Tenaris reassesses unrecognized deferred tax assets. Tenaris recognizes a previously unrecognized deferred tax asset to the extent that it has become probable that future taxable income will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are not recognized for temporary differences between the carrying amount and tax basis of investments in foreign operations where the company is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

Deferred tax assets and liabilities are re-measured if tax rates change. These amounts are charged or credited to the Consolidated Income Statement or to the item Other comprehensive income for the year in the Consolidated Statement of Comprehensive Income, depending on the account to which the original amount was charged or credited.

Post employment benefits

The Company estimates at each year-end the provision necessary to meet its post employment obligations in accordance with the advice from independent actuaries. The calculation of post employment and other employee obligations requires the application of various assumptions. The main assumptions for post employment and other employee obligations include discount rates, compensation growth rates, pension growth rates and life expectancy. Changes in the assumptions could give rise to adjustments in the results and liabilities recorded and might have an impact on the post employment and other employee obligations recognized in the future.

Contingencies

We are from time to time subject to various claims, lawsuits and other legal proceedings, including customer, employee, tax and environmental-related claims, in which third parties are seeking payment for alleged damages, reimbursement for losses, or indemnity. Management with the assistance of legal counsel periodically reviews the status of each significant matter and assesses potential financial exposure. Our potential liability with respect to such claims, lawsuits and other legal proceedings cannot be estimated with certainty.

Some of these claims, lawsuits and other legal proceedings involve highly complex issues, and often these issues are subject to substantial uncertainties and, therefore, the probability of loss and an estimation of damages are difficult to ascertain. Accordingly, with respect to a large portion of such claims, lawsuits and other legal proceedings, Tenaris is unable to make a reliable estimate of the expected financial effect that will result from ultimate resolution of the proceeding. In those cases, Tenaris has not accrued a provision for the potential outcome of these cases. If a potential loss from a claim, lawsuit or other proceeding is considered probable and the amount can be reasonably estimated, a provision is recorded. Accruals for loss contingencies reflect a reasonable estimate of the losses to be incurred based on information available to management as of the date of preparation of the consolidated financial statements and take into consideration litigation and settlement strategies. In a limited number of ongoing cases, Tenaris was able to make a reliable estimate of the expected loss or range of probable loss and has accrued a provision for such loss but believes that publication of this information on a case-by-case basis would seriously prejudice Tenaris's position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, the Company has disclosed information with respect to the nature of the contingency but has not disclosed its estimate of the range of potential loss.

These estimates are primarily constructed with the assistance of legal counsel, and management believes that the aggregate provisions recorded for potential losses in the consolidated financial statements are adequate based upon currently available information. However, if management's estimates prove incorrect, current reserves could be inadequate and we could incur a charge to earnings which could have a material adverse effect on our results of operations, financial condition, net worth and cash flows. As the scope of liabilities becomes better defined, there may be changes in the estimates of future costs which could have a material adverse effect on our results of operations, financial condition, net worth and cash flows.

A. Results of Operations

The following discussion and analysis of our financial condition and results of operations are based on our audited consolidated financial statements included elsewhere in this annual report. Accordingly, this discussion and analysis present our financial condition and results of operations on a consolidated basis. See “Presentation of Certain Financial and Other Information - Accounting Principles” and “II. Accounting Policies A. Basis of presentation” and “B. Group accounting” to our audited consolidated financial statements included in this annual report. The following discussion should be read in conjunction with our audited consolidated financial statements and the related notes included in this annual report.

Thousands of U.S. dollars (except number of shares and per share amounts)

	For the year ended December 31,		
	2019	2018	2017
Selected consolidated income statement data			
Continuing operations			
Net sales	7,294,055	7,658,588	5,288,504
Cost of sales	(5,107,495)	(5,279,300)	(3,685,057)
Gross profit	2,186,560	2,379,288	1,603,447
Selling, general and administrative expenses	(1,365,974)	(1,509,976)	(1,270,016)
Other operating income (expenses), net	11,805	2,501	1,157
Operating income	832,391	871,813	334,588
Finance income	47,997	39,856	47,605
Finance cost	(43,381)	(36,942)	(27,072)
Other financial results	14,667	34,386	(43,550)
Income before equity in earnings of non-consolidated companies and income tax	851,674	909,113	311,571
Equity in earnings of non-consolidated companies	82,036	193,994	116,140
Income before income tax	933,710	1,103,107	427,711
Income tax	(202,452)	(229,207)	17,136
Income for the year for continuing operations	731,258	873,900	444,847
Discontinued operations			
Result for discontinued operations	–	–	91,542
Income for the year ⁽¹⁾	731,258	873,900	536,389
Income (loss) attributable to ⁽¹⁾ :			
Owners of the parent	742,686	876,063	544,737
Non-controlling interests	(11,428)	(2,163)	(8,348)
Income for the year ⁽¹⁾	731,258	873,900	536,389
Depreciation and amortization for continuing operations	(539,521)	(664,357)	(608,640)
Weighted average number of shares outstanding	1,180,536,830	1,180,536,830	1,180,536,830
Basic and diluted earnings per share for continuing operations	0.63	0.74	0.38
Basic and diluted earnings per share	0.63	0.74	0.46
Dividends per share ⁽²⁾	0.41	0.41	0.41

(1) IAS 1 (revised), requires that income for the year as shown on the income statement does not exclude non-controlling interests. Earnings per share, however, continue to be calculated on the basis of income attributable solely to the owners of the parent.

(2) Dividends per share correspond to the dividends proposed or paid in respect of the year.

Thousands of U.S. dollars (except number of shares)

	At December 31,		
	2019	2018	2017
Selected consolidated financial position data			
Current assets	5,670,607	5,464,192	5,381,154
Property, plant and equipment, net	6,090,017	6,063,908	6,229,143
Other non-current assets	3,082,367	2,723,199	2,787,921
Total assets	14,842,991	14,251,299	14,398,218
Current liabilities	1,780,457	1,718,363	2,070,899
Non-current borrowings	40,880	29,187	34,645
Deferred tax liabilities	336,982	379,039	457,970
Other non-current liabilities	498,300	249,218	253,734
Total liabilities	2,656,619	2,375,807	2,817,248
Capital and reserves attributable to the owners of the parent	11,988,958	11,782,882	11,482,185
Non-controlling interests	197,414	92,610	98,785
Total equity	12,186,372	11,875,492	11,580,970
Total liabilities and equity	14,842,991	14,251,299	14,398,218
Share capital	1,180,537	1,180,537	1,180,537
Number of shares outstanding	1,180,536,830	1,180,536,830	1,180,536,830

The following table sets forth our operating and other costs and expenses as a percentage of net sales for the periods indicated.

	For the year ended December 31,		
	2019	2018	2017
Percentage of net sales			
Continuing Operations			
Net sales	100.0	100.0	100.0
Cost of sales	(70.0)	(68.9)	(69.7)
Gross profit	30.0	31.1	30.3
Selling, general and administrative expenses	(18.7)	(19.7)	(24.0)
Other operating income (expenses), net	0.2	0.0	0.0
Operating income	11.4	11.4	6.3
Finance income	0.7	0.5	0.9
Finance cost	(0.6)	(0.5)	(0.5)
Other financial results	0.2	0.4	(0.8)
Income before equity in earnings of non-consolidated companies and income tax	11.7	11.9	5.9
Equity in earnings of non-consolidated companies	1.1	2.5	2.2
Income before income tax	12.8	14.4	8.1
Income tax	(2.8)	(3.0)	0.3
Income for the year for continuing operations	10.0	11.4	8.4
Discontinued operations			
Result for discontinued operations	–	–	1.7
Income for the year	10.0	11.4	10.1
Income (loss) attributable to:			
Owners of the parent	10.2	11.4	10.3
Non-controlling interests	(0.2)	(0.0)	(0.2)

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

The following table shows our net sales by business segment for the periods indicated below:

	For the year ended December 31,				Increase / (Decrease)
	2019		2018		
Tubes	6,870	94%	7,233	94%	(5%)
Others	424	6%	426	6%	(0%)
Total	7,294	100%	7,659	100%	(5%)

Tubes

The following table indicates, for our Tubes business segment, sales volumes of seamless and welded pipes for the periods indicated below:

Thousands of tons	For the year ended December 31,		Increase / (Decrease)
	2019	2018	
Seamless	2,600	2,694	(3%)
Welded	671	877	(23%)
Total	3,271	3,571	(8%)

The following table indicates, for our Tubes business segment, net sales by geographic region, operating income and operating income as a percentage of net sales for the periods indicated below:

Millions of U.S. dollars	For the year ended December 31,		Increase / (Decrease)
	2019	2018	
Net sales			
- North America	3,307	3,488	(5%)
- South America	1,240	1,284	(3%)
- Europe	641	628	2%
- Middle East & Africa	1,337	1,541	(13%)
- Asia Pacific	345	292	18%
Total net sales	6,870	7,233	(5%)
Operating income	755	777	(3%)
Operating income (% of sales)	11.0%	10.7%	

Net sales of tubular products and services decreased 5% to \$6,870 million in 2019, compared to \$7,233 million in 2018, reflecting an 8% decline in volumes and a 4% increase in average selling prices. In North America, while sales were higher in Mexico, they declined in Canada and the United States reflecting lower drilling activity. In South America sales declined slightly reflecting a reduction in drilling activity in Argentina towards the end of the year. In Europe sales increased due to higher demand for offshore line pipe and OCTG with lower sales of mechanical pipes and line pipe for hydrocarbon process projects. In the Middle East & Africa, the acquisition of SSPC and an increase in sales in the Middle East outside of Saudi Arabia (where destocking took place) did not compensate for the drop in sales of offshore line pipe following the completion of deliveries for East Mediterranean gas development projects. In Asia Pacific, while sales increased in China, Indonesia and Australia, they declined in Thailand.

Operating income from tubular products and services, amounted to \$755 million in 2019, compared to \$777 million in 2018 (including \$109 million one-off charge from higher amortization of intangibles).

Operating income during 2019 was negatively affected by lower shipment volumes after the completion of deliveries of offshore line pipe for East Mediterranean gas development projects.

Others

The following table indicates, for our Others business segment, net sales, operating income and operating income as a percentage of net sales for the periods indicated below:

Millions of U.S. dollars	For the year ended December 31,		Increase / (Decrease)
	2019	2018	
Net sales	424	426	(0%)
Operating income	77	95	(19%)
Operating income (% of sales)	18.2%	22.2%	

Net sales of other products and services remained stable as lower sales of energy and excess raw materials and coiled tubing were compensated by higher sales of industrial equipment in Brazil and sucker rods.

Operating income from other products and services, decreased from \$95 million in 2018 to \$77 million in 2019, mainly due to the lower contribution from our sales of energy and excess raw materials and from our coiled tubing business.

Selling, general and administrative expenses or SG&A, decreased by \$144 million in 2019 to \$1,366 million in 2019, from \$1,510 million in 2018 (in 2018 included a one-off higher amortization charge of \$109 million). As a percentage of sales SG&A amounted to 18.7% in 2019 compared to 19.7% in 2018. Apart from the lower amortization and depreciation charge, SG&A declined mainly due to lower logistic costs and allowance for doubtful accounts partially compensated by higher services and fees, labor costs and taxes.

Financial results amounted to a gain of \$19 million in 2019, compared to \$37 million in 2018. The 2019 gain corresponds mainly to an FX gain of \$28 million mainly related to the Argentine peso devaluation on peso denominated financial, trade, social and fiscal payables at Argentine subsidiaries which functional currency is the U.S. dollar.

Equity in earnings of non-consolidated companies generated a gain of \$82 million in 2019, compared to \$194 million in 2018. These results were mainly derived from our equity investment in Ternium (NYSE:TX).

Income tax charge amounted to \$202 million in 2019 (24% over income before equity in earnings of non-consolidated companies and income tax), compared to \$229 million in 2018 (25%).

Net income for continuing operations amounted to \$731 million in 2019, compared with \$874 million in 2018. The lower results reflect a worse operating environment and a reduction of \$112 million in the contribution from our non-consolidated investments, mainly Ternium.

Fiscal Year Ended December 31, 2018, Compared to Fiscal Year Ended December 31, 2017

The following table shows our net sales by business segment for the periods indicated below:

Millions of U.S. dollars

	For the year ended December 31,				Increase / (Decrease)
	2018		2017		
Tubes	7,233	94%	4,966	94%	46%
Others	426	6%	323	6%	32%
Total	7,659	100%	5,289	100%	45%

Tubes

The following table indicates, for our Tubes business segment, sales volumes of seamless and welded pipes for the periods indicated below:

Thousands of tons

	For the year ended December 31,		Increase / (Decrease)
	2018	2017	
Seamless	2,694	2,157	25%
Welded	877	461	90%
Total	3,571	2,618	36%

The following table indicates, for our Tubes business segment, net sales by geographic region, operating income and operating income as a percentage of net sales for the periods indicated below:

Millions of U.S. dollars

	For the year ended December 31,		Increase / (Decrease)
	2018	2017	
Net sales			
- North America	3,488	2,362	48%
- South America	1,284	982	31%
- Europe	628	497	26%
- Middle East & Africa	1,541	921	67%
- Asia Pacific	292	204	43%
Total net sales	7,233	4,966	46%
Operating income	777	292	166%
Operating income (% of sales)	10.7%	5.9%	

Net sales of tubular products and services increased 46% to \$7,233 million in 2018, compared to \$4,966 million in 2017, reflecting a 36% increase in volumes and a 7% increase in average selling prices. Sales increased mainly due to a strong increase in demand in the United States and Canada and higher sales of line pipe for complex projects, including shipments for the second Zohr offshore welded pipeline in Egypt. In North America sales increased mainly due to higher demand of OCTG and line pipe and the consolidation of our market position throughout the region. In South America, sales increased mainly due to higher demand of OCTG and line pipe in Argentina, associated with increased investments in Vaca Muerta shale and higher demand for OCTG in the Andean region, including sales to the Liza development in Guyana, partially offset by lower sales of OCTG in Brazil, reflecting transition to new contracts with Petrobras. In Europe, sales increased reflecting higher demand for industrial products and for OCTG products in the North Sea and continental Europe. In the Middle East and Africa sales increased significantly, thanks to an exceptional level of sales for offshore line pipe for East Mediterranean gas development projects and higher sales of OCTG in the Middle East and Caspian areas. In Asia Pacific sales increased following a recovery in Indonesia and China from very low levels in 2017.

Operating income from tubular products and services, amounted to \$777 million in 2018, compared to \$292 million in 2017. Operating income during 2018 was negatively affected by a higher customer relationships amortization charge of \$109 million, after the full amortization of the residual value of Maverick's Tubes segment customer relationships. Excluding this one off effect operating income would amount to \$886 million, 12% of sales. The significant improvement in Tubes operating income reflects a better operating environment, where a 46% increase in sales improved the utilization of production capacity and therefore the absorption of fixed costs.

Others

The following table indicates, for our Others business segment, net sales, operating income and operating income as a percentage of net sales for the periods indicated below:

Millions of U.S. dollars	For the year ended December 31,		Increase / (Decrease)
	2018	2017	
Net sales	426	323	32%
Operating income	95	43	122%
Operating income (% of sales)	22.2%	13.2%	

Net sales of other products and services increased 32% to \$426 million in 2018, compared to \$323 million in 2017, mainly due to higher sales of energy related products e.g., sucker rods and coiled tubing.

Operating income from other products and services, increased from \$43 million in 2017 to \$95 million in 2018, while all the profit centers improved their results, the main contributors were the energy related businesses, mainly sucker rods and coiled tubing.

Selling, general and administrative expenses or SG&A, increased by \$240 million (19%) in 2018 from \$1,270 million in 2017 to \$1,510 million in 2018. SG&A during 2018 includes a higher amortization charge of \$109 million, after the full amortization of the residual value of Maverick's Tubes segment customer relationships. Excluding this one off effect, SG&A amounted to \$1,401 million (18% of sales), compared to \$1,270 million (24%) in 2017. The decline of SG&A as a percentage of net sales reflects the containment of fixed and semi-fixed expenses in a higher volumes environment.

Financial results amounted to a gain of \$37 million in 2018, compared to a loss of \$23 million in 2017. The 2018 gain corresponds mainly to an FX gain of \$29 million; \$24 million related to the Argentine peso devaluation on peso denominated financial, trade, social and fiscal payables at Argentine subsidiaries which functional currency is the U.S. dollar, \$17 million related to the Euro depreciation on Euro denominated intercompany liabilities (offset in the currency translation reserve in equity), partially offset by a loss of \$8 million due to the devaluation of the Canadian dollar. Additionally, we gained \$7 million on derivatives, mainly covering net receivables in Canadian dollar and \$3 million net interest on our net cash position.

Equity in earnings of non-consolidated companies generated a gain of \$194 million in 2018, compared to \$116 million in 2017. These results were mainly derived from our equity investment in Temium (NYSE:TX).

Income tax charge amounted to \$229 million in 2018 (25% over income before tax), compared to a gain of \$17 million in 2017. In 2017 we recorded a gain of \$63 million due to the reduction in income tax rates in Argentina, the United States and Colombia over deferred tax liabilities. Additionally, during 2017 we recorded an income tax charge of \$29 million corresponding to a settlement agreement between Dalmine, our Italian subsidiary, and the Italian tax authorities in connection with all withholding tax claims on 2007 and 2008 dividend payments. Under such settlement agreement, Dalmine paid to the Italian tax administration an aggregate amount of EUR42.9 million (approximately \$51 million), net of EUR3.2 million (approximately \$4 million) corresponding to the amount previously paid during the litigation proceeding.

Net income for continuing operations amounted to \$874 million in 2018, compared with \$536 million in 2017. The improvement in results reflects a better operating environment, where a 45% increase in sales improved the utilization of production capacity and therefore the absorption of fixed costs, better financial results and better results from our investment in Ternium.

B. Liquidity and Capital Resources

The following table provides certain information related to our cash generation and changes in our cash and cash equivalents position for each of the last three years:

Millions of U.S. dollars

	For the year ended December 31,		
	2019	2018	2017
Net cash provided by (used in) operating activities	1,528	611	(22)
Net cash (used in) provided by investing activities	(40)	399	349
Net cash used in financing activities	(354)	(900)	(401)
Increase (decrease) in cash and cash equivalents	1,134	109	(74)
Cash and cash equivalents at the beginning of year (excluding overdrafts)	427	330	399
Effect of exchange rate changes	(6)	(13)	6
Increase (decrease) in cash and cash equivalents	1,134	109	(74)
Cash and cash equivalents at the end of year (excluding overdrafts)	1,554	427	330
Cash and cash equivalents at the end of year (excluding overdrafts)	1,554	427	330
Bank overdrafts	0	2	0
Other current investments	210	488	1,192
Non-current investments	18	114	123
Derivatives hedging borrowings and investments	19	(6)	(33)
Current and non current borrowings	(822)	(539)	(966)
Net cash at the end of the year	980	485	647

Our financing strategy aims to maintain adequate financial resources and access to additional liquidity. During 2019 cash flow provided by operating activities amounted to \$1,528 million (including a decrease in working capital of \$523 million), our capital expenditures amounted to \$350 million and we paid dividends amounting to \$484 million. At the end of the year we had a net cash position of \$980 million, compared to \$485 million at the beginning of the year.

We believe that funds from operations, the availability of liquid financial assets and our access to external borrowing through the financial markets will be sufficient to satisfy our working capital needs, to finance our planned capital spending program, to service our debt in the future twelve months and to address short-term changes in business conditions. For more information see Item 5.G. "Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition."

We have a conservative approach to the management of our liquidity, which consists of (i) cash and cash equivalents (cash in banks, liquidity funds and investments with a maturity of less than three months at the date of purchase), and (ii) Other Investments (fixed income securities, time deposits, and fund investments).

At December 31, 2019, liquid financial assets as a whole (comprising cash and cash equivalents and other investments) were 12% of total assets compared to 7% at the end of 2018.

We hold investments primarily in liquidity funds and variable or fixed-rate securities from investment grade issuers. We hold our cash and cash equivalents primarily in U.S. dollars and in major financial centers. As of December 31, 2019, and 2018, U.S. dollar denominated liquid assets represented 95% of total liquid financial assets.

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

Operating activities

Net cash provided by operations during 2019 was \$1,528 million, compared to \$611 million during 2018. This increase was mainly attributable to a \$523 million decrease in working capital in 2019, while in 2018 the increase in working capital amounted to \$738 million. The annual variation was mainly attributed to a decrease of \$428 million in trade receivables, compared with an increase of \$518 million in 2018. Additionally, during 2019 inventories decreased \$311 million which compares with an increase in inventory of \$176 million in 2018. For more information on cash flow disclosures and changes to working capital, see note 28 "Cash flow disclosures" to our audited consolidated financial statements included in this annual report.

Investing activities

Net cash used in investing activities was \$40 million in 2019, compared to a net cash provided by investing activities of \$399 million in 2018. We reduced our financial investments by \$390 million in 2019 compared to a reduction of \$717 million in 2018. Additionally, during 2019 we spent \$133 million in acquisition of subsidiaries.

Financing activities

Net cash used in financing activities, including dividends paid, proceeds and repayments of borrowings and acquisitions of non-controlling interests, was \$354 million in 2019, compared to \$900 million in 2018.

During 2019 we had net proceeds from borrowings of \$174 million, while in 2018 we had net repayments of borrowings of \$413 million.

Dividends paid during 2019 and 2018 amounted to \$484 million in each year.

Our total liabilities to total assets ratio was 0.18:1 as of December 31, 2019 and 0.17:1 as of December 31, 2018.

Fiscal Year Ended December 31, 2018, Compared to Fiscal Year Ended December 31, 2017

Operating activities

Net cash provided by operations during 2018 was \$611 million, compared to \$22 million of net cash used in operations during 2017. This increase was mainly attributable to an increase in results and a smaller increase in working capital. In 2018 and 2017 the increase in working capital amounted to \$738 million and \$853 million respectively. The main yearly variation was related to an increase of \$518 million in trade receivables, compared with an increase of \$259 million in 2017, while trade payables decreased \$57 million in 2018 and increased \$194 million in 2017. Additionally, during 2018 inventories increased \$176 million which compares with an increase in inventory of \$804 million in 2017. For more information on cash flow disclosures and changes to working capital, see note 28 "Cash flow disclosures" to our audited consolidated financial statements included in this annual report.

Investing activities

Net cash provided by investing activities was \$399 million in 2018, compared to \$349 million in 2017 (including the \$328 million we collected from the sale of Republic Conduit). Capital expenditures decreased to \$349 million from \$558 million in 2017 declining following the startup of our greenfield seamless facility in Bay City, Texas at the end of 2017. Additionally, we reduced our financial investments by \$717 million in 2018 compared to a reduction of \$565 million in 2017.

Financing activities

Net cash used in financing activities, including dividends paid, proceeds and repayments of borrowings and acquisitions of non-controlling interests, was \$900 million in 2018, compared to \$401 million in 2017.

During 2018 we had net repayments from borrowings of \$413 million, while in 2017 we had net proceeds of borrowings of \$107 million.

Dividends paid during 2018 and 2017 amounted to \$484 million in each year.

Our total liabilities to total assets ratio was 0.17:1 as of December 31, 2018 and 0.20:1 as of December 31, 2017.

Principal Sources of Funding

During 2019, we funded our operations with operating cash flows, bank financing and available liquid financial assets. Short-term bank borrowings were used as needed throughout the year.

Financial liabilities

During 2019 borrowings increased by \$283 million to \$822 million at December 31, 2019, from \$539 million at December 31, 2018.

Borrowings consist mainly of bank loans. As of December 31, 2019, U.S. dollar-denominated borrowings plus borrowings denominated in other currencies swapped to the U.S. dollar represented 89% of total borrowings.

For further information about our financial debt, please see note 19 “Borrowings” to our audited consolidated financial statements included in this annual report.

The following table shows the composition of our financial debt at December 31, 2019, 2018 and 2017:

<i>Millions of U.S. dollars</i>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Bank borrowings	822	537	966
Bank overdrafts	0	2	0
Total borrowings	822	539	966

Our weighted average interest rates before tax (considering hedge accounting), amounted to 3.18% at December 31, 2019 and to 3.98% at December 31, 2018.

The maturity of our financial debt is as follows:

<i>Millions of U.S. dollars</i>							
At December 31, 2019	<u>1 year or less</u>	<u>1 - 2 years</u>	<u>2 - 3 years</u>	<u>3 - 4 years</u>	<u>4 - 5 years</u>	<u>Over 5 years</u>	<u>Total</u>
Borrowings	781	17	24	–	–	–	822
Interest to be accrued (*)	11	1	0	–	–	–	13
Total	793	18	24	–	–	–	835

(*) Includes the effect of hedge accounting.

Our current borrowings to total borrowings ratio amounted to 0.95:1 as of December 31, 2019 and December 31, 2018. Our liquid financial assets exceeded our total borrowings, we had a net cash position (cash and cash equivalents, other current and non-current investments, derivatives hedging borrowings and investments, less total borrowings) of \$980 million at December 31, 2019, compared to \$485 million at December 31, 2018.

For information on our derivative financial instruments, please see Item 11. “Quantitative and Qualitative Disclosure about Market Risk – Accounting for Derivative Financial Instruments and Hedging Activities” and note 24 “Derivative financial instruments” to our audited consolidated financial statements included in this annual report.

For information regarding the extent to which borrowings are at fixed rates, please see Item 11. “Quantitative and Qualitative Disclosure About Market Risk”.

Significant Borrowings

Our most significant borrowings as of December 31, 2019 were as follows:

<i>Millions of U.S. dollars</i>				
Disbursement date	Borrower	Type	Original & Outstanding	Final maturity
2019	Tamsa	Bank loans	621	2020
2019	Siderca	Bank loans	60	2020

As of December 31, 2019, Tenaris was in compliance with all of its covenants under its significant borrowings, including financial covenants on leverage ratio.

C. Research and Development, Patents and Licenses, Etc.

See Item 4.B. “Information on the Company – Business Overview – Research and Development”.

D. Trend Information

Principal Factors Affecting Oil and Gas Prices and Demand for Steel Pipes from the Global Oil and Gas Industry.

Sales to the oil and gas industry worldwide represent a high percentage of our total sales, and demand for steel pipes from the global oil and gas industry is a significant factor affecting the general level of volumes and prices for our products. Downward pressures on oil and gas prices usually result in lower oil and gas drilling activity and investment throughout the oil and gas industry with consequently lower demand for our steel pipe products and, in some circumstances, upward pressures can result in higher demand from our oil and gas customers.

Whereas oil prices are similar in most parts of the world because oil is a fully tradable commodity, gas prices are influenced by regional factors. In North America, where gas production is extensively developed and there is an extensive regional pipeline system, these factors include available gas storage capacity and seasonal weather patterns, particularly winter temperatures in the United States. LNG prices were traditionally established in relation to international oil prices, particularly in the largest LNG markets in Asia. However, as the market for LNG becomes more global and the USA becomes a relevant source of LNG, LNG prices are now being set increasingly in relation to gas prices prevailing at regional gas hubs.

International oil prices depend on diverse factors. On the supply side, major oil-and-gas-producing nations and companies have frequently collaborated to balance the supply (and thus the price) of oil in the international markets. A major vehicle for this collaboration has been OPEC. Many of our customers are state-owned companies in member countries of OPEC. Another factor that has affected the international price level of oil is the political and socioeconomic conditions of oil-producing countries, such as Libya, Nigeria and Venezuela and the persistence of geo-political and armed conflicts affecting the Middle East region, which is home to a substantial proportion of the world's known oil reserves. On the demand side, economic conditions and the level of oil inventories in the leading industrial nations of the world, and more recently China, which constitute the largest oil consuming nations, also play a significant role in oil prices.

A more recent factor affecting oil and gas prices has been the ability of producers in the United States and Canada to rapidly increase production from their reserves of tight oil and shale gas in response to changes in market conditions. Production from U.S. tight oil reserves has grown in recent years to represent around 10% of global liquids production, and production from shale gas plays is converting the United States into a net exporter of natural gas and a significant player in the LNG market.

Following three years of relatively stable oil prices of around \$100 per barrel, prices started to decline in the middle of 2014 as the rate of U.S. production increase began to exceed the increase in global demand and OPEC confirmed at its November 2014 meeting that it would not cut production to balance demand. As a consequence, prices reached levels below \$30 per barrel in January 2016. Prices then recovered to around \$80 per barrel during 2018 once OPEC and other producers agreed to cut production levels to accelerate the market rebalancing process. By this time, OPEC and other producers had lifted their production cuts and U.S. oil production was increasing at a rate greater than the increase in global demand. Oil prices declined 40% in the fourth quarter of 2018 before partially recovering in 2019. In the first quarter of 2020, the COVID-19 pandemic has affected global oil demand. In addition, agreements between OPEC member countries and other producers (principally Russia) to cut production levels fell apart. Consequently, oil prices have collapsed to historically low levels.

The 2014 collapse in oil prices led oil and gas operators to substantially reduce their exploration and production investments to a level which is currently around 60% of the average of the 2012-14 period and this, in turn, resulted in a severe contraction in demand and pressure on pricing for steel pipes used in oil and gas drilling and associated operations. During 2017, however, oil and gas operators in North America, who have been very successful in reducing production costs in their shale plays, increased investments in response to more favorable market conditions, and U.S. operators continued to do so in 2018. However, in 2019 and during the first quarter of 2020, operators have been reducing investment in the shales as they reacted to financial market pressures in order to achieve positive cash flow returns. With the collapse of oil prices in March 2020 and continuing financial market pressures, we are likely to see further substantial reductions in their investments.

Since the development of the Marcellus shale gas play, North American gas prices have remained at low levels compared to previous decades. Over the past three years, average prices have fluctuated in the range of \$2.00-3.00 per million BTU, significantly below prices in many other major gas-consuming regions. For several years, production increases, primarily from productive shale gas deposits, have exceeded demand increases, reducing the need for imports, to the extent that, in 2017, the U.S. became a net exporter of natural gas. Low prices have encouraged investment in gas consuming industrial facilities and LNG export facilities as well as switching from coal to gas for electric power production, particularly with the adoption of new regulations which could force the retirement of older coal-based generating units. With continuing investments in LNG export facilities, the U.S. has become a major global LNG exporter. More recently, North American gas prices have fallen below \$2 per million BTU as global demand growth for LNG has been affected by warmer northern hemisphere weather and the COVID-19 pandemic.

Drilling activity in the United States and Canada, following several years of high activity, fell sharply through 2015 and the first half of 2016 before beginning a recovery which ended at the end of 2018. Drilling activity declined throughout 2019 in response to a fall in oil prices at the end of 2018 and financial market pressures to produce positive cash flow returns. Despite lower prices, production levels today are higher than before the 2014 collapse in oil prices but rig counts are around less than 50% of the levels they reached in 2014, reflecting the strong productivity gains made by the U.S. oil and gas drilling industry. In the rest of the world, drilling activity began to decline in the second half of 2014, continued to decline during 2015, 2016 and 2017 before beginning a gradual recovery in the second half of 2018. Although drilling activity in the Middle East has remained relatively stable, drilling in Latin America and offshore drilling declined significantly, but began to recover in 2019, although drilling in Argentina declined sharply in the last quarter of 2019, in response to uncertainty about the policies that the new Argentine government would implement in respect of investments in the Vaca Muerta shale resource.

Prior to the 2014 downturn in oil prices, a growing proportion of exploration and production spending by oil and gas companies had been directed at offshore, deep drilling and non-conventional drilling operations in which high-value tubular products, including special steel grades and premium connections, are usually specified. The success, however, of shale drilling operators, with their inherently short investment cycles, in adapting to lower oil and gas costs and increasing production, led to a slowdown in new developments of complex offshore projects with long investment lead times in a context of low and more volatile oil prices, consequently affecting the level of product differentiation.

In addition, the increasing cost competitiveness and use of alternative renewable sources of energy could limit growth in demand for oil and gas and put downward pressure on oil and gas prices in the longer term. This trend could accelerate if carbon taxes or carbon pricing instruments resulting in high prices for carbon emissions are implemented around the world.

The tables below show the annual average number of active oil and gas drilling rigs, or rig count, in the United States, Canada, International (worldwide other than the United States and Canada and excluding Iran, Sudan, onshore China, Russia and Syria) and Worldwide, as published by Baker Hughes, for the years indicated and the percentage increase or decrease over the previous year. Baker Hughes, a leading oil service company, has published its rig counts on a monthly basis since 1975 as a general indicator of activity in the oil and gas sector.

Rig count

	2019	2018	2017	2016	2015
International (*)	1,098	988	948	955	1,167
Canada	134	191	207	128	193
United States	943	1,032	875	510	977
Worldwide	2,175	2,211	2,029	1,593	2,337

(*) International rig count excludes Iran, Sudan, onshore China, Russia and Syria (discontinued in February 2013).

Percentage increase (decrease) over the previous year

	2019	2018	2017	2016
International (*)	11%	4%	(1%)	(18%)
Canada	(30%)	(7%)	62%	(34%)
United States	(9%)	18%	72%	(48%)
Worldwide	(2%)	9%	27%	(32%)

(*) International rig count excludes Iran, Sudan, onshore China, Russia and Syria (discontinued in February 2013).

E. Off-Balance Sheet Arrangements

As of December 31, 2019, the Company reported the following financial commitments, consisting of guarantees in connection to its participation in the non-consolidated company Techgen:

- On February 13, 2019, Techgen entered into a \$640 million syndicated loan agreement with several banks to refinance an existing loan, resulting in the release of certain corporate guarantee issued by Techgen's shareholders to secure the replaced facility.

Techgen's obligations under the current facility, which is "non-recourse" on the sponsors, are guaranteed by a Mexican security trust covering Techgen's shares, assets and accounts as well as Techgen's affiliates rights under certain contracts. In addition, Techgen's collection and payment accounts not subject to the trust have been pledged in favor of the lenders under the new loan agreement, and certain direct agreements –customary for these type of transactions– have been entered into with third parties and affiliates, including in connection with the agreements for the sale of energy produced by the project and the agreements for the provision of gas and long-term maintenance services to Techgen. The commercial terms and conditions governing the purchase, by the Company's Mexican subsidiary Tamsa, of 22% of the energy generated by the project remain unchanged.

Under the loan agreement, Techgen is committed to maintain a debt service reserve account covering debt service becoming due during two consecutive quarters; such account is funded by stand-by letters of credit issued for the account of Techgen's sponsors in proportion to their respective participations in Techgen. Accordingly, the Company and its Swiss subsidiary, Tenaris Investments Switzerland AG, applied for stand-by letters of credit covering 22% of the debt service coverage ratio, which as of December 31, 2019 amounts to \$9.8 million.

- Tenaris issued a corporate guarantee covering 22% of the outstanding value of natural gas transportation capacity agreements entered into by Techgen with Kinder Morgan Gas Natural de Mexico S. de R.L. de C.V., and Kinder Morgan Texas Pipeline LLC for a natural gas purchasing capacity of 150,000 million BTU per day starting on August 1, 2016 and ending on July 31, 2036, and a party to a contract for the purchase of power generation equipment and other services related to the equipment. As of December 31, 2019, our exposure under the guarantee in connection with these agreements amounted to \$51.9 million and \$0.9 million respectively.
- SSPC issued corporate guarantees to secure repayment of loan agreements entered into by Global Pipe Company ("GPC"), a Saudi line pipe producer, with Saudi Investment Development Fund, Saudi British Bank and Banque Saudi Fransi to finance GPC's capital expenditures and working capital. SSPC currently owns 35% of the share capital of GPC. As of December 31, 2019, SSPC's exposure under the guarantees amounted to \$131.7 million.

In addition, we have various off-balance sheet commitments, as described in note 25 "Contingencies, commitments and restrictions on the distribution of profits – (ii) Commitments and guarantees" to our audited consolidated financial statements included in this annual report.

F. Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2019, and the effect such obligations are expected to have on our liquidity and cash flow in future periods:

Millions of U.S. dollars

At December 31, 2019	1 year or less	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	Over 5 years	Total
Borrowings	781	17	24	–	–	–	822
Interests to be accrued (*)	11	1	0	–	–	–	13
Purchase commitments (**)	125	46	46	10	10	52	289
Lease Liabilities	38	31	28	22	19	92	230
Total contractual obligations and commitments	956	96	98	32	29	144	1,354

(*) Includes the effect of hedge accounting.

(**) Only includes material commitments.

Purchase commitments as of December 31, 2019, disclosed in the table above, consist of a commitment to purchase steel bars in the US amounting to \$107.1 million (that became effective in January 2020), a commitment to purchase iron ore in Argentina amounting to \$33.6 million; a contract for the service of natural gas transportation in Argentina for an aggregate amount of \$27.4 million; a contract for the service of oxygen and nitrogen supply amounting to \$53.7 million, contracts for the supply of graphite electrodes amounting to \$26.8 million, a rail transportation contract in Canada amounting to \$18.9 million, and a contract for the supply of argon gas in Mexico amounting to \$21.2 million.

In addition, a Tenaris subsidiary entered into a 25-year contract (effective as of December 1, 2016, through December 1, 2041) with Techgen for the supply of 197 MW (which represents 22% of Techgen's capacity). Monthly payments are determined on the basis of capacity charges, operation costs, back-up power charges, and transmission charges. As of the seventh contract year (as long as Techgen's existing or replacing bank facility has been repaid in full), the Tenaris subsidiary has the right to suspend or early terminate the contract if the rate payable under the agreement is higher than the rate charged by the Comisión Federal de Electricidad ("CFE") or its successors. The Tenaris subsidiary may instruct Techgen to sell to any affiliate, to CFE, or to any other third party all or any part of unused contracted energy under the agreement and the Tenaris subsidiary will benefit from the proceeds of such sale.

For more information on our purchase commitments as of December 31, 2019, see note 25 "Contingencies, commitments and restrictions on the distribution of profits – (ii) Commitments and guarantees" to our audited consolidated financial statements included in this annual report.

G. Recent Developments

Acquisition of IPSCO Tubulars, Inc.

a) Acquisition

On January 2, 2020, Tenaris acquired 100% of the shares of IPSCO Tubulars, Inc. ("IPSCO"), a U.S. manufacturer of steel pipes, from PAO TMK ("TMK"). The acquisition price was determined on a cash-free, debt-free basis, and the amount paid in cash at the closing, following contractual adjustments for cash, indebtedness, working capital and certain other items as estimated by the seller as of the closing date, was \$1,067 million. The final acquisition price is subject to a contractual true-up adjustment based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date. On March 16, 2020, Tenaris delivered, for TMK's review, a closing statement prepared in accordance with the acquisition agreement, including Tenaris's calculation of the closing price based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date. In case of disagreement, the parties are expected to engage in good-faith negotiations to solve any discrepancies. If the parties cannot resolve the disputed amounts, the discrepancies must be submitted to and resolved by an independent accounting firm.

IPSCO's facilities are located mainly in the midwestern and northeastern regions of the country. IPSCO's steel shop in Koppel, Pennsylvania, is Tenaris's first in the United States, providing vertical integration through domestic production of a relevant part of its steel bar needs. The Ambridge, Pennsylvania, mill adds a second seamless manufacturing facility and complements Tenaris's seamless plant in Bay City, Texas. Given the abrupt and steep decline in market demand, however, all of IPSCO's facilities are currently temporarily closed until market conditions improve.

In connection with the closing of the transaction, subsidiaries of Tenaris and TMK entered into a 6-year master distribution agreement (the "MDA") whereby, effective on January 2, 2020, Tenaris became the exclusive distributor of TMK's OCTG and line pipe products in the United States and Canada. At the end of the MDA's 6-years term, TMK will have the option to extend the duration of the MDA for an additional 12-month period. Under the MDA, Tenaris is required to purchase minimum annual volumes of TMK-manufactured OCTG and line pipe products, based on the aggregate market demand for the relevant product category in the United States in the relevant year. As of March 31, 2020, Tenaris's commitment under the MDA totaled approximately \$512 million. In light of the adverse scenario of declining oil and gas prices and unprecedented oversupply in the oil market Tenaris and TMK are engaging in good faith discussions to try and identify mutually satisfactory accommodations under the MDA to minimize the negative impact of the crisis on both parties.

The Company has begun consolidating IPSCO's balances and results of operations as from January 2, 2020.

The acquired business contributed revenues for \$105 million with a minor contribution to Tenaris's margin for the period starting January 2, 2020 and ending March 31, 2020.

b) Fair value of net assets acquired

The application of the purchase method requires certain estimates and assumptions, including estimates and assumptions concerning the determination of the fair values of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed at the date of the acquisition. The fair values determined at the acquisition date are based mainly on discounted cash flows and other valuation techniques.

The preliminary purchase price allocation was carried out with the assistance of a third-party expert. Following IFRS 3, the Company will continue reviewing the allocation and make any necessary adjustments (mainly over property, plant and equipment, intangible assets) during the twelve months following the acquisition date.

The preliminary allocation of the fair values determined for the assets and liabilities arising from the acquisition is as follows:

Fair value of acquired assets and liabilities:	\$ million
Property, Plant and Equipment	506
Intangible assets	170
Working capital	144
Cash and Cash Equivalents	4
Other assets	46
Borrowings	(53)
Provisions	(27)
Other liabilities	(77)
Deferred tax liabilities	(3)
Net assets acquired	710

Tenaris acquired total assets and liabilities shown above, for approximately \$1,067 million. As a result of the acquisition, the Company recognized goodwill for approximately \$357 million. The goodwill is not expected to be deductible for tax purposes.

The goodwill generated by the acquisition is mainly attributable to the synergy created following the integration between Tenaris and IPSCO, which is expected to enhance Tenaris's position as well as its local manufacturing presence in the U.S. market, and also expand its product range and services capabilities. The goodwill has been allocated to the Tubes segment. After the conclusion of the preliminary purchase price allocation determination and as a consequence of the unprecedented decline in oil prices and other changes in circumstances, the management has decided to impair the goodwill mentioned above.

Acquisition-related costs of \$9.7 million were included in general and administrative expenses (\$9.4 and \$0.3 in 2019 and 2020 respectively). For contingent liabilities related to the acquisition see Item 8. A. "Consolidated and Other Financial Information – Legal Proceedings".

For more information on impairment testing, see Item 5 "Operating and Financial Review and Prospects - Critical Accounting Estimates - Impairment and recoverability of goodwill and other assets".

The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition

A novel strain of coronavirus (SARS-CoV-2) surfaced in China in December 2019 and subsequently spread to the rest of the world in early 2020. In March 2020, the World Health Organization declared COVID-19, the disease caused by the SARS-CoV-2 virus, a global pandemic. In response to the COVID-19 outbreak, countries have taken different measures in relation to prevention and containment. For example, several countries introduced bans on business activities or locked down cities or countries, including countries where Tenaris has operations (such as Argentina, China, Colombia, Italy, Mexico and the United States). The rapid expansion of the virus and the measures taken to contain it have triggered a severe fall in global economic activity and a serious crisis in the energy sector.

While the extent of the effects of COVID-19 on the global economy and oil demand were still unclear, in March 2020, the members of OPEC+ (OPEC plus other major oil producers including Russia) did not agree to extend their agreement to cut oil production and Saudi Arabia precipitated a wave of additional supply on the market triggering a collapse in oil prices below \$30 per barrel. This exacerbated what soon became clear was an unprecedented situation of oversupply, caused primarily by the sudden and dramatic fall in oil consumption consequent to the measures taken to contain the spread of the virus around the world. Although OPEC+ subsequently reached an equally unprecedented agreement to cut production by as much as 9.7 million barrels per day, a situation of acute oversupply remains, causing oil prices to hit record lows. By the end of trading on April 20, 2020, the West Texas Intermediate (WTI) forward price for delivery in May, which had to be closed out the following day, fell to a negative value for the first time in history, as oil storage facilities were completely committed, and producers were forced to pay buyers to take their barrels. It is not known how long it will take for oil and gas demand to recover or achieve a more balanced position between supply and demand. As a result, prices are expected to remain at low levels for an extended period. In these circumstances, most of our customers have announced, or are making, significant cuts to their investment plans and are likely to announce further cuts. Similarly, several of our suppliers are closing, either temporarily or permanently, some of their facilities, which may result in unavailability or increased prices for our raw materials and other inputs.

Status of our operations

We are adjusting our operations on a country-by-country basis to comply with applicable rules and requirements and adapt to this new, rapidly evolving scenario. As of the date of this annual report, this is the status of our facilities:

- In China, we are again fully operational, after several weeks of interruption and an extraordinary combined effort of our people and of our community.
- In Italy, production was greatly reduced; although our Dalmine facility was used exclusively for the manufacturing of oxygen tanks to aid local hospitals and health centers for a limited period of time, currently the facility is gradually resuming normal operations. In Argentina, Colombia, Mexico and Saudi Arabia, Tenaris decreased its activity following the imposition of mandatory lockdowns, and our plants in these countries are currently operating at reduced levels. Although the lockdowns or restrictions to operate in these countries are expected to end or be relaxed in the next few weeks, these could be extended and/or made more stringent if so decided by the appropriate authorities as the circumstances could require.

- In the United States, our facilities in Koppel and Ambridge (PA), Brookfield (OH), Blytheville (AR), Wilder (KY), and Odessa and Baytown (TX), have been or will be temporarily closed until market conditions improve. In addition, Tenaris is in the process of performing employee reductions and adjusting production levels at its other facilities in line with market demand.

In order to safeguard the health and safety of its employees, customers and suppliers, Tenaris has taken preventive measures, including remote working for the majority of white collar employees, restricting onsite access to essential operational personnel, keeping personnel levels at a minimum, implementing a special operations protocol to ensure social distancing and providing medical assistance and supplies to onsite employees. As of the date of this annual report, remote work and other work arrangements have not materially adversely affected Tenaris's ability to conduct operations. In addition, these alternative working arrangements have not adversely affected our financial reporting systems, internal control over financial reporting or disclosure controls and procedures.

Risks associated with the COVID-19 pandemic and the oil & gas crisis

Given the uncertainty around the extent and timing of the future spread of the SARS-CoV-2 virus and the unprecedented extent of the oversupply on the oil market and the uncertainty about the timing and extent of any recovery in demand, it is not possible at this time to predict the full magnitude of the adverse effects that these two circumstances will have on our industry generally, nor to reasonably estimate the impact on Tenaris's results of operations, cash flows or financial condition.

Without limiting the generality of the risks described in Item 3. "Key Information —D. Risk Factors—Risks Relating to our Industry", the COVID-19 pandemic and the ongoing oil & gas crisis poses the following main risks and challenges to Tenaris:

- Global oil or gas demand may fail to recover or even decrease further in the future, driving down prices even more or keeping them at very low levels, which would exert downward pressure on sales and margins of oil and gas companies, leading to further reductions and even generalized suspension of drilling activities (in the U.S. or elsewhere) and, as a result, materially adversely affecting our sales and financial position.
- Tenaris or its employees, contractors, suppliers, customers and other business partners may be prevented from conducting certain business activities for a prolonged or indefinite period of time. In addition, employees in some or all of our facilities, or those of our contracts, suppliers, customers or other business partners, may refuse to work due to health concerns while the COVID-19 outbreak is ongoing. If that happens, the continuity of our future operations may be severely affected.
- A continuing spread of COVID-19 may affect the availability and price of raw materials, energy and other inputs used by Tenaris in its operations. Any such disruption or increased prices could adversely affect Tenaris's profitability.

Mitigating actions

In order to mitigate the impact of expected lower sales, Tenaris is working on a worldwide rightsizing program and cost containment plan aimed at preserving its financial resources and overall liquidity position and maintaining the continuity of its operations. The actions include:

- Adjusting the level of our operations and workforce around the world, including through the temporary closure of certain U.S. facilities or production lines, as indicated above;
- Introducing efficiency and productivity improvements throughout Tenaris's industrial system;
- Downsizing our fixed cost structure, including through pay reductions for senior management and board members, aggregating estimated total annual savings of approximately \$220 million by year-end;
- Reducing capital expenditures and R&D expenses for approximately \$150 million when compared to 2019 levels;
- Reducing working capital, especially inventories, in accordance with the expected levels of activity; and
- Increasing our focus on managing customer credit conditions.

As part of these liquidity preservation initiatives, the board of directors resolved to propose, for approval by the Annual Shareholders Meeting to be held on June 2, 2020, that no further dividends be distributed in respect of fiscal year 2019 on top of the interim dividend of approximately \$153 million already paid in November 2019.

As of the date of this annual report, our capital and financial resources, and overall liquidity position, have not been materially affected by this new scenario. Tenaris has in place non-committed credit facilities and management believes it has adequate access to the credit markets. In addition, Tenaris has a net cash position of approximately \$271 million as of the end of March 2020 and a manageable debt amortization schedule. Considering our financial position and the funds provided by operating activities, management believes that we have sufficient resources to satisfy our current working capital needs, service our debt and address short-term changes in business conditions. For more information on liquidity and capital resources, see “— B. Liquidity and Capital Resources - Principal Sources of Funding”.

Impairment of certain assets and other accounting implications

In accordance with IFRS, management must test for impairment all of Tenaris’s assets whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Assets subject to testing include goodwill, intangible assets, investments in non-consolidated companies, long-lived assets and right-of-use assets. In addition, management must test goodwill for impairment at least once a year whether or not there are indicators of impairment.

As a result of the severe deterioration of business conditions and in light of the presence of impairment indicators for its U.S. operations, Tenaris recorded impairment charges as of March 31, 2020, in the carrying values of goodwill and other asset values at the cash-generating units OCTG USA (Maverick), IPSCO, Rods USA and Coiled Tubing, for an aggregate amount of approximately \$622 million.

Management does not expect to disclose or incur in any material COVID-19-related contingency, and it considers its allowance for doubtful accounts sufficient to cover risks that could arise from credits with customers in accordance with IFRS 9.

Closure of facilities at JFE’s Keihin steel complex

Our seamless pipe manufacturing facility in Asia, operated by NKK Tubes, is located in Kawasaki, Japan, in the Keihin steel complex owned by JFE. Steel bars and other essential inputs and services for NKK Tubes are supplied under a long-term agreement by JFE, which retains a 49% interest in NKK Tubes. On March 27, 2020, JFE informed Tenaris of its decision to permanently cease, as from JFE’s fiscal year ending March 2024, the operations of certain of its steel manufacturing facilities and other facilities located at the Keihin complex. The closure of JFE’s Keihin facilities may result in the unavailability of steel bars and other essential inputs or services used in NKK Tubes’ manufacturing process, thereby affecting its operations. Tenaris and JFE have agreed to engage in discussions to seek mutually acceptable solutions.

Annual Dividend Proposal

On April 29, 2020, the Company’s board of directors resolved to propose, for approval by the annual shareholders meeting to be held on June 2, 2020, that no further dividends be distributed in respect of fiscal year 2019 beyond the interim dividend of approximately \$153 million already paid in November 2019. For a discussion of the rationale behind the dividend proposal, see Item 5G. “Operating and Financial Review and Prospects –Recent Developments - The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris’s operations and financial condition.”

Item 6. Directors, Senior Management and Employees

A. Directors and Senior Management

Board of Directors

Management of the Company is vested in a board of directors with the broadest power to act on behalf of the Company and accomplish or authorize all acts and transactions of management and disposal that are within its corporate purpose and not specifically reserved in the articles of association or by applicable law to the general shareholders’ meeting . The Company’s articles of association provide for a board of directors consisting of a minimum of three and a maximum of fifteen directors; however, for as long as the Company’s shares are listed on at least one regulated market, the minimum number of directors must be five. The Company’s current board of directors is composed of eleven directors.

The board of directors is required to meet as often as required by the interests of the Company and at least four times per year. In 2019, the Company's board of directors met ten times. A majority of the members of the board of directors in office present or represented at the board of directors' meeting constitutes a quorum, and resolutions may be adopted by the vote of a majority of the directors present or represented. In the case of a tie, the Chairman is entitled to cast the deciding vote.

Directors are elected at the annual ordinary general shareholders' meeting to serve one-year renewable terms, as determined by the general shareholders' meeting. The general shareholders' meeting also determines the number of directors that will constitute the board and their compensation. The general shareholders' meeting may dismiss all or any one member of the board of directors at any time, with or without cause, by resolution passed by a simple majority vote, irrespective of the number of shares represented at the meeting.

The Company's articles of association provide that the board of directors of the Company may within the limits of applicable law, (a) delegate to one or more persons, whether or not members of the board of directors, the powers necessary to carry out its decisions and to provide day-to-day management (except for approval of material transactions with related parties, which may not be delegated and shall be approved by the board of directors prior opinion of the audit committee), (b) confer to one or more persons, whether or not members of board of directors the powers deemed to be appropriate for the general technical administrative and commercial management of the Company, (c) constitute an audit committee formed by directors, determining its function and authority, and (d) constitute any other committee, whose members may or may not be members of the board of directors and determine their functions and authority. On May 6, 2019, the board of directors appointed the Company's chief executive as *administrateur délégué* and delegated to him the power to manage the Company's affairs within the ordinary course of business, to the full extent permitted by Luxembourg law, to direct and supervise the business activities of the Company's subsidiaries and to represent the Company in relation to such matters.

On May 6, 2019, the Company's annual general shareholders' meeting re-elected Roberto Bonatti, Carlos Condorelli, Germán Curá, Roberto Monti, Gianfelice Mario Rocca, Paolo Rocca, Jaime José Serra Puche, Yves Speeckaert, Mónica Tiuba, Amadeo Vázquez y Vázquez and Guillermo Vogel, as members of its board of directors to serve until the next annual shareholders' meeting. The board of directors subsequently reappointed Paolo Rocca as chairman and chief executive officer and Guillermo Vogel and Germán Curá as vice-chairmen of the Company. The following table sets forth the name of the Company's current directors, their respective positions on the board, their principal occupation, their years of service as board members and their age.

Name	Position	Principal Occupation	Years as Director	Age at December 31, 2019
Mr. Roberto Bonatti ⁽¹⁾	Director	President of San Faustin	17	70
Mr. Carlos Condorelli	Director	Director of Tenaris and Ternium	13	68
Mr. Germán Curá	Director	Director and Vice Chairman of the Board of Tenaris	2	57
Mr. Roberto Monti	Director	Director of Tenaris	15	80
Mr. Gianfelice Mario Rocca ⁽¹⁾	Director	Chairman of the board of directors of San Faustin	17	71
Mr. Paolo Rocca ⁽¹⁾	Director	Chairman and Chief Executive Officer of Tenaris	18	67
Mr. Jaime José Serra Puche	Director	Chairman of SAI Derecho & Economía	17	68
Mr. Yves Speeckaert	Director	Director of Tenaris	3	59
Ms. Mónica Tiuba	Director	Director of Tenaris	2	41
Mr. Amadeo Vázquez y Vázquez	Director	Director of Tenaris	17	77
Mr. Guillermo Vogel	Director	Director and Vice Chairman of the Board of Tenaris	17	69

⁽¹⁾ Paolo Rocca and Gianfelice Mario Rocca are brothers, and Roberto Bonatti is Paolo and Gianfelice Mario Rocca's first cousin.

Roberto Bonatti. Mr. Bonatti is a member of the Company's board of directors. He is a grandson of Agostino Rocca, founder of the Techint Group, a group of companies controlled by San Faustin. Throughout his career in the Techint Group he has been involved specifically in the engineering and construction and corporate sectors. He was first employed by the Techint Group in 1976, as deputy resident engineer in Venezuela. In 1984, he became a director of San Faustin, and since 2001 he has served as its president. He is also a member of the board of directors of Ternium. Mr. Bonatti is an Italian citizen.

Carlos Condorelli. Mr. Condorelli is a member of the Company's board of directors. He served as the Company's Chief Financial Officer from October 2002 until September 2007. He is also a board member of Ternium. He has held several positions within Tenaris, including also the Chief Financial Officer position in some of the principal Tenaris Group companies and member of the Company's audit committee between November 1, 2017 and May 2, 2018. He also served as president of the board of directors of Empresa Distribuidora La Plata S.A. ("Edelap"), an Argentine utilities company. Mr. Condorelli is an Argentine citizen.

Germán Curá. Mr. Curá is a member of the Company's board of directors and also holds the position of Vice Chairman of the Board. He served as president of our operations in North America until May 2, 2018, a position held since 2006. He was first employed by Siderca in 1988. Previously, he served as Siderca's exports director, Tamsa's exports director and commercial director, sales and marketing manager of our Middle East subsidiary, president of Algoma Tubes, president and Chief Executive Officer of Maverick Tubulars and president and Chief Executive Officer of Hydril, director of our Oilfield Services global business unit and Tenaris commercial director. He was also a member of the board of directors of API and currently serves as a member of the board of directors of the American Iron and Steel Institute (AIS) and of Deep Ocean AS. He is a marine engineer from the Instituto Tecnológico de Buenos Aires and an MBA graduated from the Massachusetts Institute of Technology. Mr. Curá is an U.S. citizen.

Roberto Monti. Mr. Monti is a member of the Company's board of directors and of its audit committee. He has served as vice president of exploration and production of Repsol YPF and as chairman and Chief Executive Officer of YPF. He was a member of the board of directors of YPF until December 2019. He was also the president of Dowell, a subsidiary of Schlumberger and the president of Schlumberger wire & testing division for East Hemisphere Latin America. Mr. Monti is an Argentine citizen.

Gianfelice Mario Rocca. Mr. Rocca is a member of the Company's board of directors. He is a grandson of Agostino Rocca. He is Chairman of the board of directors of San Faustin, member of the board of directors of Ternium, president of the Humanitas Group and president of the board of directors of Tenova S.p.A. Moreover, in Italy, he is member of the board of Bocconi University, of the advisory board of Politecnico di Milano. At international level, he is member of the Harvard Business School Advisory Board and member of the European Round Table of Industrialists ("ERT"). Mr. Rocca is an Italian citizen.

Paolo Rocca. Mr. Rocca is the Chairman of the Company's board of directors and our Chief Executive Officer. He is a grandson of Agostino Rocca. He is also the chairman of the board of directors of Ternium and a director and vice president of San Faustin. He is a member of the executive committee of the World Steel Association. Mr. Rocca is an Italian citizen.

Jaime José Serra Puche. Mr. Serra Puche is a member of the Company's board of directors and of its audit committee. He is the chairman of SAI Derecho & Economía, a Mexican consulting firm, and a member of the board of directors of the Mexico Fund, Grupo Vitro, and chairman of the board of BBVA Bancomer. Mr. Serra Puche served as Mexico's Undersecretary of Revenue, Secretary of Trade and Industry, and Secretary of Finance. He led the negotiation and implementation of NAFTA. Mr. Serra Puche is a Mexican citizen.

Yves Speeckaert. Mr. Speeckaert is a member of the Company's board of directors. He served as director of KPMG Consulting in London, United Kingdom and Sao Paulo, Brazil, where he led various high-profile engagements in the telecom, energy and agri-business industries. He was also director of structured finance of Banca Intesa-Sanpaolo (London). Since 2010 he is a Luxembourg-based independent director of regulated investment funds (mostly private equity, RE, and UCITS funds, as well as impact funds) and he is a member of the board of directors of several industrial holdings. He is also active in carbon offsetting and climate change mitigation strategies with funds, governments and corporations particularly as related to Corporate Environmental and Social Responsibility (ESR). He is a member of the Luxembourg Institute of Administrators (ILA). He holds an MBA from the University of California at Berkeley and a B.A. in Philosophy from the University of Louvain and is a contributing and active member of the Alumni association of UC Berkeley. Mr. Speeckaert is a Belgian citizen.

Mónica Tiuba. Ms. Tiuba is a member of the Company's board of directors and of the audit committee. She is a Brazilian qualified lawyer and accountant with over 17 years of professional experience in Brazil and Luxembourg. She started her career at Barbosa, Mussnich & Aragão law firm in Rio de Janeiro, Brazil, where she practiced corporate law, M&A and tax litigation. She worked in EY and PwC, in the Brazil and Luxembourg offices, advising multinational clients, private equity houses and family offices. She gained banking experience working as international senior wealth planner at Banque Edmond de Rothschild, in Luxembourg. She holds a specialization in EU tax law from Leiden University and a Master of Laws in international taxation from Vienna University of Economics. Ms. Tiuba is a Brazilian and Luxembourgish citizen.

Amadeo Vázquez y Vázquez. Mr. Vázquez y Vázquez is a member of the Company's board of directors and the chairman of its audit committee. He is a member of the advisory board of the Fundación de Investigaciones Económicas Latinoamericanas and member of the Asociación Empresaria Argentina. He is a business consultant and previously served as Chief Executive Officer of Banco Río de la Plata S.A. until August 1997, independent director and chairman of the audit committee of BBVA Banco Francés S.A. until 2003, Chairman of the board of directors of Telecom Argentina S.A. until April 2007 and independent alternate director of Gas Natural Ban, S.A., of Grupo Gas Natural Fenosa until April 2018. Mr. Vázquez y Vázquez is a Spanish and Argentine citizen.

Guillermo Vogel. Mr. Vogel is a member of the Company's board of directors and also holds the position of Vice Chairman of the Board. He is the chairman of Grupo Collado and Exportaciones IM Promoción, and served as president of Canacero until April 16, 2018. Mr. Vogel is also a member of the board of directors of each of Techint, S.A. de C.V., Alfa, Banco Santander (México) S.A, the Universidad Panamericana – IPADE, Corporación Mexicana de Inversiones de Capital, Innovare, Grupo Assa and the American Iron and Steel Institute. In addition, he is a member of The Trilateral Commission and member of the International Board of The Manhattan School of Music. Mr. Vogel is a Mexican citizen.

At the next annual general shareholders' meeting, it will be proposed that the number of directors be increased to twelve, that all of the current members of the board of directors be reappointed, and that Mr. Simon Ayat be newly appointed to the board of directors, each to hold office until the next annual general shareholders' meeting that will be convened to decide on the Company's 2020 annual accounts. Below you will find Mr. Ayat's biographical information.

Simon Ayat. Mr. Ayat served as Schlumberger's executive vice president and chief financial officer from 2007 until early 2020. He is currently a senior strategic advisor to the chief executive officer of Schlumberger. Mr. Ayat has held several financial and operational positions in Schlumberger, where he commenced his career in 1982. He was based in Paris, Houston and Dallas, as well as in the Middle East and Far East regions, serving as group treasurer, controller, Geomarket manager for Indonesia and drilling regional vice president for Asia Pacific. Mr. Ayat is also a member of the board of directors of Eurasia Drilling Company, the largest provider of drilling services in Russia. He is a French and Lebanese citizen.

Board members Monti, Serra Puche, Speeckaert, Tiuba, Vázquez y Vázquez qualify as independent directors for purposes of the U.S. Securities Exchange Act Rule 10A-3(b)(1), and board members Messrs. Monti, Serra Puche, Speeckaert, Vázquez y Vázquez also qualify as independent directors under the Company's articles of association. If appointed by the next annual general meeting of shareholders, Mr. Ayat would also qualify as independent director for purposes of the U.S. Securities Exchange Act Rule 10A-3(b)(1) and under the Company's articles of association.

Directors' Liability

Each director must act in the interest of the Company, and in accordance with applicable laws, regulations, and the Company's articles of association. Directors are also bound by a general duty of care owed to the Company.

Under the Luxembourg law of August 10, 1915 on commercial companies, as amended, (the "Luxembourg Company Law"), directors may be liable to the Company in accordance with the general law for the execution of their mandate and for any misconduct in the management of the Company's affairs. Directors are jointly and severally liable towards either the Company or any third parties from damages resulting from the violation of the Luxembourg Company Law or the Company's articles of association. Directors shall be discharged from such liability in the case of a violation to which they were not a party provided no misconduct is attributable to them and such violation has been reported to the first general meeting of shareholders after they have acquired knowledge thereof.

Causes of action against directors for damages may be initiated by the Company upon a resolution of the general shareholders' meeting passed by a simple majority vote, irrespective of the number of shares represented at the meeting. Causes of action against directors who misappropriate corporate assets or commit a breach of trust may be brought by any shareholder for personal losses different from those of the Company.

An action may also be brought against the directors on behalf of the Company by shareholders who, at the general meeting which decided upon discharge of such directors or members, owned voting securities representing at least ten per cent of the votes attaching to all such securities.

It is customary in Luxembourg that the shareholders expressly discharge the members of the board of directors from any liability arising out of or in connection with the exercise of their mandate when approving the annual accounts of the Company at the annual general shareholders meeting. However, any such discharge will not release the directors from liability for any damage caused by unrevealed acts of mismanagement or unrevealed breaches of the Luxembourg Company Law or the Company's articles of association, nor will it release the directors from liability for any personal loss of the shareholders independent and separate from the losses suffered by the Company due to a breach either revealed and unrevealed of either the Luxembourg Company Law or the Company's articles of association.

Under Luxembourg law, unless the decision of the board of directors relates to ordinary business entered into under normal conditions, any director having a direct or indirect financial interest conflicting with that of the Company in a transaction which has to be considered by the board of directors, must advise the board thereof and cause a record of her/his statement to be included in the minutes of the meeting and may not take part in the deliberations. At the next following general meeting, before any other resolution is put to vote, a special report must be made on any transactions in which any of the directors may have had an interest conflicting with that of the Company.

Auditors

The Company's articles of association require the appointment of an independent audit firm in accordance with applicable law. The primary responsibility of the auditor is to audit the Company's annual accounts and consolidated financial statements and to submit a report on the accounts to shareholders at the annual shareholders' meeting. In accordance with applicable law, auditors are chosen from among the members of the Luxembourg Institute of Independent Auditors (*Institut des réviseurs d'entreprises*).

Auditors are appointed by the general shareholders' meeting upon recommendation from the Company's audit committee through a resolution passed by a simple majority vote, irrespective of the number of shares represented at the meeting, to serve one-year renewable terms. Auditors may be dismissed by the general shareholders' meeting at any time, with or without cause. Luxembourg law does not allow directors to serve concurrently as external auditors. As part of their duties, the auditors report directly to the audit committee.

Pursuant to its charter, the Company's audit committee is responsible for, among other things, the oversight of the independence and performance of the Company's external auditors. The audit committee is also responsible to consider and make recommendations to the board of directors, to be put to shareholders for approval at the annual general meeting of shareholders, regarding the appointment, re-appointment or removal of the Company's external auditors. In addition, the audit committee is responsible to review the appropriateness and provision of permitted non-audit fees and to review and approve any fees (whether for audit, audit-related and non-audit services) payable to the Company's external auditors. On a yearly basis, in the performance of its functions, the audit committee considers the appointment of the Company's external auditors and reviews, together with management and the external auditor, the audit plan, audit related services and other non-audit services. The audit committee requests the board of directors to submit the audit committee's recommendation for the appointment of the Company's external auditor for each fiscal year and the payment of applicable fees, for final approval by the general shareholders' meeting. The general shareholders' meeting regularly approves such audit fees and authorizes the audit committee to approve any increase or reallocation of such audit fees as may be necessary, appropriate or desirable under the circumstances. No services outside the scope of the audit committee's approval can be undertaken by the external auditor.

The shareholders' meeting held on May 6, 2019, re-appointed PwC Luxembourg as the Company's independent approved statutory auditor for the fiscal year ended December 31, 2019. At the next annual general shareholders' meeting, it will be proposed that PwC Luxembourg be re-appointed as the Company's independent approved statutory auditors for the fiscal year ending December 31, 2020.

Senior Management

Our current senior management as of the date of this annual report consists of:

Name	Position	Age at December 31, 2019
Mr. Paolo Rocca	Chairman and Chief Executive Officer	67
Ms. Alicia M3ndolo	Chief Financial Officer	61
Mr. Antonio Caprera	Chief Industrial Officer	59
Mr. Gabriel Casanova	Chief Supply Chain Officer	61
Mr. Alejandro Lammertyn	Chief Digital and Planning Officer	54
Ms. Paola Mazzoleni	Chief Human Resources Officer	43
Mr. Marcelo Ramos	Chief Technology Officer	56
Mr. Vicente Manjarrez	President, Andean	41
Mr. Luca Zanotti	President, United States	52
Mr. Sergio de la Maza	President, Mexico	63
Mr. Ricardo Prospero	President, Canada	57
Mr. Renato Catallini	President, Brazil	53
Mr. Javier Mart3nez Alvarez	President, Southern Cone	53
Mr. Gabriel Podskubka	President, Eastern Hemisphere	46
Mr. Michele Della Briotta	President, Europe	47

Effective as of August 5, 2019, Alicia M3ndolo was appointed Chief Financial Officer replacing Edgardo Carlos, who resigned from the Company.

Effective as of September 1, 2019, Guillermo G. Moreno ceased to act as President, Canada assuming new responsibilities in the Company and was replaced by Ricardo Prospero, and Vicente Manjarrez was appointed President, Andean replacing Ricardo Prospero.

Paolo Rocca. Mr. Rocca is the Chairman of the Company's board of directors and our Chief Executive Officer. He is a grandson of Agostino Rocca. He is also the chairman of the board of directors of Ternium and a director and vice president of San Faustin. He is a member of the executive committee of the World Steel Association. Mr. Rocca is an Italian citizen.

Alicia M3ndolo. Ms. M3ndolo currently serves as our Chief Financial Officer, a position she assumed in August 2019. Ms. M3ndolo joined the Techint Group in 1984 and has more than 35 years of experience in accounting and reporting, audit and finance. From 2010 to 2016, she served as Chief Audit Executive of Tenaris. Previously and from 2016 to 2019, she served as financial officer in several companies in the Techint Group. Ms. M3ndolo is an Argentine and Italian citizen.

Antonio Caprera. Mr. Caprera currently serves as our Chief Industrial Officer, a position he assumed in April 2017. He joined the company in 1990. From 2000 to 2006 he served as quality director at Dalmine in Italy, where he later assumed responsibilities as production director until 2012. From that year and until 2015 he served as production director at Siderca in Argentina, after which he assumed responsibilities as global industrial coordinator based in Mexico until March 2017. Mr. Caprera is an Italian citizen.

Gabriel Casanova. Mr. Casanova currently serves as our Chief Supply Chain Officer, with responsibility for the execution of all contractual deliveries to customers. After graduating as a marine and mechanical engineer, he joined Siderca's export department in 1987. In 1995 he became Siderca's Chief Representative in China and from 1997 to 2009 he held several positions in the commercial area in Dalmine. In 2009 he became the head of our supply chain network and in October 2012 he assumed his current position. Mr. Casanova is an Argentine citizen.

Alejandro Lammertyn. Mr. Lammertyn currently serves as our Chief Digital and Planning Officer. He has served as our Chief Planning and Commercial Coordination Officer since 2013 and assumed additional responsibility for digital strategy and implementation in January 2019. Mr. Lammertyn began his career with Tenaris in 1990. Previously, he served as assistant to the chief executive officer for marketing, organization and mill allocation, supply chain director, commercial director and Eastern Hemisphere area manager. Mr. Lammertyn is an Argentine citizen.

Paola Mazzoleni. Ms. Mazzoleni currently serves as our Chief Human Resources Officer, a position she assumed on January 1, 2016. After receiving a degree in Philosophy, she started her career in Dalmine in 2001 in the human resources department, working in recruitment and selection. She next coordinated the company's Global Trainee Program and then served as the regional head in Italy of Tenaris University. Ms. Mazzoleni was appointed as human resources director in Romania in 2008, in Italy in 2012 and in the United States in 2014. Ms. Mazzoleni is an Italian citizen.

Marcelo Ramos. Mr. Ramos currently serves as our Chief Technology Officer, with responsibility over technology and quality. Previously he served as corporate quality director and managing director of NKK Tubes. He joined the Techint Group in 1987 and has held various positions within Tenaris. He assumed his current position in April 2010, when the quality and technology departments were combined. Mr. Ramos is an Argentine citizen.

Vicente Manjarrez. Mr. Manjarrez is currently president of our operations in the Andean Region, Central America and the Caribbean, based in Colombia. He began his career at our Tamsa mill in Veracruz, Mexico in 2003 as part of the maintenance team and eventually adopted a leading role in the expansion of the plant in 2009 as manager of the new rolling mill. In 2015 he moved to Romania to lead the technical sales team before returning to Colombia to take on the role of senior commercial director in 2017. Mr. Manjarrez is a Mexican citizen.

Luca Zanotti. Mr. Zanotti currently serves as president of our operations in the United States. In 2002, he joined Exiros, the procurement company for the Techint Group, as planning and administration director. He was later promoted to raw materials director and in July 2007 became managing director of Exiros, a position he held until 2010. He served as regional manager Europe, and managing director of Dalmine from 2011 to 2015, when he assumed his current position. Before joining the Techint Group, he was a senior manager at A.T. Kearney in Milan, where he worked from 1998 to 2002, and prior to that he held various business development positions in the Far East for Lovato Electric. Mr. Zanotti is an Italian citizen.

Sergio de la Maza. Mr. de la Maza currently serves as our president, Mexico and also serves as managing director and executive vice-president of Tamsa. He first joined Tamsa in 1980. From 1983 to 1988, Mr. de la Maza worked in several positions in Tamsa. He then became manager of Tamsa's new pipe factory and later served as manufacturing manager and quality director of Tamsa. Subsequently, he was named manufacturing director of Siderca. He assumed his current position in 2003. Mr. de la Maza is a Mexican citizen.

Ricardo Prosperi. Mr. Prosperi currently serves as president of our operations in Canada. He joined the Techint Group in 1985, working in the Siderar planning department. From 1985 to 1998, Mr. Prosperi held several positions in Siderar before becoming the exports general manager of Sidor. He later went on to be the commercial director in Siderar. After a period as president of Ternium Sidor in Venezuela and then International Area Manager for Ternium, he joined Tenaris in 2010, where he has served as president of our operations in the Andean Region, Central America and the Caribbean, based in Colombia. Mr. Prosperi is an Argentine citizen.

Renato Catallini. Mr. Catallini currently serves as president of our operations in Brazil, a position that he assumed in October 2012, after having served as our supply chain director since August 2007. He joined Tenaris in 2001 in the supply management area, as a general manager of Exiros Argentina. In July 2002, he was appointed operations director and subsequently, in January 2005, became managing director of Exiros. Before joining Tenaris, he worked for ten years in the energy sector, working for TGN, Nova Gas Internacional, TransCanada Pipelines and TotalFinaElf, among others. Mr. Catallini is an Argentine and Italian citizen.

Javier Martínez Álvarez. Mr. Martínez Álvarez currently serves as president of our operations in the Southern Cone, a position he assumed in June 2010, having previously served as our Andean area manager. He began his career in the Techint Group in 1990, holding several positions including planning manager of Siderar and commercial director of Ternium-Sidor. In 2006, he joined Tenaris as our Venezuela area manager. Mr. Martínez Álvarez is an Argentine citizen.

Gabriel Podskubka. Mr. Podskubka currently serves as president of our operations in the Eastern Hemisphere, based in Dubai. He assumed his current position in April 2013 after serving as the head of our operations in Eastern Europe for four years. After graduating as an industrial engineer Mr. Podskubka joined the Techint Group in 1995 in the marketing department of Siderca. He held various positions in the marketing, commercial, and industrial areas until he was appointed as oil & gas sales director in the United States in 2006. Mr. Podskubka is an Argentine citizen.

Michele Della Briotta. Mr. Della Briotta currently serves as president of our operations in Europe, a position he assumed in July 2016. He first joined Tenaris in 1997 and has worked in areas such as industrial planning, operations, supply chain and commercial in Italy, Mexico, Argentina and the United States. Most recently he served as Tenaris's area manager for Romania. Mr. Della Briotta is an Italian citizen.

B. Compensation

The compensation payable to the members of the Company's board of directors for their performance of their services to the Company is determined at the annual ordinary general shareholders' meeting. The general meeting of shareholders held on May 6, 2019 approved the compensation paid to directors for the performance of their duties during the fiscal year 2019, and resolved that (i) each director receive a fixed compensation for an amount of \$115,000; (ii) each director who is also a member of the Company's audit committee receives an additional fee of \$55,000 and; (iii) the chairman of the Company's audit committee receives an additional fee of \$10,000. No variable compensation has been paid or shall be payable to directors for services rendered during the year 2019 and no long-term incentive or pension plan is available to directors.

The compensation paid to the Company's managing director or chief executive officer is determined by the board of directors. The cash compensation paid or payable to chief executive officer for the performance of his duties during the year 2019 amounts to \$7 million, of which \$3 million corresponds to fixed compensation and \$4 million corresponds to variable compensation. No long-term incentive or pension plan is awarded to the chief executive officer.

The aggregate cash compensation paid to all directors and senior managers of the Company for the year 2019 amounted to \$33.7 million. This amount includes cash benefits paid to certain senior managers in connection with pre-existing retirement plans. In addition, senior managers received for the year 2019, 468,558 units for a total amount of \$4.8 million in connection with the Employee retention and long-term incentive program described in note O (3) "Employee benefits - Other long term benefits" to our audited consolidated financial statements included in this annual report.

The Luxembourg Parliament enacted the Luxembourg Law of August 1, 2019 (amending the Luxembourg Law of May 24, 2011) (the "Shareholders' Rights Law") on the exercise of certain rights of shareholders in general meetings of listed companies, which transposes EU Directive 2017/828 of the European Parliament and of the Council of May 17, 2017 (amending Directive 2007/36/EC) regarding the encouragement of long-term shareholder engagement in listed companies within the Member States of the European Union. In compliance with the Shareholders' Rights Law, the Company's board of directors must approve a Compensation Policy setting forth the principles and guidelines for purposes of determining the compensation payable to the members of the Company's board of directors and the managing director or chief executive officer and a Compensation Report describing the compensation paid to directors and the chief executive officer for the performance of their duties during the year ended December 31, 2019. In accordance with the Shareholders' Rights Law, once approved by the Company's board of directors, the Compensation Policy and the 2019 Compensation Report will be made available on the Company's website and will be submitted to the non-binding vote of the shareholders at the next general meeting of shareholders of the Company to be held on June 2, 2020.

C. Board Practices

See A. "– Directors and Senior Management – Board of Directors".

Audit Committee

Pursuant to the Company's articles of association, as supplemented by the audit committee's charter, for as long as our shares are listed on at least one regulated market, the Company must have an audit committee composed of at least three members, the majority of whom must qualify as independent directors, provided, however, that the composition and membership of the audit committee shall satisfy such requirements as are applicable to, and mandatory for, audit committees of issuers such as the Company under any law, rule or regulation applicable to the Company (including, without limitation, the applicable laws, rules and regulations of such regulated market or markets).

Under the Company's articles of association, an independent director is a director who:

- is not and has not been employed by us or our subsidiaries in an executive capacity for the preceding five years;
- is not a person that controls us, directly or indirectly, and is not a member of the board of directors of a company controlling us, directly or indirectly;
- does not have (and is not affiliated with a company or a firm that has) a significant business relationship with us, our subsidiaries or our controlling shareholder;
- is not and has not been affiliated with or employed by a present or former auditor of us, our subsidiaries or our controlling shareholder for the preceding five years; *and*
- is not a spouse, parent, sibling or relative up to the third degree of any of the above persons.

The audit committee of the Company's board of directors currently consists of four members: Roberto Monti, Jaime José Serra Puche, Mónica Tiuba and Amadeo Vázquez y Vázquez, who were appointed to the audit committee by the Company's board of directors on May 6, 2019. All of them qualify as independent directors for purposes of the U.S. Securities Exchange Act Rule 10A-3(b)(1), and Messrs. Monti, Serra Puche and Vázquez y Vázquez also qualify as independent directors under the Company's articles of association. The board of directors of the Company has determined that Ms. Tiuba is competent in accounting and auditing matters. In addition, the membership of the audit committee as a whole has sufficient relevant knowledge of the business and financial experience to properly discharge its functions.

The audit committee operates under a charter which has been amended and restated by the board of directors on October 31, 2018, to implement adequate procedures to discharge the audit committee's duties and responsibilities under applicable law, including the Luxembourg Law of July 23, 2016, concerning the audit profession ("Audit Reform Law"). The audit committee assists the board of directors in its oversight responsibilities relating to (i) the integrity of the Company's financial statements; (ii) the effectiveness of the Company's systems of internal control, risk management and internal audit over financial reporting; and (iii) the independence and performance of the Company's external auditors. The audit committee also performs other duties entrusted to it by the Company's board of directors or required to be performed by it under applicable laws and regulations.

In addition, the audit committee is required by the Company's articles of association to review "material transactions", as such term is defined under the Company's articles of association and audit committee's charter, between the Company or its subsidiaries and "related parties", as such term is defined in the Company's articles of association, in order to determine whether their terms are consistent with market conditions or are otherwise fair to the Company and/or its subsidiaries. In the case of material transactions entered into by the Company's subsidiaries with related parties, the Company's audit committee is only required to review transactions entered into by those subsidiaries whose boards of directors do not have independent members.

Under the Company's articles of association, as supplemented by the audit committee's charter, a material transaction is:

- any transaction between the Company or its subsidiaries with related parties (i) with an individual value equal to or greater than \$10 million, or (ii) with an individual value lower than \$10 million, when the aggregate sum – as reflected in the financial statements of the four fiscal quarters of the Company preceding the date of determination- of any series of transactions for such lower value that can be deemed to be parts of a unique or single transaction (but excluding any transactions that were reviewed and approved by Company's audit committee or board of directors, as applicable, or the independent members of the board of directors of any of its subsidiaries) exceeds 1.5% of the Company's consolidated net sales made in the fiscal year preceding the year on which the determination is made;
- any corporate reorganization transaction (including a merger, spin-off or bulk transfer of a business) affecting the Company for the benefit of, or involving, a related party; *and*
- any corporate reorganization transaction (including a merger, spin-off or bulk transfer of a business) not reviewed and approved by the independent members of the board of directors of any of the Company's direct or indirect subsidiaries, affecting any of the Company's direct or indirect subsidiaries for the benefit of, or involving, a related party.

A "related party" is, in relation to the Company or its direct or indirect subsidiaries, any of the following persons: (i) a member of the board of directors of the Company or of the board of directors or other governing body of any of the Company's subsidiaries; (ii) any company or person that controls directly or indirectly the Company or is a member of the board of directors or other governing body of an entity that controls directly or indirectly the Company; (iii) any entity that directly or indirectly controls or is under common control with the Company (other than the Company's subsidiaries); (iv) any entity directly or indirectly controlled by any member of the board of directors of the Company, or of the board of directors or other governing body of any subsidiary of the Company; and (v) any spouses, parents, siblings or relatives up to the third degree of, and any person that shares a home with, any person referred to in (i) or (ii).

The audit committee has the power (to the maximum extent permitted by applicable laws) to request that the Company or relevant subsidiary promptly provide all information necessary for the audit committee to assess the material transactions with related parties that it is required to review. A material related party transaction shall not be entered into without prior review by the Company's audit committee and subsequent approval by the board of directors unless (i) the circumstances underlying the proposed transaction justify that it be entered into before the time it can actually be reviewed by the Company's audit committee or approved by the board of directors and (ii) the related party agrees to unwind the transaction if the Company's board of directors does not approve it.

The audit committee has the authority to conduct any investigation appropriate to the fulfillment of its responsibilities and has direct access to the Company's external auditors as well as anyone in the Company and, subject to applicable laws and regulations, its subsidiaries. In addition, the audit committee may engage, at the Company's expense, independent counsel and other internal or external advisors to review, investigate or otherwise advise on, any matter as the committee may determine to be necessary to carry out its purposes and responsibilities.

In addition, the Company has established at management-level a critical risk committee ("CRC") that assists the Company's board of directors, the audit committee and the Chief Executive Officer with the oversight of risks to which Tenaris is exposed and in the monitoring and review of the risk management framework and processes, with a focus on those risks deemed to be critical. In the performance of its functions, the critical risk committee facilitates the identification and assessment of critical risks (including cybersecurity, environmental, health and safety, product liability, intellectual property, financial reporting and regulatory risks), the development of mitigating actions, and the monitoring of action plans. The critical risk committee periodically reports to the board of directors, the audit committee and the Chief Executive Officer on its activities.

More recently, the CRC has focused its attention on the main actions and mitigation plans to tackle the consequences of the global coronavirus pandemic and ensure business continuity. It is also focusing on the financial impact on the company of a collapse in demand for its products, including the cancellation of existing orders, following the collapse in oil prices in the wake of the coronavirus pandemic.

D. Employees

The following table shows the number of persons employed by Tenaris as of December 31:

	2019	2018	2017
Argentina	5,405	5,427	5,221
Mexico	5,370	5,595	5,139
USA	2,255	2,382	1,953
Italy	2,144	2,155	2,088
Romania	1,815	1,852	1,870
Brazil	1,360	1,287	1,382
Colombia	1,040	1,082	1,003
Canada	772	1,030	919
Indonesia	616	554	506
Japan	400	399	410
Other Countries	2,023	1,204	1,114
	23,200	22,967	21,605

The number of our employees remained substantially stable in 2019 in comparison with 2018. Our labor costs worldwide related to continuing operations increased 2%.

Approximately 60% of our employees are unionized. In all the countries we have presence, we operate in full respect of the institutional rules and local norms, generating recognized agreements among all the parties involved. We forge our relations with the unions based on the premise of an open dialogue and a rich interchange of proposals.

In 2017, 2018 and 2019, our operations in Mexico experienced several days of union-led stoppages due to an internal dispute within the local union, but the activities in our plant remain normal. Such internal dispute is ongoing and we cannot assure it will not cause further disruptions in our Mexican operations.

With the acquisition of IPSCO Tubulars in 2020, for the first time Tenaris will be managing a unionized environment in the United States in some of the new added facilities.

E. Share Ownership

To our knowledge, the total number of shares (in the form of ordinary shares or ADSs) beneficially owned by our directors and senior management as of the date of this annual report was 921,603, which represents 0.08% of our outstanding shares.

The following table provides information regarding share ownership by our directors and senior management:

<u>Director or Officer</u>	<u>Number of Shares Held</u>
Guillermo Vogel	850,446
Carlos Condorelli	67,211
Gabriel Podskubka	3,946
Total	921,603

Item 7. Major Shareholders and Related Party Transactions

A. Major Shareholders

The following table shows the beneficial ownership of our securities (in the form of shares or ADSs) by (1) the Company's major shareholders (persons or entities that have notified the Company of holdings in excess of 5% of the Company's share capital), non-affiliated public shareholders, and (2) the Company's directors and senior management as a group. The information below is based on the most recent information provided to the Company.

<u>Identity of Person or Group</u>	<u>Number</u>	<u>Percent</u>
San Faustin ⁽¹⁾	713,605,187	60.45%
Directors and senior management as a group	921,603	0.08%
Public	466,010,040	39.47%
Total	1,180,536,830	100.00%

⁽¹⁾ San Faustin owns all of its shares in the Company through its wholly-owned subsidiary Techint Holdings S.à r.l. The private foundation located in the Netherlands RP STAK holds voting rights in San Faustin sufficient in number to control San Faustin. No person or group of persons controls RP STAK.

The voting rights of the Company's major shareholders do not differ from the voting rights of other shareholders. None of its outstanding shares have any special control rights. There are no restrictions on voting rights, nor are there, to the Company's knowledge, any agreements among shareholders of the Company that might result in restrictions on the transfer of securities or the exercise of voting rights.

The Company does not know of any significant agreements or other arrangements to which the Company is a party and which take effect, alter or terminate in the event of a change of control of the Company. The Company does not know of any arrangements, the operation of which may at a later date result in a change of control of the Company.

B. Related Party Transactions

Tenaris is a party to several related party transactions as described in Note 30 "Related party transactions" to our Consolidated Financial Statements included in this annual report. Material related party transactions are subject to the review of the audit committee of the Company's board of directors and the requirements of Luxembourg law. For further details on the approval process for related party transactions, see Item 6.C. "Directors, Senior Management and Employees – Board Practices – Audit Committee".

Purchases of Steel Products and Raw Materials

In the ordinary course of business, we purchase round steel bars, flat steel products and other raw materials from Ternium or its subsidiaries. These purchases are made on similar terms and conditions as sales made by these companies to unrelated third parties. These transactions include:

- Purchases of round steel bars made under a long-term agreement, for use in our seamless steel pipe operations in Mexico, which amounted to \$51 million in 2019, \$102 million in 2018 and \$120 million in 2017.

- Purchases of flat steel products for use in the production of welded pipes and accessories, which amounted to \$20 million in 2019, \$38 million in 2018 and \$43 million in 2017.
- Purchases of scrap and other raw materials for use in the production of seamless pipes, which amounted to \$4 million in 2019 and \$2 million in 2018.

In the ordinary course of business, we purchase flat steel products for use in our welded steel pipe operations, from Usiminas. These purchases, which are made on similar terms and conditions as sales made by this company to unrelated third parties, amounted to \$59 million in 2019, \$68 million in 2018 and \$43 million in 2017.

Sales of Raw Materials

In the ordinary course of business, we sell raw materials and other production inputs to Ternium or its subsidiaries. These sales are made on similar terms and conditions as purchases made by these companies from unrelated third parties. These transactions include:

- Sales of ferrous scrap, and other raw materials, which amounted to \$17 million in 2019, \$11 million in 2018 and \$26 million in 2017.
- Sales of steam and operational services from our Argentine electric power generating facility in San Nicolás. These sales amounted to \$1 million in 2019, \$13 million in 2018 and \$11 million in 2017. On January 29, 2019, the electric power generation facility was shut down.

Purchase Agency Services and Sales of Materials

Exiros B.V. (“Exiros”), in which we have 50% share ownership and Ternium has the remaining 50% share ownership, provides purchase agency services and raw materials and other products to Tecpetrol and other companies controlled by San Faustin. Pursuant to the Exiros shareholders’ agreement, Tenaris recognizes Exiros’ assets, liabilities, revenue and expenses in relation to its interest in the joint operation. Exiros’ total sales to companies controlled by San Faustin totaled \$16 million in 2019 and \$16 million in 2018.

Supply of Electric Energy

Techgen, which is currently owned 48% by Ternium, 30% by Tecpetrol and 22% by Tenaris, operates an electric power plant in Pesquería, Mexico. Techgen became fully operational on December 1, 2016. Ternium and Tenaris currently contract 78% and 22%, respectively, of Techgen’s power capacity. Techgen sells to third parties on behalf of Tenaris the unused electricity that Tenaris purchased from Techgen.

Techgen net sales of electricity to Tenaris amounted to \$40 million in 2019, \$36 million in 2018 and \$29 million in 2017.

Supply of Natural Gas

We are party to contracts with Tecpetrol, TGN, Litoral Gas and Energy Consulting Services relating to the supply of natural gas to our operations in Argentina. Tecpetrol is a company controlled by San Faustin, engaged in oil and gas exploration and production and has rights to various oil and gas fields in Argentina and elsewhere in Latin America. TGN, a company in which San Faustin has joint control since October 2019, operates two major pipelines in Argentina connecting the major gas basins of Neuquén and Noroeste-Bolivia to the major consumption centers in Argentina. Litoral Gas is a company that holds the regional license for gas and distribution in the Province of Santa Fe and in the northeastern section of the Province of Buenos Aires. Energy Consulting Services is a company engaged in energy and management consulting, representing one of the major natural gas traders in Argentina. San Faustin holds significant but non-controlling interests in Litoral Gas and Energy Consulting Services and also held significant but non-controlling interests in TGN until October 2019.

Tecpetrol supplies Siderca with natural gas requirements under market conditions and according to local regulations. Tecpetrol’s sales to Tenaris amounted to \$49 million in 2019, \$95 million in 2018 and \$7 million in 2017.

TGN charges Siderca a price to transport its natural gas supplies that is equivalent on a comparable basis to prices paid by other industrial users. The Argentine government regulates the general framework under which TGN operates and prices its services. TGN’s sales to Tenaris amounted to \$4 million in 2019, \$8 million in 2018 and \$3 million in 2017.

Litoral Gas’s sales to Tenaris totaled \$1 million in 2019, \$3 million in 2018 and \$5 million in 2017.

Energy Consulting Services’s sales to Tenaris totaled \$2 million in 2018 and \$7 million in 2017.

Provision of Engineering and Labor Services

Tenaris contracts with certain companies controlled by San Faustin specialized in supplying engineering services and non-specialist manual labor services, such as industrial cleaning, general maintenance, handling of by-products and construction services. Fees accrued for these services in the aggregate amounted to \$47 million in 2019, \$33 million in 2018 and \$40 million in 2017.

Sales of Steel Pipes and Sucker Rods

In the ordinary course of business, we sell steel pipes, sucker rods and related services to other companies controlled or under the significant influence of San Faustin. These sales, which are made principally to companies involved in the construction of gas pipelines and to Tecpetrol and joint ventures in which Tecpetrol participates, for its oil and gas drilling operations, are made on similar terms and conditions as sales to unrelated third parties. Our sales of steel pipes and sucker rods as well as logistical and certain other services to other companies controlled or under significant influence of San Faustin amounted to \$66 million in 2019, \$129 million in 2018 and \$95 million in 2017.

Sales of Other Products and Services

We provide information technology services to companies controlled by San Faustin. Sales of these services amounted to \$2 million per year in 2019, 2018 and 2017.

Administrative Services, Legal and Other Support Services

Finma S.A. ("Finma"), Arhsa S.A. ("Arhsa") and Techinst S.A. ("Techinst") a group of companies controlled by San Faustin in which the Company has a 33% share ownership and other affiliates of San Faustin have the remaining share ownership, provide administrative, and legal support services to San Faustin's affiliates in Argentina, including Tenaris. During 2018, Arhsa merged with Finma, with Finma continuing to render the services previously provided by Arhsa. Fees accrued for these services amounted to \$9 million in 2019, \$10 million in 2018 and \$12 million in 2017.

Loans to Related Parties

Tenaris financed the construction and operation of Techgen's Pesquería project primarily in the form of subordinated loans to Techgen. Outstanding principal amount of loans to Techgen as of December 31, 2019 amounted to \$58 million, as of December 31, 2018 amounted to \$99 million, and as of December 31, 2017 amounted to \$93 million. These loans generated interest gains in favor of Tenaris in an amount of \$4 million in 2019, \$5 million in 2018 and \$4 million in 2017.

Other Transactions

We entered into various contracts with Tenova (and subsidiaries), a company controlled by San Faustin, for the provision of furnaces, spare parts, accessories and related services for our facilities. Supplies received amounted to \$2 million in 2019, \$9 million in 2018 and \$3 million in 2017.

In addition, in the ordinary course of business, from time to time, we carry out other transactions and enter into other arrangements with other related parties, none of which are considered to be material.

C. Interest of Experts and Counsel

Not applicable.

Item 8. Financial Information

A. Consolidated Statements and Other Financial Information

See Item 18 and pages F-1 through F-64 for our audited consolidated financial statements.

Legal Proceedings

Tenaris is from time to time subject to various claims, lawsuits and other legal proceedings, including customer, employee, tax and environmental-related claims, in which third parties are seeking payment for alleged damages, reimbursement for losses, or indemnity. Management with the assistance of legal counsel periodically reviews the status of each significant matter and assesses potential financial exposure.

Some of these claims, lawsuits and other legal proceedings involve highly complex issues, and often these issues are subject to substantial uncertainties and, therefore, the probability of loss and an estimation of damages are difficult to ascertain. Accordingly, with respect to a large portion of such claims, lawsuits and other legal proceedings, Tenaris is unable to make a reliable estimate of the expected financial effect that will result from ultimate resolution of the proceeding. In those cases, Tenaris has not accrued a provision for the potential outcome of these cases.

If a potential loss from a claim, lawsuit or other proceeding is considered probable and the amount can be reasonably estimated, a provision is recorded. Accruals for loss contingencies reflect a reasonable estimate of the losses to be incurred based on information available to management as of the date of preparation of the consolidated financial statements and take into consideration litigation and settlement strategies. In a limited number of ongoing cases, Tenaris was able to make a reliable estimate of the expected loss or range of probable loss and has accrued a provision for such loss but believes that publication of this information on a case-by-case basis would seriously prejudice Tenaris's position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, the Company has disclosed information with respect to the nature of the contingency but has not disclosed its estimate of the range of potential loss.

The Company believes that the aggregate provisions recorded for potential losses in its consolidated financial statements (see notes 22 "Non-current allowances and provisions" and 23 "Current allowances and provisions" to our audited consolidated financial statements included in this annual report) are adequate based upon currently available information. However, if management's estimates prove incorrect, current reserves could be inadequate and Tenaris could incur a charge to earnings which could have a material adverse effect on Tenaris's results of operations, financial condition, net worth and cash flows.

Material Legal Proceedings

Below is a summary description of Tenaris's material legal proceedings for the year ended December 31, 2019. In addition, Tenaris is subject to other legal proceedings, none of which is believed to be material.

CSN claims relating to the January 2012 acquisition of Usiminas' shares

Confab Industrial S.A. ("Confab"), a Brazilian subsidiary of the Company, is one of the defendants in a lawsuit filed in Brazil by Companhia Siderúrgica Nacional ("CSN") and various entities affiliated with CSN against Confab and several Ternium subsidiaries that acquired a participation in Usiminas' control group in January 2012.

The CSN lawsuit alleges that, under applicable Brazilian laws and rules, the acquirers were required to launch a tag-along tender offer to all non-controlling holders of Usiminas' ordinary shares for a price per share equal to 80% of the price per share paid in such acquisition, or BRL28.8, and seeks an order to compel the acquirers to launch an offer at that price plus interest. If so ordered, the offer would need to be made to 182,609,851 ordinary shares of Usiminas not belonging to Usiminas' control group, and Confab would have a 17.9% share in that offer.

On September 23, 2013, the first instance court dismissed the CSN lawsuit, and on February 8, 2017, the court of appeals maintained the understanding of the first instance court. On March 6, 2017, CSN filed a motion for clarification against the decision of the Court of Appeals of São Paulo, which was rejected on July 19, 2017. On August 18, 2017, CSN filed an appeal to the Superior Court of Justice seeking the review and reversal of the decision issued by the Court of Appeals. On March 5, 2018, the court of appeals ruled that CSN's appeal did not meet the requirements for submission to the Superior Court of Justice and rejected the appeal. On May 8, 2018, CSN appealed against such ruling and on January 22, 2019, the court of appeals rejected it and ordered that the case be submitted to the Superior Court of Justice. On September 10, 2019, the Superior Court of Justice declared CSN's appeal admissible. The Superior Court of Justice will review the case and then render a decision on the merits. The Superior Court of Justice is restricted to the analysis of alleged violations to federal laws and cannot assess matters of fact.

Tenaris continues to believe that all of CSN's claims and allegations are groundless and without merit, as confirmed by several opinions of Brazilian legal counsel, two decisions issued by the Brazilian securities regulator (CVM) in February 2012 and December 2016, and the first and second instance court decisions referred to above.

Veracel Celulose Accident Litigation

On September 21, 2007, an accident occurred in the premises of Veracel Celulose S.A. ("Veracel") in connection with a rupture in one of the tanks used in an evaporation system manufactured by Confab. The Veracel accident allegedly resulted in material damages to Veracel. Itaú Seguros S.A. ("Itaú"), Veracel's insurer at the time of the Veracel accident and then replaced by Chubb Seguros Brasil S/A ("Chubb"), initiated a lawsuit against Confab seeking reimbursement of damages paid to Veracel in connection with the Veracel accident. Veracel initiated a second lawsuit against Confab seeking reimbursement of the amount paid as insurance deductible with respect to the Veracel accident and other amounts not covered by insurance. Itaú and Veracel claimed that the Veracel accident was caused by failures and defects attributable to the evaporation system manufactured by Confab. Confab believes that the Veracel accident was caused by the improper handling by Veracel's personnel of the equipment supplied by Confab in violation of Confab's instructions. The two lawsuits were consolidated and are considered by the 6th Civil Court of São Caetano do Sul; however, each lawsuit will be adjudicated separately.

On September 28, 2018 Confab and Chubb, entered into a settlement agreement pursuant to which on October 9, 2018, Confab paid an amount of approximately \$3.5 million to Chubb, without assuming any liability for the accident or the claim.

On October 10, 2018, Confab was notified that the court had issued rulings for both lawsuits. Both decisions were unfavorable to Confab:

- § With respect to Chubb's claim, Confab was ordered to pay an amount of approximately BRL89.8 million (approximately \$21.6 million) (including interest, fees and expenses). On October 15, 2018, Confab filed a request for homologation of the settlement agreement mentioned above, as such settlement agreement remains valid and binding between the parties. On November 8, 2018, the settlement agreement was homologated by the court.
- § With respect to Veracel's claim, Confab was ordered to pay the insurance deductible and other concepts not covered by insurance, currently estimated to amount to BRL62.9 million (approximately \$15.6 million) (including interest, fees and expenses). Both parties filed motions for clarification against the court's decision, which were partially granted. Although the contract between Confab and Veracel expressly provided that Confab would not be liable for damages arising from lost profits, the court award would appear to include BRL54.0 million (approximately \$13.4 million) of damages arising therefrom; Confab has additional defense arguments in respect of a claim for lost profits. On December 18, 2018, Confab filed an appeal against the first instance court decision, and on April 30, 2019, Veracel filed its response to the appeal. At this stage the Company cannot predict the outcome of the claim or the amount or range of loss in case of an unfavorable outcome.

Ongoing investigation

The Company is aware that Brazilian, Italian and Swiss authorities have been investigating whether certain payments were made from accounts of entities presumably associated with affiliates of the Company to accounts allegedly linked to individuals related to Petrobras and whether any such payments were intended to benefit the Company's Brazilian subsidiary Confab. Any such payments could violate certain applicable laws, including the U.S. Foreign Corrupt Practices Act.

The Company had previously reviewed certain of these matters in connection with an investigation by the Brazilian authorities related to "Operation Lava Jato", a new phase of which is presently ongoing, and did not uncover any information that corroborated allegations of involvement in these alleged payments by the Company or its subsidiaries. Furthermore, the Company became aware that a Petrobras internal investigation commission reviewed certain contracts with Confab and concluded that they had not found evidence that Petrobras had benefitted Confab or had misused applicable local content rules.

The Company's audit committee engaged external counsel in connection with the Company's review of these matters. In addition, the Company voluntarily notified the U.S. Securities and Exchange Commission and the U.S. Department of Justice in October 2016.

In July 2019, the Company learned that the public prosecutor office of Milan, Italy, had completed a preliminary investigation into the alleged payments and had included in the investigation, among other persons, the Company's Chairman and Chief Executive Officer, two other board members, Gianfelice Mario Rocca and Roberto Bonatti, and the Company's controlling shareholder, San Faustin. In February 2020, the Company learned that the magistrate overseeing the investigation decided to move the case to trial. The Company's outside counsel had previously reviewed the Italian prosecutors' investigative file and has informed the board of directors that neither that file nor this magistrate's decision sets forth evidence of involvement by any of the three directors in the alleged wrongdoing. Accordingly, the board of directors has concluded that no particular action is warranted at the present time, other than inviting the referred board members to continue discharging their respective responsibilities with the full support of the board of directors.

The Company continues to review these matters and to respond to requests from and otherwise cooperate with the appropriate authorities. At this time, the Company cannot predict the outcome of these matters or estimate the range of potential loss or extent of risk, if any, to the Company's business that may result from resolution of these matters.

Putative class actions

Following the Company's November 27, 2018 announcement that its Chairman and chief executive officer Paolo Rocca had been included in an Argentine court investigation known as the Notebooks Case (a decision subsequently reversed by a higher court), two putative class action complaints were filed in the U.S. District Court for the Eastern District of New York. On April 29, 2019, the court consolidated the complaints into a single case, captioned "In re Tenaris S.A. Securities Litigation", and appointed lead plaintiffs and lead counsel. On July 19, 2019, the lead plaintiffs filed an amended complaint purportedly on behalf of purchasers of Tenaris securities during the putative class period of May 1, 2014 through December 5, 2018. The individual defendants named in the complaint are Tenaris's Chairman and chief executive officer and Tenaris's former chief financial officer. The complaint alleges that during the class period, the Company and the individual defendants inflated the Tenaris share price by failing to disclose that sale proceeds received by Ternium (in which Tenaris held an 11.46% stake) when Sidor was expropriated by Venezuela were received or expedited as a result of allegedly improper payments made to Argentine officials. The complaint does not specify the damages that plaintiff is seeking. Defendants' motions to dismiss are expected to be decided during 2020. Management believes the Company has meritorious defenses to these claims; however, at this stage the Company cannot predict the outcome of the claim or the amount or range of loss in case of an unfavorable outcome.

Investigation concerning alleged price overcharges in Brazil

In 2018, two Brazilian subsidiaries of the Company were notified of formal charges arising from a review by the Tribunal de Contas da Uniao ("TCU") for alleged price overcharges on goods supplied to Petrobras under a supply contract. Both companies have already filed their defenses. The estimated amount of this claim is BRL29.8 million (approximately \$7.4 million). Tenaris believes, based on the advice of counsel and external consultants, that the prices charged under the Petrobras contract do not result in overprices and that it is unlikely that the ultimate resolution of this matter will result in a material obligation.

Administrative proceeding concerning Brazilian tax credits

Confab is a party to an administrative proceeding concerning the recognition and transfer of tax credits for an amount allegedly exceeding the amount that Confab would have been entitled to recognize and/or transfer. The proceeding resulted in the imposition of a fine against Confab representing approximately 75% of the allegedly undue credits, which was appealed by Confab. On January 21, 2019, Confab was notified of an administrative decision denying Confab's appeal, thereby upholding the tax determination and the fine against Confab. On January 28, 2019, Confab challenged such administrative decision and is currently awaiting a resolution. In case of an unfavorable resolution, Confab may still appeal before the courts. The estimated amount of this claim is BRL56.8 million (approximately \$14.1 million). At this stage, the Company cannot predict the outcome of this claim.

U.S. patent infringement litigation

Tenaris Coiled Tubes, LLC ("TCT"), a U.S. subsidiary of the Company, was sued on 2017 by its competitor Global Tubing, alleging violations to certain intellectual property regulations and seeking a declaration that certain Global Tubing products do not infringe patents held by TCT. TCT filed a counterclaim seeking declaration that certain Global Tubing products infringe patents held by TCT, and Global Tubing responded alleging that such patents should be invalidated. On December 13, 2019, Global Tubing filed an amended complaint (including the Company as defendant) and alleging that TCT and the Company misled the patent office in order to monopolize the coiled tubing market for quench and tempered products. Trial is set for August of 2021. At this time, the Company cannot predict the outcome of this matter or estimate the range of potential losses that may result from resolution of this claim.

Tax assessment from Italian tax authorities

Tenaris's Italian subsidiary Dalmine received on December 27, 2019, a tax assessment from the Italian tax authorities related to fiscal year 2014. As of December 31, 2019, the claim amounted to approximately EUR25 million (approximately \$28 million), comprising EUR20.7 million (approximately \$23.2 million) in principal and EUR4.3 million (approximately \$4.8 million) in interest and penalties. In the report for a tax audit conducted in 2019, the Italian tax inspectors indicated that they also intend to bring claims for fiscal year 2015 with respect to the same matters; as of December 31, 2019, these additional claims would amount to approximately EUR10.3 million (approximately \$11.6 million), comprising EUR8.1 million (approximately \$9.1 million) in principal and EUR2.2 million (approximately \$2.5 million) in interest and penalties. The claims mainly refer to the compensation for certain intercompany transactions involving Dalmine in connection with sales of products and R&D activities. Based on the counsel's advice, Tenaris believes that it is unlikely that the ultimate resolution of these matters will result in a material obligation.

IPSCO product liability claims

Tenaris's recently acquired U.S. subsidiary, IPSCO Tubulars Inc, or its subsidiaries are parties to several product liability claims, which may result in damages for an aggregate amount estimated at approximately \$26.6 million. This includes a lawsuit alleging product liability and negligent misrepresentation in which the plaintiff alleges that defects in certain casing provided by IPSCO resulted in three well failures causing damages for an amount of approximately \$15 million. Although at this time the Company cannot predict the outcome of any of these matters, the Company believes that provisions have been recorded in an amount sufficient to cover potential exposure under these claims.

Dividend Policy

The Company does not have, and has no current plans to establish, a formal dividend policy governing the amount and payment of dividends or other distributions. For a description of the shareholders' and holders of ADS' rights to receive dividends and the conditions to declare and pay dividends, please refer to Item 10. "Additional Information – B. Memorandum and Articles of Association – Dividends".

The following table shows the dividends approved by the Company's shareholders in the last five years:

Shareholders' meeting date	Approved dividend			Dividend payment date	
	Amount (USD million)	Per share (USD)	Per ADS (USD)	Interim Dividend	Dividend Balance
May 6, 2015	531	0.45	0.90	November 2014	May 2015
May 4, 2016	531	0.45	0.90	November 2015	May 2016
May 3, 2017	484	0.41	0.82	November 2016	May 2017
May 2, 2018	484	0.41	0.82	November 2017	May 2018
May 6, 2019	484	0.41	0.82	November 2018	May 2019

On April 29, 2020 the board of directors announced the proposals to be submitted to the consideration of the Annual General Shareholders' meeting, including its proposal on dividends. For more information, see "Item 5G. Operating and Financial Review and Prospects –Recent Developments – Annual Dividend Proposal".

B. Significant Changes

Except as otherwise disclosed in this annual report, there has been no undisclosed significant change since the date of the annual consolidated financial statements.

Item 9. The Offer and Listing

A. Offer and Listing Details

The shares are listed on the Mexican Stock Exchange and its ADSs are listed on the NYSE under the symbol "TS". Until October 11, 2019, the Company's shares were also listed on the Buenos Aires Stock Exchange. The shares are also listed on the Italian Stock Exchange under the symbol "TEN" Trading on the NYSE and the Mexican Stock Exchange began on December 16, 2002, and trading on the Italian Stock Exchange began on December 17, 2002.

As of March 31, 2020, a total of 1,180,536,830 shares were registered in the Company's shareholder register. As of March 31, 2020, a total of 156,288,900 shares were registered in the name of the depositary for the Company's ADR program.

B. Plan of Distribution

Not applicable.

C. Markets

See A. "– The Offer and Listing – Offer and Listing Details".

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

Item 10. Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

General

The following is a summary of certain rights of holders of the Company's shares. These rights are set out in the Company's articles of association or are provided by applicable Luxembourg law, and may differ from those typically provided to shareholders of U.S. companies under the corporation laws of some states of the United States. This summary is not exhaustive and does not contain all information that may be important to you. For more complete information, you should read the Company's articles of association, which are attached as an exhibit to this annual report.

The Company is a public limited liability company (*société anonyme*) organized under the laws of Luxembourg. Its object and purpose, as set forth in Article 2 of its articles of association, is the taking of interests, in any form, in corporations or other business entities, and the administration, management, control and development thereof. The Company is registered under the number B85 203 in the Luxembourg *Registre de Commerce et des Sociétés* .

The Company's authorized share capital is fixed by the Company's articles of association as amended from time to time with the approval of shareholders at an extraordinary general shareholders' meeting. The Company has an authorized share capital of a single class of 2,500,000,000 shares having a nominal value of USD1.00 per share. There were 1,180,536,830 shares issued as of the date of this annual report. All issued shares are fully paid.

The Company's articles of association authorize the board of directors, or any delegate(s) duly appointed by the board of directors, to issue shares within the limits of the authorized share capital against contributions in cash, contributions in kind or by way of available reserves, at such time and on such terms and conditions, including the issue price, as the board of directors, or its delegate(s), may in its or their discretion resolve.

The Company's shareholders have authorized the board of directors to waive, suppress or limit any pre-emptive subscription rights of shareholders provided for by law to the extent it deems such waiver, suppression or limitation advisable for any issue or issues of shares within the authorized share capital; and have waived any pre-emptive subscription rights provided for by law and related procedures. Although the validity period of such authorization will expire on June 5, 2020, the board of directors has convened an extraordinary meeting of shareholders to be held on June 2, 2020, which will consider the renewal of such authorization for an additional five-year period. However, under the Company's articles of association, the Company's existing shareholders shall have a preferential right to subscribe for any new shares issued pursuant to the authorization granted to its board of directors, except in the following cases (in which cases no pre-emptive subscription rights shall apply):

- any issuance of shares (including, without limitation, the direct issuance of shares or upon the exercise of options, rights convertible into shares, or similar instruments convertible or exchangeable into shares) against a contribution other than in cash; and
- any issuance of shares (including by way of free shares or at discount), up to an amount equal to 1.5% of the issued share capital of the Company, to directors, officers, agents or employees of the Company, its direct or indirect subsidiaries, or its affiliates, including, without limitation, the direct issuance of shares or upon the exercise of options, rights convertible into shares, or similar instruments convertible or exchangeable into shares, issued for the purpose of compensation or incentive for any such persons or in relation thereto (which the board of directors shall be authorized to issue upon such terms and conditions as it deems fit).

Amendment of the Company's articles of association requires the approval of shareholders at an extraordinary shareholders' meeting with a two-thirds majority vote of the shares represented at the meeting.

Dividends

Subject to applicable law, all shares (including shares underlying ADSs) are entitled to participate equally in dividends when, as and if declared by the shareholders at the annual general shareholders' meeting, out of funds legally available for such purposes.

Dividends may be lawfully declared and paid if the Company's net profits and distributable reserves are sufficient under Luxembourg law. The amount and payment of dividends must be approved by a majority vote at a general shareholders' meeting, generally, but not necessarily, based on the recommendation of the Company's board of directors. Under Article 21 of the Company's articles of association, the board of directors has the power to distribute interim dividends out of profits, share premium or any other available reserves, in accordance with applicable law, in particular in accordance with the conditions set forth in Article 461-3 of the Luxembourg Company Law. Such dividend payments must be finally approved by the general shareholders' meeting. On April 29, 2020 the board of directors announced the proposals to be submitted to the consideration of the Annual General Shareholders' meeting, including its proposal on dividends. For more information, see "Item 5G. Operating and Financial Review and Prospects –Recent Developments – Annual Dividend Proposal".

As provided by Article 21 of the Company's articles of association, dividends or other distributions declared by the general meeting as well as interim dividends or other distributions declared by the board of directors will be distributed at the times and places determined by the board of directors. The Company will make any and all dividend payments and any other distributions in respect of shares registered in the name of any securities settlement system or operator of such a system or in the name of any financial institution or other professional depository of securities or any other depository, whether in cash, shares or other assets, only to such registered holder, or otherwise in accordance with such registered holder's instructions, and, as provided by Article 21 of the Company's articles of association, that payment shall release the Company from any and all obligations for such payment.

The Company conducts and will continue to conduct its operations through subsidiaries and, accordingly, its main source of cash to pay dividends, among other possible sources, will be the dividends received from its subsidiaries. For further information see Item 3.D. "Key Information – Risk Factors – Risks Relating to the Structure of the Company – As a holding company, the Company's ability to pay cash dividends depends on the results of operations and financial condition of its subsidiaries and could be restricted by legal, contractual or other limitations".

Under Luxembourg law, claims for dividends will lapse in favor of the Company five years after the date such dividends are declared. However, the Company may elect to pay a declared dividend after such period. Declared and unpaid dividends held by the Company for the account of its shareholders do not bear interest.

Pursuant to Luxembourg law, at least 5% of our net profits per year must be allocated to the creation of a legal reserve until such reserve has reached an amount equal to 10% of our issued share capital. If the legal reserve later falls below the 10% threshold, at least 5% (or such lower amount required to reach the 10% threshold) of net profits again must be allocated toward the reserve. As of December 31, 2019, the Company's legal reserve represented 10% of its share capital. The legal reserve is not available for distribution.

Voting Rights; Shareholders' Meetings; Election of Directors

Each share entitles the holder thereof to one vote at the Company's general shareholders' meetings. Shareholder action by written consent is not permitted, but proxy voting is permitted. Notices of general shareholders' meetings are governed by the provisions of Luxembourg law and the Company's articles of association. Pursuant to applicable Luxembourg law, the Company must give notice of the calling of any general shareholders' meeting at least 30 days prior to the date for which the meeting is being called, by publishing the relevant convening notice in the *Recueil Electronique des Sociétés et Associations* (Luxembourg's electronic official gazette) and in a leading newspaper having general circulation in Luxembourg and by issuing a press release informing of the calling of such meeting. In case the Company's shares are listed on a foreign regulated market, notices of general shareholders' meetings shall also comply with the requirements (including as to content and publicity) and follow the customary practices of such regulated market.

Pursuant to the Company's articles of association, for as long as the shares or other securities of the Company are listed on a regulated market within the European Union (as they currently are), and unless otherwise provided by applicable law, only shareholders holding shares as of midnight, central European time, on the day that is fourteen days prior to the day of any given general shareholders' meeting can attend and vote at such meeting. The board of directors may determine other conditions that must be satisfied by shareholders in order to participate in a general shareholders' meeting in person or by proxy, including with respect to deadlines for submitting supporting documentation to or for the Company.

No attendance quorum is required at ordinary general shareholders' meetings, and resolutions may be adopted by a simple majority of the votes validly cast, irrespective of the number of shares present or represented. Unless otherwise provided by applicable law, an extraordinary general shareholders' meeting may not validly deliberate on proposed amendments to the Company's articles of association unless a quorum of at least half of the share capital is represented at the meeting. If a quorum is not reached at the first extraordinary shareholders' meeting, a second extraordinary shareholders' meeting may be convened in accordance with the Company's articles of association and applicable law and such second extraordinary general shareholders' meeting shall validly deliberate regardless of the number of shares represented. In both cases, the Luxembourg Company Law and the Company's articles of association require that any resolution of an extraordinary general shareholders' meeting as to amendments to the Company's articles of association be adopted by a two-thirds majority of the votes validly cast at the meeting. If a proposed resolution consists of changing the Company's nationality or of increasing the shareholders' commitments, the unanimous consent of all shareholders is required.

Cumulative voting is not permitted. The Company's articles of association do not provide for staggered terms and directors are elected for a maximum of one year but may be reappointed or removed at any time, with or without cause, by the general shareholders' meeting, by resolution passed by a simple majority vote of the shares validly cast at the meeting. In the case of a vacancy occurring in the board of directors, the remaining directors shall have the right to temporarily fill such vacancy with a temporary director appointed by resolution adopted with the affirmative vote of a majority of the remaining directors; provided that the next general shareholder's meeting shall be called upon to ratify such appointment. The term of any such temporary director elected to fill a vacancy shall expire at the end of the term of office of the replaced director.

The next Company's annual general shareholders' meeting, that will consider, among other things our Consolidated Financial Statements and Annual Accounts included in this report, will take place in the Company's registered office in Luxembourg, on Tuesday, June 2, 2020, at 3:00 P.M. Central European time, Luxembourg time. A general extraordinary shareholders' meeting will be held on the same date, immediately after the adjournment of the annual general shareholders' meeting, to decide on the renewal for a five-year period of the authorization granted to its board of directors to issue shares within the limits of the authorized share capital without shareholder approval.

The articles of association provide that annual general shareholders' meetings shall meet in Luxembourg within six months from the end of the previous financial year at the date, place and hour indicated in the convening notice. The rights of the shareholders attending the meetings are governed by Shareholders' Rights Law.

Holders of shares deposited in fungible securities accounts have the same rights and obligations as holders of shares recorded in the Company's share register. However, in order to be able to participate in and vote at shareholders' meetings of the Company, the former must submit, prior to the relevant meeting, reasonably satisfactory evidence to the Company as to the number of shares held on the applicable record date for such meeting. For as long as the shares or the other securities of the Company are listed on a regulated market within the European Union, participation in a shareholders' general meeting shall inter alia be subject to the relevant shareholder holding shares of the Company on the fourteenth day midnight central European time prior to the meeting (unless otherwise provided for by applicable law).

Holders of ADSs only have those rights that are expressly granted to them in the deposit agreement. See Item 3.D. "Key Information – Risk Factors – Risks Relating to shares and ADSs – Holders of ADSs may not be able to exercise, or may encounter difficulties in the exercise of, certain rights afforded to shareholders". Holders of record of our ADRs as of the relevant ADR holders' record date set for any given general shareholders' meeting are entitled to instruct the Depositary as to the exercise of the voting rights in respect of the shares underlying such holder's ADRs at such meeting. Holders of ADRs maintaining non-certificated positions must follow voting instructions given by their broker or custodian bank.

The notice to the annual general shareholders meeting and to the general extraordinary shareholders meeting to be held on June 2, 2020, and the Shareholder Meeting Brochure and Proxy Statement for the meetings, describing the procedures for voting at the meetings applicable to holders of ADRs will be made available on the Company's website at www.tenaris.com/investors in accordance with applicable rules and regulations, and will be timely filed by the Company in a report of foreign issuer on Form 6-K.

Access to Corporate Records

Luxembourg law and the Company's articles of association do not generally provide for shareholder access to corporate records. Shareholders may inspect the annual accounts and auditors' reports at our registered office during the fifteen-day period prior to a general shareholders' meeting.

Appraisal Rights

In the event the Company's shareholders approve:

- the delisting of the shares from all stock exchanges where the shares are listed at that time,
- a merger in which the Company is not the surviving entity (unless the shares or other equity securities of such entity are listed on the New York or London stock exchanges),
- a sale, lease, exchange or other disposition of all or substantially all of the Company's assets,
- an amendment of our articles of association that has the effect of materially changing the Company's corporate purpose,
- the relocation of the Company's domicile outside of the Grand Duchy of Luxembourg, *or*
- amendments to the Company's articles of association that restrict the rights of the Company's shareholders.

Dissenting or absent shareholders have the right to have their shares repurchased by the Company at (i) the average market value of the shares over the 90 calendar days preceding the applicable shareholders' meeting or (ii) in the event that the shares are not traded on a regulated market, the amount that results from applying the proportion of the Company's equity that the shares being sold represent over the Company's net worth as of the date of the applicable shareholders' meeting.

Dissenting or absent shareholders must present their claim within one month following the date of the shareholders' meeting and supply the Company with evidence of their shareholding at the time of such meeting. The Company must (to the extent permitted by applicable laws and regulations and in compliance therewith) repurchase its shares within six months following the date of the shareholders' meeting.

If delisting from one or more, but not all, of the stock exchanges where the shares are listed is approved in the shareholders' meeting, only dissenting or absent shareholders with shares held through participants in the local clearing system for that market or markets can exercise this appraisal right if:

- they held the shares as of the date of the announcement by the Company of its intention to delist or as of the date of publication of the first convening notice for the general shareholders' meeting that approved the delisting; and
- they present their claim within one month following the date of the general shareholders' meeting and supply evidence of their shareholding as of the date of the Company's announcement or the publication of the first convening notice to the meeting.

In the event a shareholder exercises its appraisal rights, applicable Luxembourg law provisions shall apply.

Holders of ADSs may not be able to exercise, or may encounter difficulties in the exercise of, certain rights afforded to shareholders, including appraisal rights. See Item 3.D. "Key Information – Risk Factors – Risks Relating to shares and ADSs – Holders of ADSs may not be able to exercise, or may encounter difficulties in the exercise of, certain rights afforded to shareholders".

Distribution of Assets on Winding-Up

In the event of the Company's liquidation, dissolution or winding-up, the net assets remaining after allowing for the payment of all debts and expenses will be paid out to the holders of the shares in proportion to their respective holdings.

Transferability and Form

The Company's articles of association do not contain any redemption or sinking fund provisions, nor do they impose any restrictions on the transfer of shares. The shares are issuable in registered form only.

The ownership of registered shares is evidenced by the inscription of the name of the shareholder, the number of shares held by such shareholders and the amount paid on each share in the Company's share register. In addition, the Company's shares may be held through fungible securities accounts with financial institutions or other professional depositaries.

Shares held through fungible securities accounts may be transferred in accordance with customary procedures for the transfer of securities in book-entry form. Shares that are not held through fungible securities accounts may be transferred by a written statement of transfer signed by both the transferor and the transferee or their respective duly appointed attorney-in-fact and recorded in the Company's share register. The transfer of shares may also be made in accordance with the provisions of Article 1690 of the Luxembourg Civil Code. As evidence of the transfer of registered shares, the Company may also accept any correspondence or other documents evidencing the agreement between transferor and transferee as to the transfer of registered shares.

Repurchase of Company shares

The Company may repurchase its own shares in the cases and subject to the conditions set by the Luxembourg Company Law and, in the case of acquisitions of shares or ADSs made through a stock exchange in which shares or ADSs are traded, with any applicable laws and regulations of such market. Please see Item 16.E. "Purchase of Equity Securities by the Issuer and Affiliated Purchasers" for further information on the authorization granted on May 6, 2015, by the annual general meeting of shareholders to the Company or its subsidiaries to repurchase shares of the Company, including shares represented by ADSs.

Limitation on Securities Ownership

There are no limitations currently imposed by Luxembourg law or the articles of association on the rights of the Company's non-resident or foreign shareholders to hold or vote the Company's shares.

Change in Control

None of our outstanding securities has any special control rights. The Company's articles of association do not contain any provision that would have the effect of delaying, deferring or preventing a change in control of the Company and that would operate only with respect to a merger, acquisition or corporate restructuring involving the Company or any of its subsidiaries. In addition, the Company does not know of any significant agreements or other arrangements to which the Company is a party and which take effect, alter or terminate in the event of a change of control of the Company. There are no agreements between the Company and members of its board of directors or employees providing for compensation if they resign or are made redundant without reason, or if their employment ceases following a change in control of the Company.

There are no rights associated with the Company's shares other than those described above.

Ownership Disclosure

The Company's articles of association do not contain any provision requiring disclosure of share ownership. However, under the Luxembourg Transparency Law investors in the Company's securities should notify the Company and the Luxembourg securities commission on an ongoing basis whenever the proportion of voting rights held or controlled by any such investor reaches, exceeds or falls below any of the following thresholds: 5%, 10%, 15%, 20%, 25%, 33.33%, 50% and 66.66%. Failure to notify the Company and the Luxembourg securities commission of the reaching or crossing of any such thresholds may result in the suspension of the voting rights attaching to the shares exceeding the threshold which would have had to be notified.

C. Material Contracts

For a summary of any material contract entered into by us outside the ordinary course of business during the last two years, see Item 4.B. "Information on the Company – Business Overview".

D. Exchange Controls

Many of the countries which are important markets for us or in which we have substantial assets have histories of substantial government intervention in currency markets, volatile exchange rates and government-imposed currency controls. These include mainly Argentina, Brazil, Indonesia, Mexico, Nigeria and Romania.

Specifically and regarding Argentina, the Argentine peso was subject to a devaluation of approximately 59% during 2019. In addition, starting September 1, 2019, the government imposed certain restrictions on foreign exchange transactions, including the obligation to sell into the Argentine foreign exchange market any proceeds derived from exports of goods within a period of 60 days from export to related parties, and within 180 days from export to third parties. As for service-related exports, foreign currency proceeds must be converted into Argentine pesos within 5 days of collection. Other restrictions related to foreign exchange transactions include the obligation to obtain previous authorization from the Argentine Central Bank to access the foreign exchange market to make payments of imports of services from related parties (including royalties). Central Bank's authorizations are granted on a very restricted basis. There are currently no restrictions to make payments for goods imports.

As for capital flows, there are no restrictions for payments of debt-service to foreign creditors as long as funds disbursed had been previously transferred to Argentina through the foreign exchange market and converted into Argentine pesos. As from January 17, 2020, investors making new capital contributions to local companies do not require Central Bank approval to access the foreign exchange market to pay dividends for an amount not exceeding 30% of the investment. Access to the foreign exchange market to make any other dividend payment requires prior authorization from the Central Bank. Central Bank's authorizations are granted on a very restricted basis.

Purchase and/or transfer of foreign currency for investment and saving purposes is limited to minimal monthly sums. In addition, such purchases as well as credit card payments abroad are subject to a 30% surcharge.

As of December 31, 2019 approximately 8% of Tenaris's consolidated net assets were located in Argentina.

For additional information regarding factors affecting the Argentine economy, see Item 3.D. "Key Information – Risk Factors – Risks Relating to our Business – Adverse economic or political conditions in the countries where we operate or sell our products and services may decrease our sales or disrupt our manufacturing operations, thereby adversely affecting our revenues, profitability and financial condition".

E. Taxation

The following discussion of the material Luxembourg and U.S. federal income tax consequences of an investment in our shares and ADSs is based upon laws and relevant interpretations thereof in effect as of the date of this annual report, all of which are subject to change. This discussion does not address all possible tax consequences relating to an investment in our shares or ADSs, including the tax consequences under U.S. state and local tax laws.

Grand Duchy of Luxembourg

This section describes the material Luxembourg tax consequences of owning or disposing of shares or ADSs.

It is not intended to be, nor should it be construed to be, legal or tax advice. You should, therefore, consult your own tax advisor regarding local or foreign tax consequences, including Luxembourg tax consequences of owning and disposing of shares or ADSs in your particular circumstances.

As used herein, a "Luxembourg individual" means an individual resident in Luxembourg who is subject to personal income tax (impôt sur le revenu) on his or her worldwide income from Luxembourg or foreign sources, and a "Luxembourg corporate holder" means a company (that is, a fully taxable collectivité within the meaning of Article 159 of the Luxembourg Income Tax Law) resident in Luxembourg subject to Luxembourg corporate income tax (impôt sur le revenu des collectivités) and Luxembourg municipal business tax (impôt commercial communal) on its worldwide income from Luxembourg or foreign sources. For the purposes of this summary, Luxembourg individuals and Luxembourg corporate holders are collectively referred to as "Luxembourg Holders". A "non-Luxembourg Holder" means any investor in shares or ADSs of the Company other than a Luxembourg Holder.

Corporate Reorganization

The Company was established as a Luxembourg *société anonyme* holding under Luxembourg's 1929 holding company regime. Until termination of such regime on December 31, 2010, holding companies incorporated under the 1929 regime (including the Company) were exempt from Luxembourg corporate income tax, Luxembourg municipal business tax, Luxembourg net wealth tax and Luxembourg withholding tax over dividends distributed to shareholders.

On January 1, 2011, the Company became an ordinary public limited liability company (*société anonyme*) and, effective as from that date, the Company is subject to all applicable Luxembourg taxes, (including, among others, Luxembourg corporate income tax on its worldwide income).

In light of the impending termination of Luxembourg's 1929 holding company regime, in the fourth quarter of 2010, the Company carried out a multi-step corporate reorganization, which included, among other transactions, the contribution of most of the Company's assets and liabilities to a wholly-owned, newly-incorporated Luxembourg subsidiary and the restructuring of indirect holdings in certain subsidiaries. The first phase of the corporate reorganization was completed in December 2010, and resulted in a non-taxable revaluation of the accounting value (under Luxembourg GAAP) of the Company's assets. The second phase of the reorganization was completed in 2011.

Following the completion of the first phase of the corporate reorganization, and upon its conversion into an ordinary Luxembourg holding company, the Company recorded a special reserve in its tax balance sheet. Dividend distributions for the foreseeable future will be charged to the special reserve and therefore should not be subject to Luxembourg withholding tax.

Tax regime applicable to realized capital gains

Luxembourg Holders

Luxembourg resident individual holders

Capital gains realized by Luxembourg resident individuals who do not hold their shares or ADSs as part of a trade or business (i.e. capital gains on private assets) and who hold (together, directly or indirectly, with his or her spouse or civil partner and underage children) no more than 10% of the share capital of the Company, at any time during the five-year period preceding the disposition will only be taxable (at a progressive rate) if they are realized on a sale of shares or ADSs that takes place before their acquisition or within the first six months following their acquisition (i.e. speculative gain). After the six-months period, capital gains are not taxed unless the resident individual holds (together, directly or indirectly, with his or her spouse or civil partner and underage children) more than 10% of the share capital of the Company at any time during the five-year period preceding the disposition.

If such shares or ADSs are held as part of a commercial or industrial business, capital gains would be taxable in the same manner as income from such business.

Capital gains realized by Luxembourg resident individuals holding (alone or together with the resident's spouse or civil partner and underage children) directly or indirectly more than 10% of the capital of the Company at any time during the five years prior to the sale, (or if the Luxembourg resident individuals have received the shares for no consideration within the last five years and the former holder held at least 10% in the capital of the company at any moment during said five years) will be taxable at half of the individual's applicable global tax rate (as determined progressively), if a holding period of six months following their acquisition elapsed (21% for 2019). Within the six-month period, progressive income tax rates apply (ranging from 0 to 42%¹ in 2019).

Luxembourg resident corporate holders

Capital gains, including currency exchange gains, realized upon the disposal of shares or ADSs by a fully taxable resident corporate holder will in principle be subject to Luxembourg corporate income tax and Luxembourg municipal business tax. The combined applicable rate (including an unemployment fund contribution) for a corporate holder established in Luxembourg-City is 24.94% for the fiscal year ending 2019. An exemption from such taxes may be available to the Luxembourg resident corporate holder pursuant to Article 1 of the Grand Ducal Decree dated December 21, 2001 as amended, in combination with article 166 of the Luxembourg Income Tax Law subject to the fulfillment of the conditions set forth therein.

Non-Luxembourg Holders

Non-Luxembourg individual holders

An individual who is a non-Luxembourg Holder of shares or ADSs (and who does not have a permanent establishment, a permanent representative or a fixed place of business in Luxembourg) will only be subject to Luxembourg taxation on capital gains arising upon disposal of such shares or ADSs if such holder has (alone or together with his or her spouse, civil partner and underage children) directly or indirectly held more than 10% of the capital of the Company at any time during the past five years preceding the disposal, and either (i) such non-Luxembourg Holder has been a resident of Luxembourg for tax purposes for at least 15 years and has become a non-resident within the last five years preceding the realization of the gain, subject to any applicable tax treaty, or (ii) the disposal of shares or ADSs occurs within six months from their acquisition (or prior to their actual acquisition), subject, however, to any applicable tax treaty.

Non-Luxembourg corporate holders

A corporate non-Luxembourg Holder (that is, a *collectivité* within the meaning of Article 159 of the Luxembourg Income Tax Law), which has a permanent establishment, a permanent representative or a fixed place of business in Luxembourg to which shares or ADSs are attributable, will bear Luxembourg corporate income tax and Luxembourg municipal business tax on a gain realized on a disposal of such shares or ADSs as set forth above for a Luxembourg corporate holder. However, capital gains, including currency exchange gains, realized on the sale of the shares or ADSs may benefit from the full exemption provided for by Article 1 of the Grand Ducal Decree dated December 21, 2001 as amended, in combination with Article 166 of the Luxembourg Income Tax Law subject in each case to fulfillment of the conditions set out therein.

¹ A 7% surcharge for the Employment Fund applies on the income tax due. The surcharge for the Employment Fund amounts to 9% for taxpayer in tax class 1 or 1a with taxable income exceeding EUR 150,000 (EUR 300,000 for taxpayer in tax class 2).

A corporate non-Luxembourg Holder, which has no permanent establishment, permanent representative or fixed place of business in Luxembourg to which the shares or ADSs are attributable, will bear non-resident capital gains tax on a gain realized on a disposal of such shares or ADSs under the same conditions applicable to an individual non-Luxembourg Holder, as set out above.

Tax regime applicable to distributions

Withholding tax

Distributions to holders are in principle subject to a 15% Luxembourg withholding tax computed on the gross amount distributed. The rate of the withholding tax may be reduced pursuant to double tax treaty existing between Luxembourg and the country of residence of the relevant holder, subject to the fulfillment of the conditions set forth therein. However, distributions imputed for tax purposes to the special reserve (please see above paragraph "corporate reorganization") should be exempt from Luxembourg withholding tax under the current tax law.

Nevertheless, no withholding tax applies if the distribution is made to (as far as relevant in the case at hand):

- a Luxembourg resident corporate holder (that is, a fully taxable *collectivité* within the meaning of article 159 of the Luxembourg Income Tax Law),
- an undertaking of collective character which is resident of a Member State of the European Union and is referred to by article 2 of the EU Council Directive of November 30, 2011 concerning the common fiscal regime applicable to parent and subsidiary companies of different member states (2011/96/UE) as amended, (subject to the general anti-abuse rule provided for by Council Directive 2015/121/EU as implemented into Luxembourg law),
- a capital company or a cooperative company resident in Norway, Iceland or Liechtenstein and subject to a tax comparable to corporate income tax as provided by the Luxembourg Income Tax Law,
- a capital company resident in Switzerland which is subject to corporate income tax in Switzerland without benefiting from an exemption,
- an undertaking with a collective character subject to a tax comparable to corporate income tax as provided by the Luxembourg Income Tax Law which is resident in a country that has concluded a double tax treaty with Luxembourg, *and*
- a Luxembourg permanent establishment of one of the above-mentioned categories, provided each time that at the date of payment, the holder holds or commits to hold directly (or through a company regarded as tax transparent from a Luxembourg tax perspective), during an uninterrupted period of at least twelve months, shares or ADSs representing at least 10% of the share capital of the Company or acquired for an acquisition price of at least EUR 1,200,000.

Luxembourg Holders

With the exception of Luxembourg corporate holders benefiting from the exemption referred to above, Luxembourg individual holders, and Luxembourg corporate holders fully subject to Luxembourg corporate tax, must include the distributions paid on the shares or ADSs in their taxable income, 50% of the amount of such dividends being exempt from tax. The applicable withholding tax can, under certain conditions, entitle the relevant Luxembourg Holder to a tax credit.

Non-Luxembourg Holders

Non-Luxembourg Holders of shares or ADSs and who do not have a permanent establishment, a permanent representative or a fixed place of business in Luxembourg to which the shares or ADSs would be attributable are not liable for any Luxembourg tax on dividends paid on the shares or ADSs, other than a potential withholding tax as described above.

Net wealth tax

Luxembourg Holders

Luxembourg net wealth tax will not be levied on a Luxembourg Holder with respect to the shares or ADSs held unless (i) the Luxembourg Holder is a legal entity subject to net wealth tax in Luxembourg; or (ii) the shares or ADSs are attributable to an enterprise or part thereof which is carried on through a permanent establishment, a fixed place of business or a permanent representative in Luxembourg.

Net wealth tax is levied annually at the rate of 0.5% for taxable net wealth not exceeding EUR 500,000,000 and at a rate of 0.05% for the net wealth exceeding EUR 500,000,000, of enterprises resident in Luxembourg, as determined for net wealth tax purposes. The shares or ADSs may be exempt from net wealth tax subject to the conditions set forth by Paragraph 60 of the Luxembourg Law of October 16, 1934 on the valuation of assets (*Bewertungsgesetz*), as amended.

A minimum net wealth tax charge applies as of January 1, 2016 for all corporate entities having their statutory seat or central administration in Luxembourg. Subject to certain conditions, the amount of minimum net wealth tax may vary.

Non-Luxembourg Holders

Luxembourg net wealth tax will not be levied on a non-Luxembourg Holder with respect to the shares or ADSs held unless the shares or ADSs are attributable to an enterprise or part thereof which is carried on through a permanent establishment or a permanent representative in Luxembourg. The shares or ADSs may be exempt from net wealth tax subject to the conditions set forth by Paragraph 60 of the Luxembourg Law of October 16, 1934 on the valuation of assets (*Bewertungsgesetz*), as amended.

Stamp and registration taxes

No registration tax or stamp duty will be payable by a holder of shares or ADSs in Luxembourg solely upon the disposal of shares or ADSs by sale or exchange.

Estate and gift taxes

No estate or inheritance tax is levied on the transfer of shares or ADSs upon the death of a holder of shares or ADSs in cases where the deceased was not a resident of Luxembourg for inheritance tax purposes and no gift tax is levied upon a gift of shares or ADSs if the gift is not passed before a Luxembourg notary or recorded in a deed registered in Luxembourg.

Where a holder of shares or ADSs is a resident of Luxembourg for tax purposes at the time of his death, the shares or ADSs are included in its taxable estate for inheritance tax or estate tax purposes.

United States federal income taxation

This section describes the material U.S. federal income tax consequences to a U.S. holder (as defined below) of owning shares or ADSs. It applies to you only if you hold your shares or ADSs as capital assets for U.S. federal income tax purposes. This discussion addresses only U.S. federal income taxation and does not discuss all of the tax consequences that may be relevant to you in light of your individual circumstances, including foreign, state or local tax consequences, estate and gift tax consequences, and tax consequences arising under the Medicare contribution tax on net investment income or the alternative minimum tax. This section does not apply to you if you are a member of a special class of holders subject to special rules, including:

- a dealer in securities,
- a bank,
- a trader in securities that elects to use a mark-to-market method of accounting for securities holdings,
- a tax-exempt organization,
- a person who invests through a pass-through entity, including a partnership,
- a life insurance company,

- a former citizen or long-term resident of the United States,
- a person that actually or constructively owns 10% or more of the combined voting power of our voting stock or of the total value of our stock (including ADSs),
- a person that holds shares or ADSs as part of a straddle or a hedging or conversion transaction for U.S. federal income tax purposes,
- a person that purchases or sells shares or ADSs as part of a wash sale for U.S. federal income tax purposes, or
- a person whose functional currency is not the U.S. dollar.

This section is based on the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, all as currently in effect, as well as on the Convention between the Government of the Grand Duchy of Luxembourg and the Government of the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital (the “Treaty”). These laws are subject to change, possibly on a retroactive basis. In addition, this section is based in part upon the assumption that each obligation in the ADS deposit agreement and any related agreement will be performed in accordance with its terms.

If an entity or arrangement that is treated as a partnership for U.S. federal income tax purposes holds the shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. Each such partner holding the shares or ADSs is urged to consult his, her or its own tax advisor.

You are a U.S. holder if you are a beneficial owner of shares or ADSs and you are, for U.S. federal income tax purposes:

- an individual citizen or resident of the United States,
- a domestic corporation (or an entity treated as a domestic corporation),
- an estate whose income is subject to U.S. federal income tax regardless of its source, or
- a trust if (i) a U.S. court can exercise primary supervision over the trust’s administration and one or more U.S. persons are authorized to control all substantial decisions of the trust or (ii) the trust has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

In general, and taking into account the earlier assumptions, for U.S. federal income tax purposes, if you hold ADRs evidencing ADSs, you will be treated as the owner of the shares represented by those ADSs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to U.S. federal income tax.

The tax treatment of your shares or ADSs will depend in part on whether or not we are classified as a passive foreign investment company (“PFIC”), for United States federal income tax purposes. Except as discussed below under “PFIC Rules”, this discussion assumes that we are not classified as a PFIC for United States federal income tax purposes.

You should consult your own tax advisor regarding the U.S. federal, state and local and other tax consequences of owning and disposing of shares or ADSs in your particular circumstances.

Taxation of distributions

Under the U.S. federal income tax laws, if you are a U.S. holder, the gross amount of any distribution we pay out of our current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), other than certain pro-rata distributions of our shares, including the amount of any Luxembourg tax withheld, will be treated as a dividend that is subject to U.S. federal income taxation. If you are a non-corporate U.S. holder, dividends paid to you that constitute qualified dividend income will be taxable to you at the preferential rates applicable to long-term capital gains provided that you hold shares or ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meet other holding period requirements. Dividends we pay with respect to the shares or ADSs generally will be qualified dividend income, provided that, in the year that you receive the dividend, we are eligible for the benefits of the Treaty. We believe that we are currently eligible for the benefits of the Treaty and therefore expect that dividends on the shares or ADSs will be qualified dividend income, but there can be no assurance that we will continue to be eligible for the benefits of the Treaty.

You must generally include any Luxembourg tax withheld from the dividend payment in this gross amount even though you do not in fact receive it. The dividend is taxable to you when you receive it, or, in the case of ADSs, when the depository receives the dividend, actually or constructively. The dividend will not be eligible for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations. Distributions in excess of current and accumulated earnings and profits, as determined for U.S. federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the shares or ADSs and thereafter as capital gain. However, we do not expect to calculate earnings and profits in accordance with U.S. federal income tax principles. Therefore, you should expect that a distribution will generally be treated as a dividend (as discussed above).

Dividends will generally be income from sources outside the United States and, generally, will be “passive” income for purposes of computing the foreign tax credit allowable to you.

Subject to certain limitations, the Luxembourg tax withheld in accordance with the Treaty and paid over to Luxembourg will be creditable or deductible against your U.S. federal income tax liability. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the preferential tax rates. To the extent a refund of the tax withheld is available to you under Luxembourg law or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit against your U.S. federal income tax liability.

In certain circumstances, if you have held ADSs for less than a specified minimum period during which you are not protected from risk of loss, or are obligated to make payments related to the dividends, you will not be allowed a foreign tax credit for foreign taxes imposed on dividends that we pay.

The rules governing the foreign tax credit are complex. You are urged to consult your tax advisors regarding the availability of the foreign tax credit under your particular circumstances.

Taxation of capital gains

If you are a U.S. holder and you sell or otherwise dispose of your shares or ADSs, you will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference between the U.S. dollar value of the amount that you realize and your tax basis, determined in U.S. dollars, in your shares or ADSs. Capital gain of a non-corporate U.S. holder is generally taxed at preferential rates where the property is held for more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. The deductibility of capital losses is subject to limitations.

Additional U.S. Federal Income Tax Considerations

PFIC rules. Based on the Company’s current and expected income and assets, we believe that the shares or ADSs should not currently be treated as stock of a PFIC for U.S. federal income tax purposes, and we do not expect to become a PFIC in the foreseeable future. However, this conclusion is a factual determination that is made annually and thus may be subject to change. It is therefore possible that we could become a PFIC in a future taxable year. If we were to be treated as a PFIC, gain realized on the sale or other disposition of your shares or ADSs would in general not be treated as capital gain. Furthermore, if you are a U.S. holder, unless you are permitted to elect and you do elect to be taxed annually on a mark-to-market basis with respect to the shares or ADSs, upon sale or disposition of your shares or ADSs, you would generally be treated as if you had realized such gain and certain “excess distributions” ratably over your holding period for the shares or ADSs and would be taxed at the highest tax rate in effect for each such year to which the gain was allocated, together with an interest charge in respect of the tax attributable to each such year. With certain exceptions, your shares or ADSs will be treated as stock in a PFIC if we were a PFIC at any time during your holding period in your shares or ADSs. Dividends that you receive from us will not be eligible for the special tax rates applicable to qualified dividend income if we are a PFIC (or are treated as a PFIC with respect to you) either in the taxable year of the distribution or the preceding taxable year, but instead will be taxable at rates applicable to ordinary income and subject to the excess distribution regime described above.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

The Company is required to file annual and special reports and other information with the SEC. You may read and copy any documents filed by the Company at the SEC's public reference room at 100 F Street, N.E., Room 1580 Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC also maintains an Internet website at <http://www.sec.gov> which contains reports and other information regarding registrants that file electronically with the SEC.

The Company is subject to the reporting requirements of the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act, as applied to foreign private issuers. Because the Company is a foreign private issuer, the SEC's rules do not require it to deliver proxy statements or to file quarterly reports. In addition, the Company's "insiders" are not subject to the SEC's rules that prohibit short-swing trading. We prepare quarterly and annual reports containing consolidated financial statements according to IFRS. The Company's annual consolidated financial statements are audited by an independent accounting firm. The Company submits quarterly financial information with the SEC on Form 6-K simultaneously with or promptly following the publication of that information in Luxembourg or any other jurisdiction in which the Company's securities are listed, and the Company files annual reports on Form 20-F within the time period required by the SEC, which is currently four months from the close of the fiscal year on December 31. These quarterly and annual reports may be reviewed at the SEC's public reference room. Reports and other information filed electronically with the SEC are also available at the SEC's Internet website.

As a foreign private issuer under the Securities Act, the Company is not subject to the proxy rules of Section 14 of the Exchange Act or the insider short-swing profit reporting requirements of Section 16 of the Exchange Act.

For the year ended December 31, 2019, the Company's Depository for issuing ADSs evidencing shares was Deutsche Bank Trust Company Americas. During the time there continues to be ADSs deposited with the Depository, the Company will furnish the Depository with:

- its annual reports, *and*
- copies of all notices of shareholders' meetings and other reports and communications that are made generally available to the Company's shareholders.

The Depository will, as provided in the deposit agreement and if requested in writing by the Company, arrange for the mailing of such reports, notices and communications to all record holders of ADSs, on a basis similar to that for holders of shares, or on such other basis as the Company may advise the Depository may be required by any applicable law or regulation or any requirement of any stock exchange to which the Company may be subject. Any reports and communications, including any proxy solicitation material, shall be furnished in English to the extent such materials are required to be translated into English pursuant to any regulations of the SEC.

Any record holder of ADSs may read the reports, notices, and other communications including any proxy solicitation material at the Depository's office located at 60 Wall Street, New York, New York 10005.

In addition, such reports, notices and other communications are made available to all shareholders and holders of ADSs on the Company's website at: <https://ir.tenaris.com/investor-relations>

Whenever a reference is made in this annual report to a contract or other document, please be aware that such reference is not necessarily complete and that you should refer to the exhibits that are a part of this annual report for a copy of the contract or other document. You may review a copy of the annual report at the SEC's public reference room in Washington, D.C.

I. Subsidiary Information

Not applicable.

Item 11. Quantitative and Qualitative Disclosure about Market Risk

The multinational nature of our operations and customer base expose us to a variety of risks, including the effects of changes in foreign currency exchange rates, interest rates and commodity prices. In order to reduce the impact related to these exposures, management evaluates exposures on a consolidated basis to take advantage of natural exposure netting. For the residual exposures, we may enter into various derivative transactions in order to reduce potential adverse effects on our financial performance. Such derivative transactions are executed in accordance with internal policies and hedging practices. We do not enter into derivative financial instruments for trading or other speculative purposes, other than non-material investments in structured products.

The following information should be read together with section III, "Financial risk management" to our audited consolidated financial statements included elsewhere in this annual report.

Debt Structure

The following tables provide a breakdown of our debt instruments at December 31, 2019 and 2018 which included fixed and variable interest rate obligations, detailed by maturity date:

At December 31, 2019	Expected maturity date						Total ⁽¹⁾
	2020	2021	2022	2023	2024	Thereafter	
	(in millions of U.S. dollars)						
Non-current Debt							
Fixed rate	–	16	23	–	–	–	40
Floating rate	–	1	0	–	–	–	1
Current Debt							
Fixed rate	728	–	–	–	–	–	728
Floating rate	53	–	–	–	–	–	53
	781	17	24	–	–	–	822

At December 31, 2018	Expected maturity date						Total ⁽¹⁾
	2019	2020	2021	2022	2023	Thereafter	
	(in millions of U.S. dollars)						
Non-current Debt							
Fixed rate	–	4	4	20	–	–	28
Floating rate	–	0	1	0	–	–	1
Current Debt							
Fixed rate	493	–	–	–	–	–	493
Floating rate	17	–	–	–	–	–	17
	510	4	5	20	–	–	539

(1) As most borrowings are based on short-term fixed rates, or floating rates that approximate market rates, with interest rate resetting every 3 to 6 months, the fair value of the borrowings approximates its carrying amount and is not disclosed separately.

Our weighted average interest rates before tax (considering hedge accounting), amounted to 3.18% at December 31, 2019 and to 3.98% at December 31, 2018.

Our financial liabilities (other than trade payables and derivative financial instruments) consist mainly of bank loans. As of December 31, 2019, U.S. dollar denominated financial debt plus debt denominated in other currencies swapped to the U.S. dollar represented 89% of total financial debt.

For further information about our financial debt, please see note 19 "Borrowings" to our audited consolidated financial statements included in this annual report.

Interest Rate Risk

Fluctuations in market interest rates create a degree of risk by affecting the amount of our interest payments. At December 31, 2019, we had variable interest rate debt of \$54 million and fixed rate debt of \$768 million (\$728 million of the fixed rate debt are short-term).

Foreign Exchange Rate Risk

We manufacture and sell our products in a number of countries throughout the world and consequently we are exposed to foreign exchange rate risk. Since the Company's functional currency is the U.S. dollar, the purpose of our foreign currency hedging program is mainly to reduce the risk caused by changes in the exchange rates of other currencies against the U.S. dollar.

Most of our revenues are determined or influenced by the U.S. dollar. In addition, a relevant part of our costs corresponds to steelmaking raw materials and steel coils and plates, also determined or influenced by the U.S. dollar. However, outside the United States, a portion of our expenses is incurred in foreign currencies (e.g. labor costs). Therefore, when the U.S. dollar weakens in relation to the foreign currencies of the countries where we manufacture our products, the U.S. dollar-reported expenses increase. Had the U.S. dollar average exchange rate been weaker by 5% against the currencies of the countries where we have labor costs, operating income would have decreased approximately by \$49 million in 2019, compared with \$50 million in 2018.

Our consolidated exposure to currency fluctuations is reviewed on a periodic basis. A number of hedging transactions are performed in order to achieve an efficient coverage in the absence of operative or natural hedges. Almost all of these transactions are forward exchange rate contracts.

Because certain subsidiaries have functional currencies other than the U.S. dollar, the results of hedging activities as reported in the income statement under IFRS may not reflect entirely management's assessment of its foreign exchange risk hedging needs. Also, intercompany balances between our subsidiaries may generate exchange rate results to the extent that their functional currencies differ.

The value of our financial assets and liabilities is subject to changes arising out of the variation of foreign currency exchange rates. The following table provides a breakdown of our main financial assets and liabilities (including foreign exchange derivative contracts) that impact our profit and loss as of December 31, 2019.

All amounts in millions of U.S. dollars

Currency Exposure	Functional currency	Long / (Short) Position
Argentine Peso	U.S. dollar	(96)
Euro	U.S. dollar	(104)
Saudi Arabian Riyal	U.S. dollar	(108)

The main relevant exposures as of December 31, 2019 were to Argentine peso-denominated financial, trade, social and fiscal payables at our Argentine subsidiaries, for which the functional currency is the U.S. dollar, Euro-denominated intercompany liabilities at certain subsidiaries for which functional currency is the U.S. dollar, and Saudi Arabian Riyal-denominated financial and trade payables. The Saudi Arabian Riyal is tied to the dollar.

Foreign Currency Derivative Contracts

The net fair value of our foreign currency derivative contracts amounted to an asset of \$18.1 million at December 31, 2019 and a liability of \$2.8 million at December 31, 2018. For further detail on our foreign currency derivative contracts, please see note 24 "Derivative financial instruments – Foreign exchange derivative contracts and hedge accounting" to our audited consolidated financial statements included in this annual report.

Accounting for Derivative Financial Instruments and Hedging Activities

Derivative financial instruments are classified as financial assets (or liabilities) at fair value through profit or loss. Their fair value is calculated using standard pricing techniques and, as a general rule, we recognize the full amount related to the change in its fair value under financial results in the current period.

We designate for hedge accounting certain derivatives and non-derivative financial liabilities (leasing liabilities denominated in Japanese Yen) to hedge risks associated with recognized assets, liabilities or highly probable forecast transactions. These instruments are classified as cash flow hedges. The effective portion of the fair value of such derivatives is accumulated in a reserve account in equity. Similarly, the effective portion of the foreign exchange result on the designated leasing liability is recognized in equity. Amounts accumulated in equity are then recognized in the income statement in the same period when the offsetting losses and gains on the hedged item are recorded. The gain or loss relating to the ineffective portion is recognized immediately in the income statement. The fair value of our derivative financial instruments (assets or liabilities) continues to be reflected on the consolidated statement of financial position. The lease liability is recognized on the balance sheet at each period end at the exchange rate as of the end of each month.

At December 31, 2019, the effective portion of designated cash flow hedges, included in other reserves in shareholders' equity amounted to a credit of \$2.6 million.

Concentration of credit risk

There is no significant concentration of credit from customers. No single customer comprised more than 10% of our net sales in 2019.

Our credit policies related to sales of products and services are designed to identify customers with acceptable credit history, and to allow us to use credit insurance, letters of credit and other instruments designed to minimize credit risk whenever deemed necessary. We maintain allowances for potential credit losses.

Commodity Price Sensitivity

We use commodities and raw materials that are subject to price volatility caused by supply conditions, political and economic variables and other unpredictable factors. As a consequence, we are exposed to risk resulting from fluctuations in the prices of these commodities and raw materials. Although we fix the prices of such raw materials and commodities for short-term periods, typically not in excess of one year, in general we do not hedge this risk.

Item 12. Description of Securities Other Than Equity Securities

A. Debt securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other securities

Not applicable.

D. American Depositary Shares

According to our deposit agreement, holders of ADSs may have to pay to the Depositary, either directly or indirectly, fees or charges up to the amounts set forth below:

- A fee of \$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) for: issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property; and cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates.
- A fee of \$0.02 (or less) per ADSs for any cash distribution to ADS registered holders, excluding cash dividend.
- Any charges for taxes and other governmental charges that the Depositary or the custodian may be required to pay on any ADS or share underlying an ADS (e.g., share transfer taxes, stamp duty or withholding taxes); and any charges incurred by the Depositary or its agents for servicing the depositary securities.
- Registration or transfer fees for transfer and registration of shares on our share register to or from the name of the Depositary or its agent when you deposit or withdraw shares.

- Expenses of the Depositary for cable, telex and facsimile transmissions (when expressly provided in the deposit agreement); and conversion of foreign currency.
- A fee equivalent to the fee that would be payable if securities distributed to ADS holders had been shares and the shares had been deposited for issuance of ADSs for distribution of securities distributed to holders of deposited securities which are distributed by the Depositary to ADS registered holders.
- As necessary, charges for any costs incurred by the Depositary or its agents for servicing the deposited securities.

The Depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The Depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The Depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

Under the deposit agreement with the Depositary, the Depositary is not liable to holders of ADSs, except that the Depositary agrees to perform its obligations specifically set forth therein without gross negligence and willful misconduct.

Fees Payable by the Depositary to the Company

On June 21, 2019, the Company and Deutsche Bank Trust Company Americas entered into a new five-year engagement effective as of March 13, 2018. No amendments to the existing ADS Deposit Agreement were made in connection with the new engagement letter.

Fees paid in 2019 and 2020

In 2019, the Company received fees from Deutsche Bank Trust Company Americas, as the Company's Depositary, for an amount of \$1,077,194, for the period March 13, 2018 through February 28, 2019, and in 2020 the Company received fees from the Depositary for an amount of \$1,260,803.73, in each case based on the Depositary's revenues resulting from issuance and cancellation fees charged to ADR holders, net of custody and safe keeping costs. In addition, the Depositary has waived the cost of providing administrative and reporting services, and access charges in connection with the Company's ADR Program.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of December 31, 2019).

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2019, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and to ensure that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives. Our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective at a reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Our internal control over financial reporting was designed by management to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of its financial statements for external purposes in accordance with IFRS.

In addition, under the Company's articles of association, as supplemented by the audit committee's charter, the audit committee assists the board of directors in fulfilling its oversight responsibilities relating to the effectiveness of the Company's systems of internal control, risk management and internal audit over financial reporting. In particular, the audit committee is required to review the scope and results of the activities of the Company's external auditors and the internal audit function relating to the Company's internal control over financial reporting, and obtain reports on significant findings and recommendations; and is also required to assess, at least annually at the time the annual accounts are approved, the effectiveness of the Company's systems of internal control and risk management over financial reporting.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements or omissions. In addition, 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.

On a yearly basis, management conducts its assessment of the effectiveness of Tenaris's internal control over financial reporting based on the framework in *Internal Control- Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

On February 18, 2020, management reported to the audit committee of the Company's board of directors that management had conducted its assessment of the effectiveness of the Company's internal controls over financial reporting for the year ended December 31, 2019, and that, based on management's evaluation and considering the inherent limitations to the effectiveness of any internal control system, management had concluded that the Company's internal controls over financial reporting were effective as of December 31, 2019.

The effectiveness of Tenaris's internal control over financial reporting as of December 31, 2019 has been audited by PwC Luxembourg, as stated in their report included herein. See "— Attestation of Registered Public Accounting Firm".

Attestation Report of Registered Public Accounting Firm

See page F-1 of the audited consolidated financial statements included in this report.

Change in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rules 13(a)-15(f) and 15(d)-15(f) under the Exchange Act) during the year ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

The Company's board of directors has determined that none of the audit committee members meets the attributes defined in Item 16A of Form 20-F for an "audit committee financial expert". However, applicable Luxembourg law requires that at least one of the audit committee members have competence in accounting or auditing matters, and the Company's board of directors has determined that Ms. Mónica Tiuba has the requisite competence. In addition, the audit committee as a whole has sufficient relevant knowledge of the business and financial experience to properly discharge its functions. The audit committee has the authority to engage, from time to time and as it deems necessary, persons that meet all of the attributes of an "audit committee financial expert" as consultants.

Item 16B. Code of Ethics

The Company has adopted a general code of conduct incorporating guidelines and standards of integrity and transparency applicable to all of our directors, officers and employees. As far as the nature of each relation permits, all principles detailed in the code of conduct also apply to relations with our contractors, subcontractors, suppliers and associated persons. In addition, the Company has adopted a code of ethics for financial officers, which is intended to supplement the Company's code of conduct, and applies specifically to the principal executive officer, the principal financial officer, the principal accounting officer or controller, as well as persons performing similar functions.

Our code of conduct and our code of ethics for senior financial officers are posted on our website at:

<https://www.tenaris.com/en/sustainability/governance-and-ethics/>

Item 16C. Principal Accountant Fees and Services*Fees paid to the Company's Principal Accountant*

In 2019 and 2018, PwC Luxembourg served as the principal external auditor for the Company. Fees paid to PwC Luxembourg and other PwC member firms for the years ended December 31, 2019 and December 31, 2018 are detailed below.

<i>Thousands of U.S. dollars</i>	For the year ended December 31,	
	2019	2018
Audit Fees	3,846	3,841
Audit-Related Fees	50	43
Tax Fees	7	–
All Other Fees	1	7
Total	3,904	3,891

Audit Fees

Audit fees were paid for professional services rendered by the external auditors for the audit of the consolidated financial statements and internal control over financial reporting of the Company, the statutory financial statements of the Company and its subsidiaries, and any other audit services required in connection with the Company's filings with the U.S. Securities and Exchange Commission or other regulatory filings.

Audit-Related Fees

Audit-related fees are typically services that are reasonably related to the performance of the audit or review of the consolidated financial statements and are not reported under the audit fee item above. This item includes, among others, fees for attestation services on financial information of the Company and its subsidiaries included in annual reports filed with the applicable regulators.

Tax Fees

Tax fees paid for tax compliance and tax advice professional services.

All Other Fees

Consisted primarily of fees paid for services provided in connection with training courses to Tenaris employees.

Audit Committee's Pre-approval Policies and Procedures

The Company's audit committee is responsible for, among other things, the oversight of the Company's external auditors. The audit committee has adopted in its charter a policy of pre-approval of audit and permissible non-audit services provided by its external auditors.

Under the policy, the audit committee makes its recommendations to the shareholders' meeting concerning the continuing appointment or termination of the Company's external auditors. On a yearly basis, the audit committee reviews together with management and the external auditor, the audit plan, audit related services and other non-audit services and approves, *ad-referendum* of the general shareholders' meeting, the related fees. Any changes to the approved fees must be reviewed and approved by the audit committee. The general shareholders' meeting normally approves such audit fees and authorizes the audit committee to approve any increase or reallocation of such audit fees as may be necessary, appropriate or desirable under the circumstances. The audit committee delegates to its Chairman the authority to consider and approve, on behalf of the audit committee, additional non-audit services that were not recognized at the time of engagement, which must be reported to the other members of the audit committee at its next meeting. No services outside the scope of the audit committee's approval can be undertaken by the external auditor.

During 2019, the audit committee did not approve any fees pursuant to the *de minimis* exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In 2019, there were no purchases of any class of registered equity securities of the Company by the Company or, to our knowledge, by any "affiliated purchaser" (as such term is defined in Rule 10b-18(a)(3) under the Exchange Act).

On May 6, 2015, the annual ordinary general meeting of shareholders, authorized the Company and the Company's subsidiaries to acquire, from time to time, shares of the Company, including shares represented by ADSs (collectively "Securities"), on the terms and conditions set forth below. Although the validity period of such authorization will expire on May 6, 2020, the general shareholders' meeting to be held on June 2, 2020, will consider a renewal of such authorization for five additional years.

- Purchases, acquisitions or receipts of securities may be made in one or more transactions as the board of directors of the Company or the board of directors or other governing bodies of the relevant entity, as applicable, considers advisable.
- The maximum number of Securities acquired pursuant to this authorization may not exceed 10% of the Company's issued and outstanding shares or, in the case of acquisitions made through a stock exchange in which the Securities are traded, such lower amount as may not be exceeded pursuant to any applicable laws or regulations of such market. The number of Securities acquired as a block may amount to the maximum permitted amount of purchases.
- The purchase price per share to be paid in cash may not exceed 125% (excluding transaction costs and expenses), nor may it be lower than 75% (excluding transaction costs and expenses), in each case of the average of the closing prices of the Company's Securities in the stock exchange through which the Company's Securities are acquired, during the five trading days in which transactions in the Securities were recorded in such stock exchange preceding (but excluding) the day on which the Company's Securities are acquired. For over-the-counter or off-market transactions, the purchase price per ADS to be paid in cash may not exceed 125% (excluding transaction costs and expenses), nor may it be lower than 75% (excluding transaction costs and expenses), in each case of the average of the closing prices of the ADSs in the New York Stock Exchange during the five trading days in which transactions in ADSs were recorded in the New York Stock Exchange preceding (but excluding) the day on which the ADSs are acquired; and, in the case of acquisition of Securities, other than in the form of ADSs, such maximum and minimum per security purchase prices shall be equal to the prices that would have applied in case of an ADS purchase pursuant to the formula above divided by the number of underlying shares represented by an ADS at the time of the relevant purchase. Compliance with maximum and minimum purchase price requirements in any and all acquisitions made pursuant to this authorization (including, without limitation, acquisitions carried out through the use of derivative financial instruments or option strategies) shall be determined on and as of the date on which the relevant transaction is entered into, irrespective of the date on which the transaction is to be settled.
- The above maximum and minimum purchase prices shall, in the event of a change in the par value of the Securities, a capital increase by means of a capitalization of reserves, a distribution of Securities under compensation or similar programs, a stock split or reverse stock split, a distribution of reserves or any other assets, the redemption of capital, or any other transaction impacting on the Company's equity, be adapted automatically, so that the impact of any such transaction on the value of the Securities shall be reflected.

- The acquisitions of Securities may not have the effect of reducing the Company's net assets below the sum of the Company's share capital plus its undistributable reserves.
- Only fully paid-up Securities may be acquired pursuant to this authorization.
- The acquisitions of Securities may be carried out for any purpose, as may be permitted under applicable laws and regulations, including without limitation to reduce the share capital of the Company, to offer such shares to third parties in the context of corporate mergers or acquisitions of other entities or participating interests therein, for distribution to the Company's or the Company's subsidiaries' directors, officers or employees or to meet obligations arising from convertible debt instruments.
- The acquisitions of Securities may be carried out by any and all means, as may be permitted under applicable laws and regulations, including through any stock exchange in which the Company's Securities are traded, through public offers to all shareholders of the Company to buy Securities, through the use of derivative financial instruments or option strategies, or in over-the-counter or off-market transactions or in any other manner.
- The acquisitions of Securities may be carried out at any time, during the duration of the authorization, including during a tender offer period, as may be permitted under applicable laws and regulations.
- The authorization granted to acquire securities shall be valid for such maximum period as may be provided for under applicable Luxembourg law as in effect from time to time (such maximum period being, as of to date, 5 years).
- The acquisitions of securities shall be made at such times and on such other terms and conditions as may be determined by the board of directors of the Company or the board of directors or other governing bodies of the relevant subsidiary, provided that, any such purchase shall comply with Article 430-15 et. seq. of the Luxembourg Company Law (or any successor law) and, in the case of acquisitions of securities made through a stock exchange in which the Company's securities are traded, with any applicable laws and regulations of such market.

In the future, we may, on the terms and subject to the conditions above referred, initiate a share capital repurchase or similar program or engage in other transactions pursuant to which we would repurchase, directly or indirectly, the Company's Securities. In addition, we or our subsidiaries may enter into transactions involving sales or purchases of derivatives or other instruments, either settled in cash or through physical delivery of securities, with returns linked to the Company's Securities. The timing and amount of repurchase transactions under any such program, or sales or purchases of derivatives or other instruments, would depend on market conditions as well as other corporate and regulatory considerations.

Item 16F. Change in Registrant's Certifying Accountant

Not applicable

Item 16G. Corporate Governance

The Company's corporate governance practices are governed by Luxembourg Law (including, among others, the Luxembourg Company Law, the Luxembourg Law of January 11, 2008 on transparency requirements for issuers, as amended (which transposes EU Directive 2004/109 of the European Parliament and of the Council of December 15, 2004), the Shareholders' Rights Law and the Audit Reform Law) and by the Company's articles of association. As a Luxembourg company listed on the New York Stock Exchange (the NYSE), the Bolsa Mexicana de Valores, S.A. de C.V. (the Mexican Stock Exchange), and the Borsa Italiana S.p.A. (the Italian Stock Exchange), the Company is required to comply with some, but not all, of the corporate governance standards of these exchanges. The Company, however, believes that the Company's corporate governance practices meet, in all material respects, the corporate governance standards that are generally required for controlled companies by all of the exchanges on which the Company's securities trade.

The following is a summary of the significant ways that the Company's corporate governance practices differ from the corporate governance standards required for controlled companies by the NYSE. The Company's corporate governance practices may differ in non-material ways from the standards required by the NYSE that are not detailed here.

Non-management directors' meetings

Under NYSE standards, non-management directors must meet at regularly scheduled executive sessions without management present and, if such group includes directors who are not independent, a meeting should be scheduled once per year including only independent directors. Neither Luxembourg law nor the Company's articles of association require the holding of such meetings and the Company does not have a set policy for these meetings. For additional information on board meetings, see Item 6.A. "Directors, Senior Management and Employees – Directors and Senior Management – Board of Directors".

In addition, NYSE-listed companies are required to provide a method for interested parties to communicate directly with the non-management directors as a group. While the Company does not have such a method, it has set up a compliance line for investors and other interested parties to communicate their concerns directly to the members of our audit committee, all of whom are non-management, independent directors.

Audit committee

Under NYSE standards, listed U.S. companies are required to have an audit committee composed of independent directors that satisfy the requirements of Rule 10A-3 promulgated under the Exchange Act. Pursuant to the Company's articles of association, as supplemented by the audit committee's charter, for as long as our shares are listed on at least one regulated market, the Company must have an audit committee composed of at least three members, the majority of whom must qualify as independent directors (as defined in the Company's articles of association), provided, however, that the composition and membership of the audit committee shall satisfy such requirements as are applicable to, and mandatory for, audit committees of issuers such as the Company under any law, rule or regulation applicable to the Company (including, without limitation, the applicable laws, rules and regulations of such regulated market or markets). The Company's audit committee, which currently consists of four members, complies with such requirements. In accordance with NYSE standards, the Company has an audit committee entirely composed of independent directors for purposes of the U.S. Securities Exchange Act Rule 10A-3(b)(1). For more information on the Company's audit committee see Item 6.C. "Directors, Senior Management and Employees – Board Practices – Audit Committee".

Under NYSE standards, all audit committee members of listed U.S. companies are required to be financially literate or must acquire such financial knowledge within a reasonable period and at least one of its members shall have experience in accounting or financial administration. In addition, if a member of the audit committee is simultaneously a member of the audit committee of more than three public companies, and the listed company does not limit the number of audit committees on which its members may serve, then in each case the board must determine whether the simultaneous service would prevent such member from effectively serving on the listed company's audit committee and shall publicly disclose its decision. Luxembourg law provisions on audit committee membership require only that at least one member of the audit committee have competence in accounting or auditing matters. The board of directors of the Company has determined that Ms. Tiuba is competent in accounting or auditing matters. In addition, the membership of the audit committee as a whole has sufficient relevant knowledge of the business and financial experience to properly discharge its functions. The audit committee has the authority, from time to time and as it deems necessary, to engage persons that meet all of the attributes of a financial expert as consultants. See Item 16.A. "Audit Committee Financial Expert".

Standards for evaluating director independence

Under the NYSE standards, the board is required, on a case by case basis, to express an opinion with regard to the independence or lack of independence of each individual director. Neither Luxembourg law nor the Company's articles of association requires the board of directors to express such an opinion. In addition, the definition of "independent" under the NYSE rules differ in some non-material respects from the definition contained in the Company's articles of association. For more information on our independent directors and the definition of "independent" under our articles of association see Item 6.A. "Directors, Senior Management and Employees – Directors and Senior Management – Board of Directors" and Item 6.C. "Directors, Senior Management and Employees – Board Practices – Audit Committee".

Audit committee responsibilities

Pursuant to the Company's articles of association, the audit committee shall assist the board of directors in fulfilling its oversight responsibilities relating to the integrity of its consolidated financial statements, the effectiveness of its systems of internal control, risk management and internal audit over financial reporting and the independence and performance of the external auditors. The audit committee is required to review material transactions (as defined by our articles of association) between the Company or its subsidiaries with related parties and also perform the other duties entrusted to it by the board. The NYSE requires certain matters to be set forth in the audit committee charter of U.S. listed companies.

The Company's audit committee charter provides for many of the responsibilities that are expected from such bodies under the NYSE standard and in accordance with applicable Luxembourg law, including the Audit Reform Law; however, due to the Company's equity structure and holding company nature, the charter does not contain all such responsibilities, including provisions related to procedures for the receipt and treatment of complaints (although the Company has established such procedures), funding for payment of administrative expenses and compensation to advisors (although the audit committee has the authority to engage outside advisors), setting hiring policies for employees or former employees of external auditors, and an annual performance evaluation of the audit committee. For more information on our audit committee see Item 6.C. "Directors, Senior Management and Employees – Board Practices – Audit Committee".

Shareholder voting on equity compensation plans

Under NYSE standards, shareholders must be given the opportunity to vote on equity-compensation plans and material revisions thereto, except for employment inducement awards, certain grants, plans and amendments in the context of mergers and acquisitions, and certain specific types of plans. The Company does not currently offer equity-based compensation to its directors, senior management or employees, and therefore does not have a policy on this matter. For more information on directors' compensation see Item 6.B. "Directors, Senior Management and Employees – Compensation".

The Shareholders' Rights Law requires the Company to adopt a Compensation Policy setting forth the principles and guidelines for purposes of determining the compensation payable to the members of the Company's board of directors and the managing director or chief executive officer. Such Compensation Policy must be submitted to the non-binding vote of the shareholders. In addition, the Shareholders' Rights Law provides that the Company must prepare an annual report describing the compensation paid to directors and the chief executive officer for the performance of their duties and submit such report to the shareholders for approval. The Compensation Policy and Compensation Report must be available on the Company's website. For more information on the Compensation Policy and the 2019 Compensation Report see Item 6.B. "Directors, Senior Management and Employees – Compensation".

Disclosure of corporate governance guidelines

NYSE-listed companies must adopt and disclose corporate governance guidelines. Neither Luxembourg law nor the Company's articles of association require the adoption or disclosure of corporate governance guidelines. The Company's board of directors follows corporate governance guidelines consistent with its equity structure and holding company nature, but the Company has not codified them and therefore does not disclose them on its website.

Code of business conduct and ethics

Under NYSE standards, listed companies must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. Neither Luxembourg law nor the Company's articles of association require the adoption or disclosure of such a code of conduct. The Company, however, has adopted a code of conduct that applies to all directors, officers and employees that is posted on its website and which complies with the NYSE's requirements, except that it does not require the disclosure of waivers of the code for directors and officers. In addition, it has adopted a supplementary code of ethics for senior financial officers, which is also posted on our website. See Item 16.B. "Code of Ethics".

Chief Executive Officer certification

A Chief Executive Officer of a U.S. company listed on the NYSE must annually certify that he or she is not aware of any violation by the company of NYSE corporate governance standards. In accordance with NYSE rules applicable to foreign private issuers, the Company's chief executive officer is not required to provide the NYSE with this annual compliance certification. However, in accordance with NYSE rules applicable to all listed companies, the Company's Chief Executive Officer must promptly notify the NYSE in writing after any of our executive officers becomes aware of any noncompliance with any applicable provision of the NYSE's corporate governance standards. In addition, the Company must submit an executed written affirmation annually and an interim written affirmation upon the occurrence of any of the events listed in the foreign private issuer interim written affirmation form by the NYSE.

Item 16H. Mine Safety Disclosure

Not applicable.

PART III

Item 17. Financial Statements

We have responded to Item 18 in lieu of responding to this Item.

Item 18. Financial Statements

See pages F-1 through F-64 of this annual report.

Item 19. Exhibits

Exhibit Number	Description
1.1	Updated and Consolidated Articles of Association of Tenaris S.A., dated as of May 2, 2018 *
2.1	Amended and Restated Deposit Agreement entered into between Tenaris S.A. and Deutsche Bank Trust Company Americas **
7.1	Statement Explaining Calculation of Ratios
7.2	Statement Explaining Alternative Performance Measures
8.1	List of Subsidiaries of Tenaris S.A.
12.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

* The Updated and Consolidated Articles of Association is incorporated by reference to Exhibit 1.1 on Form 20-F filed by Tenaris S.A. on April 3, 2019 (File No. 001-31518).

** The Amended and Restated Deposit Agreement is incorporated by reference to the Registration Statement on Form F-6 filed by Tenaris S.A. on February 25, 2013 (File No. 333-186825).

TENARIS S.A.

**CONSOLIDATED
FINANCIAL STATEMENTS**

For the years ended December 31, 2019, 2018 and 2017

26, Boulevard Royal – 4th Floor.
L – 2449 Luxembourg
R.C.S. Luxembourg: B 85 203



Report of Independent Registered Public Accounting Firm

To the Board of Directors and shareholders of
Tenaris S.A.

Opinions on the Consolidated Financial Statements and Internal Control over Financial Reporting

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of 31 December 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended 31 December 2019 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board and International Financial Reporting Standards as adopted by the European Union. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of 31 December 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 15. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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*Cabinet de révision agréé. Expert-comptable (autorisation gouvernementale n°10028256)
R.C.S. Luxembourg B 65 477 - TVA LU25482518*



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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Recoverability of long-lived assets - U.S. seamless and welded tube businesses (Maverick and Bay City)

As described in Notes 2.G, 9 and 10 to the consolidated financial statements, at 31 December 2019, the Company's goodwill balance was 1,320 million USD and the property, plant and equipment balance was 6,090 million USD, of which 225 million USD of goodwill and a significant portion of property, plant and equipment relates to the U.S. seamless and welded tube businesses (Maverick and Bay City). Goodwill is subject to at least an annual impairment test. Assets that are subject to amortisation are reviewed for impairment by management whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Management has determined the recoverable amount of these assets based on value in use. Value in use is calculated by discounting the estimated cash flows over a five-year period based on forecasts approved by management. Management judgment is required to estimate discounted future cash flows. The main key assumptions used by management in estimating the value in use of the U.S. seamless and welded tube businesses (Maverick and Bay City) are discount rate, growth rate, oil and gas prices, average number of active oil and gas drilling rigs and raw material costs.

The principal considerations for our determination that performing procedures relating to the recoverability of goodwill and property, plant and equipment of the U.S. seamless and welded tube businesses is a critical audit matter are (i) there was a high degree of auditor judgment and subjectivity in applying procedures relating to the determination of recoverable amounts due to the significant amount of judgment by management when developing the estimates; (ii) significant audit effort was required in evaluating the significant assumptions and future cash flows related to the estimates, such as discount rate, growth rate, oil and gas prices, average number of active oil and gas drilling rigs and raw material costs; and (iii) the audit effort involved the use of professionals with specialised skill and knowledge.



Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the recoverability of long-lived assets, including controls over management's analysis of impairment indicators and controls over the review of assumptions used and discounted cash flow calculations. These procedures also included testing management's process for determining the value in use. This included evaluating the appropriateness of the valuation method, testing the accuracy and relevance of the underlying data used in the model and evaluating the reasonableness of significant assumptions, including discount rate, growth rate, oil and gas prices, average number of active oil and gas drilling rigs and raw materials costs. Evaluating the significant assumptions related to oil and gas prices, average number of active oil and gas drilling rigs and raw material costs involved (i) evaluating whether the assumptions used were reasonable considering current and past performance of the businesses and consistency with external market and industry data and (ii) comparing actual cash flow results with previous forecasts. Professionals with specialised skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow model and certain significant assumptions, including the discount rate and the growth rate.

PricewaterhouseCoopers, Société coopérative
Represented by

Luxembourg, 30 April 2020

/s/ Fabrice Goffin
Fabrice Goffin

We have served as the Company's auditor since 2011.

CONSOLIDATED INCOME STATEMENT

(all amounts in thousands of US dollars, unless otherwise stated)

	Notes	Year ended December 31,		
		2019	2018	2017
Continuing operations				
Net sales	1	7,294,055	7,658,588	5,288,504
Cost of sales	2	(5,107,495)	(5,279,300)	(3,685,057)
Gross profit		2,186,560	2,379,288	1,603,447
Selling, general and administrative expenses	3	(1,365,974)	(1,509,976)	(1,270,016)
Other operating income	5	23,004	15,059	10,516
Other operating expenses	5	(11,199)	(12,558)	(9,359)
Operating income		832,391	871,813	334,588
Finance income	6	47,997	39,856	47,605
Finance cost	6	(43,381)	(36,942)	(27,072)
Other financial results	6	14,667	34,386	(43,550)
Income before equity in earnings of non-consolidated companies and income tax		851,674	909,113	311,571
Equity in earnings of non-consolidated companies	12	82,036	193,994	116,140
Income before income tax		933,710	1,103,107	427,711
Income tax	7	(202,452)	(229,207)	17,136
Income for continuing operations		731,258	873,900	444,847
Discontinued operations				
Result for discontinued operations	29	-	-	91,542
Income for the year		731,258	873,900	536,389
Attributable to:				
Owners of the parent		742,686	876,063	544,737
Non-controlling interests		(11,428)	(2,163)	(8,348)
		731,258	873,900	536,389
Earnings per share attributable to the owners of the parent during the year:				
Weighted average number of ordinary shares (thousands)		1,180,537	1,180,537	1,180,537
Continuing operations				
Basic and diluted earnings per share (U.S. dollars per share)		0.63	0.74	0.38
Basic and diluted earnings per ADS (U.S. dollars per ADS) (*)		1.26	1.48	0.77
Continuing and discontinued operations				
Basic and diluted earnings per share (U.S. dollars per share)		0.63	0.74	0.46
Basic and diluted earnings per ADS (U.S. dollars per ADS) (*)		1.26	1.48	0.92

(*) Each ADS equals two shares.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
Income for the year	731,258	873,900	536,389
Items that may be subsequently reclassified to profit or loss:			
Currency translation adjustment	(27,294)	(96,916)	151,762
Change in value of cash flow hedges and instruments at fair value	3,039	(6,701)	4,502
Income tax relating to components of other comprehensive income	(707)	34	23
From participation in non consolidated companies:			
- Currency translation adjustment (*)	(10,781)	1,848	(9,548)
- Changes in the fair value of derivatives held as cash flow hedges and others	812	(132)	512
	(34,931)	(101,867)	147,251
Items that will not be reclassified to profit or loss:			
Remeasurements of post employment benefit obligations	(9,272)	7,963	(8,635)
Income tax on items that will not be reclassified	1,545	(1,932)	1,338
Remeasurements of post employment benefit obligations of non-consolidated companies	(9,878)	(3,855)	(376)
	(17,605)	2,176	(7,673)
Other comprehensive (loss) income for the year, net of tax	(52,536)	(99,691)	139,578
Total comprehensive income for the year	678,722	774,209	675,967
Attributable to:			
Owners of the parent	690,095	776,713	683,531
Non-controlling interests	(11,373)	(2,504)	(7,564)
	678,722	774,209	675,967
Total comprehensive income for the year attributable to Owners of the parent arises from			
Continuing operations	690,095	776,713	591,989
Discontinued operations	-	-	91,542
	690,095	776,713	683,531

(*) Since 2018 Tenaris recognizes its share over the effects on the adoption of IAS 29, "Financial Reporting in Hyperinflationary Economies" by Ternium in other comprehensive income as a currency translation adjustment.

The accompanying notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(all amounts in thousands of U.S. dollars)

	Notes	At December 31, 2019		At December 31, 2018	
ASSETS					
Non-current assets					
Property, plant and equipment, net	9	6,090,017		6,063,908	
Intangible assets, net	10	1,561,559		1,465,965	
Right-of-use assets, net	11	233,126		-	
Investments in non-consolidated companies	12	879,965		805,568	
Other investments	18	24,934		118,155	
Deferred tax assets	20	225,680		181,606	
Receivables, net	13	157,103	9,172,384	151,905	8,787,107
Current assets					
Inventories, net	14	2,265,880		2,524,341	
Receivables and prepayments, net	15	104,575		155,885	
Current tax assets	16	167,388		121,332	
Trade receivables, net	17	1,348,160		1,737,366	
Derivative financial instruments	24	19,929		9,173	
Other investments	18	210,376		487,734	
Cash and cash equivalents	18	1,554,299	5,670,607	428,361	5,464,192
Total assets			14,842,991		14,251,299
EQUITY					
Capital and reserves attributable to owners of the parent			11,988,958		11,782,882
Non-controlling interests			197,414		92,610
Total equity			12,186,372		11,875,492
LIABILITIES					
Non-current liabilities					
Borrowings	19	40,880		29,187	
Lease liabilities	11	192,318		-	
Deferred tax liabilities	20	336,982		379,039	
Other liabilities	21 (i)	251,383		213,129	
Provisions	22 (ii)	54,599	876,162	36,089	657,444
Current liabilities					
Borrowings	19	781,272		509,820	
Lease liabilities	11	37,849		-	
Derivative financial instruments	24	1,814		11,978	
Current tax liabilities	16	127,625		250,233	
Other liabilities	21 (ii)	176,264		165,693	
Provisions	23 (ii)	17,017		24,283	
Customer advances		82,729		62,683	
Trade payables		555,887	1,780,457	693,673	1,718,363
Total liabilities			2,656,619		2,375,807
Total equity and liabilities			14,842,991		14,251,299

Contingencies, commitments and restrictions on the distribution of profits are disclosed in Note 25.
The accompanying notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(all amounts in thousands of U.S. dollars)

	Attributable to owners of the parent						Non-controlling interests		Total
	Share Capital (1)	Legal Reserves	Share Premium	Currency Translation Adjustment	Other Reserves (2)	Retained Earnings (3)	Total	Total	
Balance at December 31, 2018	1,180,537	118,054	609,733	(919,248)	(322,310)	11,116,116	11,782,882	92,610	11,875,492
Income (loss) for the year	-	-	-	-	-	742,686	742,686	(11,428)	731,258
Currency translation adjustment	-	-	-	(27,217)	-	-	(27,217)	(77)	(27,294)
Remeasurements of post employment benefit obligations, net of taxes	-	-	-	-	(7,132)	-	(7,132)	(595)	(7,727)
Change in value of instruments at fair value through other comprehensive income and cash flow hedges, net of taxes	-	-	-	-	1,605	-	1,605	727	2,332
From other comprehensive income of non-consolidated companies	-	-	-	(10,781)	(9,066)	-	(19,847)	-	(19,847)
Other comprehensive (loss) income for the year	-	-	-	(37,998)	(14,593)	-	(52,591)	55	(52,536)
Total comprehensive income (loss) for the year	-	-	-	(37,998)	(14,593)	742,686	690,095	(11,373)	678,722
Acquisition and other changes in non-controlling interests (4)	-	-	-	-	1	-	1	117,984	117,985
Dividends paid in cash	-	-	-	-	-	(484,020)	(484,020)	(1,807)	(485,827)
Balance at December 31, 2019	1,180,537	118,054	609,733	(957,246)	(336,902)	11,374,782	11,988,958	197,414	12,186,372

(1) The Company has an authorized share capital of a single class of 2.5 billion shares having a nominal value of \$1.00 per share. As of December 31, 2019 there were 1,180,536,830 shares issued. All issued shares are fully paid.

(2) Other reserves include mainly the result of transactions with non-controlling interests that do not result in a loss of control, the remeasurement of post-employment benefit obligations, the changes in value of cash flow hedges and the changes in financial instruments measured at fair value through other comprehensive income.

(3) The restrictions to the distribution of profits and payment of dividends according to Luxembourg Law are disclosed in Note 25.

(4) Related to Saudi Steel Pipe Company ("SSP") acquisition. See note 27.

The accompanying notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONT.)

(all amounts in thousands of U.S. dollars)

	Attributable to owners of the parent						Non-controlling interests	
	Share Capital (1)	Legal Reserves	Share Premium	Currency Translation Adjustment	Other Reserves (2)	Retained Earnings	Total	Total
Balance at December 31, 2017	1,180,537	118,054	609,733	(824,423)	(320,569)	10,718,853	11,482,185	11,580,970
Changes in accounting policies (Section II AP)	-	-	-	-	2,786	5,220	8,006	8,018
Balance at December 31, 2017 restated	1,180,537	118,054	609,733	(824,423)	(317,783)	10,724,073	11,490,191	11,588,988
Income (loss) for the year	-	-	-	-	-	876,063	876,063	873,900
Currency translation adjustment	-	-	-	(96,673)	-	-	(96,673)	(96,616)
Remeasurements of post employment benefit obligations, net of taxes	-	-	-	-	6,135	-	6,135	6,031
Change in value of instruments at fair value through other comprehensive income and cash flow hedges, net of taxes	-	-	-	-	(6,673)	-	(6,673)	(6,667)
From other comprehensive income of non-consolidated companies	-	-	-	1,848	(3,987)	-	(2,139)	(2,139)
Other comprehensive (loss) for the year	-	-	-	(94,825)	(4,525)	-	(99,350)	(99,691)
Total comprehensive income (loss) for the year	-	-	-	(94,825)	(4,525)	876,063	776,713	774,209
Acquisition and other changes in non-controlling interests	-	-	-	-	(2)	-	(2)	(24)
Dividends paid in cash	-	-	-	-	-	(484,020)	(484,020)	(487,681)
Balance at December 31, 2018	1,180,537	118,054	609,733	(919,248)	(322,310)	11,116,116	11,782,882	11,875,492

(all amounts in thousands of U.S. dollars)

	Attributable to owners of the parent						Non-controlling interests	
	Share Capital (1)	Legal Reserves	Share Premium	Currency Translation Adjustment	Other Reserves (2)	Retained Earnings	Total	Total
Balance at December 31, 2016	1,180,537	118,054	609,733	(965,955)	(313,088)	10,658,136	11,287,417	11,413,072
Income (loss) for the year	-	-	-	-	-	544,737	544,737	536,389
Currency translation adjustment	-	-	-	151,080	-	-	151,080	151,762
Remeasurements of post employment benefit obligations, net of taxes	-	-	-	-	(7,423)	-	(7,423)	(7,297)
Change in value of available for sale financial instruments and cash flow hedges net of tax	-	-	-	-	4,549	-	4,549	4,525
From other comprehensive income of non-consolidated companies	-	-	-	(9,548)	136	-	(9,412)	(9,412)
Other comprehensive income (loss) for the year	-	-	-	141,532	(2,738)	-	138,794	139,578
Total comprehensive income (loss) for the year	-	-	-	141,532	(2,738)	544,737	683,531	675,967
Acquisition and other changes in non-controlling interests	-	-	-	-	(4,743)	-	(4,743)	(4,694)
Dividends paid in cash	-	-	-	-	-	(484,020)	(484,020)	(508,020)
Balance at December 31, 2017	1,180,537	118,054	609,733	(824,423)	(320,569)	10,718,853	11,482,185	11,580,970

(1) The Company has an authorized share capital of a single class of 2.5 billion shares having a nominal value of \$1.00 per share. As of December 31, 2018 and 2017 there were 1,180,536,830 shares issued. All issued shares are fully paid.

(2) Other reserves include mainly the result of transactions with non-controlling interests that do not result in a loss of control, the remeasurement of post-employment benefit obligations and the changes in value of cash flow hedges and in available for sale financial instruments.

The accompanying notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

(all amounts in thousands of U.S. dollars)

	Notes	Year ended December 31,		
		2019	2018	2017
Cash flows from operating activities				
Income for the year		731,258	873,900	536,389
Adjustments for:				
Depreciation and amortization	9, 10 & 11	539,521	664,357	608,640
Income tax accruals less payments	28(ii)	(193,417)	58,494	(193,989)
Equity in earnings of non-consolidated companies	12	(82,036)	(193,994)	(116,140)
Interest accruals less payments, net	28(iii)	(4,381)	6,151	11,550
Changes in provisions		2,739	(8,396)	(17,245)
Income from the sale of Conduit business	29	-	-	(89,694)
Changes in working capital	28(i)	523,109	(737,952)	(853,184)
Currency translation adjustment and others		11,146	(51,758)	91,648
Net cash provided by (used in) operating activities		1,527,939	610,802	(22,025)
Cash flows from investing activities				
Capital expenditures	9 & 10	(350,174)	(349,473)	(558,236)
Changes in advance to suppliers of property, plant and equipment		3,820	4,851	7,077
Proceeds from disposal of Conduit business	29	-	-	327,631
Acquisition of subsidiaries, net of cash acquired	27	(132,845)	-	(10,418)
Investment in companies under cost method		(2,933)	-	(3,681)
Investment in non-consolidated companies	26	(19,610)	-	-
Loan to non-consolidated companies	12 c	-	(14,740)	(10,956)
Repayment of loan by non-consolidated companies	12 c	40,470	9,370	3,900
Proceeds from disposal of property, plant and equipment and intangible assets		2,091	6,010	5,443
Dividends received from non-consolidated companies	12	28,974	25,722	22,971
Changes in investments in securities		389,815	717,368	565,387
Net cash (used in) provided by investing activities		(40,392)	399,108	349,118
Cash flows from financing activities				
Dividends paid	8	(484,020)	(484,020)	(484,020)
Dividends paid to non-controlling interest in subsidiaries		(1,872)	(3,498)	(24,000)
Changes in non-controlling interests		1	(24)	(49)
Payments of lease liabilities	11	(41,530)	-	-
Proceeds from borrowings		1,332,716	1,019,302	1,196,781
Repayments of borrowings		(1,159,053)	(1,432,202)	(1,090,129)
Net cash used in financing activities		(353,758)	(900,442)	(401,417)
Increase (decrease) in cash and cash equivalents		1,133,789	109,468	(74,324)
Movement in cash and cash equivalents				
At the beginning of the year		426,717	330,090	398,580
Effect of exchange rate changes		(6,231)	(12,841)	5,834
Increase (decrease) in cash and cash equivalents		1,133,789	109,468	(74,324)
At December 31,	28(iv)	1,554,275	426,717	330,090
Cash and cash equivalents				
		2019	2018	2017
Cash and bank deposits		1,554,299	428,361	330,221
Bank overdrafts	18	(24)	(1,644)	(131)
		1,554,275	426,717	330,090

The accompanying notes are an integral part of these Consolidated Financial Statements.

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I. GENERAL INFORMATION

Tenaris S.A. (the “Company”) was established as a public limited liability company (*société anonyme*) under the laws of the Grand-Duchy of Luxembourg on December 17, 2001. The Company holds, either directly or indirectly, controlling interests in various subsidiaries in the steel pipe manufacturing and distribution businesses. References in these Consolidated Financial Statements to “Tenaris” refer to the Company and its consolidated subsidiaries. A list of the principal Company’s subsidiaries is included in Note 32 to these Consolidated Financial Statements.

The Company’s shares trade on the Italian Stock Exchange and the Mexican Stock Exchange; the Company’s American Depositary Securities (“ADS”) trade on the New York Stock Exchange.

These Consolidated Financial Statements were approved for issuance by the Company’s Board of Directors on February 19, 2020.

II. ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these Consolidated Financial Statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

A Basis of presentation

The Consolidated Financial Statements of Tenaris have been prepared in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board (“IASB”) and in accordance with IFRS as adopted by the European Union, under the historical cost convention, as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) and plan assets at fair value. The Consolidated Financial Statements are, unless otherwise noted, presented in thousands of U.S. dollars (“\$”).

Whenever necessary, certain comparative amounts have been reclassified to conform to changes in presentation in the current year.

Following the sale of the steel electric conduit business in North America, known as Republic Conduit, in January 2017, the results of the mentioned business are presented as discontinued operations in accordance with IFRS 5, “Non-current Assets Held for Sale and Discontinued Operations”. Consequently, all comparative amounts related to discontinued operations within each line item of the Consolidated Income Statement are reclassified into discontinued operations. The Consolidated Statement of Cash Flows includes the cash flows for continuing and discontinued operations. Cash flows from discontinued operations and earnings per share are disclosed separately in Note 29, as well as additional information detailing net assets of disposal group classified as held for sale and discontinued operations.

The preparation of Consolidated Financial Statements in conformity with IFRS requires management to make certain accounting estimates and assumptions that might affect among others, the reported amounts of assets, liabilities, contingent assets and liabilities, revenues and expenses. Actual results may differ from these estimates. The main areas involving significant estimates or judgements are: Impairment of goodwill and long-lived assets (note II.G); Income Taxes (note II.N); Loss contingencies (note II.P); Defined benefit obligations (note II.O), Business Combinations (notes II.B, III.27); Useful lives of property, plant and equipment and other long-lived assets (notes II.E, II.F, II.G).

(1) *Accounting pronouncements applicable as from January 1, 2019 and relevant for Tenaris*

IFRS 16, “Leases”

Tenaris has adopted IFRS 16 “Leases” from January 1, 2019. In accordance with the transition provisions in IFRS 16, Tenaris has adopted the new rules using the modified retrospective approach, meaning that reclassifications of the adoption was recognized in the opening balance sheet as of January 1, 2019 and that comparatives were not restated.

Upon adoption of IFRS 16, Tenaris recognized lease liabilities in relation to leases which had previously been classified as “operating leases” under the principles of IAS 17 “Leases”. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate as of January 1, 2019. The associated right-of-use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the balance sheet as of December 31, 2018. The difference between the amount of the lease liability recognized in the statement of financial position at the date of initial application and the operating lease commitments under IAS 17 is related to leases with a duration lower than 12 months, low value leases and/or leases with clauses related to variable payments.

A Basis of presentation (Cont.)

(1) Accounting pronouncements applicable as from January 1, 2019 and relevant for Tenaris (Cont.)

IFRS 16, "Leases" (Cont.)

Leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the lease term on a straight-line basis.

Lease liabilities include the net present value of i) fixed payments, less any lease incentives receivable, ii) variable lease payments that are based on an index or a rate, iii) amounts expected to be payable by the lessee under residual value guarantees, iv) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and v) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the amount of the initial measurement of lease liability, any lease payments made at or before the commencement date less any lease incentives received and any initial direct costs incurred by the lessee.

Payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expenses in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value comprise mainly IT equipment and small items of office furniture.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

IFRIC 23, "Uncertainty over Income Tax Treatments"

Tenaris has adopted IFRIC 23 "Uncertainty over Income Tax Treatments" from January 1, 2019. This interpretation clarifies how the recognition and measurement requirements of IAS 12 "Income taxes" are applied where there is uncertainty over income tax treatments.

Other accounting pronouncements that became effective during 2019 have no material effect on the Company's financial condition or results of operations.

B Group accounting

(1) Subsidiaries and transactions with non-controlling interests

Subsidiaries are all entities over which Tenaris has control. Tenaris controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is exercised by the Company and are no longer consolidated from the date control ceases.

The acquisition method of accounting is used to account for the acquisition of subsidiaries by Tenaris. The cost of an acquisition is measured as the fair value of the assets transferred, equity instruments issued and liabilities incurred or assumed at the date of exchange. Acquisition-related costs are expensed as incurred. Identifiable assets acquired, liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Any non-controlling interest in the acquiree is measured either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets. The excess of the aggregate of the consideration transferred and the amount of any non-controlling interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the Consolidated Income Statement.

B Group accounting (Cont.)

(1) *Subsidiaries and transactions with non-controlling interests (Cont.)*

Contingent consideration is classified either as equity or as a financial liability. Amounts classified as a financial liability are subsequently remeasured to fair value with changes in fair value recognized in profit or loss.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognized in profit or loss.

Transactions with non-controlling interests that do not result in a loss of control are accounted as transactions with equity owners of the Company. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

When the Company ceases to have control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

Material intercompany transactions, balances and unrealized gains (losses) on transactions between Tenaris subsidiaries have been eliminated in consolidation. However, since the functional currency of some subsidiaries is its respective local currency, some financial gains (losses) arising from intercompany transactions are generated. These are included in the Consolidated Income Statement under *Other financial results*.

(2) *Non-consolidated companies*

Non-consolidated companies are all entities in which Tenaris has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in non-consolidated companies (associated and joint ventures) are accounted for by the equity method of accounting and are initially recognized at cost. The Company's investment in non-consolidated companies includes goodwill identified in acquisition, net of any accumulated impairment loss.

Under the equity method of accounting, the investments are initially recognized at cost and adjusted thereafter to recognize Tenaris's share of the post-acquisition profits or losses of the investee in profit or loss, and Tenaris's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognized as a reduction in the carrying amount of the investment.

If material, unrealized results on transactions between Tenaris and its non-consolidated companies are eliminated to the extent of Tenaris's interest in the non-consolidated companies. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment indicator of the asset transferred. Financial statements of non-consolidated companies have been adjusted where necessary to ensure consistency with IFRS.

The Company's pro-rata share of earnings in non-consolidated companies is recorded in the Consolidated Income Statement under *Equity in earnings (losses) of non-consolidated companies*. The Company's pro-rata share of changes in other comprehensive income is recognized in the Consolidated Statement of Comprehensive Income.

B Group accounting (Cont.)

(2) *Non-consolidated companies (Cont.)*

Ternium

At December 31, 2019, Tenaris holds 11.46% of Ternium S.A. (“Ternium”)’s common stock. The following factors and circumstances evidence that Tenaris has significant influence (as defined by IAS 28, “Investments in associates companies and Joint Ventures”) over Ternium, and as a result the Company’s investment in Ternium has been accounted for under the equity method:

- § Both the Company and Ternium are under the indirect common control of San Faustin S.A.;
- § Four out of eight members of Ternium’s Board of Directors (including Ternium’s Chairman) are also members of the Company’s Board of Directors;
- § Under the shareholders’ agreement by and between the Company and Techint Holdings S.à r.l, a wholly owned subsidiary of San Faustin S.A. and Ternium’s main shareholder, dated January 9, 2006, Techint Holdings S.à.r.l, is required to take actions within its power to cause (a) one of the members of Ternium’s Board of Directors to be nominated by the Company and (b) any director nominated by the Company to be only removed from Ternium’s Board of Directors pursuant to previous written instructions of the Company.

Usiminas

At December 31, 2019, Tenaris holds through its Brazilian subsidiary Confab Industrial S.A. (“Confab”), 5.2% of the shares with voting rights and 3.07% of Usinas Siderúrgicas de Minas Gerais S.A. (“Usiminas”) total share capital.

The acquisition of Usiminas shares was part of a larger transaction performed on January 16, 2012, pursuant to which Ternium, certain of its subsidiaries and Confab joined Usiminas’ existing control group through the acquisition of ordinary shares representing 27.7% of Usiminas’ total voting capital and 13.8% of Usiminas’ total share capital. A shareholders’ agreement governed the rights and obligations of the several control group members.

In April and May 2016 Tenaris’s subsidiary Confab subscribed, in the aggregate, to 1.3 million preferred shares (BRL1.28 per share) for a total amount of BRL1.6 million (approximately \$0.5 million) and 11.5 million ordinary shares (BRL5.00 per share) for a total amount of BRL57.5 million (approximately \$16.6 million). The preferred and ordinary shares were issued on June 3, 2016 and July 19, 2016, respectively. Consequently as of December 31, 2019 Tenaris owns 36.5 million ordinary shares and 1.3 million preferred shares of Usiminas.

In 2014, a conflict arose between the T/T Group (comprising Confab and Ternium’s subsidiaries Ternium Investments, Ternium Argentina and Prosid Investments) and Nippon Steel & Sumitomo Metal Corporation (“NSSMC”) with respect to the governance of Usiminas.

On February 8, 2018, Ternium Investments resolved the dispute with NSSMC, and on April 10, 2018, the T/T Group entities (including Confab), NSSMC and Previdência Usiminas entered into a new shareholders’ agreement for Usiminas, amending and restating the previously existing shareholders agreement (the “New SHA”). Usiminas’ control group now holds, in the aggregate, 483.6 million ordinary shares bound to the New SHA, representing approximately 68.6% of Usiminas’ voting capital, with the T/T Group holding approximately 47.1% of the total shares held by the control group (39.5% corresponding to the Ternium entities and the other 7.6% corresponding to Confab); NSSMC holding approximately 45.9% of the total shares held by the control group; and Previdência Usiminas holding the remaining 7% of the total shares held by the control group.

The New SHA reflects the agreed-upon corporate governance rules for Usiminas, including, among others, an alternation mechanism for the nomination of each of the chief executive officer and the Chairman of the board of directors, as well as a mechanism for the nomination of other members of Usiminas’ executive board. The New SHA also incorporates an exit mechanism consisting of a buy-and-sell procedure, exercisable at any time during the term of the New SHA after the fourth-and-a-half-year anniversary from the May 2018 election of Usiminas’ executive board. Such exit mechanism shall apply with respect to shares held by NSSMC and the T/T Group, and would allow either Ternium or NSSMC to purchase all or a majority of the Usiminas shares held by the other shareholder.

B Group accounting (Cont.)

(2) *Non-consolidated companies (Cont.)*

Usiminas (Cont.)

In connection with the execution of the New SHA, Confab and the Ternium entities amended and restated their separate shareholders' agreement governing their respective rights and obligations as members of the T/T Group to include provisions relating to the exit mechanism and generally to conform such separate shareholders' agreement to the other provisions of the New SHA. The rights of Confab and Ternium and its subsidiaries within the Ternium - Tenaris Group are governed under such amended and restated separate shareholders agreement. Those circumstances evidence that Tenaris has significant influence over Usiminas, and consequently, accounted it for under the equity method (as defined by IAS 28).

Techgen

Techgen S.A. de C.V. ("Techgen") is a Mexican joint venture company owned 48% by Ternium, 30% by Tecpetrol International S.A. and 22% by Tenaris. Techgen operates a natural gas-fired combined electric power plant in the Pesquería area of the State of Nuevo Leon, México. Tenaris, Ternium and Tecpetrol International S.A. are parties to a shareholders' agreement relating to the governance of Techgen. In addition, the Company, Ternium and Tecpetrol International S.A. are under the indirect common control of San Faustin S.A., consequently Tenaris accounted it's interest under the equity method (as defined by IAS 28).

Tenaris carries its investment in Ternium, Usiminas and Techgen under the equity method, with no additional goodwill or intangible assets recognized. Tenaris reviews investments in non-consolidated companies for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. At December 31, 2019, 2018 and 2017, no impairment provisions were recorded in any of the aforementioned investments. See Note 12.

C Segment information

The Company is organized in one major business segment, Tubes, which is also the reportable operating segment.

The Tubes segment includes the production and sale of both seamless and welded steel tubular products and related services mainly for the oil and gas industry, particularly oil country tubular goods (OCTG) used in drilling operations, and for other industrial applications with production processes that consist in the transformation of steel into tubular products. Business activities included in this segment are mainly dependent on the oil and gas industry worldwide, as this industry is a major consumer of steel pipe products, particularly OCTG used in drilling activities. Demand for steel pipe products from the oil and gas industry has historically been volatile and depends primarily upon the number of oil and natural gas wells being drilled, completed and reworked, and the depth and drilling conditions of these wells. Sales are generally made to end users, with exports being done through a centrally managed global distribution network and domestic sales are made through local subsidiaries. Corporate general and administrative expenses have been allocated to the Tubes segment.

Others includes all other business activities and operating segments that are not required to be separately reported, including the production and selling of sucker rods, industrial equipment, coiled tubing, utility conduits for buildings, heat exchangers, energy and raw materials that exceed internal requirements.

Tenaris's Chief Operating Decision Maker (CEO) holds monthly meetings with senior management, in which operating and financial performance information is reviewed, including financial information that differs from IFRS principally as follows:

- § The use of direct cost methodology to calculate the inventories, while under IFRS it is at full cost, including absorption of production overheads and depreciations;
- § The use of costs based on previously internally defined cost estimates, while, under IFRS, costs are calculated at historical cost;
- § Other timing differences, if any.

Tenaris presents its geographical information in five areas: North America, South America, Europe, Middle East and Africa and Asia Pacific. For purposes of reporting geographical information, net sales are allocated to geographical areas based on the customer's location; allocation of assets, capital expenditures and associated depreciations and amortizations are based on the geographical location of the assets.

D Foreign currency translation

(1) *Functional and presentation currency*

IAS 21 (revised), "The effects of changes in foreign exchange rates" defines the functional currency as the currency of the primary economic environment in which an entity operates.

The functional and presentation currency of the Company is the U.S. dollar. The U.S. dollar is the currency that best reflects the economic substance of the underlying events and circumstances relevant to Tenaris's global operations.

Except for the Brazilian and Italian subsidiaries whose functional currencies are their local currencies, Tenaris determined that the functional currency of its other subsidiaries is the U.S. dollar, based on the following principal considerations:

- § Sales are mainly negotiated, denominated and settled in U.S. dollars. If priced in a currency other than the U.S. dollar, the sales price may consider exposure to fluctuation in the exchange rate versus the U.S. dollar;
- § Prices of their critical raw materials and inputs are priced and settled in U.S. dollars;
- § Transaction and operational environment and the cash flow of these operations have the U.S. dollar as reference currency;
- § Significant level of integration of the local operations within Tenaris's international global distribution network;
- § Net financial assets and liabilities are mainly received and maintained in U.S. dollars;
- § The exchange rate of certain legal currencies has long-been affected by recurring and severe economic crises.

(2) *Transactions in currencies other than the functional currency*

Transactions in currencies other than the functional currency are translated into the functional currency using the exchange rates prevailing at the date of the transactions or valuation where items are re-measured.

At the end of each reporting period: (i) monetary items denominated in currencies other than the functional currency are translated using the closing rates; (ii) non-monetary items that are measured in terms of historical cost in a currency other than the functional currency are translated using the exchange rates prevailing at the date of the transactions; and (iii) non-monetary items that are measured at fair value in a currency other than the functional currency are translated using the exchange rates prevailing at the date when the fair value was determined.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in currencies other than the functional currency are recorded as gains and losses from foreign exchange and included in *Other financial results* in the Consolidated Income Statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

(3) *Translation of financial information in currencies other than the functional currency*

Results of operations for subsidiaries whose functional currencies are not the U.S. dollar are translated into U.S. dollars at the average exchange rates for each quarter of the year. Financial statement positions are translated at the year-end exchange rates. Translation differences are recognized in a separate component of equity as currency translation adjustments. In the case of a sale or other disposal of any of such subsidiaries, any accumulated translation difference would be recognized in income as a gain or loss from the sale.

Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

E Property, plant and equipment

Property, plant and equipment are recognized at historical acquisition or construction cost less accumulated depreciation and impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items. Property, plant and equipment acquired through acquisitions accounted for as business combinations have been valued initially at the fair market value of the assets acquired.

Major overhaul and rebuilding expenditures are capitalized as property, plant and equipment only when it is probable that future economic benefits associated with the item will flow to the Company and the investment enhances the condition of assets beyond its original condition. The carrying amount of the replaced part is derecognized. Maintenance expenses on manufacturing properties are recorded as cost of products sold in the year in which they are incurred.

Cost may also include transfers from equity of any gains or losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Borrowing costs that are attributable to the acquisition or construction of certain capital assets are capitalized as part of the cost of the asset, in accordance with IAS 23(R), "Borrowing Costs". Assets for which borrowing costs are capitalized are those that require a substantial period of time to prepare for their intended use.

The depreciation method is reviewed at each year end. Depreciation is calculated using the straight-line method to depreciate the cost of each asset to its residual value over its estimated useful life, as follows:

Land	No Depreciation
Buildings and improvements	30-50 years
Plant and production equipment	10-40 years
Vehicles, furniture and fixtures, and other equipment	4-10 years

The assets' residual values and useful lives of significant plant and production equipment are reviewed and adjusted, if appropriate, at each year-end date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Management's re-estimation of assets useful lives, performed in accordance with IAS 16, "Property, Plant and Equipment", did not materially affect depreciation expenses for 2019, 2018 and 2017.

Tenaris depreciates each significant part of an item of property, plant and equipment for its different production facilities that (i) can be properly identified as an independent component with a cost that is significant in relation to the total cost of the item, and (ii) has a useful operating life that is different from another significant part of that same item of property, plant and equipment.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of assets and are recognized under *Other operating income* or *Other operating expenses* in the Consolidated Income Statement.

F Intangible assets

(1) *Goodwill*

Goodwill represents the excess of the acquisition cost over the fair value of Tenaris's share of net identifiable assets acquired as part of business combinations determined mainly by independent valuations. Goodwill is tested at least annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Goodwill is included in the Consolidated Statement of Financial Position under *Intangible assets, net*.

For the purpose of impairment testing, goodwill is allocated to a CGU or group of CGUs that are expected to benefit from the business combination which generated the goodwill being tested.

(2) *Information systems projects*

Costs associated with maintaining computer software programs are generally recognized as an expense as incurred. However, costs directly related to the development, acquisition and implementation of information systems are recognized as intangible assets if it is probable that they have economic benefits exceeding one year and comply with the recognition criteria of IAS 38, "Intangible Assets".

F Intangible assets (Cont.)

(2) *Information systems projects (Cont.)*

Information systems projects recognized as assets are amortized using the straight-line method over their useful lives, generally not exceeding a period of 3 years. Amortization charges are mainly classified as *Selling, general and administrative expenses* in the Consolidated Income Statement.

Management's re-estimation of assets useful lives, performed in accordance with IAS 38, did not materially affect amortization expenses for 2019, 2018 and 2017.

(3) *Licenses, patents, trademarks and proprietary technology*

Licenses, patents, trademarks, and proprietary technology acquired in a business combination are initially recognized at fair value at the acquisition date. Licenses, patents, proprietary technology and those trademarks that have a finite useful life are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method to allocate the cost over their estimated useful lives, and does not exceed a period of 10 years. Amortization charges are mainly classified as *Selling, general and administrative expenses* in the Consolidated Income Statement.

The balance of acquired trademarks that have indefinite useful lives according to external appraisal amounts to \$86.7 million at December 31, 2019, 2018 and 2017, and are included in Hydril CGU. Main factors considered in the determination of the indefinite useful lives include the years that they have been in service and their recognition among customers in the industry.

Management's re-estimation of assets useful lives, performed in accordance with IAS 38, did not materially affect amortization expenses for 2019, 2018 and 2017.

(4) *Research and development*

Research expenditures as well as development costs that do not fulfill the criteria for capitalization are recorded as *Cost of sales* in the Consolidated Income Statement as incurred. Research and development expenditures included in *Cost of sales* for the years 2019, 2018 and 2017 totaled \$61.1 million, \$63.4 million and \$63.7 million, respectively.

Capitalized costs were not material for the years 2019, 2018 and 2017.

(5) *Customer relationships*

In accordance with IFRS 3, "Business Combinations" and IAS 38, Tenaris has recognized the value of customer relationships separately from goodwill attributable to the acquisition of Maverick and Hydril groups, as well as the more recent acquisition of SSP.

Customer relationships acquired in a business combination are recognized at fair value at the acquisition date, have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight line method over the initial expected useful life of approximately 14 years for Maverick, 10 years for Hydril and 9 years for SSP.

In 2018 the Company reviewed the useful life of Maverick's Tubes customer relationships and decided to reduce the remaining useful life from 2 years to zero, consequently a higher amortization charge of approximately \$109 million was recorded in the Consolidated Income Statement under *Selling, general and administrative expenses* for the year ended December 31, 2018.

As of December 31, 2019 the net book value of SSP's customer relationship amounts to \$72.9 million, with a residual useful life of 8 years. Maverick's coiled tubing customer relationships amounts to \$9.9 million with a residual useful life of 1 year, while Hydril's customer relationships is fully amortized.

G Impairment of non-financial assets

Long-lived assets including identifiable intangible assets are reviewed for impairment at the lowest level for which there are separately identifiable cash flows (cash generating units, or CGU). Most of the Company's principal subsidiaries that constitute a CGU have a single main production facility and, accordingly, each of such subsidiary represents the lowest level of asset aggregation that generates largely independent cash inflows.

Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Intangible assets with indefinite useful lives, including goodwill, are subject to at least an annual impairment test.

In assessing whether there is any indication that a CGU may be impaired, external and internal sources of information are analyzed. Material facts and circumstances specifically considered in the analysis usually include the discount rate used in Tenaris's cash flow projections and the business condition in terms of competitive and economic factors, such as the cost of raw materials, oil and gas prices, capital expenditure programs for Tenaris's customers and the evolution of the rig count.

An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher between the asset's value in use and fair value less costs of disposal. Any impairment loss is allocated to reduce the carrying amount of the assets of the CGU in the following order:

- (a) first, to reduce the carrying amount of any goodwill allocated to the CGU; and
- (b) then, to the other assets of the unit (group of units) pro-rata on the basis of the carrying amount of each asset in the unit (group of units), considering not to reduce the carrying amount of the asset below the highest of its fair value less cost of disposal, its value in use or zero.

For purposes of calculating the fair value less costs of disposal, Tenaris uses the estimated value of future cash flows that a market participant could generate from the corresponding CGU.

Management judgment is required to estimate discounted future cash flows. Actual cash flows and values could vary significantly from the forecasted future cash flows and related values derived using discounting techniques.

Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal at each reporting date.

Tenaris regularly conducts assessments of the carrying values of its assets. The value-in-use was used to determine the recoverable value. Value-in-use is calculated by discounting the estimated cash flows over a five-year period based on forecasts approved by management. For the subsequent years beyond the five-year period, a terminal value is calculated based on perpetuity.

Tenaris's main source of revenue is the sale of products and services to the oil and gas industry and the level of such sales is sensitive to international oil and gas prices and their impact on drilling activities.

For purposes of assessing key assumptions, Tenaris uses external sources of information and management judgment based on past experience.

The main key assumptions used in estimating the value in use are discount rate, growth rate and competitive and economic factors applied to determine Tenaris's cash flow projections, such as oil and gas prices, average number of active oil and gas drilling rigs (rig count) and raw material costs.

Management has determined the value of each of the key assumptions as follows:

- Discount rate: based on the applicable weighted average cost of capital (WACC), which is considered to be a good indicator of capital cost, taking into account the industry, country and size of the business. For each CGU where assets are allocated, a specific WACC was determined taking into account the industry, country and size of the business. In 2019, the main discount rates used were in a range between 8.2% and 15.9%.

- Growth rate: considers the long-term average growth rate for the oil and gas industry, the inflation impact on prices and costs, the higher demand to offset depletion of existing fields and the Company's expected market penetration. In 2019, a nominal growth rate of 2% was considered.

G Impairment of non-financial assets (Cont.)

- Oil and gas prices: based on industry analysts' reports and management's expectations of market development respectively.
- Rig count: based on information published by Baker Hughes and management's expectations.
- Raw material costs: based on industry analysts' reports and management's expectations.

The main factors that could result in additional impairment charges in future periods would be an increase in the discount rate or a decrease in growth rate used in the Company's cash flow projections, a deterioration of the business, competitive and economic factors, such as a decrease in oil and gas prices, and the evolution of the rig count.

For the CGU with significant amount of goodwill assigned in comparison to the total amount of goodwill, Tenaris has determined that the CGU for which a reasonable possible change in the key assumption would cause the CGUs' carrying amount to exceed its recoverable amount was OCTG USA.

In OCTG USA, the recoverable amount calculated based on value in use exceeded carrying value by \$108 million as of December 31, 2019. The following changes in key assumptions, at CGU OCTG – USA, assuming unchanged values for the other assumptions, would cause the recoverable amount to be equal to the respective carrying value as of the impairment tests:

Increase in the discount rate	95 Bps
Decrease of the growth rate	-1.6 %
Decrease of the cash flow projections	-15.3 %

No impairment charge was recorded in 2019, 2018 and 2017.

H Other investments

Other investments consist primarily of investments in financial instruments and time deposits with a maturity of more than three months at the date of purchase.

Certain non-derivative financial assets that the Company held not for trading have been categorized as financial assets "at fair value through other comprehensive income" ("FVOCI"). They are carried at fair value and interest income from these financial assets is included in finance income using the effective interest rate method. Unrealized gains or losses are recorded as a fair value adjustment in the Consolidated Statement of Comprehensive Income and transferred to the Consolidated Income Statement when the financial asset is sold. Exchange gains and losses and impairments related to the financial assets are immediately recognized in the Consolidated Income Statement. FVOCI instruments with maturities greater than 12 months after the balance sheet date are included in non-current assets.

Other investments in financial instruments and time deposits are categorized as financial assets "at fair value through profit or loss" because such investments are held for trading and their performance is evaluated on a fair value basis. The results of these investments are recognized in *Financial Results* in the Consolidated Income Statement.

Purchases and sales of financial investments are recognized as of their settlement date.

The fair values of quoted investments are generally based on current bid prices. If the market for a financial investment is not active or the securities are not listed, Tenaris estimates the fair value by using standard valuation techniques. See Section III Financial Risk Management.

I Inventories

Inventories are stated at the lower between cost and net realizable value. The cost of finished goods and goods in process is comprised of raw materials, direct labor, utilities, freights and other direct costs and related production overhead costs, and it excludes borrowing costs. The allocation of fixed production costs, including depreciation and amortization charges, is based on the normal level of production capacity. Inventories cost is mainly based on the FIFO method. Tenaris estimates net realizable value of inventories by grouping, where applicable, similar or related items. Net realizable value is the estimated selling price in the ordinary course of business, less any estimated costs of completion and selling expenses. Goods in transit as of year-end are valued based on the supplier's invoice cost.

Tenaris establishes an allowance for obsolete or slow-moving inventories related to finished goods, goods in process, supplies and spare parts. For slow moving or obsolete finished products, an allowance is established based on management's analysis of product aging. An allowance for obsolete and slow-moving inventory of supplies and spare parts is established based on management's analysis of such items to be used as intended and the consideration of potential obsolescence due to technological changes, aging and consumption patterns.

J Trade and other receivables

Trade and other receivables are recognized initially at fair value that corresponds to the amount of consideration that is unconditional unless they contain significant financing components. The Company holds trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method. Due to the short-term nature, their carrying amount is considered to be the same as their fair value.

Tenaris applies the IFRS 9 "Financial Instruments" simplified approach to measure expected credit losses, which uses a lifetime expected loss allowance for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on the payment profiles of sales over a period of three years and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

K Cash and cash equivalents

Cash and cash equivalents are comprised of cash at banks, liquidity funds and short-term investments with a maturity of less than three months at the date of purchase which are readily convertible to known amounts of cash. Assets recorded in cash and cash equivalents are carried at fair market value or at historical cost which approximates fair market value.

In the Consolidated Statement of Financial Position, bank overdrafts are included in *Borrowings* in current liabilities.

For the purposes of the Consolidated Statement of Cash Flows, *Cash and cash equivalents* includes overdrafts.

L Equity

(1) Equity components

The Consolidated Statement of Changes in Equity includes:

- § The value of share capital, legal reserve, share premium and other distributable reserves calculated in accordance with Luxembourg law;
- § The currency translation adjustment, other reserves, retained earnings and non-controlling interest calculated in accordance with IFRS.

(2) Share capital

The Company has an authorized share capital of a single class of 2.5 billion shares having a nominal value of \$1.00 per share. Total ordinary shares issued and outstanding as of December 31, 2019, 2018 and 2017 are 1,180,536,830 with a par value of \$1.00 per share with one vote each. All issued shares are fully paid.

L Equity (Cont.)

(3) *Dividends distribution by the Company to shareholders*

Dividends distributions are recorded in the Company's financial statements when Company's shareholders have the right to receive the payment, or when interim dividends are approved by the Board of Directors in accordance with the by-laws of the Company.

Dividends may be paid by the Company to the extent that it has distributable retained earnings, calculated in accordance with Luxembourg law. See Note 25 (iii).

M Borrowings

Borrowings are recognized initially at fair value net of transaction costs incurred and subsequently measured at amortized cost. Any difference between the proceeds (net of transaction costs) and the redemption amount is recognized in profit or loss over the period of the borrowings using the effective interest method.

N Current and Deferred income tax

The income tax expense or credit for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses. Tax is recognized in the Consolidated Income Statement, except for tax items recognized in other comprehensive income or directly in equity.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the reporting date in the countries where the Company's subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions when appropriate.

Deferred income tax is recognized applying the liability method on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the financial statements. The principal temporary differences arise from the effect of currency translation on depreciable fixed assets and inventories, depreciation on property, plant and equipment, valuation of inventories, provisions for pension plans and fair value adjustments of assets acquired in business combinations. Deferred tax assets are also recognized for net operating loss carry-forwards. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the time period when the asset is realized or the liability is settled, based on tax laws that have been enacted or substantively enacted at the reporting date.

Deferred tax assets are recognized to the extent that it is probable that future taxable income will be available against which the temporary differences can be utilized. At the end of each reporting period, Tenaris reassesses unrecognized deferred tax assets. Tenaris recognizes a previously unrecognized deferred tax asset to the extent that it has become probable that future taxable income will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are not recognized for temporary differences between the carrying amount and tax basis of investments in foreign operations where the company is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

Deferred tax assets and liabilities are re-measured if tax rates change. These amounts are charged or credited to the Consolidated Income Statement or to the item *Other comprehensive income for the year* in the Consolidated Statement of Comprehensive Income, depending on the account to which the original amount was charged or credited.

O Employee benefits

(1) *Short-term obligations*

Liabilities for wages and salaries are recognized in respect of employees' services up to the end of the reporting period and are measured at the amounts expected to be paid when the liabilities are settled. The liabilities are presented as current employee benefit obligations in the balance sheet.

(2) *Post employment benefits*

The Company has defined benefit and defined contribution plans. A defined benefit plan is a pension plan that defines an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets, if any. The defined benefit obligation is calculated annually (at year end) by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in *Other comprehensive income* in the period in which they arise. Past-service costs are recognized immediately in the Income Statement.

For defined benefit plans, net interest income/expense is calculated based on the surplus or deficit derived by the difference between the defined benefit obligations less fair value of plan assets. For defined contribution plans, the Company pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Company has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expenses when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

Tenaris sponsors funded and unfunded defined benefit pension plans in certain subsidiaries. The most significant are:

- § An unfunded defined benefit employee retirement plan for certain senior officers. The plan is designed to provide certain benefits to those officers (additional to those contemplated under applicable labor laws) in case of termination of the employment relationship due to certain specified events, including retirement. This unfunded plan provides defined benefits based on years of service and final average salary. As of December 31, 2019 the outstanding liability for this plan amounts to \$45.3 million.
- § Employees' service rescission indemnity: the cost of this obligation is charged to the Consolidated Income Statement over the expected service lives of employees. This provision is primarily related to the liability accrued for employees at Tenaris's Italian subsidiary. As from January 1, 2007 as a consequence of a change in an Italian law, employees were entitled to make contributions to external funds, thus, Tenaris's Italian subsidiary pays every year the required contribution to the funds with no further obligation. As a result, the plan changed from a defined benefit plan to a defined contribution plan effective from that date, but only limited to the contributions of 2007 onwards. As of December 31, 2019 the outstanding liability for this plan amounts to \$17.3 million.
- § Funded retirement benefit plans held in Canada for salary and hourly employees hired prior to a certain date based on years of service and, in the case of salaried employees, final average salary. Plan assets consist primarily of investments in equities and money market funds. Both plans were replaced for defined contribution plans. Effective June 2016 the salary plan was frozen for the purposes of credited service as well as determination of final average pay. As of December 31, 2019 the outstanding liability for this plan amounts to \$9.8 million.
- § Funded retirement benefit plan held in the US for the benefit of some employees hired prior a certain date, frozen for the purposes of credited service as well as determination of final average pay for the retirement benefit calculation. Plan assets consist primarily of investments in equities and money market funds. Additionally, an unfunded postretirement health and life plan is present that offers limited medical and life insurance benefits to the retirees, hired before a certain date. As of December 31, 2019 the outstanding liability for these plans amounts to \$13.4 million.

O Employee benefits (Cont.)

(3) *Other long term benefits*

During 2007, Tenaris launched an employee retention and long term incentive program (the “Program”) applicable to certain senior officers and employees of the Company, who will be granted a number of Units throughout the duration of the Program. The value of each of these Units is based on Tenaris’s shareholders’ equity (excluding non-controlling interest). Also, the beneficiaries of the Program are entitled to receive cash amounts based on (i) the amount of dividend payments made by Tenaris to its shareholders, and (ii) the number of Units held by each beneficiary to the Program. Until 2017 units were vested ratably over a period of four years and were mandatorily redeemed by the Company ten years after grant date, with the option of an early redemption at seven years after the grant date. Since 2018 units are vested ratably over the same period and are mandatorily redeemed by the Company seven years after grant date. The payment of the benefit is tied to the book value of the shares, and not to their market value. Tenaris valued this long-term incentive program as a long term benefit plan as classified in IAS 19, “Employee Benefits”.

As of December 31, 2019 and 2018, the outstanding liability corresponding to the Program amounts to \$99.0 million and \$91.2 million, respectively. The total value of the units granted (vested and unvested) to date under the program, considering the number of units and the book value per share as of December 31, 2019 and 2018, is \$119.9 million and \$106 million, respectively.

(4) *Termination benefits*

Termination benefits are payable when employment is terminated by Tenaris before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for these benefits. Tenaris recognizes termination benefits at the earlier of the following dates: (a) when it can no longer withdraw the offer of those benefits; and (b) when the costs for a restructuring that is within the scope of IAS 37 and involves the payment of terminations benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer.

(5) *Other compensation obligations*

Employee entitlements to annual leave, long-service leave, sick leave and other bonuses and compensations obligations are accrued as earned.

Compensation to employees in the event of dismissal is charged to income in the year in which it becomes payable.

P Provisions

Tenaris is subject to various claims, lawsuits and other legal proceedings, including customer claims, in which a third party is seeking payment for alleged damages, reimbursement for losses or indemnity. Tenaris’s potential liability with respect to such claims, lawsuits and other legal proceedings cannot be estimated with certainty. Management periodically reviews the status of each significant matter and assesses potential financial exposure. If, as a result of past events, a potential loss from a claim or proceeding is considered probable and the amount can be reliably estimated, a provision is recorded. Accruals for loss contingencies reflect a reasonable estimate of the losses to be incurred based on information available to management as of the date of preparation of the financial statements, and take into consideration Tenaris’s litigation and settlement strategies. These estimates are primarily constructed with the assistance of legal counsel. As the scope of liabilities become better defined, there may be changes in the estimates of future costs which could have a material adverse effect on its results of operations, financial condition and cash flows.

If Tenaris expects to be reimbursed for an accrued expense, as would be the case for an expense or loss covered under an insurance contract, and reimbursement is considered virtually certain, the expected reimbursement is recognized as a receivable.

This note should be read in conjunction with Note 25.

Q Trade and other payables

Trade and other payables are recognized initially at fair value, generally the nominal invoice amount and subsequently measured at amortized cost. They are presented as current liabilities unless payment is not due within twelve months after the reporting period. Due to the short-term nature their carrying amounts are considered to be the same as their fair value.

R Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and rendering of services in the ordinary course of Tenaris's activities. The revenue recognized by the Company is measured at the transaction price of the consideration received or receivable to which the Company is entitled to, reduced by estimated returns and other customer credits, such as discounts and volume rebates, based on the expected value to be realized and after eliminating sales within the group.

Revenue is recognized at a point in time or over time from sales when control has been transferred and there is no unfulfilled performance obligation that could affect the acceptance of the product by the customer. The control is transferred upon delivery. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred and either the customer has accepted the product in accordance with the sales contract, the acceptance provisions have lapsed or the Company has objective evidence that all criteria for acceptance have been satisfied, including all performance obligations. These conditions are determined and analyzed on a contract by contract basis to ensure that all performance obligations are fulfilled; in particular, Tenaris verifies customer acceptance of the goods, the satisfaction of delivery terms and any other applicable condition.

For bill and hold transactions revenue is recognized only to the extent that (a) the reason for the bill and hold arrangement must be substantive (for example, the customer has requested the arrangement); (b) the products have been specifically identified and are ready for delivery; (c) the Company does not have the ability to use the product or to direct it to another customer; (d) the usual payment terms apply.

The Company's contracts with customers do not provide any material variable consideration, other than discounts, rebates and right of return. Discounts and rebates are recognized based on the most likely value and rights of return are based on expected value considering past experience and contract conditions.

Where the contracts include multiple performance obligations, the transaction price is allocated to each performance obligation based on the stand-alone selling prices. Where these are not directly observable, they are estimated based on the expected cost plus margin.

There are no judgements applied by management that significantly affect the determination of timing of satisfaction of performance obligations, nor the transaction price and amounts allocated to different performance obligations.

Tenaris provides services related to goods sold, which represent a non-material portion of sales revenue and include:

Pipe Management Services. This comprises mainly preparation of the pipes ready to be run, delivery to the customer, storage services and rig return.

Field Services. Comprises field technical support and running assistance.

These services are rendered in connection to the sales of goods and are attached to contracts with customers for the sale of goods. A significant portion of service revenue is recognized in the same period as the goods sold. There are no distinct uncertainties in the revenues and cash flows of the goods sold and services rendered as they are included in the same contract, have the same counterparty and are subject to the same conditions.

Revenue from providing services is recognized over time in the accounting period in which the services are rendered. The following inputs and outputs methods are applied to recognize revenue considering the nature of service:

Storage services, the Company provides storage services in owned or third-party warehouses, subject to a variable fee to be invoiced. This fee is determined based on the time that the customer maintains the material in the warehouse and the amount of the material stored. In the majority of cases, to quantify the amount to be invoiced in any given month, the monthly average fee of storage per ton is multiplied by the monthly average stock stored (in tons).

Freights, the Company recognized the revenue on a pro rata bases considering the units delivered and time elapsed.

Field services, the revenue is recognized considering outputs method, in particular surveys of service completion provided by the customer.

R Revenue recognition (Cont.)

The Company does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, considering that the contracts do not include any significant financing component, the Company does not adjust any of the transaction prices for the time value of money. For this reason, the Company is also applying the practical expedient not to disclose details on transaction prices allocated to the remaining performance obligations as of the end of the reporting period.

Tenaris only provides standard quality warranties assuring that the goods sold will function as expected or are fit for their intended purpose, with no incremental service to the customer. Accordingly, warranties do not constitute a separate performance obligation.

Other revenues earned by Tenaris are recognized on the following basis:

- § Interest income: on the effective yield basis.
- § Dividend income from investments in other companies: when Tenaris's right to receive payment is established.
- § Construction contracts revenues is recognized in accordance with the stage of the project completion.

S Cost of sales and other selling expenses

Cost of sales and other selling expenses are recognized in the Consolidated Income Statement on the accrual basis of accounting.

Commissions, freights and other selling expenses, including shipping and handling costs, are recorded in *Selling, general and administrative expenses* in the Consolidated Income Statement.

T Earnings per share

Earnings per share are calculated by dividing the income attributable to owners of the parent by the daily weighted average number of common shares outstanding during the year.

There are no dilutive potential ordinary shares.

U Financial instruments

Non derivative financial instruments comprise investments in financial debt instruments and equity, time deposits, trade and other receivables, cash and cash equivalents, borrowings and trade and other payables.

The Company classifies its financial instruments according to the following measurement categories:

- those to be measured subsequently at fair value (either through OCI or through profit or loss), and
- those to be measured at amortised cost

The classification depends on the Company's business model for managing the financial assets and contractual terms of the cash flows.

Financial assets are recognized on their settlement date. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all the risks and rewards of ownership.

At initial recognition, the Company measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expenses in profit or loss.

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Company classifies its debt instruments:

U Financial instruments (Cont.)

Amortized Cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest. Interest income from these financial assets is included in finance income using the effective interest rate method.

Exchange gains and losses and impairments related to the financial assets are immediately recognized in the Consolidated Income Statement.

Fair value through other comprehensive income: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest. Interest income from these financial assets is included in finance income using the effective interest rate method. Unrealized gains or losses are recorded as a fair value adjustment in the Consolidated Statement of Comprehensive Income and transferred to the Consolidated Income Statement when the financial asset is sold.

Fair value through profit and loss ("FVPL"): Assets that do not meet the criteria for amortized cost or FVOCI. Changes in fair value of financial instruments at FVPL are immediately recognized in the Consolidated Income Statement.

For equity instruments, these are subsequently measured at fair value.

Accounting for derivative financial instruments and hedging activities is included within the Section III, Financial Risk Management.

V Non-current assets held for sale and discontinued operations

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits and financial assets that are carried at fair value.

An impairment loss is recognized for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognized for any subsequent increase in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognized.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortized while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognized.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

A discontinued operation is a component of the entity that has been disposed of or is classified as held for sale and that represents a separate line of business or geographical area of operations, is part of a single coordinated plan to dispose of such a line of business or area of operations, or is a subsidiary acquired exclusively with a view to resale. The results of discontinued operations are presented separately in the Consolidated Income Statement. See Note 29.

III. FINANCIAL RISK MANAGEMENT

The multinational nature of Tenaris's operations and customer base exposes the Company to a variety of risks, mainly related to market risks (including the effects of changes in foreign currency exchange rates and interest rates), credit risk and capital market risk. In order to manage the volatility related to these exposures, management evaluates exposures on a consolidated basis, taking advantage of exposure netting. The Company or its subsidiaries may then enter into various derivative transactions in order to prevent potential adverse impacts on Tenaris's financial performance. Such derivative transactions are executed in accordance with internal policies and hedging practices.

A. Financial Risk Factors

(i) Capital Risk Management

Tenaris seeks to maintain a low debt to total equity ratio considering the industry and the markets where it operates. The year-end ratio of debt to total equity (where "debt" comprises financial borrowings and "total equity" is the sum of financial borrowings and equity) is 0.06 as of December 31, 2019 and 0.04 as of December 31, 2018. The Company does not have to comply with regulatory capital adequacy requirements.

(ii) Foreign exchange risk

Tenaris manufactures and sells its products in a number of countries throughout the world and consequently is exposed to foreign exchange rate risk. Since the Company's functional currency is the U.S. dollar the purpose of Tenaris's foreign currency hedging program is mainly to reduce the risk caused by changes in the exchange rates of other currencies against the U.S. dollar.

Tenaris's exposure to currency fluctuations is reviewed on a periodic consolidated basis. A number of derivative transactions are performed in order to achieve an efficient coverage in the absence of operative or natural hedges. Almost all of these transactions are forward exchange rates contracts. See Note 24.

Tenaris does not enter into derivative financial instruments for trading or other speculative purposes, other than non-material investments in structured products.

In the case of subsidiaries with functional currencies other than the U.S. dollar, the results of hedging activities, reported in accordance with IFRS, may not reflect entirely the management's assessment of its foreign exchange risk hedging program. Intercompany balances between Tenaris's subsidiaries may generate financial gains (losses) to the extent that functional currencies differ.

The value of Tenaris's financial assets and liabilities is subject to changes arising from the variation of foreign currency exchange rates. The following table provides a breakdown of Tenaris's main financial assets and liabilities (including foreign exchange derivative contracts) which impact the Company's profit and loss as of December 31, 2019 and 2018:

All amounts Long / (Short) in thousands of U.S. dollars Currency Exposure / Functional currency	As of December 31,	
	2019	2018
Argentine Peso / U.S. Dollar	(95,811)	(186,867)
Euro / U.S. Dollar	(103,518)	(175,419)
Saudi Arabian Riyal / U. S. Dollar	(107,582)	-

The main relevant exposures correspond to:

§ Argentine Peso / U.S. dollar

As of December 31, 2019 and 2018 consisting primarily of Argentine Peso-denominated financial, trade, social and fiscal payables at certain Argentine subsidiaries whose functional currency is the U.S. dollar. A change of 1% in the ARS/USD exchange rate would have generated a pre-tax gain / loss of \$1.0 million and \$1.9 million as of December 31, 2019 and 2018 respectively.

A. Financial Risk Factors (Cont.)

(ii) *Foreign exchange risk (Cont.)*

§ Euro / U.S. dollar

As of December 31, 2019 and 2018, consisting primarily of Euro-denominated intercompany liabilities at certain subsidiaries whose functional currency is the U.S. dollar. A change of 1% in the EUR/USD exchange rate would have generated a pre-tax gain / loss of \$1.0 million and \$1.3 million as of December 31, 2019 and 2018, respectively, which would have been to a large extent offset by changes in currency translation adjustment included in Tenaris's net equity position.

§ Saudi Arabian Riyal / U. S. Dollar

As of December 31, 2019 consisting primarily of Saudi Arabian Riyal-denominated financial and trade payables. The Saudi Arabian Riyal is tied to the dollar.

Considering the balances held as of December 31, 2019 on financial assets and liabilities exposed to foreign exchange rate fluctuations, Tenaris estimates that the impact of a simultaneous 1% appreciation / depreciation movement in the levels of foreign currencies exchange rates relative to the U.S. dollar, would be a pre-tax gain / loss of \$4.6 million (including a loss / gain of \$4.9 million due to foreign exchange derivative contracts), which would be partially offset by changes to Tenaris's net equity position of \$0.6 million. For balances held as of December 31, 2018, a simultaneous 1% favorable / unfavorable movement in the foreign currencies exchange rates relative to the U.S. dollar, would have generated a pre-tax gain / loss of \$3.6 million (including a loss / gain of \$2.3 million due to foreign exchange derivative contracts), which would have been partially offset by changes to Tenaris's net equity position of \$1.9 million.

The Company entered into foreign exchange derivative contracts to mitigate the exposure to fluctuations in exchange rates.

(iii) *Interest rate risk*

Tenaris is subject to interest rate risk on its investment portfolio and its debt. The Company uses a mix of variable and fixed rate debt in combination with its investment portfolio strategy. The Company may choose to enter into foreign exchange derivative contracts and / or interest rate swaps to mitigate the exposure to changes in the interest rates.

The following table summarizes the proportions of variable-rate and fixed-rate debt as of each year end.

	As of December 31,			
	2019		2018	
	Amount in thousands of U.S. dollars	%	Amount in thousands of U.S. dollars	%
Fixed rate (*)	768,002	93%	520,471	97%
Variable rate	54,150	7%	18,536	3%
Total	822,152		539,007	

(*) Out of the \$768 million fixed rate borrowings, \$728 million are short-term.

The Company estimates that, if market interest rates applicable to Tenaris's borrowings had been 100 basis points higher, then the additional pre-tax loss would have been \$7.7 million in 2019 and \$8.2 million in 2018.

(iv) *Credit risk*

Credit risk arises from cash and cash equivalents, deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions. The Company also actively monitors the creditworthiness of its treasury, derivative and insurance counterparties in order to minimize its credit risk.

There is no significant concentration of credit risk from customers. No single customer comprised more than 10% of Tenaris's net sales in 2019, 2018 and 2017.

Tenaris's credit policies related to sales of products and services are designed to identify customers with acceptable credit history and to allow Tenaris to require the use of credit insurance, letters of credit and other instruments designed to minimize credit risks whenever deemed necessary. Tenaris maintains allowances for impairment for potential credit losses. See Section II J.

A. Financial Risk Factors (Cont.)

(iv) *Credit risk (Cont.)*

As of December 31, 2019 and 2018 trade receivables amount to \$1,348.2 million and \$1,737.4 million respectively. Trade receivables have guarantees under credit insurance of \$178.7 million and \$181.7 million, letter of credit and other bank guarantees of \$55.2 million and \$62.3 million, and other guarantees of \$0.6 million and \$42.2 million as of December 31, 2019 and 2018 respectively.

As of December 31, 2019 and 2018, overdue trade receivables amounted to \$242.7 million and \$368.4 million, respectively. As of December 31, 2019 and 2018, overdue guaranteed trade receivables amounted to \$28.7 million and \$31.5 million; and the allowance for doubtful accounts amounted to \$48.8 million and \$66.5 million respectively. Both the allowance for doubtful accounts and the existing guarantees are sufficient to cover doubtful trade receivables.

(v) *Counterparty risk*

Tenaris has investment guidelines with specific parameters to limit issuer risk on marketable securities. Counterparties for derivatives and cash transactions are limited to high credit quality financial institutions, normally investment grade.

Approximately 96% of Tenaris's liquid financial assets correspond to Investment Grade-rated instruments as of December 31, 2019, in comparison with approximately 83% as of December 31, 2018.

(vi) *Liquidity risk*

Tenaris financing strategy aims to maintain adequate financial resources and access to additional liquidity. During 2019, Tenaris has counted on cash flows from operations as well as additional bank financing to fund its transactions.

Management maintains sufficient cash and marketable securities to finance normal operations and believes that Tenaris also has appropriate access to market for short-term working capital needs.

Liquid financial assets as a whole (comprising cash and cash equivalents and other investments) were 12% of total assets at the end of 2019 compared to 7% at the end of 2018.

Tenaris has a conservative approach to the management of its liquidity, which consists of i) cash and cash equivalents (cash in banks, liquidity funds and investments with a maturity of less than three months at the date of purchase), and ii) Other Investments (fixed income securities, time deposits, and fund investments).

Tenaris holds primarily investments in money market funds and variable or fixed-rate securities from investment grade issuers. As of December 31, 2019 and 2018, Tenaris does not have direct exposure to financial instruments issued by European sovereign counterparties.

Tenaris holds its investments primarily in U.S. dollars. As of December 31, 2019 and 2018, U.S. dollar denominated liquid assets represented approximately 95% of total liquid financial assets.

(vii) *Commodity price risk*

In the ordinary course of its operations, Tenaris purchases commodities and raw materials that are subject to price volatility caused by supply conditions, political and economic variables and other factors. As a consequence, Tenaris is exposed to risk resulting from fluctuations in the prices of these commodities and raw materials. Tenaris fixes the prices of such raw materials and commodities for short-term periods, typically not in excess of one year, in general Tenaris does not hedge this risk.

B. Category of financial instruments and classification within the fair value hierarchy

As mentioned in note II.A, the Company classifies its financial instruments in the following measurement categories: amortized cost, fair value through other comprehensive income and fair value through profit and loss. For financial instruments that are measured in the statement of financial position at fair value, IFRS 13, "Fair value measurement" requires a disclosure of fair value measurements by level according to the following fair value measurement hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

Level 3 - Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The following tables present the financial instruments by category and levels as of December 31, 2019 and 2018.

December 31, 2019	Carrying amount	Measurement Categories			At Fair Value		
		Amortized Cost	FVOCI	FVPL	Level 1	Level 2	Level 3
Assets							
Cash and cash equivalents	1,554,299	387,602	-	1,166,697	1,166,697	-	-
Other investments	210,376	65,874	144,502	-	134,990	9,512	-
<i>Fixed income (time-deposit, zero coupon bonds, commercial papers)</i>	65,874	65,874	-	-	-	-	-
Certificates of deposits	20,637	20,637	-	-	-	-	-
Commercial papers	4,993	4,993	-	-	-	-	-
Other notes	40,244	40,244	-	-	-	-	-
Bonds and other fixed income	144,502	-	144,502	-	134,990	9,512	-
U.S. government securities	10,211	-	10,211	-	10,211	-	-
Non - U.S. government securities	28,637	-	28,637	-	19,125	9,512	-
Corporates securities	105,654	-	105,654	-	105,654	-	-
Derivative financial instruments	19,929	-	-	19,929	-	19,929	-
Other Investments Non-current	24,934	-	18,012	6,922	18,012	-	6,922
Bonds and other fixed income	18,012	-	18,012	-	18,012	-	-
Other investments	6,922	-	-	6,922	-	-	6,922
Trade receivables	1,348,160	1,348,160	-	-	-	-	-
Receivables C and NC (*)	261,678	93,239	48,659	-	-	-	48,659
Other receivables	141,898	93,239	48,659	-	-	-	48,659
Other receivables (non-financial)	119,780	-	-	-	-	-	-
Total		1,894,875	211,173	1,193,548	1,319,699	29,441	55,581
Liabilities							
Borrowings C and NC	822,152	822,152	-	-	-	-	-
Trade payables	555,887	555,887	-	-	-	-	-
Finance Lease Liabilities C and NC	230,167	230,167	-	-	-	-	-
Derivative financial instruments	1,814	-	-	1,814	-	1,814	-
Total		1,608,206	-	1,814	-	1,814	-

(*) Includes balances related to interest in our Venezuelan companies. See Note 33.

B. Category of financial instruments and classification within the fair value hierarchy (Cont.)

December 31, 2018	Carrying amount	Measurement Categories			At Fair Value		
		Amortized Cost	FVOCI	FVPL	Level 1	Level 2	Level 3
Assets							
<i>Cash and cash equivalents</i>	428,361	268,163	-	160,198	160,198	-	-
<i>Other investments</i>	487,734	300,410	166,094	21,230	168,165	19,159	-
<i>Fixed income (time-deposit, zero coupon bonds, commercial papers)</i>	300,410	300,410	-	-	-	-	-
Certificates of deposits	198,912	198,912	-	-	-	-	-
Commercial papers	9,932	9,932	-	-	-	-	-
Other notes	91,566	91,566	-	-	-	-	-
<i>Bonds and other fixed income</i>	187,324	-	166,094	21,230	168,165	19,159	-
U.S. government securities	1,077	-	1,077	-	1,077	-	-
Non - U.S. government securities	24,912	-	24,912	-	24,912	-	-
Corporates securities	142,176	-	140,105	2,071	142,176	-	-
Structured notes	19,159	-	-	19,159	-	19,159	-
<i>Derivative financial instruments</i>	9,173	-	-	9,173	-	9,173	-
<i>Other Investments Non-current</i>	118,155	-	113,830	4,326	113,830	-	4,326
Bonds and other fixed income	113,830	-	113,830	-	113,830	-	-
Other investments	4,326	-	-	4,326	-	-	4,326
<i>Trade receivables</i>	1,737,366	1,737,366	-	-	-	-	-
<i>Receivables C and NC (*)</i>	307,790	139,474	48,711	-	-	52	48,659
Other receivables	188,185	139,474	48,711	-	-	52	48,659
Other receivables (non-financial)	119,605	-	-	-	-	-	-
Total		2,445,413	328,635	194,927	442,193	28,384	52,985
Liabilities							
<i>Borrowings C and NC</i>	539,007	539,007	-	-	-	-	-
<i>Trade payables</i>	693,673	693,673	-	-	-	-	-
<i>Derivative financial instruments</i>	11,978	-	-	11,978	-	11,978	-
Total		1,232,680	-	11,978	-	11,978	-

(*) Includes balances related to interest in our Venezuelan companies. See Note 33.

There were no transfers between levels during the year.

The fair value of financial instruments traded in active markets is based on quoted market prices at the reporting date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by Tenaris is the current bid price. These instruments are included in Level 1 and comprise primarily corporate and sovereign debt securities.

The fair value of financial instruments that are not traded in an active market (such as certain debt securities, certificates of deposits with original maturity of more than three months, forward and interest rate derivative instruments) is determined by using valuation techniques which maximize the use of observable market data when available and rely as little as possible on entity specific estimates. If all significant inputs required to value an instrument are observable, the instrument is included in Level 2. Tenaris values its assets and liabilities included in this level using bid prices, interest rate curves, broker quotations, current exchange rates, forward rates and implied volatilities obtained from market contributors as of the valuation date.

If one or more of the significant inputs are not based on observable market data, the instruments are included in Level 3. Tenaris values its assets and liabilities in this level using observable market inputs and management assumptions which reflect the Company's best estimate on how market participants would price the asset or liability at measurement date. Main balances included in this level correspond to the Company interest in Venezuelan companies. See Note 33.

B. Category of financial instruments and classification within the fair value hierarchy (Cont.)

The following table presents the changes in Level 3 assets and liabilities:

	Year ended December 31,	
	2019	2018
	Assets / Liabilities	
At the beginning of the year	52,985	26,409
Addition / (Decrease)	2,933	26,768
Currency translation adjustment and others	(337)	(192)
At the end of the year	55,581	52,985

C. Fair value estimation

Financial assets or liabilities classified at fair value through profit or loss are measured under the framework established by the IASB accounting guidance for fair value measurements and disclosures.

The fair values of quoted investments are generally based on current bid prices. If the market for a financial asset is not active or no market is available, fair values are established using standard valuation techniques.

The fair value of all outstanding derivatives is determined using specific pricing models that include inputs that are observable in the market or can be derived from or corroborated by observable data. The fair value of forward foreign exchange contracts is calculated as the net present value of the estimated future cash flows in each currency, based on observable yield curves, converted into U.S. dollars at the spot rate of the valuation date.

Borrowings are comprised primarily of fixed rate debt and variable rate debt with a short term portion where interest has already been fixed. They are classified under other financial liabilities and measured at their amortized cost. Tenaris estimates that the fair value of its main financial liabilities is approximately 100.0% of its carrying amount including interests accrued in 2019 as compared with 99.3% in 2018. Fair values were calculated using standard valuation techniques for floating rate instruments and comparable market rates for discounting flows.

The carrying amount of investments valued at amortized cost approximates its fair value.

D. Accounting for derivative financial instruments and hedging activities

Derivative financial instruments are initially recognized in the statement of financial position at fair value through profit and loss on each date a derivative contract is entered into and are subsequently remeasured at fair value. Specific tools are used for calculation of each instrument's fair value and these tools are tested for consistency on a monthly basis. Market rates are used for all pricing operations. These include exchange rates, deposit rates and other discount rates matching the nature of each underlying risk.

As a general rule, Tenaris recognizes the full amount related to the change in fair value of derivative financial instruments in *Financial Results* in the Consolidated Income Statement.

Tenaris designates certain derivatives and non derivative financial liabilities (leasing liabilities denominated in Japanese Yen) as hedges of particular risks associated with recognized assets or liabilities or highly probable forecast transactions. These transactions are classified as cash flow hedges. The effective portion of the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in equity. Similarly the effective portion of the foreign exchange result on the designated leasing liability is recognized in equity. Amounts accumulated in equity are then recognized in the income statement in the same period as the offsetting losses and gains on the hedged item. The gain or loss relating to the ineffective portion is recognized immediately in the income statement. The fair value of Tenaris's derivative financial instruments (assets or liabilities) continues to be reflected in the statement of financial position. The lease liability will be recognized on the balance sheet at each period end at the exchange rate as of the end of each month. The full fair value of a hedging derivative and the leasing liability is classified as a current or non-current asset or liability according to its expiry date.

For transactions designated and qualifying for hedge accounting, Tenaris documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedge transactions. Tenaris also documents its assessment on an ongoing basis, of whether the hedging instrument are highly effective in offsetting changes in the fair value or cash flow of hedged items. At December 31, 2019 and 2018, the effective portion of designated cash flow hedges which is included in *Other Reserves* in equity amounts to \$2.6 million credit and \$0.9 million debit respectively. See Note 24.

The fair values of various derivative instruments used for hedging purposes and the movements of the hedging reserve included within *Other Reserves* in equity are disclosed in Note 24.

IV. OTHER NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(In the notes all amounts are shown in thousands of U.S. dollars, unless otherwise stated)

1 Segment information

As mentioned in section II. AP – C, the Segment Information is disclosed as follows:

Reportable operating segments

(All amounts in millions of U.S. dollars)

			Continuing operations	Discontinued operations
Year ended December 31, 2019	Tubes	Other		
IFRS - Net Sales	6,870	424	7,294	-
Management view - operating income	857	73	929	-
Difference in cost of sales	(105)	3	(102)	-
Differences in depreciation and amortization	(1)	(0)	(1)	-
Differences in selling, general and administrative expenses	(1)	1	(0)	-
Differences in other operating income (expenses), net	6	-	6	-
IFRS - operating income	755	77	832	-
Financial income (expense), net			19	-
Income before equity in earnings of non-consolidated companies and income tax			852	-
Equity in earnings of non-consolidated companies			82	-
Income before income tax			934	-
Capital expenditures	338	12	350	-
Depreciation and amortization	523	17	540	-
Year ended December 31, 2018	Tubes	Other	Continuing operations	Discontinued operations
IFRS - Net Sales	7,233	426	7,659	-
Management view - operating income	702	81	783	-
Difference in cost of sales	112	7	119	-
Differences in depreciation and amortization	(34)	-	(34)	-
Differences in selling, general and administrative expenses	(2)	6	4	-
IFRS - operating income	777	95	872	-
Financial income (expense), net			37	-
Income before equity in earnings of non-consolidated companies and income tax			909	-
Equity in earnings of non-consolidated companies			194	-
Income before income tax			1,103	-
Capital expenditures	346	3	349	-
Depreciation and amortization	645	19	664	-
Year ended December 31, 2017	Tubes	Other	Continuing operations	Discontinued operations
IFRS - Net Sales	4,966	323	5,289	12
Management view - operating income	115	48	163	3
Difference in cost of sales	164	1	165	(1)
Differences in depreciation and amortization	(3)	-	(3)	-
Differences in selling, general and administrative expenses	14	(6)	8	-
Differences in other operating income (expenses), net	2	-	2	-
IFRS - operating income	292	43	335	2
Financial income (expense), net			(23)	-
Income before equity in earnings of non-consolidated companies and income tax			312	2
Equity in earnings of non-consolidated companies			116	-
Income before income tax			428	2
Capital expenditures	550	8	558	-
Depreciation and amortization	594	15	609	-

Transactions between segments, which were eliminated in consolidation, are mainly related to sales of scrap, energy, surplus raw materials and others from the Other segment to the Tubes segment for \$36, \$52 and \$53 million in 2019, 2018 and 2017, respectively.

There are no material differences between total reportable segments' revenues and the entity's revenue under IFRS.

The main differences between operating income under IFRS view and the management view are mainly related to the cost of goods sold and other timing differences. See Section II. A. C. Segment Information.

In addition to the amounts reconciled above, the main differences in net income arise from the impact of functional currencies on financial result, deferred income taxes as well as the result of investment in non-consolidated companies and changes on the valuation of inventories according to cost estimation internally defined.

1 Segment information (Cont.)**Geographical information**

(all amounts in thousands of U.S. dollars)	North America	South America	Europe	Middle East & Africa	Asia Pacific	Unallocated (*)	Total continuing operations	Total discontinued operations
Year ended December 31, 2019								
Net sales	3,429,911	1,391,288	738,880	1,382,172	351,804	-	7,294,055	-
Total assets	7,885,120	2,227,044	2,282,775	958,424	609,663	879,965	14,842,991	-
Trade receivables	612,809	176,173	149,321	319,406	90,451	-	1,348,160	-
Property, plant and equipment, net	3,771,570	1,129,260	816,721	254,858	117,608	-	6,090,017	-
Capital expenditures	169,390	113,999	55,169	4,578	7,038	-	350,174	-
Depreciation and amortization	276,046	105,308	82,400	42,520	33,247	-	539,521	-
Year ended December 31, 2018								
Net sales	3,611,509	1,462,044	724,733	1,559,988	300,314	-	7,658,588	-
Total assets	7,971,311	2,489,522	1,913,589	588,746	482,563	805,568	14,251,299	-
Trade receivables	791,190	280,801	215,202	383,358	66,815	-	1,737,366	-
Property, plant and equipment, net	3,859,060	1,133,113	848,178	94,040	129,517	-	6,063,908	-
Capital expenditures	196,220	68,603	77,467	2,047	5,136	-	349,473	-
Depreciation and amortization	441,705	108,558	82,769	10,389	20,936	-	664,357	-
Year ended December 31, 2017								
Net sales	2,451,357	1,142,142	545,777	937,439	211,789	-	5,288,504	11,899
Total assets	7,925,520	2,975,599	2,002,658	391,029	441,546	661,866	14,398,218	-
Trade receivables	582,204	234,877	214,944	135,524	46,511	-	1,214,060	-
Property, plant and equipment, net	3,914,229	1,190,145	878,788	102,481	143,500	-	6,229,143	-
Capital expenditures	430,142	58,949	57,285	7,562	4,153	-	558,091	145
Depreciation and amortization	354,091	126,273	93,900	12,094	22,282	-	608,640	-

(*) For 2019 and 2018 includes Investments in non-consolidated companies, for 2017 includes Investments in non-consolidated companies and Other equity investments for \$21.6 million. See Note 12 and 33.

There are no revenues from external customers attributable to the Company's country of incorporation (Luxembourg). For geographical information purposes, "North America" comprises Canada, Mexico and the USA (31%); "South America" comprises principally Argentina (12%), Brazil and Colombia; "Europe" comprises principally Italy, Romania and United Kingdom; "Middle East and Africa" comprises principally Egypt, Kazakhstan, Nigeria, India and Saudi Arabia and; "Asia Pacific" comprises principally China, Japan, Indonesia and Thailand.

Revenue is mainly recognized at a point in time to direct customers, when control has been transferred and there is no unfulfilled performance obligation that could affect the acceptance of the product by the customer. Tenaris's revenues related to governmental institutions represents approximately 21%, 15% and 17% in 2019, 2018 and 2017 respectively.

Tubes segment revenues by market:

Revenues Tubes (in million US dollar)	2019	2018	2017
Oil and Gas	5,757	6,042	4,034
Hydrocarbon Processing and Power Generation	534	602	484
Industrial and Other	579	589	448
Total	6,870	7,233	4,966

At December 2019, 2018 and 2017, the Company recognized contract liabilities related to customer advances in the amount of \$82.7, \$62.7 and \$56.7 million, respectively. These amounts related to years 2018 and 2017 were reclassified to revenues during the subsequent year. In these periods, no significant adjustment in revenues were performed related to performance obligations previously satisfied.

2 Cost of sales

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
Inventories at the beginning of the year	2,524,341	2,368,304	1,563,889
Increase in inventory due to business combinations	52,966	-	-
Plus: Charges of the year			
Raw materials, energy, consumables and other	2,709,629	3,400,396	2,794,503
Services and fees	222,415	275,130	244,035
Labor cost	870,261	855,040	778,408
Depreciation of property, plant and equipment	428,791	432,497	383,490
Amortization of intangible assets	5,948	8,220	18,621
Depreciation of right-of-use assets	28,727	-	-
Maintenance expenses	284,758	185,782	183,370
Allowance for obsolescence	29,138	25,457	(12,917)
Taxes	100,738	133,308	18,542
Other	115,663	119,507	88,823
	4,849,034	5,435,337	4,496,875
Less: Inventories at the end of the year	(2,265,880)	(2,524,341)	(2,368,304)
From discontinued operations	-	-	(7,403)
	5,107,495	5,279,300	3,685,057

3 Selling, general and administrative expenses

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
Services and fees	153,773	128,090	132,301
Labor cost	481,854	470,928	443,338
Depreciation of property, plant and equipment	18,524	16,968	17,979
Amortization of intangible assets	41,967	206,672	188,550
Depreciation of right-of-use assets	15,564	-	-
Commissions, freight and other selling expenses	441,442	491,555	339,759
Provisions for contingencies	28,565	23,498	17,664
Allowances for doubtful accounts	(16,256)	1,751	(5,421)
Taxes	110,876	71,110	56,826
Other	89,665	99,404	81,061
	1,365,974	1,509,976	1,272,057
From discontinued operations	-	-	(2,041)
	1,365,974	1,509,976	1,270,016

4 Labor costs (included in Cost of sales and in Selling, general and administrative expenses)

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
Wages, salaries and social security costs	1,274,474	1,250,783	1,144,341
Severance indemnities	24,637	25,225	34,497
Defined contribution plans	12,663	13,217	12,401
Pension benefits - defined benefit plans	18,207	15,390	15,066
Employee retention and long term incentive program	22,134	21,353	15,441
	1,352,115	1,325,968	1,221,746
From discontinued operations	-	-	(853)
	1,352,115	1,325,968	1,220,893

The following table shows the geographical distribution of the employees:

Country	2019	2018	2017
Argentina	5,405	5,427	5,221
Mexico	5,370	5,595	5,139
USA	2,255	2,382	1,953
Italy	2,144	2,155	2,088
Romania	1,815	1,852	1,870
Brazil	1,360	1,287	1,382
Colombia	1,040	1,082	1,003
Canada	772	1,030	919
Indonesia	616	554	506
Japan	400	399	410
Other	2,023	1,204	1,114
	23,200	22,967	21,605

5 Other operating income and expenses

(all amounts in thousands of U.S. dollars)	Year ended December 31,		
	2019	2018	2017
Other operating income			
Net income from other sales	8,651	3,604	4,395
Net rents	5,089	4,909	4,325
Other	8,025	6,546	1,796
Recovery on allowance for doubtful receivables	1,239	-	-
	23,004	15,059	10,516
Other operating expenses			
Contributions to welfare projects and non-profits organizations	11,199	11,379	9,158
Loss on fixed assets and material supplies disposed / scrapped	-	-	118
Allowance for doubtful receivables	-	1,179	84
	11,199	12,558	9,360
From discontinued operations	-	-	(1)
	11,199	12,558	9,359

6 Financial results

(all amounts in thousands of U.S. dollars)	Year ended December 31,		
	2019	2018	2017
Interest Income	48,061	42,244	51,525
Net result on changes in FV of financial assets at FVPL	(64)	(2,388)	(3,920)
Finance income (*)	47,997	39,856	47,605
Finance cost	(43,381)	(36,942)	(27,072)
Net foreign exchange transactions results (**)	27,868	28,845	(48,955)
Foreign exchange derivatives contracts results (***)	(11,616)	6,576	(8,996)
Other	(1,585)	(1,035)	14,392
Other financial results	14,667	34,386	(43,559)
Net financial results	19,283	37,300	(23,026)
From discontinued operations	-	-	9
	19,283	37,300	(23,017)

(*) *Finance Income:*

In 2019 and 2018 includes \$7.6 and \$3.6 million of interest related to instruments carried at FVPL, respectively.

(**) *Net foreign exchange transactions results:*

In 2019 mainly includes the result from the Argentine peso depreciation against the U.S. dollar on Peso denominated financial, trade, social and fiscal payables and receivables at Argentine subsidiaries with functional currency U.S. dollar.

In 2018 mainly includes the result from the Argentine peso depreciation against the U.S. dollar on Peso denominated financial, trade, social and fiscal payables and receivables at Argentine subsidiaries with functional currency U.S. dollar, together with the positive impact from Euro depreciation against the U.S. dollar on Euro denominated intercompany liabilities in subsidiaries with functional currency U.S. Dollar, largely offset by an increase in currency translation adjustment reserve from our Italian subsidiary.

In 2017 mainly includes the negative impact from Euro appreciation against the U.S. dollar on Euro denominated intercompany liabilities in subsidiaries with functional currency U.S. Dollar, largely offset by an increase in currency translation adjustment reserve from our Italian subsidiary.

(***) *Foreign exchange derivatives contracts results:*

In 2019 includes mainly losses on derivatives covering net payables in Argentine peso and in Euros and net receivables in Canadian dollar.

In 2018 includes mainly gain on derivatives covering net receivables in Canadian dollar.

In 2017 includes mainly losses on derivatives covering net receivables in Brazilian real and Canadian dollar and net payables in Argentine peso, partially offset by gains on derivatives covering net payables in Euro.

7 Income tax

(all amounts in thousands of U.S. dollars)	Year ended December 31,		
	2019	2018	2017
Current tax	299,692	343,104	184,016
Deferred tax	(97,240)	(113,897)	(100,432)
	202,452	229,207	83,584
From discontinued operations	-	-	(100,720)
	202,452	229,207	(17,136)

The tax on Tenaris's income before tax differs from the theoretical amount that would arise using the tax rate in each country as follows:

(all amounts in thousands of U.S. dollars)	Year ended December 31,		
	2019	2018	2017
Income before income tax	933,710	1,103,107	427,711
Tax calculated at the tax rate in each country	186,752	207,422	6,456
Effect of currency translation on tax base	53,296	77,552	(922)
Changes in the tax rates	(13)	1,824	(62,968)
Utilization of previously unrecognized tax losses	(547)	-	-
Tax revaluation, withholding tax and others	(37,036)	(57,591)	40,298
Tax charge	202,452	229,207	(17,136)

Effect of currency translation on tax base, Tenaris applies the liability method to recognize deferred income tax on temporary differences between the tax bases of assets/liabilities and their carrying amounts in the financial statements. By application of this method, Tenaris recognizes gains and losses on deferred income tax due to the effect of the change in the value on the tax basis in subsidiaries (mainly Argentina and Mexico), which have a functional currency different than their local currency. These gains and losses are required by IFRS even though the revalued / devalued tax bases of the relevant assets will not result in any deduction / obligation for tax purposes in future periods.

Tax revaluation, withholding tax and others, mainly includes a net tax income of \$66 and \$65 million for 2019 and 2018 respectively related to the tax revaluation regime in Argentina and Mexico; it also includes a charge of \$34 and \$26 million for 2019 and 2018 respectively related to withholding taxes for intra group international operations.

Changes in the tax rates, in 2017 it includes mainly the effect of the changes in tax rate in Argentine and US subsidiaries for approximately \$46 million and \$15 million respectively.

8 Dividends distribution

On October 30, 2019, the Company's Board of Directors approved the payment of an interim dividend of \$0.13 per share (\$0.26 per ADS), or approximately \$153 million, paid on November 20, 2019, with an ex-dividend date of November 18, 2019.

On May 6, 2019, the Company's Shareholders approved an annual dividend in the amount of \$0.41 per share (\$0.82 per ADS). The amount approved included the interim dividend previously paid on November 21, 2018 in the amount of \$0.13 per share (\$0.26 per ADS). The balance, amounting to \$0.28 per share (\$0.56 per ADS), was paid on May 22, 2019. In the aggregate, the interim dividend paid in November 2018 and the balance paid in May 2019 amounted to approximately \$484 million.

On May 2, 2018, the Company's Shareholders approved an annual dividend in the amount of \$0.41 per share (\$0.82 per ADS). The amount approved included the interim dividend previously paid on November 22, 2017 in the amount of \$0.13 per share (\$0.26 per ADS). The balance, amounting to \$0.28 per share (\$0.56 per ADS), was paid on May 23, 2018. In the aggregate, the interim dividend paid in November 2017 and the balance paid in May 2018 amounted to approximately \$484 million.

On May 3, 2017, the Company's Shareholders approved an annual dividend in the amount of \$0.41 per share (\$0.82 per ADS). The amount approved included the interim dividend previously paid on November 23, 2016 in the amount of \$0.13 per share (\$0.26 per ADS). The balance, amounting to \$0.28 per share (\$0.56 per ADS), was paid on May 24, 2017. In the aggregate, the interim dividend paid in November 2016 and the balance paid in May 2017 amounted to approximately \$484 million.

9 Property, plant and equipment, net

Year ended December 31, 2019	Land and civil buildings	Industrial buildings, plant and production equipment	Vehicles, furniture and fixtures	Work in progress	Spare parts and equipment	Total
Cost						
Values at the beginning of the year	732,578	12,121,569	377,260	127,378	63,197	13,421,982
Translation differences	(1,611)	(38,961)	(1,615)	(864)	(256)	(43,307)
Increase due to business combinations (*)	59,468	115,908	1,733	1,630	-	178,739
Additions	16	1,178	1,107	299,412	12,202	313,915
Disposals / Consumptions	(35)	(27,153)	(7,110)	(2,120)	(2,557)	(38,975)
Transfers / Reclassifications	8,723	296,272	28,349	(317,128)	(11,984)	4,232
Values at the end of the year	799,139	12,468,813	399,724	108,308	60,602	13,836,586
Depreciation						
Accumulated at the beginning of the year	110,914	6,936,900	310,260	-	-	7,358,074
Translation differences	(420)	(24,973)	(1,485)	-	-	(26,878)
Depreciation charge	11,409	415,826	20,080	-	-	447,315
Transfers / Reclassifications	(362)	(38)	-	-	-	(400)
Disposals / Consumptions	(73)	(25,580)	(5,889)	-	-	(31,542)
Accumulated at the end of the year	121,468	7,302,135	322,966	-	-	7,746,569
At December 31, 2019	677,671	5,166,678	76,758	108,308	60,602	6,090,017

(*) Related to SSP acquisition. See Note 27.

Year ended December 31, 2018	Land and civil buildings	Industrial buildings, plant and production equipment	Vehicles, furniture and fixtures	Work in progress	Spare parts and equipment	Total
Cost						
Values at the beginning of the year	712,061	11,954,585	370,542	167,079	42,413	13,246,680
Translation differences	(5,628)	(117,977)	(5,458)	(2,269)	(424)	(131,756)
Additions	723	681	1,245	294,163	20,756	317,568
Disposals / Consumptions	(221)	(21,836)	(10,269)	(42)	(3,541)	(35,909)
Transfers / Reclassifications	25,643	306,116	21,200	(331,553)	3,993	25,399
Values at the end of the year	732,578	12,121,569	377,260	127,378	63,197	13,421,982
Depreciation						
Accumulated at the beginning of the year	101,197	6,612,871	303,469	-	-	7,017,537
Translation differences	(1,383)	(72,141)	(4,939)	-	-	(78,463)
Depreciation charge	11,153	417,229	21,083	-	-	449,465
Transfers / Reclassifications	-	173	(671)	-	-	(498)
Disposals / Consumptions	(53)	(21,232)	(8,682)	-	-	(29,967)
Accumulated at the end of the year	110,914	6,936,900	310,260	-	-	7,358,074
At December 31, 2018	621,664	5,184,669	67,000	127,378	63,197	6,063,908

Property, plant and equipment include capitalized interests for net amounts at December 31, 2019 and 2018 of \$35.4 million and \$37.4 million, respectively. There were no interest capitalized during 2019 and 2018.

10 Intangible assets, net

Year ended December 31, 2019	Information system projects	Licenses, patents and trademarks (*)	Goodwill	Customer relationships	Total
Cost					
Values at the beginning of the year	580,622	464,571	2,085,936	2,058,859	5,189,988
Translation differences	(1,917)	(70)	(968)	-	(2,955)
Increase due to business combinations (**)	405	-	32,869	81,192	114,466
Additions	35,487	772	-	-	36,259
Transfers / Reclassifications	(4,665)	-	-	-	(4,665)
Disposals	(5,062)	(1,531)	-	-	(6,593)
Values at the end of the year	604,870	463,742	2,117,837	2,140,051	5,326,500
Amortization					
Accumulated at the beginning of the year	513,984	373,466	797,592	2,038,981	3,724,023
Translation differences	(1,734)	-	-	-	(1,734)
Amortization charge	28,937	719	-	18,259	47,915
Disposals	(4,850)	(413)	-	-	(5,263)
Accumulated at the end of the year	536,337	373,772	797,592	2,057,240	3,764,941
At December 31, 2019	68,533	89,970	1,320,245	82,811	1,561,559

Year ended December 31, 2018	Information system projects	Licenses, patents and trademarks (*)	Goodwill	Customer relationships	Total
Cost					
Values at the beginning of the year	560,692	465,963	2,090,073	2,058,859	5,175,587
Translation differences	(6,153)	(183)	(4,137)	-	(10,473)
Additions	31,632	273	-	-	31,905
Transfers / Reclassifications	(5,493)	-	-	-	(5,493)
Disposals	(56)	(1,482)	-	-	(1,538)
Values at the end of the year	580,622	464,571	2,085,936	2,058,859	5,189,988
Amortization					
Accumulated at the beginning of the year	478,946	372,746	797,592	1,865,444	3,514,728
Translation differences	(5,551)	-	-	-	(5,551)
Amortization charge	40,635	720	-	173,537	214,892
Disposals	(46)	-	-	-	(46)
Accumulated at the end of the year	513,984	373,466	797,592	2,038,981	3,724,023
At December 31, 2018	66,638	91,105	1,288,344	19,878	1,465,965

(*) Includes Proprietary Technology.

(**) Related to SSP acquisition.

The geographical allocation of goodwill for the year ended December 31, 2019 was \$1,168.4 million for North America, \$116.2 million for South America, \$1.9 million for Europe and \$33.7 million for Middle East & Africa.

The carrying amount of goodwill allocated by CGU, as of December 31, 2019, was as follows:

(All amounts in million US dollar)

CGU	Tubes Segment			Other Segment	Total
	Maverick Acquisition	Hydril Acquisition	Other	Maverick Acquisition	
OCTG (USA)	225	-	-	-	225
Tamsa (Hydril and other)	-	346	19	-	365
Siderca (Hydril and other)	-	265	93	-	358
Hydril	-	309	-	-	309
Confab	-	-	-	-	-
Coiled Tubing	-	-	-	4	4
Other	-	-	59	-	59
Total	225	920	171	4	1,320

11 Right-of-use assets, net and lease liabilities*Right of use assets evolution*

Year ended December 31, 2019	Land and Civil Buildings	Industrial Buildings, Plant and Production Equipment	Vehicles, furniture and fixtures	Total
Cost				
Opening net book amount	27,713	202,352	8,335	238,400
Increase due to business combinations	229	2,038	-	2,267
Currency translation adjustment	(88)	6	8	(74)
Additions	9,292	24,985	7,165	41,442
Disposals	(1,009)	(4,488)	(818)	(6,315)
Transfers	-	496	(496)	-
At December 31, 2019	36,137	225,389	14,194	275,720
Depreciation				
Accumulated at the beginning of the year	-	-	-	-
Translation differences	(3)	3	8	8
Depreciation charge	8,514	31,869	3,908	44,291
Transfers / Reclassifications	-	(62)	62	-
Disposals / Consumptions	(181)	(1,229)	(295)	(1,705)
Accumulated at the end of the year	8,330	30,581	3,683	42,594
At December 31, 2019	27,807	194,808	10,511	233,126

Depreciation of right-of-use assets was mainly included in Tubes segment.

The initial cost of right-of-use assets consists of the initial lease liability plus lease payments made in 2018 of approximately \$4 million.

Lease liability evolution

(all amounts in thousands of U.S. dollars)	2019
Year ended December 31, 2019	
Opening net book amount	234,149
Increase due to business combinations	2,267
Translation differences	2,690
Additions	36,957
Cancellations	(4,688)
Repayments	(43,974)
Interest accrued	2,766
At December 31, 2019	230,167

(*) The weighted average lessee's incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 2.4%.

The amount of remaining payments with maturity less than 1 year, between 2 and 5 years and more than 5 years is approximately 16%, 44% and 40% of the total remaining payments, respectively.

Expense relating to short-term leases and low value leases (included in *cost of sales and selling, general and administrative expenses*) in the period amounted to \$15.1 million and \$1.3 million respectively.

12 Investments in non-consolidated companies

	Year ended December 31,	
	2019	2018
At the beginning of the year	805,568	640,294
Translation differences	(10,781)	1,848
Equity in earnings of non-consolidated companies	82,036	193,994
Increase due to business combinations	20,635	-
Dividends and distributions received (*)	(28,037)	(26,581)
Additions	19,610	-
Decrease / increase in equity reserves and others	(9,066)	(3,987)
At the end of the year	879,965	805,568

(*) Related to Ternium and Usiminas. During 2019, \$29.0 million were collected.

The principal non-consolidated companies are:

Company	Country of incorporation	% ownership at December 31,		Value at December 31,	
		2019	2018	2019	2018
a) Ternium (*)	Luxembourg	11.46%	11.46%	751,105	725,548
b) Usiminas (**)	Brazil	3.07%	3.07%	74,593	72,988
Others	-	-	-	54,267	7,032
				879,965	805,568

(*) Including treasury shares.

(**) At December 31, 2019 and 2018 the voting rights were 5.2%.

a) Ternium

Ternium, is a steel producer with production facilities in Mexico, Argentina, Brazil, Colombia, United States and Guatemala and is one of Tenaris's main suppliers of round steel bars and flat steel products for its pipes business.

At December 31, 2019, the closing price of Ternium's ADSs as quoted on the New York Stock Exchange was \$22 per ADS, giving Tenaris's ownership stake a market value of approximately \$505.4 million. At December 31, 2019, the carrying value of Tenaris's ownership stake in Ternium, based on Ternium's IFRS Financial Statements, was approximately \$751.1 million.

As of December 31, 2019 the Company concluded that the carrying amount does not exceed the recoverable value of the investment.

Summarized selected financial information of Ternium, including the aggregated amounts of assets, liabilities, revenues and profit or loss is as follows:

	Ternium	
	2019	2018
Non-current assets	8,757,320	8,121,824
Current assets	4,178,213	4,426,038
Total assets	12,935,533	12,547,862
Non-current liabilities	3,452,535	3,236,756
Current liabilities	1,768,125	1,826,530
Total liabilities	5,220,660	5,063,286
Non-controlling interests	1,103,208	1,091,321
Revenues	10,192,818	11,454,807
Gross profit	1,740,378	2,971,479
Net income for the year attributable to owners of the parent	564,269	1,506,647
Total comprehensive income for the year, net of tax, attributable to owners of the parent	445,473	1,176,964

12 Investments in non-consolidated companies (Cont.)

b) Usiminas

Usiminas is a Brazilian producer of high quality flat steel products used in the energy, automotive and other industries.

As of December 31, 2019, the closing price of the Usiminas' ordinary and preferred shares, as quoted on the B3 - Brasil Bolsa Balcão S.A, was BRL9.83 (\$2.44) and BRL9.51 (\$2.36), respectively, giving Tenaris's ownership stake a market value of approximately \$92 million. As of that date, the carrying value of Tenaris's ownership stake in Usiminas was approximately \$74.6 million.

Summarized selected financial information of Usiminas, including the aggregated amounts of assets, liabilities, revenues and profit or loss is as follows:

	Usiminas	
	2019	2018
Non-current assets	4,335,662	4,696,896
Current assets	2,198,449	2,148,322
Total assets	6,534,111	6,845,218
Non-current liabilities	1,955,395	1,933,207
Current liabilities	716,930	860,862
Total liabilities	2,672,325	2,794,069
Non-controlling interests	377,667	369,333
Revenues	3,790,206	3,766,241
Gross profit	478,141	612,156
Net income for the year attributable to owners of the parent	52,779	194,381

c) Techgen

Techgen is a Mexican company that operates a natural gas-fired combined cycle electric power plant in the Pesquería area of the State of Nuevo León, Mexico. The company started producing energy on December 1, 2016, with a power capacity of 900 megawatts. As of December 31, 2019, Tenaris held 22% of Techgen's share capital, and its affiliates, Ternium and Tecpetrol International S.A. (a wholly-owned subsidiary of San Faustin S.A., the controlling shareholder of both Tenaris and Ternium), held 48% and 30% respectively.

Techgen is a party to transportation capacity agreements for a purchasing capacity of 150,000 MMBtu/Gas per day starting on August 1, 2016 and ending on July 31, 2036, and a party to a contract for the purchase of power generation equipment and other services related to the equipment. As of December 31, 2019, Tenaris's exposure under these agreements amounted to \$51.9 million and \$0.9 million respectively. Furthermore, during 2018, Techgen entered a contract for the purchase of clean energy certificates. As of December 31, 2019 Tenaris's exposure under this agreement amounted to \$18.2 million.

During 2019, Techgen repaid certain subordinated loans to Techgen's sponsors; the part corresponding to Tenaris amounted to \$40.5 million. As of December 31, 2019, the aggregate outstanding principal amount under these subordinated loans was \$58.1 million.

On February 13, 2019, Techgen entered into a \$640 million syndicated loan agreement with several banks to refinance an existing loan, resulting in the release of certain corporate guarantee issued by Techgen's shareholders to secure the replaced facility.

Techgen's obligations under the current facility, which is "non-recourse" on the sponsors, are guaranteed by a Mexican security trust covering Techgen's shares, assets and accounts as well as Techgen's affiliates rights under certain contracts. In addition, Techgen's collection and payment accounts not subject to the trust have been pledged in favor of the lenders under the new loan agreement, and certain direct agreements –customary for these type of transactions– have been entered into with third parties and affiliates, including in connection with the agreements for the sale of energy produced by the project and the agreements for the provision of gas and long-term maintenance services to Techgen. The commercial terms and conditions governing the purchase, by the Company's Mexican subsidiary Tamsa, of 22% of the energy generated by the project remain unchanged.

Under the loan agreement, Techgen is committed to maintain a debt service reserve account covering debt service becoming due during two consecutive quarters; such account is funded by stand-by letters of credit issued for the account of Techgen's sponsors in proportion to their respective participations in Techgen. Accordingly, the Company and its Swiss subsidiary, Tenaris Investments Switzerland AG, applied for stand-by letters of credit covering 22% of the debt service coverage ratio, which as of the date hereof amounts to \$9.8 million.

13 Receivables – non current

	Year ended December 31,	
	2019	2018
Employee advances and loans	6,008	3,740
Tax credits	20,065	16,025
Receivables from related parties	59,999	58,128
Legal deposits	12,378	12,446
Advances to suppliers and other advances	3,772	7,592
Derivative financial instruments	-	52
Receivable Venezuelan subsidiaries	48,659	48,659
Others	6,222	5,263
	157,103	151,905

14 Inventories, net

	Year ended December 31,	
	2019	2018
Finished goods	968,329	1,025,999
Goods in process	612,888	709,497
Raw materials	221,954	256,816
Supplies	486,411	504,286
Goods in transit	194,015	237,539
	2,483,597	2,734,137
Allowance for obsolescence (see Note 23 (i))	(217,717)	(209,796)
	2,265,880	2,524,341

15 Receivables and prepayments, net

	Year ended December 31,	
	2019	2018
Prepaid expenses and other receivables	30,579	31,599
Government entities	1,867	2,182
Employee advances and loans	8,189	6,521
Advances to suppliers and other advances	17,180	23,467
Government tax refunds on exports	670	4,896
Receivables from related parties	19,837	63,322
Miscellaneous	31,145	30,682
	109,467	162,669
Allowance for other doubtful accounts (see Note 23 (i))	(4,892)	(6,784)
	104,575	155,885

16 Current tax assets and liabilities

	Year ended December 31,	
	2019	2018
Current tax assets		
V.A.T. credits	112,161	67,322
Prepaid taxes	55,227	54,010
	167,388	121,332
Current tax liabilities		
Income tax liabilities	64,994	182,711
V.A.T. liabilities	9,953	18,091
Other taxes	52,678	49,431
	127,625	250,233

17 Trade receivables, net

	Year ended December 31,	
	2019	2018
Current accounts	1,387,494	1,778,796
Receivables from related parties	9,448	25,105
	1,396,942	1,803,901
Allowance for doubtful accounts (see Note 23 (i))	(48,782)	(66,535)
	1,348,160	1,737,366

The following table sets forth details of the aging of trade receivables:

	Trade Receivables	Not Due	Past due	
			1 - 180 days	>180 days
At December 31, 2019				
Guaranteed	234,427	205,764	26,899	1,764
Not guaranteed	1,162,515	948,449	157,960	56,106
Guaranteed and not guaranteed	1,396,942	1,154,213	184,859	57,870
Expected loss rate	0.09%	0.04%	0.24%	0.57%
Allowances for doubtful accounts	(1,294)	(529)	(455)	(310)
Nominative allowances for doubtful accounts	(47,488)	-	(1,922)	(45,566)
Net Value	1,348,160	1,153,684	182,482	11,994

	Trade Receivables	Not Due	Past due	
			1 - 180 days	>180 days
At December 31, 2018				
Guaranteed	286,250	254,743	30,884	623
Not guaranteed	1,517,651	1,180,788	260,675	76,188
Guaranteed and not guaranteed	1,803,901	1,435,531	291,559	76,811
Expected loss rate	0.07%	0.04%	0.17%	0.43%
Allowances for doubtful accounts	(1,396)	(564)	(510)	(322)
Nominative allowances for doubtful accounts	(65,139)	-	(1,436)	(63,703)
Net Value	1,737,366	1,434,967	289,613	12,786

Trade receivables are mainly denominated in U.S. dollars.

18 Cash and cash equivalents and other investments

	Year ended December 31,	
	2019	2018
Cash and cash equivalents		
Cash at banks	118,314	81,211
Liquidity funds	1,166,697	160,198
Short – term investments	269,288	186,952
	1,554,299	428,361
Other investments - current		
Fixed Income (time-deposit, zero coupon bonds, commercial papers)	65,874	300,410
Bonds and other fixed Income	144,502	187,324
	210,376	487,734
Other investments - Non-current		
Bonds and other fixed Income	18,012	113,829
Others	6,922	4,326
	24,934	118,155

19 Borrowings

	Year ended December 31,	
	2019	2018
Non-current		
Bank borrowings	40,896	29,214
Costs of issue of debt	(16)	(27)
	40,880	29,187
Current		
Bank borrowings	781,258	508,143
Bank overdrafts	24	1,644
Finance lease liabilities	-	44
Costs of issue of debt	(10)	(11)
	781,272	509,820
Total Borrowings	822,152	539,007

The maturity of borrowings is as follows:

	1 year or less	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	Over 5 years	Total
At December 31, 2019							
Other borrowings	781,272	17,307	23,573	-	-	-	822,152
Total borrowings	781,272	17,307	23,573	-	-	-	822,152
Interest to be accrued (*)	11,370	1,045	117	-	-	-	12,532
Total	792,642	18,352	23,690	-	-	-	834,684
	1 year or less	1 - 2 years	2 - 3 years	3 - 4 years	4 - 5 years	Over 5 years	Total
At December 31, 2018							
Financial lease	44	-	-	-	-	-	44
Other borrowings	509,776	4,271	4,771	20,145	-	-	538,963
Total borrowings	509,820	4,271	4,771	20,145	-	-	539,007
Interest to be accrued (*)	8,182	1,175	1,166	169	-	-	10,692
Total	518,002	5,446	5,937	20,314	-	-	549,699

(*) Includes the effect of hedge accounting.

Significant borrowings include:

Disbursement date	Borrower	Type	In million of USD	
			Original & Outstanding	Final maturity
2019	Tamsa	Bank loans	621	2020
2019	Siderca	Bank loans	60	2020

As of December 31, 2019, Tenaris was in compliance with all of its covenants.

The weighted average interest rates before tax shown below were calculated using the rates set for each instrument in its corresponding currency as of December 31, 2019 and 2018, considering hedge accounting where applicable.

	2019	2018
Total borrowings	3.18%	3.98%

Breakdown of long-term borrowings by currency and rate is as follows:

Non-current borrowings

Currency	Interest rates	Year ended December 31,	
		2019	2018
USD	Fixed	18,370	18,762
SAR	Fixed	16,106	-
EUR	Fixed	5,108	9,023
EUR	Variable	1,296	1,402
Total non-current borrowings		40,880	29,187

19 Borrowings (Cont.)

Breakdown of short-term borrowings by currency and rate is as follows:

Current borrowings

Currency	Interest rates	Year ended December 31,	
		2019	2018
USD	Variable	17,092	16,847
USD	Fixed	274,799	138,303
EUR	Variable	80	198
EUR	Fixed	3,772	4,178
MXN	Fixed	424,964	301,047
ARS	Fixed	86	49,125
SAR	Variable	35,666	-
SAR	Fixed	24,797	-
Others	Variable	16	89
Others	Fixed	-	33
Total current borrowings		781,272	509,820

Borrowings evolution

	Year ended December 31, 2019	
	Non current	Current
At the beginning of the year	29,187	509,820
Translation differences	(229)	669
Proceeds and repayments, net	(4,582)	203,931
Interests accrued less payments	304	2,950
Reclassifications	(11,733)	11,733
Increase due to Business Combinations	27,933	53,789
Overdrafts variation	-	(1,620)
At the end of the year	40,880	781,272

The carrying amounts of assets pledged as security for current and non-current borrowings are immaterial for the years 2019 and 2018.

20 Deferred income tax

Deferred income taxes are calculated in full on temporary differences under the liability method using the tax rate of each country.

The evolution of deferred tax assets and liabilities during the year are as follows:

Deferred tax liabilities

	Fixed assets (*)	Inventories	Intangible and Other	Total
At the beginning of the year	710,995	25,048	46,532	782,575
Translation differences	(347)	-	(4)	(351)
Increase due to business combinations	5,621	-	11,209	16,830
Charged directly to other comprehensive income	-	-	423	423
Income statement charge / (credit)	(64,930)	(5,652)	59,902	(10,680)
At December 31, 2019	651,339	19,396	118,062	788,797
	Fixed assets (*)	Inventories	Intangible and Other	Total
At the beginning of the year	744,926	34,934	55,585	835,445
Effect of adoption of new standards	-	-	35	35
Translation differences	(876)	-	92	(784)
Charged directly to other comprehensive income	-	-	288	288
Income statement charge	(33,055)	(9,886)	(9,468)	(52,409)
At December 31, 2018	710,995	25,048	46,532	782,575

(*) Includes the effect of currency translation on tax base. See Note 7.

20 Deferred income tax (Cont.)**Deferred tax assets**

	Provisions and allowances	Inventories	Tax losses	Other	Total
At the beginning of the year	(16,116)	(86,585)	(396,257)	(86,184)	(585,142)
Translation differences	362	306	497	286	1,451
Increase due to business combinations	(1,160)	(1,413)	(1,172)	(2,238)	(5,983)
Charged directly to other comprehensive income	-	-	-	(1,261)	(1,261)
Income statement charge / (credit)	(2,739)	(5,712)	14,100	(92,209)	(86,560)
At December 31, 2019	(19,653)	(93,404)	(382,832)	(181,606)	(677,495)

	Provisions and allowances	Inventories	Tax losses	Other	Total
At the beginning of the year	(26,475)	(89,555)	(354,944)	(60,033)	(531,007)
Effect of adoption of new standards	952	-	-	(164)	788
Translation differences	2,532	1,447	1,014	(38)	4,955
Charged directly to other comprehensive income	23	-	-	1,587	1,610
Income statement charge / (credit)	6,852	1,523	(42,327)	(27,536)	(61,488)
At December 31, 2018	(16,116)	(86,585)	(396,257)	(86,184)	(585,142)

In 2019 the effect of the adoption of IFRS 16 has been recognized as "Other" both for deferred tax assets and liabilities.

Deferred tax assets related to taxable losses of Tenaris subsidiaries are recognized to the extent it is considered probable that future taxable profits will be available against which such losses can be utilized in the foreseeable future. This amount includes \$338 million related to US subsidiaries mainly due to the recognition of accelerated fiscal depreciations. The remaining balance mainly corresponds to Japanese and Brazilian subsidiaries. These subsidiaries have incurred in fiscal losses in the past. Tenaris has concluded that these deferred tax assets will be recoverable based on the business plans and budgets.

The expiration dates of the recognized tax losses in less than 1 year, between 2 and 5 years and in more than 5 years is 0.2%, 2.5% and 97.3% respectively.

As of December 31, 2019, the net unrecognized deferred tax assets amount to \$121.2 million. The expiration dates of the unrecognized tax losses less than 1 year, between 2 and 5 years and more than 5 years is approximately 2.8%, 20.2% and 77%.

The estimated recovery analysis of deferred tax assets and deferred tax liabilities is as follows:

	Year ended December 31,	
	2019	2018
Deferred tax assets to be recovered after 12 months	(538,274)	(452,330)
Deferred tax liabilities to be settled after 12 months	766,852	739,670

Deferred income tax assets and liabilities are offset when (1) there is a legally enforceable right to set-off current tax assets against current tax liabilities and (2) when the deferred income taxes relate to the same fiscal authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis. The following amounts, determined after appropriate set-off, are shown in the Consolidated Statement of Financial Position:

	Year ended December 31,	
	2019	2018
Deferred tax assets	(225,680)	(181,606)
Deferred tax liabilities	336,982	379,039
	111,302	197,433

The movement in the net deferred income tax liability account is as follows:

	Year ended December 31,	
	2019	2018
At the beginning of the year	197,433	304,438
Effect of adoption of new standards	-	823
Translation differences	1,100	4,171
Increase due to business combinations	10,847	-
Charged directly to Other Comprehensive Income	(838)	1,898
Income statement credit	(97,240)	(113,897)
At the end of the year	111,302	197,433

21 Other liabilities

(i) Other liabilities – Non current

	Year ended December 31,	
	2019	2018
Post-employment benefits	144,993	115,087
Other-long term benefits	85,473	78,492
Miscellaneous	20,917	19,550
	251,383	213,129

Post-employment benefits

	Year ended December 31,	
	2019	2018
Unfunded	125,573	97,318
Funded	19,420	17,769
	144,993	115,087

§ Unfunded

	Year ended December 31,	
	2019	2018
Values at the beginning of the year	97,318	101,889
Translation differences	(1,567)	(3,849)
Current service cost	7,978	7,400
Interest cost	5,526	5,070
Remeasurements (*)	7,010	(3,946)
Increase due to business combinations	15,660	-
Benefits paid from the plan	(9,328)	(9,719)
Other	2,976	473
At the end of the year	125,573	97,318

(*) For 2019 a loss of \$1.3 million is attributable to demographic assumptions and a loss of \$5.7 million to financial assumptions. For 2018 a gain of \$0.2 million is attributable to demographic assumptions and a gain of \$3.7 million to financial assumptions.

The actuarial assumptions for the most relevant plans were as follows:

	Year ended December 31,	
	2019	2018
Discount rate	1% - 7%	2% - 7%
Rate of compensation increase	0% - 3%	0% - 3%

As of December 31, 2019, an increase / (decrease) of 1% in the discount rate assumption of the main plans would have generated a (decrease) / increase on the defined benefit obligation of \$7.4 million and \$7 million respectively, and an increase / (decrease) of 1% in the rate of compensation assumption of the main plans would have generated an increase / (decrease) impact on the defined benefit obligation of \$4.5 million and \$4.5 million respectively. The above sensitivity analyses are based on a change in discount rate and rate of compensation while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated.

§ Funded

The amounts recognized in the statement of financial position for the current annual period and the previous annual period are as follows:

	Year ended December 31,	
	2019	2018
Present value of funded obligations	160,412	146,885
Fair value of plan assets	(145,160)	(132,438)
Liability (*)	15,252	14,447

(*) In 2019 and 2018, \$4.2 million and \$3.3 million corresponding to a plan with a surplus balance were reclassified within other non-current assets, respectively.

21 Other liabilities (Cont.)

Post-employment benefits (Cont.)

§ Funded (Cont.)

The movement in the present value of funded obligations is as follows:

	Year ended December 31,	
	2019	2018
At the beginning of the year	146,885	165,485
Translation differences	4,542	(8,182)
Current service cost	721	1,328
Interest cost	5,754	5,691
Remeasurements (*)	12,769	(7,984)
Benefits paid	(10,259)	(9,453)
At the end of the year	160,412	146,885

(*) For 2019 a loss of \$0.4 million is attributable to demographic assumptions and a loss of \$12.4 million to financial assumptions. For 2018 a loss of \$0.4 million is attributable to demographic assumptions and a gain of \$8.4 million to financial assumptions, respectively.

The movement in the fair value of plan assets is as follows:

	Year ended December 31,	
	2019	2018
At the beginning of the year	(132,438)	(145,692)
Translation differences	(4,137)	7,514
Return on plan assets	(5,018)	(4,936)
Remeasurements	(10,507)	3,967
Contributions paid to the plan	(3,589)	(3,108)
Benefits paid from the plan	10,259	9,453
Other	270	364
At the end of the year	(145,160)	(132,438)

The major categories of plan assets as a percentage of total plan assets are as follows:

	Year ended December 31,	
	2019	2018
Equity instruments	49.0%	53.5%
Debt instruments	47.0%	42.8%
Others	4.0%	3.7%

The actuarial assumptions for the most relevant plans were as follows:

	Year ended December 31,	
	2019	2018
Discount rate	3 % - 4 %	4 % - 5 %
Rate of compensation increase	0 % - 3 %	0 % - 3 %

The expected return on plan assets is determined by considering the expected returns available on the assets underlying the current investment policy. Expected return on plan assets is determined based on long-term, prospective rates of return as of the end of the reporting period.

As of December 31, 2019, an increase / (decrease) of 1% in the discount rate assumption of the main plans would have generated a (decrease) / increase on the defined benefit obligation of \$16.1 million and \$19.8 million respectively, and an increase / (decrease) of 1% in the compensation rate assumption of the main plans would have generated an increase / (decrease) on the defined benefit obligation of \$1.8 million and \$1.6 million respectively. The above sensitivity analyses are based on a change in discount rate and rate of compensation while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated.

The employer contributions expected to be paid for the year 2020 amount approximately to \$5.1 million.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous period.

21 Other liabilities (Cont.)

(ii) Other liabilities – current

	Year ended December 31,	
	2019	2018
Payroll and social security payable	153,009	148,069
Miscellaneous	23,255	17,624
	176,264	165,693

22 Non-current allowances and provisions

(i) Deducted from non-current receivables

	Year ended December 31,	
	2019	2018
Values at the beginning of the year	-	(641)
Translation differences	-	110
Used	-	531
Values at the end of the year	-	-

(ii) Liabilities

	Year ended December 31,	
	2019	2018
Values at the beginning of the year	36,089	36,438
Translation differences	(1,571)	(5,261)
Additional provisions	19,904	14,397
Reclassifications	5,641	(2,406)
Used	(5,464)	(7,079)
Values at the end of the year	54,599	36,089

23 Current allowances and provisions

(i) Deducted from assets

Year ended December 31, 2019	Allowance for doubtful	Allowance for other	Allowance for
	accounts - Trade receivables	doubtful accounts - Other receivables	inventory obsolescence
Values at the beginning of the year	(66,535)	(6,784)	(209,796)
Translation differences	9	88	794
Increase due to business combinations	(1,788)	-	(10,761)
Additional / reversals allowances	16,256	1,239	(29,138)
Used	3,276	565	31,184
At December 31, 2019	(48,782)	(4,892)	(217,717)

Year ended December 31, 2018	Allowance for doubtful	Allowance for other	Allowance for
	accounts - Trade receivables	doubtful accounts - Other receivables	inventory obsolescence
Values at the beginning of the year	(78,385)	(6,255)	(216,068)
Effect of adoption of new standards	6,423	-	-
Translation differences	329	359	3,575
Additional allowances	(1,751)	(1,179)	(25,457)
Used	6,849	291	28,154
At December 31, 2018	(66,535)	(6,784)	(209,796)

23 Current allowances and provisions (Cont.)

(ii) Liabilities

Year ended December 31, 2019	Other claims and contingencies		Total
	Sales risks		
Values at the beginning of the year	6,814	17,469	24,283
Translation differences	(28)	(570)	(598)
Increase due to business combinations	505	8,000	8,505
Additional/ reversals provisions	11,880	(3,219)	8,661
Reclassifications	-	(5,641)	(5,641)
Used	(13,304)	(4,889)	(18,193)
At December 31, 2019	5,867	11,150	17,017

Year ended December 31, 2018	Other claims and contingencies		Total
	Sales risks		
Values at the beginning of the year	11,396	20,934	32,330
Translation differences	(103)	(2,205)	(2,308)
Additional provisions	2,638	6,463	9,101
Reclassifications	-	2,406	2,406
Used	(7,117)	(10,129)	(17,246)
At December 31, 2018	6,814	17,469	24,283

24 Derivative financial instruments

Net fair values of derivative financial instruments

The net fair values of derivative financial instruments, in accordance with IFRS 13, are:

	Year ended December 31,	
	2019	2018
Derivatives hedging borrowings and investments	19,000	5,604
Other Derivatives	929	3,621
Contracts with positive fair values (*)	19,929	9,225
Derivatives hedging borrowings and investments	-	(11,667)
Other Derivatives	(1,814)	(311)
Contracts with negative fair values	(1,814)	(11,978)
Total	18,115	(2,753)

(*) In 2018 includes \$52 thousand of non-current derivatives.

Foreign exchange derivative contracts and hedge accounting

Tenaris applies hedge accounting to certain cash flow hedges of highly probable forecast transactions. The net fair values of exchange rate derivatives and those derivatives that were designated for hedge accounting as of December 2019 and 2018, were as follows:

Purchase currency	Sell currency	Term	Fair Value		Hedge Accounting Reserve	
			2019	2018	2019	2018
MXN	USD	2020	18,999	888	404	(411)
USD	MXN	2020	(576)	-	-	-
ARS	USD	2020	-	(6,542)	-	(895)
EUR	USD	2020	588	203	-	-
USD	JPY	2030	-	-	2,149	-
USD	BRL	2020	(234)	(131)	-	-
JPY	USD	2020	(190)	271	-	-
USD	KWD	2020	103	522	38	390
USD	CAD	2020	(200)	2,089	-	-
USD	COP	2020	(345)	(23)	-	-
Others		2020	(30)	(30)	-	-
Total			18,115	(2,753)	2,591	(916)

24 Derivative financial instruments (Cont.)

Following is a summary of the hedge reserve evolution:

	Equity Reserve Dec-17	Movements 2018	Equity Reserve Dec-18	Movements 2019	Equity Reserve Dec-19
Foreign Exchange	(240)	(676)	(916)	3,507	2,591
Total Cash flow Hedge	(240)	(676)	(916)	3,507	2,591

Tenaris estimates that the cash flow hedge reserve corresponding to derivatives instruments at December 31, 2019 will be recycled to the Consolidated Income Statement during 2020. For information on lease liabilities, see Note 11.

25 Contingencies, commitments and restrictions on the distribution of profits

(i) Contingencies

Tenaris is from time to time subject to various claims, lawsuits and other legal proceedings, including customer, employee, tax and environmental-related claims, in which third parties are seeking payment for alleged damages, reimbursement for losses, or indemnity. Management with the assistance of legal counsel periodically reviews the status of each significant matter and assesses potential financial exposure.

Some of these claims, lawsuits and other legal proceedings involve highly complex issues, and often these issues are subject to substantial uncertainties and, therefore, the probability of loss and an estimation of damages are difficult to ascertain. Accordingly, with respect to a large portion of such claims, lawsuits and other legal proceedings, Tenaris is unable to make a reliable estimate of the expected financial effect that will result from ultimate resolution of the proceeding. In those cases, Tenaris has not accrued a provision for the potential outcome of these cases.

If a potential loss from a claim, lawsuit or other proceeding is considered probable and the amount can be reasonably estimated, a provision is recorded. Accruals for loss contingencies reflect a reasonable estimate of the losses to be incurred based on information available to management as of the date of preparation of the financial statements and take into consideration litigation and settlement strategies. In a limited number of ongoing cases, Tenaris was able to make a reliable estimate of the expected loss or range of probable loss and has accrued a provision for such loss but believes that publication of this information on a case-by-case basis would seriously prejudice Tenaris's position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, the Company has disclosed information with respect to the nature of the contingency but has not disclosed its estimate of the range of potential loss.

The Company believes that the aggregate provisions recorded for potential losses in these Consolidated Financial Statements are adequate based upon currently available information. However, if management's estimates prove incorrect, current reserves could be inadequate and Tenaris could incur a charge to earnings which could have a material adverse effect on Tenaris's results of operations, financial condition, net worth and cash flows.

Below is a summary description of Tenaris's material legal proceedings which are outstanding as of the date of these Consolidated Financial Statements. In addition, Tenaris is subject to other legal proceedings, none of which is believed to be material.

§ *CSN claims relating to the January 2012 acquisition of Usiminas shares*

Confab Industrial S.A. ("Confab"), a Brazilian subsidiary of the Company, is one of the defendants in a lawsuit filed in Brazil by Companhia Siderúrgica Nacional ("CSN") and various entities affiliated with CSN against Confab and several Ternium subsidiaries that acquired a participation in Usiminas' control group in January 2012.

The CSN lawsuit alleges that, under applicable Brazilian laws and rules, the acquirers were required to launch a tag-along tender offer to all non-controlling holders of Usiminas' ordinary shares for a price per share equal to 80% of the price per share paid in such acquisition, or BRL28.8, and seeks an order to compel the acquirers to launch an offer at that price plus interest. If so ordered, the offer would need to be made to 182,609,851 ordinary shares of Usiminas not belonging to Usiminas' control group, and Confab would have a 17.9% share in that offer.

25 **Contingencies, commitments and restrictions on the distribution of profits (Cont.)**

(i) **Contingencies (Cont.)**

§ *CSN claims relating to the January 2012 acquisition of Usiminas shares (Cont.)*

On September 23, 2013, the first instance court dismissed the CSN lawsuit, and on February 8, 2017, the court of appeals maintained the understanding of the first instance court. On March 6, 2017, CSN filed a motion for clarification against the decision of the Court of Appeals of São Paulo, which was rejected on July 19, 2017. On August 18, 2017, CSN filed an appeal to the Superior Court of Justice seeking the review and reversal of the decision issued by the Court of Appeals. On March 5, 2018, the court of appeals ruled that CSN's appeal did not meet the requirements for submission to the Superior Court of Justice and rejected the appeal. On May 8, 2018, CSN appealed against such ruling and on January 22, 2019, the court of appeals rejected it and ordered that the case be submitted to the Superior Court of Justice. On September 10, 2019, the Superior Court of Justice declared CSN's appeal admissible. The Superior Court of Justice will review the case and then render a decision on the merits. The Superior Court of Justice is restricted to the analysis of alleged violations to federal laws and cannot assess matters of fact.

Tenaris continues to believe that all of CSN's claims and allegations are groundless and without merit, as confirmed by several opinions of Brazilian legal counsel, two decisions issued by the Brazilian securities regulator (CVM) in February 2012 and December 2016, and the first and second instance court decisions referred to above.

§ *Veracel celulose accident litigation*

On September 21, 2007, an accident occurred in the premises of Veracel Celulose S.A. ("Veracel") in connection with a rupture in one of the tanks used in an evaporation system manufactured by Confab. The Veracel accident allegedly resulted in material damages to Veracel. Itaú Seguros S.A. ("Itaú"), Veracel's insurer at the time of the Veracel accident and then replaced by Chubb Seguros Brasil S/A ("Chubb"), initiated a lawsuit against Confab seeking reimbursement of damages paid to Veracel in connection with the Veracel accident. Veracel initiated a second lawsuit against Confab seeking reimbursement of the amount paid as insurance deductible with respect to the Veracel accident and other amounts not covered by insurance. Itaú and Veracel claimed that the Veracel accident was caused by failures and defects attributable to the evaporation system manufactured by Confab. Confab believes that the Veracel accident was caused by the improper handling by Veracel's personnel of the equipment supplied by Confab in violation of Confab's instructions. The two lawsuits were consolidated and are considered by the 6th Civil Court of São Caetano do Sul; however, each lawsuit will be adjudicated separately.

On September 28, 2018 Confab and Chubb, entered into a settlement agreement pursuant to which on October 9, 2018, Confab paid an amount of approximately \$3.5 million to Chubb, without assuming any liability for the accident or the claim.

On October 10, 2018, Confab was notified that the court had issued rulings for both lawsuits. Both decisions were unfavorable to Confab:

§ With respect to Chubb's claim, Confab was ordered to pay an amount of approximately BRL89.8 million (approximately \$21.6 million) (including interest, fees and expenses). On October 15, 2018, Confab filed a request for homologation of the settlement agreement mentioned above, as such settlement agreement remains valid and binding between the parties. On November 8, 2018, the settlement agreement was homologated by the court.

§ With respect to Veracel's claim, Confab was ordered to pay the insurance deductible and other concepts not covered by insurance, currently estimated to amount to BRL62.9 million (approximately \$15.6 million) (including interest, fees and expenses). Both parties filed motions for clarification against the court's decision, which were partially granted. Although the contract between Confab and Veracel expressly provided that Confab would not be liable for damages arising from lost profits, the court award would appear to include BRL54.0 million (approximately \$13.4 million) of damages arising therefrom; Confab has additional defense arguments in respect of a claim for lost profits. On December 18, 2018, Confab filed an appeal against the first instance court decision, and on April 30, 2019, Veracel filed its response to the appeal. At this stage the Company cannot predict the outcome of the claim or the amount or range of loss in case of an unfavorable outcome.

25 **Contingencies, commitments and restrictions on the distribution of profits (Cont.)**

(i) **Contingencies (Cont.)**

§ *Ongoing investigation*

The Company is aware that Brazilian, Italian and Swiss authorities have been investigating whether certain payments were made from accounts of entities presumably associated with affiliates of the Company to accounts allegedly linked to individuals related to *Petróleo Brasileiro S.A. ("Petrobras")* and whether any such payments were intended to benefit the Company's Brazilian subsidiary *Confab*. Any such payments could violate certain applicable laws, including the U.S. Foreign Corrupt Practices Act.

The Company had previously reviewed certain of these matters in connection with an investigation by the Brazilian authorities related to "Operation Lava Jato", a new phase of which is presently ongoing, and did not uncover any information that corroborated allegations of involvement in these alleged payments by the Company or its subsidiaries. Furthermore, the Company became aware that a Petrobras internal investigation commission reviewed certain contracts with *Confab* and concluded that they had not found evidence that Petrobras had benefitted *Confab* or had misused applicable local content rules.

The Audit Committee of the Company's Board of Directors engaged external counsel in connection with the Company's review. In addition, the Company voluntarily notified the U.S. Securities and Exchange Commission and the U.S. Department of Justice in October 2016.

In July 2019, the Company learned that the public prosecutor office of Milan, Italy, had completed a preliminary investigation into the alleged payments and had included in the investigation, among other persons, the Company's Chairman and Chief Executive Officer, two other board members, *Gianfelice Rocca* and *Roberto Bonatti*, and the Company's controlling shareholder, *San Faustin*. In February 2020, the Company learned that the magistrate overseeing the investigation decided to move the case to trial. The Company's outside counsel had previously reviewed the Italian prosecutors' investigative file and has informed the Board that neither that file nor this magistrate's decision sets forth evidence of involvement by any of the three directors in the alleged wrongdoing. Accordingly, the Board has concluded that no particular action is warranted at the present time, other than inviting the referred board members to continue discharging their respective responsibilities with the full support of the Board.

The Company continues to review these matters and to respond to requests from and otherwise cooperate with the appropriate authorities. At this time, the Company cannot predict the outcome of these matters or estimate the range of potential loss or extent of risk, if any, to the Company's business that may result from resolution of these matters.

§ *Putative class actions*

Following the Company's November 27, 2018 announcement that its Chairman and CEO *Paolo Rocca* had been included in an Argentine court investigation known as the *Notebooks Case* (a decision subsequently reversed by a higher court), two putative class action complaints were filed in the U.S. District Court for the Eastern District of New York. On April 29, 2019, the court consolidated the complaints into a single case, captioned "*In re Tenaris S.A. Securities Litigation*", and appointed lead plaintiffs and lead counsel. On July 19, 2019, the lead plaintiffs filed an amended complaint purportedly on behalf of purchasers of Tenaris securities during the putative class period of May 1, 2014 through December 5, 2018. The individual defendants named in the complaint are Tenaris's Chairman and CEO and Tenaris's former CFO. The complaint alleges that during the class period, the Company and the individual defendants inflated the Tenaris share price by failing to disclose that sale proceeds received by *Ternium* (in which Tenaris held an 11.46% stake) when *Sidor* was expropriated by Venezuela were received or expedited as a result of allegedly improper payments made to Argentine officials. The complaint does not specify the damages that plaintiff is seeking. Defendants' motions to dismiss are expected to be decided during 2020. Management believes the Company has meritorious defenses to these claims; however, at this stage the Company cannot predict the outcome of the claim or the amount or range of loss in case of an unfavorable outcome.

§ *Investigation concerning alleged price overcharges in Brazil*

In 2018, two Brazilian subsidiaries of the Company were notified of formal charges arising from a review by the *Tribunal de Contas da Uniao ("TCU")* for alleged price overcharges on goods supplied to *Petróleo Brasileiro S.A.- Petrobras* under a supply contract. Both companies have already filed their defenses. The estimated amount of this claim is BRL29.8 million (approximately \$7.4 million). Tenaris believes, based on the advice of counsel and external consultants, that the prices charged under the Petrobras contract do not result in overprices and that it is unlikely that the ultimate resolution of this matter will result in a material obligation.

25 **Contingencies, commitments and restrictions on the distribution of profits (Cont.)**

(i) **Contingencies (Cont.)**

§ *Administrative proceeding concerning Brazilian tax credits*

Confab is a party to an administrative proceeding concerning the recognition and transfer of tax credits for an amount allegedly exceeding the amount that Confab would have been entitled to recognize and/or transfer. The proceeding resulted in the imposition of a fine against Confab representing approximately 75% of the allegedly undue credits, which was appealed by Confab. On January 21, 2019, Confab was notified of an administrative decision denying Confab's appeal, thereby upholding the tax determination and the fine against Confab. On January 28, 2019, Confab challenged such administrative decision and is currently awaiting a resolution. In case of an unfavorable resolution, Confab may still appeal before the courts. The estimated amount of this claim is BRL56.8 million (approximately \$14.1 million). At this stage, the Company cannot predict the outcome of this claim.

§ *U.S. Patent infringement litigation*

Tenaris Coiled Tubes, LLC ("TCT"), a U.S. subsidiary of the Company, was sued on 2017 by its competitor Global Tubing, alleging violations to certain intellectual property regulations and seeking a declaration that certain Global Tubing products do not infringe patents held by TCT. TCT filed a counterclaim seeking declaration that certain *Global Tubing* products infringe patents held by TCT, and Global Tubing responded alleging that such patents should be invalidated. On December 13, 2019, Global Tubing filed an amended complaint (including the Company as defendant) and alleging that TCT and the Company misled the patent office in order to monopolize the coiled tubing market for quench and tempered products. Trial is set for August of 2021. At this time, the Company cannot predict the outcome of this matter or estimate the range of potential losses that may result from resolution of this claim.

§ *Tax assessment from Italian Tax Authorities*

Tenaris's Italian subsidiary Dalmine received on December 27, 2019, a tax assessment from the Italian tax authorities related to fiscal year 2014. As of December 31, 2019, the claim amounted to approximately EUR25 million (approximately \$28 million), comprising EUR20.7 million (approximately \$23.2 million) in principal and EUR4.3 million (approximately \$4.8 million) in interest and penalties. In the report for a tax audit conducted in 2019, the Italian tax inspectors indicated that they also intend to bring claims for fiscal year 2015 with respect to the same matters; as of December 31, 2019, these additional claims would amount to approximately EUR10.3 million (approximately \$11.6 million), comprising EUR8.1 million (approximately \$9.1 million) in principal and EUR2.2 million (approximately \$2.5 million) in interest and penalties. The claims mainly refer to the compensation for certain intercompany transactions involving Dalmine in connection with sales of products and R&D activities. Based on the counsel's advice, Tenaris believes that it is unlikely that the ultimate resolution of these matters will result in a material obligation.

(ii) **Commitments and guarantees**

Set forth is a description of Tenaris's main outstanding commitments:

- § A Tenaris company entered into a contract with Transportadora de Gas del Norte S.A. for the service of natural gas transportation to the facilities of Siderca, an Argentine subsidiary of Tenaris. As of December 31, 2019, the aggregate commitment to take or pay the committed volumes for a 9-year term totaled approximately \$27.4 million.
- § Several Tenaris companies entered into a contract with Praxair S.A. for the service of oxygen and nitrogen supply. As of December 31, 2019, the aggregate commitment to take or pay the committed volumes for a 14-year term totalled approximately \$53.7 million.
- § Several Tenaris companies entered into a contract with Graftech for the supply of graphite electrodes. As of December 31, 2019, the aggregate commitment to take or pay the committed volumes totalled approximately \$26.8 million.

25 Contingencies, commitments and restrictions on the distribution of profits (Cont.)

(ii) Commitments and guarantees (Cont.)

- § A Tenaris company entered into a 25-year contract (effective as of December 1, 2016, through December 1, 2041) with Techgen for the supply of 197 MW (which represents 22% of Techgen's capacity). Monthly payments are determined on the basis of capacity charges, operation costs, back-up power charges, and transmission charges. As of the seventh contract year (as long as Techgen's existing or replacing bank facility has been repaid in full), the Tenaris company has the right to suspend or early terminate the contract if the rate payable under the agreement is higher than the rate charged by the Comisión Federal de Electricidad ("CFE") or its successors. The Tenaris company may instruct Techgen to sell to any affiliate, to CFE, or to any other third party all or any part of unused contracted energy under the agreement and the Tenaris company will benefit from the proceeds of such sale.
- § A Tenaris company entered into a contract with Vale International S.A. for the supply of iron ore, for which it is committed to purchase at least 70% of its annual iron ore needs, up to 770 thousand tons of pellets annually. The contract expires on December 31, 2020. The aggregate commitment amounts to approximately \$33.6 million.
- § A Tenaris company entered into a contract with Canadian National Railway for the service of rail transportation from its raw material supplier to its Canadian production center. The total commitment ending June 30, 2020 is \$18.9 million.
- § A Tenaris company entered into a contract with Air Liquide Mexico, S. de R.L. de C.V. for the supply of argon gas. As of December 31, 2019, the aggregate commitment totaled approximately \$21.2 million.
- § A Tenaris company is a party to a contract with Nucor Steel Memphis Inc. under which it is committed to purchase on a monthly basis a minimum volume of steel bars at prices that will be adjusted quarterly by the parties. The contract will become effective in January 2020 and will be in force until December 2022. As of December 31, 2019, the estimated aggregate contract amount through December 31, 2022, calculated at current prices, is approximately \$107.1 million.

Additionally Tenaris has issued performance guarantees mainly related to long term commercial contracts with several customers and parent companies guarantees for approximately \$2.5 billion.

(iii) Restrictions to the distribution of profits and payment of dividends

In accordance with Luxembourg Law, the Company is required to transfer a minimum of 5% of its net profit for each financial year to a legal reserve until such reserve equals 10% of the issued share capital.

As of December 31, 2019, this reserve is fully allocated and additional allocations to the reserve are not required under Luxembourg law. Dividends may not be paid out of the legal reserve.

The Company may pay dividends to the extent, among other conditions, that it has distributable retained earnings calculated in accordance with Luxembourg law and regulations.

26 Agreement to build a welded pipe plant in West Siberia

On February 5, 2019 Tenaris entered into an agreement with PAO Severstal to build a welded pipe plant to produce OCTG products in the Surgut area, West Siberia, Russian Federation. Tenaris holds a 49% interest in the company, while PAO Severstal owns the remaining 51%. The regulatory approvals and other customary conditions have been already obtained. The plant, which is estimated to require an investment of \$280 million, is planned to have an annual production capacity of 300,000 tons. During the period, Tenaris contributed approximately \$19.6 million in the project.

27 **Business combinations**

Acquisition of Saudi Steel Pipe Company

§ Acquisition

On January 21, 2019, Tenaris acquired 47.79% of the shares of SSP, a welded steel pipes producer listed on the Saudi stock market, for a total amount of SAR530 million (approximately \$141 million). The amount was paid with Tenaris cash in hand. SSP's facilities are located in the Eastern Province of the Kingdom of Saudi Arabia and have a manufacturing capacity of 360,000 tons per year. SSP started its operations in 1980 and serves energy industrial and commercial segments, is qualified to supply products with major national oil companies in the region.

Upon closing of the acquisition, four Tenaris's nominees were appointed as new members of the SSP's board of directors and a Tenaris senior executive was appointed as managing director and chief executive officer of SSP. Such appointment was ratified at the shareholders meeting of SSP held on May 7, 2019, where the shareholders also approved the reappointment of the Tenaris's nominees until June 6, 2022.

The Company has begun consolidating SSP's balances and results of operations as from January 21, 2019.

§ Fair value of net assets acquired

The application of the purchase method requires certain estimates and assumptions specially concerning the determination of the fair values of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed at the date of the acquisition. The fair values determined at the acquisition date are based mainly on discounted cash flows and other valuation techniques.

The allocation of the fair values determined for the assets and liabilities arising from the acquisition is as follows:

Fair value of acquired assets and liabilities:	SAR million	\$ million
Property, Plant and Equipment	671	179
Customer relationship	305	81
Investment in associated	77	21
Working capital	167	45
Cash and Cash Equivalents	32	9
Other Receivables	11	3
Borrowings	(304)	(81)
Employees end of service benefits	(59)	(16)
Deferred Tax Liabilities	(47)	(13)
Net assets acquired	853	228

Tenaris acquired 47.79% of total assets and liabilities shown above, approximately \$109 million. As of the result of the acquisition, the Company recognized a Goodwill of approximately \$32.9 million. Tenaris has chosen to recognize the non-controlling interest at the proportionate share of the acquiree's net identifiable assets.

The acquired business contributed revenues for \$170.6 million with a minor contribution to Tenaris's margin for the period starting January 21, 2019 and ending December 31, 2019.

If the acquisition had occurred on January 1, 2019, consolidated revenue and profit after tax would have not changed significantly.

The purchase price allocation has been done with the assistance of a third party expert.

Acquisition of Garrett

In September 2017, Tenaris acquired 100% of Garrett (a pipe services and trucking business) through the payment of a price of \$10.4 million.

If the acquisition had occurred on January 1, 2017, Tenaris's unaudited pro forma net sales and net income from continuing operations would not have changed materially.

28 Cash flow disclosures

	Year ended December 31,		
	2019	2018	2017
(i) Changes in working capital			
Inventories	311,459	(176,443)	(804,415)
Receivables and prepayments and Current tax assets	(34,368)	30,144	(4,564)
Trade receivables	428,326	(517,579)	(259,375)
Other liabilities	(18,295)	(22,984)	4,226
Customer advances	16,844	5,976	17,039
Trade payables	(180,857)	(57,066)	193,905
	523,109	(737,952)	(853,184)
(ii) Income tax accruals less payments			
Tax accrued	202,452	229,207	(17,136)
Taxes paid	(395,869)	(170,713)	(176,853)
	(193,417)	58,494	(193,989)
(iii) Interest accruals less payments, net			
Interest accrued	(4,616)	(2,914)	(20,534)
Interest received	30,890	40,613	50,001
Interest paid	(30,655)	(31,548)	(17,917)
	(4,381)	6,151	11,550
(iv) Cash and cash equivalents			
Cash at banks, liquidity funds and short - term investments	1,554,299	428,361	330,221
Bank overdrafts	(24)	(1,644)	(131)
	1,554,275	426,717	330,090

29 Discontinued Operations

On December 15, 2016, Tenaris entered into an agreement with Nucor Corporation ("NC") pursuant to which it has sold to NC the steel electric conduit business in North America, known as Republic Conduit for an amount of \$328 million (net of transaction costs). The sale was completed on January 19, 2017, with effect from January 20, 2017. The result of this transaction was an after-tax gain of \$89.7 million, calculated as the net proceeds of the sale less the book value of net assets held for sale, the corresponding tax effect and related expenses.

	Year ended December 31, 2017
Income from discontinued operations	1,848
After tax gain on the sale of Conduit	89,694
Net Income for discontinued operations	91,542

Details of Conduit sale

Cash received	331,295
Transaction and other costs	(3,663)
Carrying amount of net assets sold	(137,814)
Gain on sale before income tax	189,817
Income tax expense on gain	(100,123)
Gain on sale after income tax	89,694

The financial performances presented are relative to the 19 days of January 2017.

Analysis of the result of discontinued operations:

	Year ended December 31, 2017
Revenues	11,899
Gross profit	4,496
Net income	1,848

29 Discontinued Operations (Cont.)

Summarized cash flow information is as follows :

	2017
Cash at the beginning	18,820
Cash at the end	206
(Decrease) Increase in cash	(18,614)
(Used in) provided by operating activities	(3,046)
Provided by (used in) investing activities	32
Used in financing activities	(15,600)

These amounts were estimated only for disclosure purposes, as cash flows from discontinued operations were not managed separately from other cash flows.

The following table shows carrying amounts of assets and liabilities as at the date of sale.

Current and non-current assets and liabilities of disposal group

	At January 19, 2017
Non-current assets	87,332
Current assets	69,332
Total assets of disposal group classified as held for sale	156,664
Non-current liabilities	5,294
Current liabilities	13,556
Total liabilities of disposal group classified as held for sale	18,850

30 Related party transactions

As of December 31, 2019:

- § San Faustin S.A., a Luxembourg société anonyme (“San Faustin”), owned 713,605,187 shares in the Company, representing 60.45% of the Company’s capital and voting rights.
- § San Faustin owned all of its shares in the Company through its wholly-owned subsidiary Techint Holdings S.à.r.l., a Luxembourg société à responsabilité limitée (“Techint”), who is the holder of record of the above-mentioned Tenaris shares.
- § Rocca & Partners Stichting Administratiekantoor Aandelen San Faustin, a private foundation located in the Netherlands (Stichting) (“RP STAK”) held voting shares in San Faustin sufficient in number to control San Faustin.
- § No person or group of persons controls RP STAK.

Based on the information most recently available to the Company, Tenaris’s directors and senior management as a group owned 0.08% of the Company’s outstanding shares.

Transactions and balances disclosed as with “non-consolidated parties” are those with companies over which Tenaris exerts significant influence or joint control in accordance with IFRS, but does not have control. All other transactions and balances with related parties which are not non-consolidated parties and which are not consolidated are disclosed as “Other”. The following transactions were carried out with related parties:

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
(i) Transactions			
(a) Sales of goods and services			
Sales of goods to non-consolidated parties	20,577	23,709	32,362
Sales of goods to other related parties	69,972	131,548	94,624
Sales of services to non-consolidated parties	5,620	7,641	11,637
Sales of services to other related parties	4,386	5,647	3,751
	100,555	168,545	142,374
(b) Purchases of goods and services			
Purchases of goods to non-consolidated parties	174,588	245,186	234,361
Purchases of goods to other related parties	51,765	106,624	17,711
Purchases of services to non-consolidated parties	9,404	9,556	12,077
Purchases of services to other related parties	54,514	46,179	50,794
	290,271	407,545	314,943

30 Related party transactions (Cont.)

(all amounts in thousands of U.S. dollars)

		At December 31,	
		2019	2018
(ii) Period-end balances			
(a) Arising from sales / purchases of goods / services			
Receivables from non-consolidated parties		78,884	122,136
Receivables from other related parties		10,400	24,419
Payables to non-consolidated parties		(19,100)	(33,197)
Payables to other related parties		(7,048)	(17,595)
		63,136	95,763
(b) Financial debt			
Finance lease liabilities from non-consolidated parties		(2,064)	-
		(2,064)	-

In addition to the tables above, Tenaris issued various guarantees and is party to a commitment in favor of Techgen: for further details, please see note 12(c) and 25(ii). No other material guarantees were issued in favor of other related parties.

Directors' and senior management compensation

During the years ended December 31, 2019, 2018 and 2017, the cash compensation of Directors and Senior managers amounted to \$33.7 million, \$33.7 million and \$45.8 million respectively. These amounts include cash benefits paid to certain senior managers in connection with the pre-existing retirement plans. In addition, Directors and Senior managers received 468, 558 and 484 thousand units for a total amount of \$4.8 million, \$5.6 million and \$4.7 million respectively in connection with the Employee retention and long term incentive program mentioned in Note O Employee benefits – Other long term benefits.

31 Fees paid to the Company's principal accountant

Total fees accrued for professional services rendered by PwC Network firms to Tenaris S.A. and its subsidiaries are detailed as follows:

(all amounts in thousands of U.S. dollars)

	Year ended December 31,		
	2019	2018	2017
Audit fees	3,846	3,841	3,995
Audit-related fees	50	43	88
Tax fees	7	-	23
All other fees	1	7	30
Total	3,904	3,891	4,136

32 Principal subsidiaries

The following is a list of Tenaris's principal subsidiaries and its direct and indirect percentage of ownership of each controlled company at December 31, 2019.

Company	Country of Incorporation	Main activity	Percentage of ownership at December 31, (*)		
			2019	2018	2017
ALGOMA TUBES INC.	Canada	Manufacturing of seamless steel pipes	100%	100%	100%
CONFAB INDUSTRIAL S.A. and subsidiaries	Brazil	Manufacturing of welded steel pipes and capital goods	100%	100%	100%
DALMINE S.p.A.	Italy	Manufacturing of seamless steel pipes	100%	100%	100%
HYDRIL COMPANY and subsidiaries (except detailed) (a)	USA	Manufacture and marketing of premium connections	100%	100%	100%
KAZAKHSTAN PIPE THREADERS LIMITED LIABILITY PARTNERSHIP	Kazakhstan	Threading of premium products	100%	100%	100%
MAVERICK TUBE CORPORATION and subsidiaries	USA	Manufacturing of welded steel pipes	100%	100%	100%
NKKTUBES	Japan	Manufacturing of seamless steel pipes	51%	51%	51%
P.T. SEAMLESS PIPE INDONESIA JAYA	Indonesia	Manufacturing of seamless steel products	89%	89%	89%
PRUDENTIAL STEEL LTD.	Canada	Manufacturing of welded steel pipes	100%	100%	100%
S.C. SILCOTUB S.A.	Romania	Manufacturing of seamless steel pipes	100%	100%	100%
SAUDI STEEL PIPE CO.	Saudi Arabia	Manufacturing of welded steel pipes	48%	NA	NA
SIAT SOCIEDAD ANONIMA	Argentina	Manufacturing of welded and seamless steel pipes	100%	100%	100%
SIDERCA SOCIEDAD ANONIMA INDUSTRIAL Y COMERCIAL and subsidiaries	Argentina	Manufacturing of seamless steel pipes	100%	100%	100%
TALTA - TRADING E MARKETING SOCIEDADE UNIPessoal LDA.	Portugal	Holding Company	100%	100%	100%
TENARIS BAY CITY, INC.	USA	Manufacturing of seamless steel pipes	100%	100%	100%
TENARIS CONNECTIONS BV	Netherlands	Development, management and licensing of intellectual property	100%	100%	100%
TENARIS FINANCIAL SERVICES S.A.	Uruguay	Financial company	100%	100%	100%
TENARIS GLOBAL SERVICES (CANADA) INC.	Canada	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (U.S.A.) CORPORATION	USA	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (UK) LTD	United Kingdom	Holding company and marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES S.A. and subsidiaries (except detailed) (b)	Uruguay	Holding company and marketing of steel products	100%	100%	100%
TENARIS INVESTMENTS (NL) B.V.	Netherlands	Holding company	100%	NA	NA
TENARIS INVESTMENTS S.à.r.l.	Luxembourg	Holding company	100%	100%	100%
TENARIS INVESTMENTS SWITZERLAND AG and subsidiaries	Switzerland	Holding company	100%	100%	100%
TENARIS TUBOCARIBE LTDA.	Colombia	Manufacturing of welded and seamless steel pipes	100%	100%	100%
TUBOS DE ACERO DE MEXICO, S.A.	Mexico	Manufacturing of seamless steel pipes	100%	100%	100%

(*) All percentages rounded.

(a) Tenaris Investments S.à.r.l. holds 100% of Hydril's subsidiaries shares except for Technical Drilling & Production Services Nigeria. Ltd where it holds 80%.

(b) Tenaris Investments S.à.r.l. holds 97,5% of Tenaris Supply Chain S.A. and 40% of Tubular Technical Services Ltd. and Pipe Coaters Nigeria Ltd., 49% of Amaja Tubular Services Limited, 49% Tubular Services Angola Lda.

33 Nationalization of Venezuelan Subsidiaries

In May 2009, within the framework of Decree Law 6058, Venezuela's President announced the nationalization of, among other companies, the Company's majority-owned subsidiaries TAVSA - Tubos de Acero de Venezuela S.A. ("Tavsa") and, Matesi Materiales Siderúrgicos S.A. ("Matesi"), and Complejo Siderúrgico de Guayana, C.A. ("Comsigua"), in which the Company has a non-controlling interest (collectively, the "Venezuelan Companies"). Tenaris and its wholly-owned subsidiary, Talta - Trading e Marketing Sociedad Unipessoal Lda ("Talta"), initiated arbitration proceedings against Venezuela before the ICSID in Washington D.C. in connection with these nationalizations.

33 Nationalization of Venezuelan Subsidiaries (Cont.)

Matesi

On January 29, 2016, the tribunal released its award on the arbitration proceeding concerning the nationalization of Matesi. The award upheld Tenaris's and Talta's claim that Venezuela had expropriated their investments in Matesi in violation of Venezuelan law as well as the bilateral investment treaties entered into by Venezuela with the Belgium-Luxembourg Economic Union and Portugal. The award granted compensation in the amount of \$87.3 million for the breaches and ordered Venezuela to pay an additional amount of \$85.5 million in pre-award interest, aggregating to a total award of \$172.8 million, payable in full and net of any applicable Venezuelan tax, duty or charge. The tribunal granted Venezuela a grace period of six months from the date of the award to make payment in full of the amount due without incurring post-award interest, and resolved that if no, or no full, payment is made by then, post-award interest will apply at the rate of 9% per annum compounded at six-monthly rests from the date of the award until payment in full. As of December 31, 2019, post-award interest amounted to approximately \$71 million.

On March 14, 2016, Venezuela requested the rectification of the award pursuant to article 49(2) of the ICSID Convention and ICSID Arbitration Rule 49. The tribunal denied Venezuela's request on June 24, 2016, ordering Venezuela to reimburse Tenaris and Talta for their costs incurred in connection with the rectification proceedings. On September 21, 2016, Venezuela submitted a request for annulment of the award as well as the stay of enforcement of the award in accordance with the ICSID Convention and Arbitration Rules. On March 24, 2017, an ad hoc committee constituted to decide on Venezuela's requests rendered its decision to lift the stay of enforcement of the award. On August 8, 2018, the ad hoc committee rejected Venezuela's application to annul the award.

On June 8, 2018, Tenaris and Talta filed an action in federal court in the District of Columbia to recognize and enforce the award. Tenaris and Talta have effected service on Venezuela in accordance with US law, and Venezuela has failed to file an answer in the proceeding. Tenaris and Talta have moved for default judgment. Venezuela did not oppose the entry of default judgment. Accordingly, it is expected that the award will be converted into a judgment. The judgment, however, may not be enforced in the U.S. to the extent prohibited by the Venezuelan sanctions regulations issued by the U.S. Treasury Department's Office of Foreign Assets Control.

Tavsa and Comsigua

On December 12, 2016, the tribunal issued its award upholding Tenaris's and Talta's claim that Venezuela had expropriated their investments in Tavsa and Comsigua in violation of the bilateral investment treaties entered into by Venezuela with the Belgium-Luxembourg Economic Union and Portugal. The award granted compensation in the amount of \$137 million and ordered Venezuela to reimburse Tenaris and Talta \$3.3 million in legal fees and ICSID administrative costs. In addition, Venezuela was ordered to pay interest from April 30, 2008 until the day of effective payment at a rate equivalent to LIBOR + 4% per annum, which as of December 31, 2019 amounted to approximately \$118 million.

On April 11, 2017, Venezuela submitted a request for annulment of the award as well as the stay of enforcement of the award in accordance with the ICSID Convention and Arbitration Rules. On February 23, 2018, an ad hoc committee constituted to decide on Venezuela's requests rendered its decision to lift the stay of enforcement of the award. On December 28, 2018, the ad hoc committee rejected Venezuela's application to annul the award.

On June 8, 2018, Tenaris and Talta filed an action in federal court in the District of Columbia to recognize and enforce the award. Tenaris and Talta have effected service on Venezuela in accordance with US law, and Venezuela has failed to file an answer in the proceeding. Tenaris and Talta have moved for default judgment. Venezuela did not oppose the entry of default judgment. Accordingly, it is expected that the award will be converted into a judgment. The judgment, however, may not be enforced in the U.S. to the extent prohibited by the Venezuelan sanctions regulations issued by the U.S. Treasury Department's Office of Foreign Assets Control.

As of December 31, 2019, Tenaris or its subsidiaries have net receivables related to its interest in the Venezuelan Companies for a total amount of approximately \$49 million. See Note III.B.

34 Delisting of Tenaris's shares from the Buenos Aires stock exchange

On July 29, 2019, the General Shareholders Meeting approved the delisting of the Company's shares from the Buenos Aires stock exchange, Bolsas y Mercados Argentinos S.A. ("BYMA"), through a voluntarily withdrawal from listing of the Argentine National Securities Commission (Comisión Nacional de Valores, or "CNV") pursuant to Article 32, clause c), Section VIII, Chapter II of Title III of the rules (Normas) of the CNV, which permits the Company to delist from BYMA without making a delisting public tender offer. On September 19, 2019, the CNV authorized the delisting of the Company's shares in Argentina, and such delisting became effective as of the close of business on October 10, 2019.

Although shareholders holding shares through Caja de Valores S.A. ("CVSA") on June 11, 2019 who were absent from the General Shareholders Meeting were entitled to appraisal rights provided pursuant to article 22 of the Company's articles of association, no shareholder eligible to do so exercised such right.

35 Subsequent events

Acquisition of IPSCO Tubulars, Inc.

§ Acquisition

On January 2, 2020, Tenaris acquired 100% of the shares of IPSCO Tubulars, Inc. ("IPSCO"), a U.S. manufacturer of steel pipes, from PAO TMK ("TMK"). The acquisition price was determined on a cash-free, debt-free basis, and the amount paid in cash at the closing, following contractual adjustments for cash, indebtedness, working capital and certain other items as estimated by the seller as of the closing date, was \$1,067 million. The final acquisition price is subject to a contractual true-up adjustment based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date.

IPSCO's facilities are located mainly in the midwestern and northeastern regions of the country. IPSCO's steel shop in Koppel, Pennsylvania, is Tenaris's first in the United States, providing vertical integration through domestic production of a relevant part of its steel bar needs. Its Ambridge, Pennsylvania, mill adds a second seamless manufacturing facility and complements Tenaris's seamless plant in Bay City, Texas.

In connection with the closing of the transaction, the parties entered into a 6-year master distribution agreement (the "MDA") whereby, beginning on January 2, 2020, Tenaris will be the exclusive distributor of TMK's OCTG and line pipe products in United States and Canada. At the end of the MDA's 6-years term, TMK will have the option to extend the duration of its term for an additional 12 months. Under the MDA, Tenaris is required to purchase specified minimum volumes of TMK-manufactured OCTG and line pipe products.

The Company will begin consolidating IPSCO's balances and results of operations as from January 2, 2020. The Company has retained a third party expert to estimate the purchase price allocation. As of the date of publication of these Consolidated Financial Statements, the purchase price allocation is still in progress.

The short period of time between the acquisition date and the date of approval of these Consolidated Financial Statements, as well as the considerable size and complexity of the acquired business, makes it impracticable for the Company to provide all disclosures required by IFRS 3 applicable to a business combination that occurred subsequent to year end.

Following the preparation of the initial purchase price allocation, the Company will continue its review and will make any necessary adjustments during the following 12 months, in accordance with IFRS 3.

The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition

A novel strain of coronavirus (SARS-CoV-2) surfaced in China in December 2019 and subsequently spread to the rest of the world in early 2020. In March 2020, the World Health Organization declared COVID-19, the disease caused by the SARS-CoV-2 virus, a global pandemic. In response to the COVID-19 outbreak, countries have taken different measures in relation to prevention and containment. For example, several countries introduced bans on business activities or locked down cities or countries, including countries where Tenaris has operations (such as Argentina, China, Colombia, Italy, Mexico and the United States). The rapid expansion of the virus and the measures taken to contain it have triggered a severe fall in global economic activity and a serious crisis in the energy sector.

While the extent of the effects of COVID-19 on the global economy and oil demand were still unclear, in March 2020, the members of OPEC+ (OPEC plus other major oil producers including Russia) did not agree to extend their agreement to cut oil production and Saudi Arabia precipitated a wave of additional supply on the market triggering a collapse in oil prices below \$30 per barrel. This exacerbated what soon became clear was an unprecedented situation of oversupply, caused primarily by the sudden and dramatic fall in oil consumption consequent to the measures taken to contain the spread of the virus around the world. Although OPEC+ subsequently reached an equally unprecedented agreement to cut production by as much as 9.7 million barrels per day, a situation of acute oversupply remains, causing oil prices to hit record lows. By the end of trading on April 20, 2020, the West Texas Intermediate (WTI) forward price for delivery in May, which had to be closed out the following day, fell to a negative value for the first time in history, as oil storage facilities were completely committed, and producers were forced to pay buyers to take their barrels. It is not known how long it will take for oil and gas demand to recover or achieve a more balanced position between supply and demand. As a result, prices are expected to remain at low levels for an extended period. In these circumstances, most of our customers have announced, or are making, significant cuts to their investment plans and are likely to announce further cuts. Similarly, several of our suppliers are closing, either temporarily or permanently, some of their facilities, which may result in unavailability or increased prices for our raw materials and other inputs.

- *Status of our operations*

We are adjusting our operations on a country-by-country basis to comply with applicable rules and requirements and adapt to this new, rapidly evolving scenario. As of the date of these Consolidated Financial Statements, this is the status of our facilities:

- In China, we are again fully operational, after several weeks of interruption and an extraordinary combined effort of our people and of our community.
- In Italy, production was greatly reduced; although our Dalmine facility was used exclusively for the manufacturing of oxygen tanks to aid local hospitals and health centers for a limited period of time, currently the facility is gradually resuming normal operations. In Argentina, Colombia, Mexico and Saudi Arabia, Tenaris decreased its activity following the imposition of mandatory lockdowns, and our plants in these countries are currently operating at reduced levels. Although the lockdowns or restrictions to operate in these countries are expected to end or be relaxed in the next few weeks, these could be extended and/or made more stringent if so decided by the appropriate authorities as the circumstances could require.
- In the United States, our facilities in Koppel and Ambridge (PA), Brookfield (OH), Blytheville (AR), Wilder (KY), and Odessa and Baytown (TX), have been or will be temporarily closed until market conditions improve. In addition, Tenaris is in the process of performing employee reductions and adjusting production levels at its other facilities in line with market demand.

In order to safeguard the health and safety of its employees, customers and suppliers, Tenaris has taken preventive measures, including remote working for the majority of white collar employees, restricting onsite access to essential operational personnel, keeping personnel levels at a minimum, implementing a special operations protocol to ensure social distancing and providing medical assistance and supplies to onsite employees. As of the date of these Consolidated Financial Statements, remote work and other work arrangements have not materially adversely affected Tenaris's ability to conduct operations. In addition, these alternative working arrangements have not adversely affected our financial reporting systems, internal control over financial reporting or disclosure controls and procedures.

¹ This note was added subsequent to the approval of these Consolidated Financial Statements by the Company's Board of Directors on February 19, 2020.

36 Update as of April 29, 2020 (Cont.)

The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition (Cont.)

- *Risks associated with the COVID-19 pandemic and the oil & gas crisis*

Given the uncertainty around the extent and timing of the future spread of the SARS-CoV-2 virus and the unprecedented extent of the oversupply on the oil market and the uncertainty about the timing and extent of any recovery in demand, it is not possible at this time to predict the full magnitude of the adverse effects that these two circumstances will have on our industry generally, nor to reasonably estimate the impact on Tenaris's results of operations, cash flows or financial condition.

The COVID-19 pandemic and the ongoing oil & gas crisis poses the following main risks and challenges to Tenaris:

- Global oil or gas demand may fail to recover or even decrease further in the future, driving down prices even more or keeping them at very low levels, which would exert downward pressure on sales and margins of oil and gas companies, leading to further reductions and even generalized suspension of drilling activities (in the U.S. or elsewhere) and, as a result, materially adversely affecting our sales and financial position.
- Tenaris or its employees, contractors, suppliers, customers and other business partners may be prevented from conducting certain business activities for a prolonged or indefinite period of time. In addition, employees in some or all of our facilities, or those of our contracts, suppliers, customers or other business partners, may refuse to work due to health concerns while the COVID-19 outbreak is ongoing. If that happens, the continuity of our future operations may be severely affected.
- A continuing spread of COVID-19 may affect the availability and price of raw materials, energy and other inputs used by Tenaris in its operations. Any such disruption or increased prices could adversely affect Tenaris's profitability.

- *Mitigating actions*

In order to mitigate the impact of expected lower sales, Tenaris is working on a worldwide rightsizing program and cost containment plan aimed at preserving its financial resources and overall liquidity position and maintaining the continuity of its operations. The actions include:

- Adjusting the level of our operations and workforce around the world, including through the temporary closure of certain U.S. facilities or production lines, as indicated above;
- Introducing efficiency and productivity improvements throughout Tenaris's industrial system;
- Downsizing our fixed cost structure, including through pay reductions for senior management and board members, aggregating estimated total annual savings of approximately \$220 million by year-end;
- Reducing capital expenditures and R&D expenses for approximately \$150 million when compared to 2019 levels;
- Reducing working capital, especially inventories, in accordance with the expected levels of activity; and
- Increasing our focus on managing customer credit conditions.

As part of these liquidity preservation initiatives, the board of directors resolved to propose, for approval by the Annual Shareholders Meeting to be held on June 2, 2020, that no further dividends be distributed in respect of fiscal year 2019 on top of the interim dividend of approximately \$153 million already paid in November 2019.

As of the date of these Consolidated Financial Statements, our capital and financial resources, and overall liquidity position, have not been materially affected by this new scenario. Tenaris has in place non-committed credit facilities and management believes it has adequate access to the credit markets. In addition, Tenaris has a net cash position of approximately \$271 million as of the end of March 2020 and a manageable debt amortization schedule. Considering our financial position and the funds provided by operating activities, management believes that we have sufficient resources to satisfy our current working capital needs, service our debt and address short-term changes in business conditions.

36 Update as of April 29, 2020 (Cont.)*Acquisition of IPSCO Tubulars, Inc.*

(i) Closing Statement

On March 16, 2020, Tenaris delivered, for TMK's review, a closing statement prepared in accordance with the acquisition agreement, including Tenaris's calculation of the closing price based on actual amounts of cash, indebtedness, working capital and certain other items as of the closing date. In case of disagreement, the parties are expected to engage in good-faith negotiations to solve any discrepancies. If the parties cannot resolve the disputed amounts, the discrepancies must be submitted to and resolved by an independent accounting firm.

(ii) Purchase Price Allocation

As at March 31, 2020, the preliminary purchase price allocation was carried out with the assistance of a third-party expert.

The application of the purchase method requires certain estimates and assumptions, including estimates and assumptions concerning the determination of the fair values of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed at the date of the acquisition. The fair values determined at the acquisition date are based mainly on discounted cash flows and other valuation techniques.

The preliminary allocation of the fair values determined for the assets and liabilities arising from the acquisition is as follows:

Fair value of acquired assets and liabilities:	\$ million
Property, Plant and Equipment	506
Intangible assets	170
Working capital	144
Cash and Cash Equivalents	4
Other assets	46
Borrowings	(53)
Provisions	(27)
Other liabilities	(77)
Deferred tax liabilities	(3)
Net assets acquired	710

Tenaris acquired total assets and liabilities shown above, for approximately \$1,067 million. As a result of the acquisition, the Company recognized goodwill for approximately \$357 million. The goodwill is not expected to be deductible for tax purposes.

The goodwill generated by the acquisition is mainly attributable to the synergy created following the integration between Tenaris and IPSCO, which is expected to enhance Tenaris's position as well as its local manufacturing presence in the U.S. market, and also expand its product range and services capabilities. The goodwill has been allocated to the Tubes segment. After the conclusion of the preliminary purchase price allocation determination and as a consequence of the unprecedented decline in oil prices and other changes in circumstances, the management has decided to impair the goodwill mentioned above.

Following IFRS 3, the Company will continue reviewing the allocation and make any necessary adjustments (mainly over property, plant and equipment and intangible assets) during the twelve months following the acquisition date.

Acquisition-related costs of \$9.7 million were included in general and administrative expenses (\$9.4 million and \$ 0.3 million in 2019 and 2020 respectively).

(iii) Temporary suspension of operations at certain facilities

Given the abrupt and steep decline in market demand, the facilities in Koppel and Ambridge (PA), Brookfield (OH), Blytheville (AR), Wilder (KY), and Odessa and Baytown (TX), were temporarily closed until market conditions improve.

36 Update as of April 29, 2020 (Cont.)

Impairment of Assets

As a result of the severe deterioration of business conditions and in light of the presence of impairment indicators for its U.S. operations, Tenaris recorded impairment charges as of March 31, 2020, in the carrying values of goodwill and other asset values at the cash-generating units OCTG USA (Maverick), IPSCO, Rods USA and Coiled Tubing, for an aggregate amount of approximately \$622 million.

These Consolidated Financial Statements do not reflect these impairment charges.

Closure of facilities at JFE's Keihin steel complex

Our seamless pipe manufacturing facility in Asia, operated by NKKTubes, is located in Kawasaki, Japan, in the Keihin steel complex owned by JFE. Steel bars and other essential inputs and services for NKKTubes are supplied under a long-term agreement by JFE, which retains a 49% interest in NKKTubes. On March 27, 2020, JFE informed Tenaris of its decision to permanently cease, as from JFE's fiscal year ending March 2024, the operations of certain of its steel manufacturing facilities and other facilities located at the Keihin complex. The closure of JFE's Keihin facilities may result in the unavailability of steel bars and other essential inputs or services used in NKKTubes' manufacturing process, thereby affecting its operations. Tenaris and JFE have agreed to engage in discussions to seek mutually acceptable solutions.

Annual Dividend Proposal

On April 29, 2020, the Company's board of directors resolved to propose, for approval by the annual shareholders meeting to be held on June 2, 2020, that no further dividends be distributed in respect of fiscal year 2019 beyond the interim dividend of approximately \$153 million already paid in November 2019. For a discussion of the rationale behind the dividend proposal, see "The COVID-19 pandemic and the oil & gas crisis and their impact on Tenaris's operations and financial condition" included in this note.

Alicia Møndolo
Chief Financial Officer

EXHIBIT INDEX

Exhibit Number	Description
1.1	Updated and Consolidated Articles of Association of Tenaris S.A., dated as of May 2, 2018 *
2.1	Amended and Restated Deposit Agreement entered into between Tenaris S.A. and Deutsche Bank Trust Company Americas **
7.1	Statement Explaining Calculation of Ratios
7.2	Statement Explaining Alternative Performance Measures
8.1	List of Subsidiaries of Tenaris S.A.
12.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

* The Updated and Consolidated Articles of Association is incorporated by reference to Exhibit 1.1 on Form 20-F filed by Tenaris S.A. on April 3, 2019 (File No. 001-31518).

** The Amended and Restated Deposit Agreement is incorporated by reference to the Registration Statement on Form F-6 filed by Tenaris S.A. on February 25, 2013 (File No. 333-186825).

SIGNATURES

The registrant hereby certifies that it meets all the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

April 30, 2020

TENARIS S.A.

By /s/ Alicia M3ndolo

Name: Alicia M3ndolo

Title: Chief Financial Officer

Tenaris – Liquid financial assets over total assets

<i>Thousands of U.S. dollars</i>	<u>2019</u>	<u>At December 31, 2018</u>	<u>2017</u>
Cash and cash equivalents	1,554,299	428,361	330,221
Other current investments	210,376	487,734	1,192,306
Bonds and other fixed income	18,012	113,829	123,498
Liquid financial assets	1,782,687	1,029,924	1,646,025
Total assets	14,842,991	14,251,299	14,398,218
Ratio	12%	7%	11%

Tenaris – Total Liabilities to Total Assets Ratio

<i>Thousands of U.S. dollars</i>	<u>2019</u>	<u>At December 31, 2018</u>	<u>2017</u>
Total liabilities	2,656,619	2,375,807	2,817,248
Total assets	14,842,991	14,251,299	14,398,218
Ratio	0.18	0.17	0.20

Tenaris – Current borrowings to total borrowings

<i>Millions of U.S. dollars</i>	<u>2019</u>	<u>At December 31, 2018</u>	<u>2017</u>
Current borrowings	781,272	509,820	931,214
Total borrowings	822,152	539,007	965,859
Ratio	0.95	0.95	0.96

Alternative performance measures

EBITDA, Earnings before interest, tax, depreciation and amortization.

EBITDA provides an analysis of the operating results excluding depreciation and amortization and impairments, as they are non-cash variables which can vary substantially from company to company depending on accounting policies and the accounting value of the assets. EBITDA is an approximation to pre-tax operating cash flow and reflects cash generation before working capital variation. EBITDA is widely used by investors when evaluating businesses (multiples valuation), as well as by rating agencies and creditors to evaluate the level of debt, comparing EBITDA with net debt. EBITDA is calculated in the following manner:

EBITDA = Operating results + Depreciation and amortization + Impairment charges/(reversals).

<i>Millions of U.S. dollars</i>	For the year ended December 31,		
	2019	2018	2017
Operating income	832	872	335
Depreciation and amortization	540	664	609
EBITDA	1,372	1,536	943

Net cash/(debt) position

This is the net balance of cash and cash equivalents, other current investments and fixed income investments held to maturity less total borrowings. It provides a summary of the financial solvency and liquidity of the company. Net cash / (debt) is widely used by investors and rating agencies and creditors to assess the company's leverage, financial strength, flexibility and risks.

Net cash/ debt is calculated in the following manner:

Net cash= Cash and cash equivalents + Other investments (Current and Non-Current) +/- Derivatives hedging borrowings and investments – Borrowings (Current and Non-Current).

<i>Millions of U.S. dollars</i>	At December 31,		
	2019	2018	2017
Cash and cash equivalents	1,554	428	330
Other current investments	210	488	1,192
Non-current investments	18	114	123
Derivatives hedging borrowings and investments	19	(6)	(33)
Borrowings – current and non-current	(822)	(539)	(966)
Net cash position	980	485	647

Free Cash Flow

Free cash flow is a measure of financial performance, calculated as operating cash flow less capital expenditures. FCF represents the cash that a company is able to generate after spending the money required to maintain or expand its asset base. Free cash flow is calculated in the following manner:

Free cash flow = Net cash (used in) provided by operating activities – Capital expenditures.

<i>Millions of U.S. dollars</i>	For the year ended December 31,		
	2019	2018	2017
Net cash provided by (used in) operating activities	1,528	611	(22)
Capital expenditures	(350)	(349)	(558)
Free cash flow	1,178	261	(580)

Tenaris – List of subsidiaries of Tenaris S.A.

Principal subsidiaries

We conduct all our operations through subsidiaries. The following table shows the principal subsidiaries of the Company and its direct and indirect ownership in each subsidiary as of December 31, 2019, 2018 and 2017.

Company	Country of Incorporation	Main activity	Percentage of ownership at December 31, (*)		
			2019	2018	2017
ALGOMA TUBES INC.	Canada	Manufacturing of seamless steel pipes	100%	100%	100%
CONFAB INDUSTRIAL S.A. and subsidiaries	Brazil	Manufacturing of welded steel pipes and capital goods	100%	100%	100%
DALMINE S.p.A.	Italy	Manufacturing of seamless steel pipes	100%	100%	100%
HYDRIL COMPANY and subsidiaries (except detailed) (a)	USA	Manufacture and marketing of premium connections	100%	100%	100%
KAZAKHSTAN PIPE THREADERS LIMITED LIABILITY PARTNERSHIP	Kazakhstan	Threading of premium products	100%	100%	100%
MAVERICK TUBE CORPORATION and subsidiaries	USA	Manufacturing of welded steel pipes	100%	100%	100%
NKKTUBES	Japan	Manufacturing of seamless steel pipes	51%	51%	51%
P.T. SEAMLESS PIPE INDONESIA JAYA	Indonesia	Manufacturing of seamless steel products	89%	89%	89%
PRUDENTIAL STEEL LTD.	Canada	Manufacturing of welded steel pipes	100%	100%	100%
S.C. SILCOTUB S.A.	Romania	Manufacturing of seamless steel pipes	100%	100%	100%
SAUDI STEEL PIPE CO.	Saudi Arabia	Manufacturing of welded steel pipes	48%	NA	NA
SIAT SOCIEDAD ANONIMA	Argentina	Manufacturing of welded and seamless steel pipes	100%	100%	100%
SIDERCA SOCIEDAD ANONIMA INDUSTRIAL Y COMERCIAL and subsidiaries	Argentina	Manufacturing of seamless steel pipes	100%	100%	100%
TALTA - TRADING E MARKETING SOCIEDADE UNIPESSOAL LDA.	Portugal	Holding Company	100%	100%	100%
TENARIS BAY CITY, INC.	USA	Manufacturing of seamless steel pipes	100%	100%	100%
TENARIS CONNECTIONS BV	Netherlands	Development, management and licensing of intellectual property	100%	100%	100%
TENARIS FINANCIAL SERVICES S.A.	Uruguay	Financial company	100%	100%	100%
TENARIS GLOBAL SERVICES (CANADA) INC.	Canada	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (U.S.A.) CORPORATION	USA	Marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES (UK) LTD	United Kingdom	Holding company and marketing of steel products	100%	100%	100%
TENARIS GLOBAL SERVICES S.A. and subsidiaries (except detailed) (b)	Uruguay	Holding company and marketing of steel products	100%	100%	100%
TENARIS INVESTMENTS (NL) B.V.	Netherlands	Holding company	100%	NA	NA
TENARIS INVESTMENTS S.à.r.l.	Luxembourg	Holding company	100%	100%	100%
TENARIS INVESTMENTS SWITZERLAND AG and subsidiaries	Switzerland	Holding company	100%	100%	100%
TENARIS TUBOCARIBE LTDA.	Colombia	Manufacturing of welded and seamless steel pipes	100%	100%	100%
TUBOS DE ACERO DE MEXICO, S.A.	Mexico	Manufacturing of seamless steel pipes	100%	100%	100%

(*) All percentages rounded.

(a) Tenaris Investments S.à.r.l. holds 100% of Hydril's subsidiaries shares except for Technical Drilling & Production Services Nigeria. Ltd where it holds 80% for 2019, 2018 and 2017.

(b) Tenaris Investments S.à.r.l. holds 97,5% of Tenaris Supply Chain S.A. and 40% of Tubular Technical Services Ltd. and Pipe Coaters Nigeria Ltd., 49% of Amaja Tubular Services Limited, 49% Tubular Services Angola Lda.

CERTIFICATE

I, PAOLO ROCCA, CERTIFY THAT:

1. I have reviewed this annual report on Form 20-F of Tenaris S.A.;
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(s) 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 period covered by the 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(s) 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.

Date: April 30, 2020

/s/ Paolo Rocca

Name: Paolo Rocca

Title: Chief Executive Officer

CERTIFICATE

I, ALICIA MÓNDOLO, CERTIFY THAT:

1. I have reviewed this annual report on Form 20-F of Tenaris S.A.;
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(s) 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 period covered by the 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(s) 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.

Date: April 30, 2020

/s/ Alicia Mndolo

Name: Alicia Mndolo

Title: Chief Financial Officer

CERTIFICATION

PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

(SUBSECTIONS (A) AND (B) OF SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of Tenaris S.A. (the "Company"), hereby certifies, to such officer's knowledge, that the Company's Annual Report on Form 20-F for the year ended December 31, 2019 (the "Report"), fully complies with the requirements of section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 30, 2020

/s/ Paolo Rocca

Name: Paolo Rocca

Title: Chief Executive Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.

CERTIFICATION

PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

(SUBSECTIONS (A) AND (B) OF SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of Tenaris S.A. (the "Company"), hereby certifies, to such officer's knowledge, that the Company's Annual Report on Form 20-F for the year ended December 31, 2019 (the "Report"), fully complies with the requirements of section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 30, 2020

/s/ Alicia M3ndolo

Name: Alicia M3ndolo

Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.