TENARIS SA
Form 6-K
April 08, 2019

FORM 6 - K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

Pursuant to Rule 13a - 16 or 15d - 16 of

the Securities Exchange Act of 1934

As of April 5, 2019

TENARIS, S.A.

(Translation of Registrant's name into English)

TENARIS, S.A.

29, Avenue de la Porte-Neuve 3rd floor

L-2227 Luxembourg

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or 40-F.

Form 20-F _Ö_ Form 40-F ___

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12G3-2(b) under the Securities Exchange Act of 1934.

Yes ___ No _Ö_

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-__.

The attached material is being furnished to the Securities and Exchange Commission pursuant to Rule 13a-16 and Form 6-K under the Securities Exchange Act of 1934, as amended. This report contains Tenaris' 2018 annual report (which includes the Company's consolidated financial statements for the years ended December 31, 2018, 2017 and 2016 and the Company's annual accounts as at December 31, 2018, together with the independent auditors' reports and the Board of Directors' management report and certification).

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: April 5, 2019.

Tenaris, S.A.

By: /s/ Cecilia Bilesio

Cecilia Bilesio

Corporate Secretary

TENARIS S.A.

Annual Report 2018

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Company Profile

Tenaris is a leading supplier of tubes and related services for the world's energy industry and certain other industrial applications. Our mission is to deliver value to our customers through product development, manufacturing excellence and supply chain management. We seek to minimize risk for our customers and help them reduce costs, increase flexibility and improve time-to-market. Our employees around the world are committed to continuous improvement by sharing knowledge across a single global organization.

Letter from the Chairman

Dear Shareholders,

2018 has been a year when Tenaris has demonstrated with its results the strength of its global and competitive positioning. In a market, where the increase in global oil and gas rig count has been a relatively modest 9%, largely concentrated in the U.S. shales, Tenaris has increased sales by 45% over the year. All our regions, as well as our non-tubular businesses, have contributed to this achievement. Our margins have also increased with our EBITDA margin consolidating around 20%, and our net income margin rising to 11% of sales.

Our financial position is solid with a net cash position at year end of $485 million and our Board of Directors is proposing to maintain our annual dividend payment at the same level as last year.

This performance compares favorably against any of our competitors and, in the past years, we have established a clear leadership in our sector, reflecting the efforts we have made over many years: in industrial excellence, product development, in our Rig Direct® service and in our global reach and financial strength.

Central to our performance this year has been the extraordinary achievement of completing the delivery of pipes with highly complex specifications for three offshore gas pipelines in the Eastern Mediterranean, which will change the balance of gas supply and demand in the region.

During the year, around 60% of our OCTG sales by volume was supplied under Rig Direct® conditions. We have fully consolidated the service in the U.S. and Canadian markets and are working to increase differentiation through improving service quality and extending integration with customer operations. Elsewhere, we have successfully introduced the service in Indonesia, United Arab Emirates, Guyana and Brazil. No other company in our sector is capable of deploying on a global scale such a strategy of deep integration with customers, with its benefits for reducing costs and simplifying operations.

We also positioned ourselves favorably for major gas development projects around the world. In Argentina, Tenaris supported the rapid development of gas production in the Vaca Muerta shale, while we also won awards for the supply to major gas developments in Australia, Qatar, Indonesia, Mozambique and, most recently, India.

In a year when Section 232 tariffs and quotas were introduced in the United States, we expanded our production in all of our plants in the country. In particular, we have been focusing on the ramp up of our new greenfield mill at Bay City and, in 2019, we will continue working to bring the mill to its full potential.

During the years, we have been researching the application of digital, automation and machine learning technologies in our industrial processes and we incorporated many of these new developments into our Bay City mill. Now, we are beginning to introduce these new technologies and transform the rest of our industrial system. This work will be strengthened in the years ahead.

Sustainability principles are deeply embedded in our values and management processes, as we position Tenaris to grow and prosper over the long-term. First and foremost is an absolute commitment to the safety of our employees, contractors and users of our products and services. While we are encouraged to be making progress on improving our safety indicators, we realize that further cultural change is still needed to achieve our safety objectives. We have decided to change the role of shift leaders in our industrial system to give them more responsibility to lead the change.

The ramp up in production at our modern Bay City mill is having an impact on our environment indicators, which are showing a gradual improvement. At the same time, we are investing in our older facilities to improve air quality and material recycling performance indicators. Over 10% of our capital expenditure budget during 2018 was dedicated to projects whose primary aim is to improve our safety and environmental performance.

We continue to work on transforming our human relations processes to strengthen the role and opportunity for employees to control their own development and career choices and encourage flexible working programs. We are pleased to note that, in our internal surveys, employee engagement has been improving. We are now extending the use of these surveys to our factory-floor employees, which is providing us additional insight into opportunities for improving working conditions.

The cornerstone of our programs to strengthen the communities where we operate is our investment in technical education and providing opportunities for promising young students from all backgrounds. As our Roberto Rocca Technical School in Campana completed its fifth anniversary, PISA and College Board tests show that its pupils are performing appreciably better in mathematics and language than their peers within Argentina and the OECD average.

Over the past decade, we have focused our expansion strategy on organic growth with the construction of new rolling mills at Tamsa and Bay City and the expansion of heat treatment, threading and service facilities around the world. Now, with the acquisition of a welded pipe mill in Saudi Arabia, the launch of the Tenaris Severstal joint venture project in Russia and our prospective acquisition of IPSCO Tubulars in the U.S., we are starting a new phase of industrial expansion in key markets for the oil and gas industry.

We have completed an important year of expansion in sales and results but if I should look ahead let me stress that we are faced with high levels of uncertainty in the political and economic environment of many of the countries where we operate. I feel, however**,** that Tenaris, with its global positioning, its diverse and highly motivated team of professionals and its financial flexibility remains better placed than any of its competitors to take advantage of new opportunities and respond to the different scenarios that could unfold.

I would like to thank our employees for their efforts and achievements over the past year. I would also like to thank our customers, suppliers and shareholders for their continuing support and confidence in our company.

April 1, 2019

Tenaris S.A. Annual Report 2018

Consolidated Management Report

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 $1.00, of the Company.
- “ADSs” refers to the American Depositary Shares, which are evidenced by American Depositary Receipts, and represent two shares each.
- “OCTG” refers to oil country tubular goods. See “Information on Tenaris – Business Overview – Our Products”.
- “tons” refers to metric tons; one metric ton is equal to 1,000 kilograms, 2,204.62 pounds, or 1.102 U.S. (short) tons.
- “billion” refers to one thousand million, or 1,000,000,000.
- “U.S. dollars”, “US$”, “USD” or “$” each refers to the United States dollar.
- “EUR” refers to the Euro.
- “SAR” refers to the Saudi Arabian riyal.

- "BRL" refers to the Brazilian real.
- "MXN" refers to the Mexican peso.
- "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. Additionally, this annual report includes non-IFRS alternative performance measures such as EBITDA, Net cash/debt position and Free Cash Flow. See Exhibit 1 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 27 "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, 2018, 2017 and 2016.

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 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" under applicable securities laws. Forward-looking statements are based on management's current views and assumptions and are provided to allow potential investors the opportunity to understand management's beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment. Forward-looking statements involve known and unknown risks that could cause actual results, performance or events to differ materially from those expressed or implied by those statements.

We use words and terms such as "aim", "will likely result", "will continue", "contemplate", "seek to", "future", "objective", "g "should", "will pursue", "anticipate", "estimate", "expect", "project", "intend", "plan", "believe" and words and terms of simil substance to identify forward-looking statements, but they are not the only way we identify such statements. 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, "Business Overview", "Principal Risks and Uncertainties", and "Operating and Financial Review and Prospects". In addition to the risks related to our business discussed under "Principal Risks and Uncertainties", other factors could cause actual results to differ materially from those described in the forward-looking statements. These factors include, but are not limited to:

- 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 and political conditions in the countries in which we operate or distribute pipes; *and*
- changes to applicable law 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 changes of circumstances or management's estimates or opinions, new information, future events or otherwise.

Tenaris S.A. Annual Report 2018

Leading Indicators

	2018	2017	2016
TUBES SALES VOLUMES (thousands of tons)			
Seamless	2,694	2,157	1,635
Welded	877	461	355
Total	3,571	2,618	1,990
TUBES PRODUCTION VOLUMES (thousands of tons)			
Seamless	2,798	2,347	1,735
Welded	799	544	305
Total	3,597	2,890	2,040
FINANCIAL INDICATORS (millions of $)			
Net sales	7,659	5,289	4,294
Operating income (loss)	872	335	(59)
EBITDA [1]	1,536	943	598
Net income	874	536	59
Cash flow from operations	611	(22)	864
Capital expenditures	349	558	787
BALANCE SHEET (millions of $)			
Total assets	14,251	14,398	14,003
Total borrowings	539	966	840
Net cash position [2]	485	647	1,406
Total liabilities	2,376	2,817	2,590
Shareholders' equity including non-controlling interests	11,875	11,581	11,413
PER SHARE / ADS DATA ($ PER SHARE / PER ADS) [3]			
Number of shares outstanding [4] (thousands of shares)	1,180,537	1,180,537	1,180,537
Earnings per share	0.74	0.46	0.05
Earnings per ADS	1.48	0.92	0.09
Dividends per share [5]	0.41	0.41	0.41
Dividends per ADS [5]	0.82	0.82	0.82
ADS Stock price at year-end	21.32	31.86	35.71
Number of employees [4]	23,472	21,605	19,399

(1) Defined as operating income plus depreciation, amortization and impairment charges/(reversals). See Exhibit I. EBITDA includes severance charges of $74 million in 2016. If these charges were not included, EBITDA would have been $672 million in 2016.

(2) Defined as Cash and cash equivalents + Other investments (Current and Non-Current) +/- Derivatives hedging borrowings and investments–Borrowings (Current and Non-Current). See Exhibit I.

(3) Each ADS represents two shares.

(4) As of December 31.

(5) Proposed or paid in respect of the year.

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Information on Tenaris

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 29 Avenue de la Porte-Neuve, 3rd Floor, L-2227, Luxembourg, telephone (352) 2647-8978.

The Company holds, either directly or indirectly, controlling interests in various subsidiaries in the steel pipe manufacturing and distribution businesses and other related businesses. For information on the Company's subsidiaries, see note 29 "Principal subsidiaries" to our audited consolidated financial statements included in this annual report.

Our shares are traded on the Buenos Aires Stock Exchange, the Italian Stock Exchange and the Mexican Stock Exchange; the Company's American Depositary Shares ("ADS") trade on the New York Stock Exchange ("NYSE").

Overview

We are a leading global manufacturer and supplier of steel pipe products and related services for the world's energy industry and for other industrial applications. Our customers include most of the world's leading oil and gas companies as well as engineering companies engaged in constructing oil and gas gathering, transportation, processing and power generation facilities. Our principal products include casing, tubing, line pipe, and mechanical and structural pipes.

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 mission is to deliver value to our customers through product development, manufacturing excellence, and supply chain management. We seek to minimize risk for our customers and help them reduce costs, increase flexibility and improve time-to-market. Our employees around the world are committed to continuous improvement by sharing knowledge across a single global organization.

A. History and Development of 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 Tube Corporation ("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 Company ("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; *and*

- Tenaris Bay City Inc. ("Tenaris Bay City"), a state-of-the-art seamless pipe mill in Bay City, Texas.

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.

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. Our track record on companies' acquisitions is described above (see "History and Development of Tenaris"). In addition:

- On January 21, 2019 we acquired 47.79% of the shares of Saudi Steel Pipe Company ("SSP"), a welded steel pipes producer located in the Eastern Province of the Kingdom of Saudi Arabia that has a manufacturing capacity of 360,000 tons per year. The investment amounted to $141 million. Through this acquisition, we have significantly expanded our industrial presence in the Kingdom of Saudi Arabia and the range of products we supply to the Saudi Arabian Oil Company ("Saudi Aramco").

- On February 5, 2019 we entered into an agreement with Public Joint Stock Company "Severstal" ("PAO Severstal") to build during the coming two years, a welded pipe plant to produce OCTG products in the Surgut area, West Siberia, Russian Federation. The estimated annual production capacity of the plant will be 300,000 tons, with an estimated cost of approximately $240 million, in which we will hold a 49% interest. Through this agreement, togheter with PAO Severstal we aim to serve the growing market for welded OCTG pipe products in Russia and neighboring countries, combining our know-how in OCTG pipe manufacturing and sales with PAO Severstal's expertise in producing high quality steel products.

- On March 22, 2019, we entered into a definitive agreement to acquire 100% of the shares of IPSCO Tubulars, Inc. ("IPSCO"), a wholly-owned subsidiary of PAO TMK ("TMK") and a U.S. producer of seamless and welded OCTG and line pipe products, for $1,209 million.The transaction is subject to regulatory approvals, including approval by the U.S. antitrust authorities, and other customary conditions. IPSCO has an annual production capacity of 450,000 metric tons of steel bars, 400,000 metric tons of seamless pipes and 1,000,000 metric tons of welded pipes, and production facilities spread throughout the country.

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 technical and pipe management services, Rig Direct® services, and extend their deployment worldwide. For many years, we have provided these services, providing technical advice and assistance on the selection of materials and their use in the field, managing customer inventories and directly supplying pipes to their rigs on a just-in-time basis 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 and Thailand). Through the provision of Rig Direct® services, we seek to enable our customers, to optimize their operations, reduce costs and to concentrate on their core businesses, providing an integrated product and service value proposition, increasing supply chain efficiency. They are also intended to differentiate us from our competitors and further strengthen our relationships with our 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, in February 2014, we entered into 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 build a natural gas-fired combined cycle electric power plant in Mexico for the supply of Tenaris's and Ternium's respective Mexican industrial facilities. For more information on the power plant, see note 11 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 Quantitative and Qualitative Disclosure about Market Risk - 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 these 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 include 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, 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.

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 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. The figures for effective annual capacity are based on our estimates of effective annual production capacity under present conditions.

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,		
	2018	2017	2016
Thousands of tons			
Steel Bars			
Effective Capacity (annual) (1)	3,935	3,835	3,835
Actual Production	3,167	2,793	2,010
Tubes – Seamless			
Effective Capacity (annual) (1)	4,300	3,680	3,680
Actual Production	2,798	2,347	1,735
Tubes – Welded			
Effective Capacity (annual) (1)	2,620	2,620	2,620
Actual Production	799	544	305

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(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.

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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 a new mill in Brazil jointly with NSSMC, which is aimed primarily at export markets and was commissioned in 2011, and a second seamless pipe rolling mill at its existing facility in Youngstown, Ohio, which began commercial production at the end of 2012. In addition to the construction of the new Youngstown mill, Vallourec reinforced its positioning in the United States through the acquisition of three tubular businesses from Grant Prideco Inc.: Atlas Bradford® Premium Threading & Services, TCA® and Tube-Alloy. Vallourec also strengthened its position in the Middle East through the acquisition of heat treatment and threading facilities in Saudi Arabia in 2011 and, in 2010, it concluded an agreement with a Chinese seamless steel producer, Tianda Oil Pipe Company ("Tianda"), under which it began 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 2018.

- Japanese players NSSMC and JFE Holdings Inc. (“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 capital increase and combining their respective Brazilian operations.

- In recent years, PAO TMK (“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 Tubulars Inc.’s (“IPSCO”) tubular operations comprising both seamless and welded pipe mills and the Ultra family of connections. 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, TMK adopted a strategy of monetizing its international assets by reducing its participation in Gulf International Pipe and agreeing to sell its U.S. IPSCO Tubulars subsidiary 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 experienced a significant consolidation process several years ago. 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 which has both seamless and welded mills in the United States and Canada. Evraz retained IPSCO’s operations in Canada while TMK acquired IPSCO’s operations in the United States, as mentioned above. 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 March 2019, TMK announced that it had agreed to sell its U.S. IPSCO subsidiary to Tenaris, a transaction which remains subject to anti-trust clearance from the U.S. authorities and other customary closing conditions.

- 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.

- 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 the 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 SSP, 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 2018, our capital expenditures, including investments at our plants and investments in information systems, amounted to $349 million, compared to $558 million in 2017 and $787 million in 2016. Of these capital expenditures, investment at our plants amounted to $318 million in 2018, compared to $525 million in 2017 and $757 million in 2016.

In 2018, we have fully consolidated the Rig Direct® service in the United States and Canadian markets and are working to increase differentiation through improving service quality and extending integration with customer operations. In addition, we focused on enhancing automation at our industrial process, product differentiation and competitiveness, increasing local finishing capabilities, as well as enhancing safety and minimizing environmental impact of our plants.

The major highlights of our capital spending program during 2018 included: investments in automation at our industrial system worldwide, increase in the capacity of automotive components, investments at the steel shop and laboratory in Mexico, completion of the expansion of heat treatment capacity at our mill in Italy, completion of construction and start-up investments at Bay City, USA, and installation of a new waste water treatment plant in our mill in Campana, Argentina.

Capital expenditures in 2019 are expected to remain in line with the level of 2018, including the completion of some of the projects started in 2018 and maintenance interventions mainly at our facilities in Argentina, Mexico and Romania.

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 $32 million in 2018, compared to $28 million in 2017 and $29 million in 2016.

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 main office at Amsterdam in the Netherlands and specialized research and testing facilities located at Campana in Argentina, at Veracruz in Mexico, at Dalmine in Italy, and at the product testing facilities of NKKTubes in 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; *and*
- coatings.

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 $63 million in R&D in 2018, compared to $64 million in 2017 and $69 million in 2016.

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. 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.

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, 2018, 2017 and 2016.

Company	**Country of Incorporation**	**Main activity**	**Percentage of ownership at December 31, (*)**		
			2018	**2017**	**2016**
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%
KAZAKHSTAN PIPE THREADERS LIMITED LIABILITY PARTNERSHIP	Kazakhstan	Threading of premium products	100%	100%	100%
HYDRIL COMPANY and subsidiaries (except detailed) (a)	USA	Manufacture and marketing of premium connections	100%	100%	100%
DALMINE S.p.A.	Italy	Manufacturing of seamless steel pipes	100%	100%	100%
MAVERICK TUBE CORPORATION and subsidiaries	USA	Manufacturing of welded steel pipes	100%	100%	100%
S.C. SILCOTUB S.A.	Romania	Manufacturing of seamless steel pipes	100%	100%	100%
NKKTUBES	Japan	Manufacturing of seamless steel pipes	51%	51%	51%
SIAT SOCIEDAD ANONIMA	Argentina	Manufacturing of welded and seamless steel pipes	100%	100%	100%
PRUDENTIAL STEEL LTD.	Canada	Manufacturing of welded steel pipes	100%	100%	100%
SIDERCA SOCIEDAD ANONIMA INDUSTRIAL Y COMERCIAL and subsidiaries	Argentina	Manufacturing of seamless steel pipes	100%	100%	100%
P.T. SEAMLESS PIPE INDONESIA JAYA	Indonesia	Manufacturing of seamless steel products	89%	89%	77%
TUBOS DE ACERO DE MEXICO, S.A.	Mexico	Manufacturing of seamless steel pipes	100%	100%	100%
TENARIS GLOBAL SERVICES (U.S.A.) CORPORATION	USA	Marketing of steel products	100%	100%	100%
TENARIS BAY CITY, INC.	USA	Manufacturing of seamless steel pipes	100%	100%	100%
TENARIS GLOBAL SERVICES (UK) LTD	United Kingdom	Holding company and marketing of steel products	100%	100%	100%
TENARIS INVESTMENTS SWITZERLAND AG and subsidiaries	Switzerland	Holding company	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 INVESTMENTS S.àr.l.	Luxembourg	Holding company	100%	100%	100%
TENARIS CONNECTIONS BV	Netherlands	Development, management and licensing of intellectual property	100%	100%	100%
TENARIS GLOBAL SERVICES S.A. and subsidiaries (except detailed) (b)	Uruguay	Holding company and marketing of steel products	100%	100%	100%
TALTA - TRADING E MARKETING SOCIEDADE UNIPESSOAL LDA.	Portugal	Holding Company	100%	100%	100%

(*) All percentages rounded.

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

(b) Tenaris holds 97,5% of Tenaris Supply Chain S.A, 60% of Gepnaris S.A. and 40% of Tubular Technical Services and Pipe Coaters, and 49% of Amaja Tubular Services Limited and Tubular Services Angola Ltd.

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, 2018, 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 only to be removed pursuant to previous written instructions by 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 the subscription in 2016 of 1.3 million Usiminas preferred shares and 11.5 million Usiminas ordinary shares by Confab, as of December 31, 2018, Confab owned 36.5 million ordinary shares and 1.3 million preferred shares of Usiminas, representing 5.2% of Usiminas' total voting capital and 3.1% 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 with NSSMC was resolved, and 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.

Tenaris in numbers

Trend information

Leading indicators

Principal Risks and Uncertainties

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

Sales and profitability may fall as a result of downturns in the international price of oil and gas and other circumstances affecting the oil and gas industry.

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"). 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. Other circumstances – such as geopolitical events and hostilities in the Middle East and elsewhere – may also affect drilling activity and, as a result, cause steel pipe consumption to decline, and thus have a material impact on our revenues, profitability and financial condition. Several factors, such as the supply and demand for oil and gas, and political and global economic conditions, affect, and may continue to affect, these prices; accordingly, oil and gas companies may cut their investment plans and consequently, demand for our products could decline.

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

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.

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 but not only in China, to increase production capacity of seamless steel pipe products. New production capacity continues to be installed and 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.

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. If demand for our products falls significantly, these costs may adversely affect our profitability and financial condition. In response to a downturn of the oil and gas industry, we may be required to implement temporary suspensions of our operations. Temporary suspensions of operations generally lead to layoffs of employees which may in turn give rise to labor conflicts and impact operations. Moreover, temporary suspensions may also affect profitability and result in charges for asset impairments.

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, Colombia, Indonesia, Italy, Japan, Mexico, Nigeria, Romania, Saudi Arabia and the United States, and we sell our products and services throughout the world. Additionally, we recently announced plans to form a joint venture with PAO Severstal, or Severstal, to build 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 and social 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; 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 in the interpretation, application or enforcement of tax laws and other retroactive tax 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.

For example, our business and operations in Argentina may be materially and adversely affected by economic, political, social, fiscal and regulatory developments. Argentina is subject to high inflation rates and our business and operations in Argentina may be adversely affected by increases in services and labor costs inflation or by the measures that may be adopted by the government to address inflation. In addition, an increased level of labor demands prompted by a growing inflation rate 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. In addition, 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 lead 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, our business could be materially and adversely affected by economic, political, social, fiscal and regulatory developments. 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 to the United States-Mexico-Canada Agreement, commonly referred to as USMCA, which has been signed but is pending to be ratified by each country's legislature, 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. Similarly, our Mexican operations could 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 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 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, on March 8, 2018, under Section 232 of the Trade Expansion Act of 1962, the U.S. imposed a 25% tariff on steel articles imported from all countries. However, imports of steel tubes from Australia, Argentina, Brazil and South Korea were exempted from the 25% tariff; the latter three with specific quotas per product. During March 2019, the U.S. government granted the exemption for imports of specific types of cast steel billets requested from Romania, Mexico, and Italy, for an aggregate amount of 410,000 tons that are used in our Bay City mill, to be consumed until March 2020.

Finally, failure to comply with applicable legal and regulatory obligations 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, 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 SSP, a welded steel pipes producer listed on the Saudi Stock Exchange, for a total purchase price of approximately $141 million. Additionally, on February 5, 2019 we entered into an agreement with PAO Severstal to build during the coming two years, a welded pipe plant to produce OCTG products in the Surgut area, West Siberia, Russian Federation, with an estimated cost of $240 million, in which Tenaris will hold a 49% interest. Furthermore, on March 22, 2019, we entered into a definitive agreement to acquire100% of the shares of IPSCO, a wholly owned subsidiary of TMK and a U.S. producer of seamless and welded OCTG and line pipe products, for $1,209 million. The transaction is subject to regulatory approvals, including approval by the U.S. antitrust authorities, and other customary conditions. We will continue to consider strategic acquisitions, investments and partnerships from time to time. We must necessarily base any assessment of potential acquisitions, joint ventures and capital investments on assumptions with respect to operations, profitability and other matters that may subsequently prove to be incorrect. 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 and 2018, our operations in Mexico experienced a few 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.

Some of the previously described events could result in death or injury to persons. They could also result in damage to property, delays in production and liability for Tenaris. To the extent that lost production as a result of such events cannot be compensated for by unaffected facilities, such events could have an adverse effect on our profitability and financial condition. Additionally, 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 “Information on Tenaris – 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, 2018 we had $1,288 million in goodwill corresponding mainly to the acquisition of Hydril in 2007 ($920 million) and Maverick in 2006 ($229 million). If our management was to determine in the future that the goodwill or other assets were impaired, particularly as a consequence of deteriorating market conditions, we would be required to recognize a non-cash charge to reduce the value of these assets, which would adversely affect our results of operations.

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 "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 more information, including with respect to matters related to corruption investigations in Brazil and Argentina, please refer to “Outstanding 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 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, failures of computer servers or other accidental technological failures, electrical or telecommunication outages or other damage to our property or assets. 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

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.

The Company conducts 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 the 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, the Company may not be in a position to meet its operational needs or to pay dividends. For information concerning limitations on payments of dividends, 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”.

In addition, 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 shares. Rocca & Partners Stichting Administratiekantoor Aandelen San Faustin ("RP STAK"), controls a significant portion of the voting power of 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.

Risks Relating to shares and 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.

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, as issued by the IASB and in accordance with IFRS as adopted by the European Union.

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 “Principal Risks and Uncertainties”, 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 most of the world's leading oil and gas companies as well as engineering companies engaged in constructing oil and gas gathering and processing and power facilities. 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 sales. 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 before partially recovering in the beginning of 2019. 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 2017 and 2018.

In 2018, worldwide drilling activity, as represented in the number of active drilling rigs published by Baker Hughes, a GE company, increased 9% compared to the level of 2017, with the increase concentrated in the U.S. shale plays, and a gradual increase in international rigs starting in the second half of 2018. In the United States the rig count in 2018 increased by 18%, with an average of 1,032 active rigs. Drilling activity in the United States rose steadily through the year but has subsequently declined slightly in the beginning of 2019. In Canada, the rig count in 2018 declined by 7% compared with 2017, with the decline concentrated in the final quarter, while in the rest of the world, it rose 4%.

Prior to the most recent 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, 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. administration introduced tariffs and quotas under Section 232 of the Trade Expansion Act of 1962 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. As a result of the fixed quota imposed on the imports of steel pipes from South Korea, their imports halved during 2018 compared to 2017.

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 increased during 2018. As a reference, prices for hot rolled coils, HRC Midwest USA Mill, published by CRU, averaged $915 per ton in 2018 compared to $680 per ton in 2017. The prices for 2018 showed downward trend in the last 5 months of the year reaching $835 per ton in December 2018.

Summary of results

In 2018, our financial results recovered strongly at all levels. Our sales rose 45% year on year, increasing in all regions and also in our non-Tubes profit centers. Highlights of the year include the consolidation of our positioning and Rig Direct® service in the U.S. and Canada, the fast track delivery of the pipes for three East Mediterranean offshore gas pipelines, and our successful positioning for major gas developments in Argentina, Qatar, Indonesia, Mozambique and Australia. EBITDA rose 63% year on year to $1.5 billion, with margins recovering to the level of 20%. Shareholders net income rose strongly to $876 million, benefitting from substantially higher operating income, and an excellent contribution from our investment in Ternium.

Despite a buildup in working capital to support our growth in sales, we were able to generate free cash flow of $261 million. After payment of dividends, our net cash position declined during the year to $485 million at December 31, 2018, compared to $647 million at December 31, 2017.

Outlook

Drilling activity in the U.S. shales continued to grow in 2018, following the previous year's strong recovery, while drilling activity in Canada was affected at the end of the year by the drop in regional oil prices. For 2019, following the recent reset of oil prices, drilling activity in the USA is expected to be stable while, in Canada, it is expected to be lower than last year.

In Latin America, a recovery in drilling activity in Mexico is expected as the new government makes more funds available for Petróleos Mexicanos S.A. de C.V. ("Pemex") and private operators begin implementing their energy reform commitments. In the rest of the regions drilling activity is expected to be relatively stable, with shale drilling activity in Argentina likely to switch from gas to oil.

In the Eastern Hemisphere, drilling activity is expected to continue a gradual recovery with a focus on gas developments.

After our strong performance in 2018, we expect to consolidate our sales and margins through 2019, in line with those of the second half of 2018. We should benefit from growing sales of premium connection products for offshore projects around the world, and the inclusion of consolidated revenues from our new operation in Saudi Arabia, but we will not repeat the exceptional level of offshore line pipe shipments to the Eastern Mediterranean and will have lower sales in Canada. With a stable level of sales, and limited capital investment requirements, we should be able to reduce working capital and generate a stronger free cash flow during the year.

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.

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 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 valuators, 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 2018, 2017, or 2016. 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.

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 2018. 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.

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 and 10 years for Hydril.

Maverick’s Tubes business has experienced a significant change in its customers portfolio. While initially Maverick was selling OCTG products mostly to distributors, today it is selling mostly through Rig Direct® to end users. By the end of 2018, Maverick supplied the majority of its customers of OCTG products with Rig Direct® services. Additionally, line pipe products while still being sold largely to distributors due to the different nature of this market, are now focused on large pipeline projects through a completely different set of distributors. Based on these circumstances, the Company has reviewed the useful life of Maverick’s Tubes customer relationships and decided to reduce the remaining useful life from two 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, 2018 the residual value of Maverick’s coiled tubing customer relationships amounts to $19.9 million and the residual useful life is 2 years, 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 is based on the normal level of production capacity. Supplies and raw material cost is mainly based on the FIFO method while goods in progress and finished goods cost are mainly based on specific historical production costs for each production order. 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, “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.

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 financial statements. The principal temporary differences arise from fair value adjustments of assets acquired in business combinations, the effect of currency translation on depreciable fixed assets and inventories, depreciation on property, plant and equipment, valuation of inventories and provisions for pension plans. 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.

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 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.

Internal control over financial reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 19, 2019, 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, 2018, 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, 2018.

Results of Operations

Thousands of U.S. dollars (except number of shares and per share amounts)	For the year ended December 31,		
	2018	**2017**	**2016**
Selected consolidated income statement data			
Continuing operations			
Net sales	7,658,588	5,288,504	4,293,592
Cost of sales	(5,279,300)	(3,685,057)	(3,165,684)
Gross profit	2,379,288	1,603,447	1,127,908
Selling, general and administrative expenses	(1,509,976)	(1,270,016)	(1,196,929)
Other operating income (expenses), net	2,501	1,157	9,964
Operating income (loss)	871,813	334,588	(59,057)
Finance income	39,856	47,605	66,204
Finance cost	(36,942)	(27,072)	(22,329)
Other financial results	34,386	(43,550)	(21,921)
Income (loss) before equity in earnings of non-consolidated companies and income tax	909,113	311,571	(37,103)
Equity in earnings of non-consolidated companies	193,994	116,140	71,533
Income before income tax	1,103,107	427,711	34,430
Income tax	(229,207)	17,136	(17,102)
Income for the year for continuing operations	873,900	444,847	17,328
Discontinued operations			
Result for discontinued operations	-	91,542	41,411
Income for the year (1)	873,900	536,389	58,739
Income (loss) attributable to (1):			
Owners of the parent	876,063	544,737	55,298
Non-controlling interests	(2,163)	(8,348)	3,441
Income for the year (2)	873,900	536,389	58,739
Depreciation and amortization for continuing operations	(664,357)	(608,640)	(657,109)
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	0.74	0.38	0.01
Basic and diluted earnings per share	0.74	0.46	0.05
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)	**2018**	**At December 31, 2017**	**2016**
Selected consolidated financial position data			
Current assets	5,464,192	5,381,154	4,817,154
Property, plant and equipment, net	6,063,908	6,229,143	6,001,939
Other non-current assets	2,723,199	2,787,921	3,032,765
Assets of disposal group classified as held for sale	-	-	151,417
Total assets	14,251,299	14,398,218	14,003,275
Current liabilities	1,718,363	2,070,899	1,713,036
Non-current borrowings	29,187	34,645	31,542
Deferred tax liabilities	379,039	457,970	550,657
Other non-current liabilities	249,218	253,734	276,874
Liabilities of disposal group classified as held for sale	-	-	18,094
Total liabilities	2,375,807	2,817,248	2,590,203
Capital and reserves attributable to the owners of the parent	11,782,882	11,482,185	11,287,417
Non-controlling interests	92,610	98,785	125,655
Total equity	11,875,492	11,580,970	11,413,072
Total liabilities and equity	14,251,299	14,398,218	14,003,275
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.

Percentage of net sales	For the year ended December 31, 2018	2017	2016
Continuing Operations			
Net sales	100.0	100.0	100.0
Cost of sales	(68.9)	(69.7)	(73.7)
Gross profit	31.1	30.3	26.3
Selling, general and administrative expenses	(19.7)	(24.0)	(27.9)
Other operating income (expenses), net	0.0	0.0	0.2
Operating income (loss)	11.4	6.3	(1.4)
Finance income	0.5	0.9	1.5

Finance cost	(0.5)	(0.5)	(0.5)
Other financial results	0.4	(0.8)	(0.5)
Income (loss) before equity in earnings of non-consolidated companies and income tax	11.9	5.9	(0.9)
Equity in earnings of non-consolidated companies	2.5	2.2	1.7
Income before income tax	14.4	8.1	0.8
Income tax	(3.0)	0.3	(0.4)
Income for the year for continuing operations	11.4	8.4	0.4
Discontinued operations			
Result for discontinued operations	-	1.7	1.0
Income for the year	11.4	10.1	1.4
Income (loss) attributable to:			
Owners of the parent	11.4	10.3	1.3
Non-controlling interests	(0.0)	(0.2)	0.1

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 /**
	2018		2017		**(Decrease)**
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 /**
	2018	2017	**(Decrease)**
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 /
	2018	2017	**(Decrease)**
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 %	